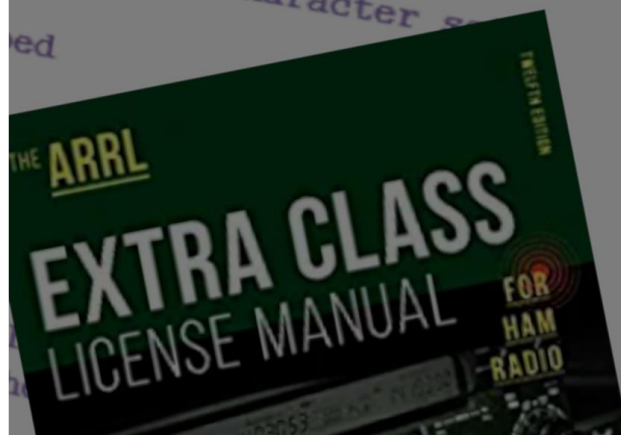




NARS NEWS

SEPTEMBER 2022

Northwest Amateur Radio Society
P.O. Box 11483
Spring, TX 77391
w5nc.net



Exam Preparation and Learning Materials

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Relay League VEC
Successful Completion of Examination

Test Date: _____

ARRL The national association for AMATEUR RADIO

NOTE TO VE TEAM:
COMPLETELY CROSS OUT ALL BOXES BELOW THAT DO NOT APPLY TO THIS CANDIDATE.

The applicant named herein has presented valid proof for the exam element credit indicated below.

3/21/87 Technicians
 Element 3 credit

EXAM ELEMENTS EARNED

Passed written Element 1
Passed written Element 3
Passed written Element 4

CLASS EARNED

VE #1 _____
VE #2 _____
VE #3 _____

Signature _____ Call Sign _____

COPIES: WHITE-Candidate, YELLOW-VE Team, PINK-ARRL/VEC
MVE 3/2010

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NARS News is published monthly by the Northwest Amateur Radio Society (NARS). Northwest Amateur Radio Society is a Special Services Club affiliated with the American Radio Relay League, ARRL Club No. 2120.

If you would like to contribute to the newsletter by publishing an article, adding calendar events, or any other contribution, please send all submissions before the end of the month to the newsletter editor:

Brandon Rogers (K5BLR), Newsletter Editor

k5blr@arrl.net

President's Message

BY RON MATUSEK, WA6TQH

Some brief updates this month on projects the board is working.

General Program Updates

We have been patiently awaiting upon a decision from ARRL on the Grant we applied for to update/reconfigure our trailer for promotional and active field day activities. We have just learned that the approved grants were issued 29 Aug, but NARS did not receive one. Let us get back to the drawing board and make another request as there is still opportunity to receive recognition in the next round of grants. I would like to thank Paul Kent KI5FJS our Vice President for his efforts in preparing this initial request for NARS grant. I would like to ask anyone who can offer help in preparing the next request to please contact Paul for the particulars.

New Club Member needed some help

Michel Meunier KI5WLU is on the air with a handheld radio! Thank you to Paul Kent KI5FJS for your participation in helping Michel get his radio programmed correctly for the correct Tone coding.

Repeater Progress

The issue with both TKR-850 v2 is that they will not repeat or pass DTMF when set to W or Wide. If I set it N or narrow it repeats, but DTMF still has an issue. it was off frequency. Marty re-tuned it using a frequency counter and now it repeats and performs DTMF.

Next step is to swap it out with the one we have deployed and see if that solves our link issue.

Thank you to Marty Fitzgerald W5MF for his enduring pursuit of resolving this issue.

See you at the September General Meeting!

Ron Matusek

President NARS

The ARRL Letter

An excerpt from the weekly ARRL Letter

New ARRL Radio Lab Inspires Innovation in the Ham Shack

ARRL has unveiled its new Radio Laboratory, W1HQ, in a video released on August 4, 2022. In the video, Jherica Goodgame, KI5HTA, a summer intern at ARRL Headquarters, tours viewers through the station.

"The ARRL Radio Lab is an innovative test space designed to reshape the way we imagine and build a ham radio shack," said Goodgame. The station is intended to inspire members to build, organize, and equip their own stations in innovative ways. "From a decluttered workspace and a digital user interface, to being able to remote into the equipment from anywhere, W1HQ is a step towards the future of amateur radio stations," Goodgame added.

The station includes a new tower and antennas atop the main administrative building at ARRL Headquarters in Newington, Connecticut. Inside the station, three operating positions provide an interface to rack-mounted and computer-controlled transceivers, amplifiers, antenna switches, and rotators.



Did you know...

that the ARRL sends a weekly letter describing some of the current events, activities, and policies that are taking shape in the Amateur Radio world? The following is an excerpt from these letters in January. View all the ARRL letters at <http://www.arrl.org/arrlletter>

Goodgame explained that the Radio Lab will also support equipment testing and QST Product Review. "An extension of product reviews in the future will be to take that piece of gear that we're testing, put it on this test bench, and see how it integrates with a station that's already under full automation and control," she said.

The video is published on ARRL's YouTube channel at <https://youtu.be/68BJxGHg74Y>

Hams Radio Operators Support American Red Cross in Kentucky Flood Response

As the flood waters began to recede following devastating rainfall in Kentucky that began on July 26, the American Red Cross reported that over 400 of their disaster workers were on the ground, as well as dozens more in other locations. They provided shelter, meals, and other forms of support. Red Cross teams also worked alongside their state and municipal partners among others, including Kentucky Amateur Radio Emergency Service® (ARES®) volunteers.

ARRL Director of Emergency Management Josh Johnston, KE5MHV, was in touch with American Red Cross personnel in the affected area. He said ham radio volunteers were supporting Red Cross damage assessment teams with radio communications. "The rural and mountainous terrain of the affected area adds to the already difficult situation," said Johnston.

Much of the local response effort is being coordinated by Steve Morgan, W4NHO, of Owensboro, Kentucky. The response of radio amateurs throughout the region is under and in cooperation with an existing Memorandum of Understanding (MOU) with the Kentucky Chapter of the American Red Cross.

ARES® groups from Ohio and Virginia have also been in touch with hams in the affected areas and have been on standby, ready to respond if needed.

ARRL New England Division Helps FEMA Test Message Distribution

The ARRL New England Division recently helped the Massachusetts Task Force 1 (MA-TF1) FEMA Urban Search & Rescue (FEMA US&R) team test message distribution in the event of a total communications failure.

Using the National Traffic System (NTS), nearly 250 radiograms were routed through the system. Charles Rocheleau, W1CPR, a FEMA Communications Specialist for the MA-TF1, said the alerts were the real thing. "The alerts I sent out were real-world alerts as the task force, MA-TF1 FEMA US&R, was on standby for a deployment to Kentucky," he said. "Steve Hansen, KB1TCE, runs a digital hub in Owls Head, Maine, and was my go-to person for injecting these messages quickly into the [NTS]."

Marcia Forde, KW1U, an active traffic handler in the NTS since 1981, said she received an alert that 40 messages were being sent from W1CPR. "I alerted key Maine traffic handlers to be ready, and these folks did a fantastic job of getting them out," she stated. "All 40 messages were handled in one day."



Phil Temples, K9HI, Vice Director of the ARRL New England Division, said the NTS and all amateur radio operators involved did a great job passing the messages.

QST Now Offering a Column for Radio Clubs

MFJ Enterprises, an amateur radio electronics manufacturer and retailer, will celebrate 50 years in business this October. Martin Jue, K5FLU, founded the company in 1972 after building a CW filter kit that sold for less than \$10. Since 1990 the company has made five acquisitions, including Hy-Gain and Cushcraft antennas.

MFJ Customer Services and Public Relations Manager Richard Stubbs says the company continues to grow with the popularity of amateur radio and currently manufactures over 2,000 products. "I've been with the company for 28 years and the numbers are good," said Stubbs. "Amateur radio continues to grow worldwide."



Quite a few of MFJ's employees have worked there for years, such as MFJ Product Representative Phyllis Randle, who will be retiring in September after 45 years with the company. She started working there when she was a teenager in 1977, and she is now the Product Representative for all MFJ dealers.

Jue graduated from Mississippi State University with a bachelor's degree in electrical engineering, and he earned a master's degree in electrical engineering at Georgia Institute of Technology (Georgia Tech). He served as a professor of electrical engineering at Mississippi



MFJ Enterprises Founder
Martin Jue, K5FLU.

State University from 1972 until 1979, but abandoned his doctorate in 1977 because of MFJ's growth.

Currently, because of COVID-19 concerns, the company does not have any plans for a special event to celebrate the anniversary, although Stubbs said that may change in the months ahead.

International Space Station Upgrades Amateur Radio Operations

ARISS, Amateur Radio on the International Space Station, announced that simultaneous operations of the ARISS voice repeater and digital APRS (Automatic Packet Reporting System) communications on the Space Station are now a reality.

Current ARISS operations include voice repeater transmissions with the JVC Kenwood TM-D710GA in the Columbus module and APRS operation from an identical radio in the Zvezda module. Packet operations are on 145.825 MHz.

The Columbus module radio uses the call sign NA1SS and the new radio in Zvezda uses RS0ISS. Aside from the call signs, the radios are identical, and packet operations are the same as before. You can use RS0ISS, ARISS, or APRSAT as the packet path. Both radios are expected to be running full time, except during educational contacts, extra vehicular activities (EVAs), and docking maneuvers. Final checkouts and equipment activation occurred on August 11.

ARISS International Chair Frank Bauer, KA3HDO, said, "Simultaneous operation of APRS and the voice repeater on ISS is transformative for ARISS. It represents a key element of our ARISS 2.0 initiative, providing interactive capabilities 24/7 that inspire, engage, and educate youth and lifelong learners -- especially lifelong learning in ham radio operations. Our heartfelt thanks to Sergey Samburov, RV3DR,

for making this crucial ARISS 2.0 initiative become a reality."

Rosalie White, K1STO, one of two US delegates to ARISS, said the ham radio community will be very happy with the new radio operations from the ISS. "Hams really love doing ARISS packet, cross-band repeater, and Slow-Scan Television (SSTV) operations. Besides the thousands who download ARISS SSTV images downlinked from the ISS, we discovered that in a year's time, hams did 80,000 ARISS packet messages," she said. "We are not sure how many have been enjoying the ARISS cross band repeater, but we know it is a lot. This simultaneous operation capability is going to make many hams happy -- and we know that keeping hams on the air is good for ARRL and good for amateur radio," White added.

Operational status and expected downtimes of the ISS radios can be found at www.ariss.org/current-status-of-iss-stations.

ARISS is a cooperative venture of international amateur radio societies and space agencies that support the ISS. In the US, sponsors are the Radio Amateur Satellite Corporation (AMSAT), ARRL The National Association for Amateur Radio®, and NASA's Space Communications and Navigation (SCaN) program. The primary goal of ARISS is to promote exploration of science, technology, engineering, arts, and mathematics topics. ARISS does this by organizing scheduled contacts via amateur radio between crew members aboard the ISS and students. Before and during these radio contacts, students, educators, parents, and communities take part in hands-on learning activities tied to space, space technologies, and amateur radio. For more information, see www.ariss.org and www.arrl.org/amateur-radio-on-the-international-space-station.

ARRL 2021 Annual Report Now Available to Download

ARRL The National Association for Amateur Radio® has published its 2021 *Annual Report*. The report summarizes ARRL's program and fiscal activity for the year.

In his introductory remarks, ARRL President Rick Roderick, K5UR, said that the organization moved steadily forward in 2021, gaining momentum after the challenges that 2020 brought. "It began bit by bit in the early months of the year with Headquarters staff returning to the office, and reached a turning point on July 15, the day we rededicated ARRL Headquarters and reopened the building and W1AW to our members," Roderick said. He also noted that the rededication ceremony "gave all of us an opportunity to reflect on where ARRL has been, and affirm where we are headed," and expressed excitement for what's coming next.

ARRL CEO David Minster, NA2AA, dug into some of the organization's 2021 achievements in his opening remarks, citing the success of ARRL's End-Fed Half-Wave Antenna Kit; new forays into video content; and hiring, into key roles, Field Services Manager Mike Walters, W8ZY; Director of Emergency Management Josh Johnston, KE5MHV, and Education and Learning Manager Steve Goodgame, K5ATA.

The theme of the 2021 report -- "Back Together" -- referred to the many unions and reunions that occurred throughout the year, from being able to attend in-person hamfests once again, to partnering with Netherlands-based HF Kits to produce the antenna kit, as well as teaming up with the Radio Society of Great Britain at the end of the year to commemorate the centenary of the ARRL-sponsored Transatlantic Tests.

Included in the report is ARRL's Report to America, which highlights recent instances of ham radio operators serving their communities by providing

emergency communications. These stories include amateur radio activations and response for storms, fire, and other disasters -- When All Else Fails®.

The 56-page Annual Report also recounts and summarizes the activities of all of ARRL's departments, and includes a complete 2021 fiscal report. ARRL ended 2021 with 158,238 members, a total that was slightly under the year-end goal of 160,084, but gained 29,027 new members, which represented an 11% increase from 2020.

The ARRL 2021 Annual Report is available for download at www.arrl.org/annual-reports.

ARRL Podcasts Schedule

The latest episode of the ARRL *On the Air* podcast (Episode 28) features a discussion of digital multimeters with practical usage examples and shopping tips.



The latest edition (Episode 58) of the ARRL *Eclectic Tech* podcast features a discussion with author Nick Tusa, K5EF, about his new book Wes Schum - Amateur Radio's Unsung Hero.

The On the Air and Eclectic Tech podcasts are sponsored by Icom. Both podcasts are available on iTunes (iOS) and Stitcher (Android) as well as on Blubrry -- [On the Air](#) | [Eclectic Tech](#).

Amateur Radio in the News

ARRL Public Information Officers, Coordinators, and many other member-volunteers help keep amateur radio and ARRL in the news.

["Local Amateur Radio Clubs Achieve Their Best Results in North American Field Day"](#) / Port Williams News (Canada), July 19, 2022 -- *Thanks to the Kings County and Annapolis Valley Amateur Radio Clubs.*

["HARA donates radio history"](#) / The Times-Gazette (Ohio) July 20, 2022 -- *The Highland Amateur Radio Association is an ARRL Affiliated Club.*

["Kids in Bangor reach for the stars by speaking to astronaut"](#) / WLBZ (Maine) July 28, 2022 -- *Thanks to the Challenger Learning Center of Maine.*

["Challenger Maine campers speak with NASA Astronaut aboard ISS"](#) / WABI (Maine) July 28, 2002 -- *Thanks to the Challenger Learning Center of Maine.*

["Local radio club prepares for Ham Fest"](#) / The Brandon Sun (Canada), July 25, 2022. -- *Thanks to the Brandon Amateur Radio Club.*

["Tripura To Set-Up Nearly 9 Ham Radio-Stations; Enabling Locals To Communicate During Emergencies"](#) / Northeast Today (India), August 5, 2022.

["Harrison County Amateur Radio Emergency Service participates in simulated disaster drills"](#) / WLOX (Mississippi), August 6, 2022.

["Hamfest celebrates amateur radio operators"](#) / The Herald-Dispatch (West Virginia), August 8, 2022. - *Tri-State Amateur Radio Association, W8VA, is an ARRL Affiliated Club.*

["Broadstairs eight-year-old to feature on NASA](#)

[website after radio chat with ISS astronaut"](#) / The Isle of Thanet News (United Kingdom), August 10, 2022. -- *Thanks to Amateur Radio on the International Space Station (ARISS), and the Hilderstone Radio Society, GOHRS.*

["Students at Kopernik Speak to Astronaut Aboard ISS"](#) / FOX 40 WICZ TV (New York), August 10, 2022. -- *Thanks to Amateur Radio on the International Space Station (ARISS), the Kopernik Observatory & Science Center, and the Binghamton Amateur Radio Association, an ARRL Affiliated Club.*

["It's very rare for Canada: Cambridge Amateur Radio Club makes contact with ISS."](#) / CTV (Canada) August 21, 2022. -- *The Cambridge Amateur Radio Club.*

["Field day helps Amateur Radio Club keep in touch with the world."](#) / Crossville Chronicle (TN) August 21, 2022. -- *The Cumberland Plateau Amateur Radio Club is an ARRL Affiliated Club.*

["Amateur radio enthusiasts to gather for annual festival."](#) / The Shelby Star (North Carolina) August 22, 2022. -- *The Shelby Amateur Radio Club is an ARRL Affiliated Club.*

Arri.org. 2022. ARRL Letter. [online] Available at: <http://www.arrl.org/arrlletter?issue=current> [Accessed 1 September 2022].

NARS Monthly Club Meeting

August's Monthly Meeting

During August's monthly meeting, a presentation on the Titan Missile Silo was given. The presentation included a virtual tour of the silo, with video and explanation of the systems that were once used at the silo. The radio antenna systems used were also reviewed. For a review of the antenna systems at the silo, please see the article in this newsletter for extra information.

Next Club Meeting

Our next club meeting will be on September 16th at the Klein Fire Station #3 Training Facility.

NARS General Club Meetings

NARS holds monthly club meetings where a variety of topics are presented from a number of guests. Come learn anything from antenna design, phasing, emergency response, and more!

Who: All club members, friends, or anyone interested in the Amateur Radio hobby

When: The Third Friday of the Month at 7:30pm

Where: Klein Fire Station #3, [9755 Landry Blvd, Spring, TX 77379](#)
Zoom Conference Call, Meeting ID: 2815436502, Passcode: 123456

Titan Missile Silo Antenna Systems

SHARED BY PAUL KENT, KI5FJS

The following information was provided as a follow-up from our General Meeting on the Titan Missile Silo and includes descriptions of the antenna systems that were once used at the site.

The antenna systems provide the means of receiving and transmitting the necessary frequencies for the individual radio systems. Some antennas have hardened backups that can be erected in the event the primary antenna is destroyed or damaged. Antenna systems are the RTMN antenna, the inter-complex radio communication system antenna (one or two soft operating and two hard backup), the F discage antenna, the HF hard antenna (two at ACP), and the UHF hard antenna.

RADIO-TYPE MAINTENANCE NETWORK ANTENNAS

The antenna system used with the RTMN consists of two coaxial cable branches. The above-ground antenna cable branch connects the base station radio in the control center to the coaxial slotted cable antenna in the access portal and to an above-ground folded monopole antenna on the VSS pole at the access portal. The branch incorporates a switch, remotely controlled from the LCCFC and ALOC for enabling the above-ground antenna or disabling the above-ground antenna when not in use. The antenna system is designed to provide reliable above-ground communication. A variable attenuator is connected to the above-ground antenna coax to limit above-ground RTMN radiation to a minimum of 2,000 feet without interfering with RTMN transmissions at other launch complexes. The below-ground antenna branch is a continuous coaxial slotted cable which is routed from the base station radio equipment bay in the control center throughout the under-ground launch complex.

INTER-COMPLEX RADIO COMMUNICATION SYSTEM ANTENNAS

These antennas are designed to transmit and receive uhf and vhf with a high degree of reliability. To attain the degree of reliability and minimize frequency loss due to terrain, distance, and interference, space diversity type antennas are required at certain launch complexes to receive from the WCP. All launch complexes are equipped with a single, soft, frequency-diversity antenna. Each soft, frequency-diversity antenna at a launch complex is backed up by two identical hard antennas. If a hard antenna is selected for automatic switchover and a soft antenna has been tilted $12.5(2\pm 2.5)$ degrees from the vertical, a switching action would erect the selected hard antenna. The hard antenna becomes operational within 50 seconds from the time power is applied to activate the erection system. A pneumatic power system is provided to actuate the hard antenna door lock and raise the antenna to its maximum height. The antenna door system secures and protects the antenna erecting-support mechanism until the antenna door is raised to a 90 degree angle with respect to ground level. The hard antenna system is designed to withstand severe nuclear blast effect while below-ground. The soft bi-frequency antenna utilized for reception and transmission at the WCP does not have hard antenna backup capability. Launch complexes using space-diversity equipment do not have space-diversity antenna backup capability.

HF DISCAGE ANTENNA

The hf discage antenna is a fixed, omnidirectional antenna. It combines an elevated discage and a folded-cage monopole to cover the frequency range from 3 to 30 MHz. The folded-cage monopole portion covers

the 3- to 6 MHz range, and the discone portion covers the 6- to 30-MHz range. The correct portion of the antenna to use within each frequency range may be selected from the HF-SSB/UHF equipment rack.

HF HARD ANTENNA

The hf hard antenna is designed to replace the hf discone antenna in the event the discone antenna should fail. It is designed to operate within the frequency range between 2 and 30 MHz. Standard launch complexes have one antenna and the ACPs have two antennas. Actuation of the antenna control by the operator at the ALOC initiates the opening of the antenna silo door and starts two 3-phase ac induction motors mounted on the antenna. Each motor drives a four-wheel friction drive assembly. The telescoped antenna mast sections are gripped between the two friction drive assemblies. The drive wheels extend or retract the antenna mast sections as demanded by the antenna control operator. The mast sections are automatically locked together as they are extended through the open antenna silo door. A height sensing circuit determines antenna mast height for a selected transmitting frequency (this height varies from 7.4 feet at 30 MHz to 117 feet at 2 MHz. When the desired height is reached, the antenna drive motors are stopped and locked. The antenna is positioned to operate with a voltage standing wave ratio (VSWR) of 2 to 1 or less at the transmitting frequency selected. Refer to Section III for Operating procedures. An electrical interference filter group cabinet OA-8501/F or OA-8512/F is located in the antenna silo to protect electrical equipment from over voltage surges.

UHF HARD ANTENNA

The UHF hard antenna is a fixed installation providing basic uhf communications. The antenna monopole radiator is a solid cylindrical probe weighing about 200 pounds, insulated from a heavy antenna base weighing 1700 pounds. The probe is weather protected by a sealed, glass-reinforced, laminated plastic shield. The heavy structure and streamlined surface configuration provide resistance to extreme weather and temperature environments. The radiation pattern is omnidirectional in the horizontal plane and moderately directional in the vertical plane. The antenna can operate within a frequency range of 225 to 400 MHz and has a maximum power handling capacity of 100 watts. The antenna rises a total of 21.5 inches above ground.

ON-SITE REPEATERS (LRAFB)

On-site repeaters are used for radio retransmission of ACPs. Repeater operation is automatic at both sites 373-2 and 374-8).

Amateur Radio Activities

The “Amateur Radio Activities” feature of NARS News highlights various activities related to ham radio. Each issue provides a quick overview for those who may be interested in the learning new aspects of the amateur radio hobby.

Understanding Diplexers

BY BRANDON ROGERS, K5BLR

If you have been attending club meetings, spoken with a ham with multiple radios, or talked with anyone on the repeater committee, you might have heard discussion about diplexers. But what is a diplexer?

A diplexer is a passive communications device that “allows two different [radios] to share a common communications channel”¹. Often in ham radio, the common communications channel is a coax cable or antenna. This means that a diplexer allows you to have two or more radios communicating through the same antenna at the same time.

One thing to note, however, is that this is accomplished through a process called frequency division multiplexing, meaning that the diplexer can only allow communications if the radios are using disjoint frequency bands. You should *not* attach two radios trying to operate on the same frequency band to a diplexer, but this does mean that you can operate two different radios, using two distinct bands, simultaneously.

There are a lot of resources available to learn more about diplexers. Below are a few:

[Demystifying Diplexers](#), ARRL On the Air Magazine, Jul/Aug 2022, page 22

Diplexer, Wikipedia, <https://en.wikipedia.org/wiki/Diplexer>, Accessed Sept 1, 2022

What is the difference between a Diplexer and Duplexer?, EverythingRF.com, <https://www.everythingrf.com/community/what-is-the-difference-between-a-diplexer-and-duplexer>, Accessed Sept 1, 2022

Antenna RF Diplexer, ElectronicNotes.com, <https://www.electronics-notes.com/articles/antennas-propagation/antenna-diplexer/what-is-antenna-diplexer.php>, Accessed Sept 1, 2022s

¹Diplexer, Wikipedia, <https://en.wikipedia.org/wiki/Diplexer>, Accessed Sept 1, 2022

Service Opportunities: SkyWarn

SHARED BY SHEREE HORTON, WM5N

In most years, thunderstorms, tornadoes and lightning cause hundreds of injuries and deaths and billions in property and crop damages. To obtain critical weather information, the National Weather Service (NWS) established SKYWARN® with partner organizations. SKYWARN® is a volunteer program with between 350,000 and 400,000 trained severe weather spotters. These volunteers help keep their local communities safe by providing timely and accurate reports of severe weather to the National Weather Service.

Although SKYWARN® spotters provide essential information for all types of weather hazards, the focus is reporting on severe local thunderstorms. In an average year, the United States experiences more than 10,000 severe thunderstorms, 5,000 floods and more than 1,000 tornadoes.

Since the program started in the 1970s, the information provided by SKYWARN® spotters, coupled with Doppler radar technology, improved satellite and other data, has enabled NWS to issue more timely and accurate warnings for tornadoes, severe thunderstorms and flash floods. SKYWARN® storm spotters form the nation's first line of defense against severe weather. There can be no finer reward than to know that your efforts have given your family and neighbors the precious gift of time--minutes that can help save lives.



Who is eligible and how do I get started?

NWS encourages anyone with an interest in public service to join the SKYWARN® program. Volunteers include police and fire personnel, dispatchers, EMS workers, public utility workers and other concerned private citizens. Individuals affiliated with hospitals, schools, churches and nursing homes or who have a responsibility for protecting others are encouraged to become a spotter. Ready to learn more? [Find a class in your area](#). Training is free and typically lasts about 2 hours. You'll learn:

- Basics of thunderstorm development
- Fundamentals of storm structure
- Identifying potential severe weather features
- Information to report
- How to report information
- Basic severe weather safety

Need help with your Spotter Number or other local information such as a missing class schedule? If you need help finding your spotter number or a class schedule, contact your local [Warning Coordination Meteorologist](#). He or she can help you get, find or replace your spotter information and let you know about upcoming classes. Classes typically are held in an office's relatively slow season. Classes are NOT typically offered all year. Schedules vary from office to office.

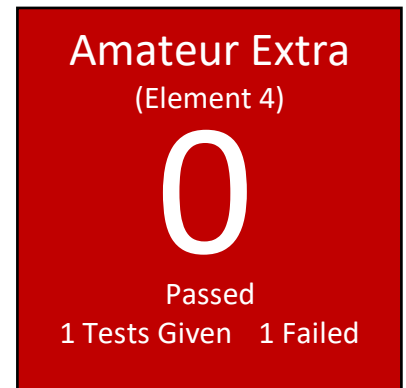
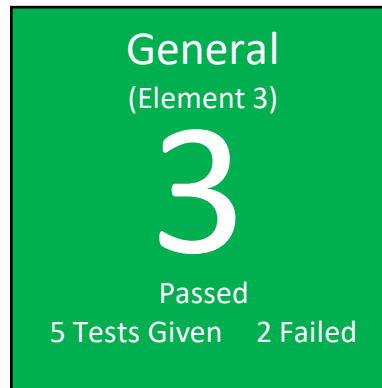
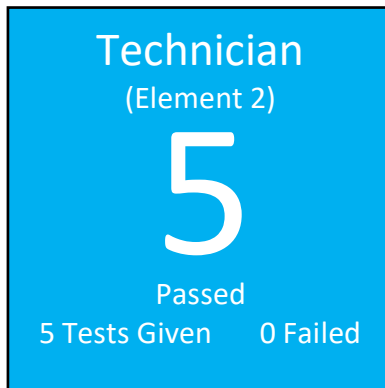
Looking for our online program? You also can also take our free [online spotter program](#). Some offices also ask that you take a local class to learn about weather unique to your area.

<https://www.weather.gov/skywarn/>

VE Sessions and Results

Attendees

On Saturday, August 27th, 2022, a VE Test Session was held at Klein Fire Station #3 in Spring, Texas. During the testing session 8 candidates took 12 tests.



Congratulations!

Congratulations to the following for passing their new license exams¹:

- Lawrence T Fu – Technician
- William D Lewis – Technician
- Laszlo E Popeszku – Technician
- Adam C Ballesteros – Technician
- Scott P Kolodzief – General

Congratulations to the following for passing their upgrade exams:

- Phillip A Pappano Jr, KI5VPF – Upgrade to General
- Vernon L Wanzong, KB5MVN – Upgrade to General

¹ Successful candidates will only receive their **NEW** licenses if they pay the \$35 fee to the FCC within 10 days of receipt of their notification emails. They will have to request the ARRL VEC to resubmit their paperwork if they miss the 10-day deadline. They do **NOT** have to retest.

Thanks and Gratitude

Thanks to the Exam VE's in attendance:

- Paul R Owen, N5NXS
- Marvin J Wilken, KT4W
- Vicki Owen, AD5EW
- Michael Robinson, KI0DE
- Bill Bierman, N5RDO

VE Session Guidelines

If you have a temperature or feel ill – DO NOT attend.

- Tables and chairs will be arranged to meet social distancing. DO NOT MOVE THEM.
- Wear masks if you are not fully vaccinated or feel the need to wear them.

Please send an email to either of the following if you plan on attending the test session:

Sheree Horton - wm5n@arrl.net or vec@w5nc.net

Next Session

Our next VE Test Session will be on September 24 2022 at Klein Fire Station No. 3 in the main Meeting Room in the Main Building. Check-in will start at 8:30am with testing lasting from 9:00am - 11:30am. All testing activities will be completed by noon. Please visit www.w5nc.net for the announcement.

Anyone who wants to observe and/or participate in a session is always welcome. Just let me know if you want to learn more about becoming a volunteer examiner.

New Club Members

A big welcome to all the new NARS club members!

- William Johnson, KI5VIE
- Laszlo Popeszku, KI5WVX

Renewing Club Members

Thank you to all the members who renewed their NARS membership this past month:

- Michael Baur, KD5NPF
- Peter Wang, KF5ND

Training and Education

NARS

NARS Member Articles and Tutorials - <http://w5nc.net/index.php/2014-03-31-00-54-20>

ARRL

ARRL Online Course Catalog - <http://www.arrl.org/online-course-catalog>

ARRL Emergency Communications Training - <http://www.arrl.org/emergency-communications-training>

ARRL Webinars - <http://www.arrl.org/ARRL-Learning-Network#schedule>

Exam Review for Ham Radio - <http://www.arrl.org/examreview>

Find an Amateur Radio License Class -
<http://www.arrl.org/find-an-amateur-radio-license-class>

Free Study Guides

A [study guide](#) for Technician license preparation, Dan Romanchik, KB6NU

A [study guide](#) for Technician license preparation on the Inland Empire VHF Radio Club website, Jack Tiley, AD7FO (Click on "Training Links" and go to the Technician training link)



Online Video/Audio Courses

[Online Technician license exam self-study course](#), Fred Benson, NC4FB - The purpose of the resources developed for this course is to provide candidates in geographical areas that do not provide classes and candidates who cannot attend a class with the means to prepare for the Technician license exam. The materials cover all questions in the question pool with explanations, sub element tests, and sample license exams. Help is available upon request via email.

Benson also offers a ["kid friendly" self-study course](#) and a self-study program especially designed for [emergency services personnel](#).

"The Ham Whisperer" [Video Course](#), Andy Vallenga, KE4GKP – This course is based on the FCC question pool sequence to assist with Technician license preparation.

[A Self-Study Video Course](#), Dave Casler, KE0OG – This course provides a guided self-study [video course](#) based on ARRL's Ham Radio License Manual curriculum.

[Online Technician License Preparation Course](#) – Chris Johnson, N1IR

Study Tools

[HamStudy.org: Cutting edge amateur radio study tools](#) - Free ham radio flash cards, practice tests, and question pools as well as introduction to ham radio and explanations for questions.

[HamTestOnline](#) – Study Tips for the Ham Radio License Exams

[HamExam.org](#) - Free Amateur Radio Practice Tests with Flash Cards

[eHam.net Ham Radio Practice Exams](#)

Paid Resources

[W5YI Group](#) - Your Resource for Ham Radio and Commercial Radio Licensing

[HamRadioPrep](#) - Enroll in Ham Radio Prep, the industry's #1 online test prep and training program, and pass your FCC Amateur Radio License exam on the first try - or your money back.

[HamTestOnline](#) - Study for your Ham Radio License Exam!

Of Interest to the Club

Houston Local Traffic Net

The Houston Local Traffic Net meets each Monday night at from 6:30 – 7:30pm on the 146.940 repeater with a PL tone of 167.9 Hz. The backup repeater for Monday night is the NARS repeater 146.660/100.0. The Thursday night edition of the Houston Local Traffic Net meets on Thursday evenings at 6:30pm on the 146.660 repeater with a PL tone of 100.0 Hz. This repeater is linked to the 70cm repeater on 444.375 also with a PL tone of 100 Hz. You can access the two linked repeaters via EchoLink node W5NC-R. The Thursday night backup repeater is 147.000 with a PL tone of 103.5 Hz. The purpose of both nets is to pass National Traffic System (NTS) radiogram messages into and out of the Houston area. The Monday edition of the Net also provides traffic handling instruction/training.

Anyone with questions about the Houston Local Traffic Nets, radiograms and or message handling can call or email Sheree Horton WM5N for more information.

GHSN monthly Simplex Propagation Net

Beginning January 2022, the [Greater Houston Simplex Network](#) will return to its regular schedule of the 4th Thursday evening of the month, with 6:15pm for the Zoom meeting and 7:00pm for the beginning of the net. Simplex frequencies are 146.540 MHz.

I would also like to restart the relay nets for the 2nd week of each month, so I need volunteer(s) to help out as Net Control Operator. I am just swamped with developing our cool new propagation application. Please contact me if you can help with this. The script is fully developed, and can be found on [the website](#).

Contact Mark - N5PRD@yahoo.com

QRZ New Ham Jumpstart Program

The following is a commercial announcement from QRZ to help new hams get on the air.

We are pleased to announce the QRZ New Ham Jumpstart, a program that will help new hams get on the air faster than ever. The program, which is jointly sponsored by QRZ and GigaParts, will provide a FREE, New Ham Welcome Package to eligible applicants. Among the goodies in the first edition of the Welcome Package, we are including a brand-new dual-band handheld transceiver, the Explorer QRZ-1, along with a host of other sponsor-supplied goodies.

Purpose of the Jumpstart Program

This program is designed to promote amateur radio to the masses, helping to eliminate a possible barrier to entry by providing new hams with their first radio. The Jumpstart program will provide the QRZ-1 radio to new hams who meet eligibility requirements. No purchase or subscription of any kind is necessary. The welcome package is FREE to those who qualify.

The QRZ-1 is a brand-new, entry-level, dual-band ham radio transceiver that has been custom manufactured for QRZ and GigaParts and is available for sale at GigaParts. We worked with an established radio manufacturer to make a special edition radio just for new hams. Our involvement was much more than a re-labeling of an existing product, because several important improvements have been made. For starters, the radio firmware has been modified to make user interaction straightforward and easy to understand. In addition, the user manual was rewritten in English (not simply translated) so that new hams may grasp its operating concepts clearly.

Eligibility

New hams who have just obtained their first license from the FCC may apply for a welcome package. Applicants must apply within 30 days of the license grant date per the FCC records.

The eligible ham must have a QRZ user account and be able to log in and apply for the award. Certain types of identification, including a photo ID, will be required. This information is not shared or exchanged with any party and is used only to validate eligibility under this program. Additional shipping charges may apply when shipped outside of the contiguous 48 states.

This program is available exclusively to USA licensed amateur radio operators.

You Can Donate It

Some new hams may not need a new, entry-level radio and might instead enjoy a full year of a QRZ Premium subscription. If you opt for this choice, you will make the radio available for another newcomer and help us extend the program into the future. It's an easy way to "pay it forward" that others will appreciate. If you are interested in this option, please send an e-mail to Support@qrz.com.

Limited Time Offer

The program ends on October 31, 2022. If you are or about to become eligible, please keep this in mind. In

all cases, the New Ham Welcome Packages are subject to availability and therefore the program may end earlier than expected. QRZ assumes no responsibility for the failure to deliver New Ham Welcome Packages, even if an application was granted. The packages have no cash value and may not be redeemed or exchanged for other QRZ products and/or services. QRZ may, at its sole discretion and at any time, change the contents of the package.

Signup Instructions

We will begin accepting welcome package applications on August 19, 2022 at www.qrz.com/jumpstart

Calendar

Club Activities and Events

VE Test Session – August 27, 2022 – [Klein Fire Station #3](#) - Check-in will start at 8:30am with testing lasting from 9:00am - 11:30am. All testing activities will be completed by noon.

Social Events

Lunch Break – North

Take a break with fellow radio operators and enjoy a lunch together!

Locations are announced weekly on the NARS email reflector!

Lunch Break – Medical Center

Near the Medical Center and want to take a break with fellow radio operators and enjoy a lunch together?

Watch the NARS email reflector for details!

Saturday Breakfast

Saturdays at 7 am Broken Yolk Café, 16803 Stuebner Airline Road, Spring, TX 77379

Monday Lunch (Taildraggers Lunch)

Mondays at 11 am; Aviator's Grill at Hooks Airport Terminal

Did you know...

NARS has a social media presence! Thanks to Sam Labarbera, N6HB, we have a Facebook page for those who would like to follow us there. Visit the [W5NC Facebook page](#) and join! It is open to ham radio operators, so there is a short quiz to qualify new members.

We also have a Twitter feed. Follow us on https://twitter.com/nars_w5nc

ARRL Contests & Activities

<p>January 2023 1: Straight Key Night 7: Kids Day 7-8: RTTY Roundup 21-23: January VHF TBD: Winter Field Day</p>	<p>February 2023 13-17: School Club Roundup 18-19: International DX – CW</p>	<p>March 2023 4-5: International DX– Phone</p>
<p>April 2023 16: Rookie Roundup – Phone</p>	<p>May 2023</p>	<p>June 2023 3-4: International Digital Contest 10-12: June VHF 17: Kids Day 24-25: Field Day</p>
<p>July 2023 8-9: IARU HF World Champ</p>	<p>August 2023 5-6: 222 MHz and Up Distance 19-20: 10 GHz & Up – Round 1 20: Rookie Roundup – RTTY 12-13: EME - 2.3 GHz & Up #1</p>	<p>September 2022 10-12: September VHF 17-18: 10 GHz & Up - Round 2 17-18: EME - 2.3 GHz & Up #2</p>
<p>October 2022 15-16: EME - 2.3 GHz & Up #3 17-21: School Club Roundup</p>	<p>November 2022 5-7: Nov. Sweepstakes – CW 12-13: EME-50 to 1296 MHz #4 19-21: Nov. Sweeps. – Phone</p>	<p>December 2022 2-4: 160 Meter 10-11: 10 Meter 18: Rookie Roundup–CW</p>

Hamfests and Conventions

September 17-18, 2022 - [QSO Today Virtual Ham Expo](#), Online

September 23-24, 2022 – [HRO Superfest](#), Milwaukee, Wisconsin

September 24, 2022 – [Red River Radio Amateur Hamfest](#), West Fargo, North Dakota

October 7-9, 2022 - [ARRL Rocky Mountain Division Convention](#), Cheyenne, Wyoming

October 14-16, 2022, [Pacificon](#) hosting the ARRL Pacific Division Convention, San Ramon, California

NARS Club Officers and Information

Board Officers with Voting Privileges

President: Ron Matussek, WA6TQH, 713-825-9606, officers@w5nc.net

Vice President: Paul Kent, KI5FJS, officers@w5nc.net

Treasurer: Tom Hoherd, KK5YU, 281-370-2941, treasurer@w5nc.net

Secretary: Brandon Rogers, K5BLR, 713-294-6630, officers@w5nc.net

Director: Rob Nixon, KD5BXZ, officers@w5nc.net

Director: Kirc Breden, N5XJB, officers@w5nc.net

Board Non-Voting Associate Members

Administrative Secretary: Neal Naumann, N5EN

Social Media Liaison: Sam Labarbera, N6HB

Newsletter Editor: Brandon Rogers, K5BLR

Public Information Liaison: Sheree Horton, WM5N

ARRL/VEC Liaison: Sheree Horton, WM5N

Repeater Team Lead: Marty Fitzgerald, W5MF

Webmaster: Bill Buoy, N5BIA, webmaster@w5nc.net

Trustee: Paul Owen, N5NXS

Club Nets

DMR Weekly Net – Every Tuesday at 7pm. Tune in on Talkgroup 3146211 for information on configuring codeplugs, see the DMR pages on the Club website (<http://w5nc.net>) or contact a club Elmer. Sam Labarbera, N6HB, coordinates this Net.

The Weekly Wednesday Evening Net - Every Wednesday at 8:00 pm. Join us on one of the W5NC repeaters: 146.660 MHz, -600kHz offset, PL 100.0 - wide area centered on downtown Houston and/or 444.375, + 5 MHz offset, PL 100 best in the Spring / Klein area. You can also join from anywhere in the world by connecting to EchoLink node W5NC-R. Neal Naumann, N5EN, coordinates this Net.

Repeaters

For information on NARS-managed repeaters, please see the club website at <http://w5nc.net/index.php/club-info/repeaters>

Did you know...

that NARS has an messaging service, called groups.io, that allows you to connect with a giant group of experts, club members, and resources. Get more information on our club website at <http://w5nc.net/index.php/club-info/email-reflector-groups>