



**W5NC**

Houston, Texas

Northwest Amateur Radio Society

A 501(c)(3) Organization  
An ARRL Affiliated Club

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# NARS NEWS

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APRIL 2024

Northwest Amateur Radio Society  
P.O. Box 11483  
Klein, TX 77391  
[w5nc.club](http://w5nc.club)

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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](mailto:k5blr@arrl.net)

# President's Message

BY RON MATUSEK, WA6TQH

## Solar Eclipse

"Amateur radio will play many roles in the upcoming solar eclipse that will cross much of North America. Radio amateurs are welcome to participate in ionospheric research that is being conducted. Find information about the [Solar Eclipse QSO Party on the HamSCI web site](#).



Many emergency communications groups, including those affiliated with the [Amateur Radio Emergency Service® \(ARES®\)](#) in the areas near totality are planning to be active surrounding the event Hams will provide communications to served agencies, such as local governments, relief organizations, and other groups that could benefit from resilient communications during a time when millions are expected to travel."

A few of the NARS members are planning to position themselves to have a more complete view/experience of this rare event.

- Paul Kent KI5FJS is planning to ride his motorcycle into Medina. He plans to be on VHF and UHF. Taking a small Yagi to point skyward and bounce a few signals around. Paul is also taking photos with my DSLR and video with a GoPro. Hopefully, he will make a video available at one of our general meetings.
- Keith Dutson NM5G is heading toward Waco on his motorcycle, the Trike.
- Tony/Kirc N5XJB is heading to Troy Texas to experience the line of totality.

As for me.... well.... I am going to stay home, listen and watch! Hopefully, there will not be power outages.

## Field Day Organization

Our Field Day Coordinator volunteer Paul Owen, N5NXS, Paul has us off to an exceptionally good start.

The Technical Lead position is open and we are in need of someone who will manage the radios, antennas, coax, etc.

The Administration Lead, Rich Jones, W5VEK, who will manage PR and food.

Post meeting note, Mike Lizzio WA2TOP has volunteered to work with the Field Day team and organize the radio operators for the event.

Obviously, we will need more help from additional volunteers and look forward to hearing from everyone.

Thanks to the core team of Paul Owen, Rick Jones, and all the others. With a special thanks to Rich for kicking off the early planning.

## Board Positions Open

We have two positions open so if you are interested and have the time, please contact a board member.

1. Opening – “Public Information Officer” effective January 2024
  - See By-Laws for position description.
2. Opening – “Director” effective January 2024
  - See By-Laws for position description.

See you at the April 19th General Meeting!

## NARS Membership – Due Dates and More

DID YOU  
KNOW



Did you know that you can find your membership expiration date on the club website? Simply click the “Membership Reports” link on the home page or visit this link: <http://www.w5nc.club/nars/index.php/2014-03-30-18-23-31/membership-reports/club-roster>. Find your name in the list and look at the “Expires” column of the table!

## Exam Practice

Are you new to the hobby and looking to pass your Technician exam? Are you preparing to level up your license by taking the next level exam? Check out the questions below to test your knowledge!

### Technician (Element 2)

#### T6D01

Which of the following devices or circuits changes an alternating current into a varying direct current signal?

- A. Reflector
- B. Rectifier
- C. Transformer
- D. Amplifier

### General (Element 3)

#### G8C05

In an ARQ mode, what is meant by a NAK response to a transmitted packet?

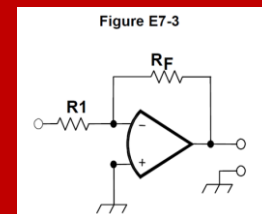
- A. Entire file received correctly
- B. Request retransmission of the packet
- C. Receiving station connected and ready for transmissions
- D. Packet was received without error

### Amateur Extra (Element 4), Ending June 30th

#### E7G11

What absolute voltage gain can be expected from the circuit in Figure E7-3 when R1 is 3300 ohms and RF is 47 kilohms?

- A. 7
- B. 0.07
- C. 28
- D. 14



### Amateur Extra (Element 4), New!

#### E1B08

What limitations may the FCC place on an amateur station if its signal causes interference to domestic broadcast reception, assuming that the receivers involved are of good engineering design?

- A. The amateur station must cease operation on all frequencies below 30 MHz
- B. The amateur station must cease operation
- C. The amateur station must avoid transmitting during certain hours on frequencies that cause the interference
- D. The amateur station must cease operation on all frequencies above 30 MHz

See the answers on [Page 25](#).

## The ARRL Letter

An excerpt from the weekly ARRL Letter

### Amateur Radio Importance Highlighted at National Hurricane Conference

The [National Hurricane Conference](#) was held

March 25 - 28, 2024, in

Orlando, Florida. Amateur radio was well represented at the event. A series of workshops were held that focused on amateur radio's involvement in hurricane tracking, coverage, and recovery.



Among the presenters was the Assistant Amateur Radio Coordinator of [WX4NHC at the National Hurricane Center](#) (NHC) Julio Ripoll, WD4R.



*Julio Ripoll, WD4R, serves as the Assistant Amateur Radio Coordinator for WX4NHC. [Jim Palmer, KB1KQW, photo.]*

Ripoll gave a history of amateur radio's involvement in NHC, including the use of tube radios in the 1980s and the Yaesu FTDX-1200 used today. WX4NHC is also equipped with VHF/UHF radios to access the Florida Statewide Amateur Radio Network (SARnet), as well as digital



## 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>

equipment to communicate with the [VoIP Hurricane Net](#), IRLP, and Winlink to receive emails via amateur radio.

"We were the only means of communication between the National Hurricane Center and the National Weather Service Field Office in Slidell, Louisiana, during Hurricane Katrina," Ripoll said. He went on to highlight other instances of reports given by ham radio that provided mission-critical information that had a major impact on the way NHC handled a storm.

ARRL Director of Emergency Management Josh Johnston, KE5MHV, gave a presentation to the crowd of hurricane experts, meteorologists, and emergency managers about the Amateur Radio Emergency Service® (ARES®).

He spoke of ARRL's role on the board of SAFECOM, a program managed by the Cybersecurity and Infrastructure Security Agency (CISA) that sets the standards of interoperability procedures. Being a part of the group solidifies the Amateur Radio Service as a robust resource before and during times of crisis.



*ARRL Director of Emergency Management Josh Johnston, KE5MHV. [Jim Palmer, KB1KQW, photo.]*

Johnston shared that in 2023, ARES volunteers contributed at least \$21.8 million in volunteer hours to their local communities. "Is amateur radio still relevant? Absolutely! Are we still involved in the

places that are doing things the right way? Amateur radio absolutely is," he said.

Johnston highlighted [the relationship between ARRL and the Federal Emergency Management Agency \(FEMA\)](#), as well as ARRL's position as a net control station within the [SHARED RESOURCES High Frequency Radio Program \(SHARES\)](#) managed by CISA.

Among other presenters was ARRL's [The ARES Letter](#) Editor Rick Palm, K1CE.

He shared a harrowing tale of his family riding out a direct hit from Hurricane Idalia in August 2023. The damage and impact he felt gave him a new perspective on emergency communications, as he went from a volunteer communicator to a storm victim. Read more about his experience in the "Public Service" column in the January 2024 issue of QST.



*The ARRL ARES Letter Editor Rick Palm, K1CE. [Jim Palmer, KB1KQW, photo.]*

Watch a [video of the amateur radio workshops](#) at the 2024 National Hurricane Conference on YouTube, courtesy of Jim Palmer, KB1KQW.

## World Amateur Radio Day is April 18, 2024

[World Amateur Radio Day](#) (WARD) is celebrated each year on April 18.

The theme for 2024 is, "A Century of Connections: Celebrating 100 Years of Amateur Radio Innovation, Community, and Advocacy." The global event covers all of the [International Amateur Radio Union](#) (IARU) regions and spans 2 days: Thursday, April 18, 2024, 0000 UTC to Friday, April 19, 2024, 0000 UTC.



On April 18, 1925, the IARU was formed in Paris and will celebrate its centenary in 2025. American Radio Relay League (ARRL) Co-Founder Hiram Percy Maxim was the organization's first president.

All radio amateurs are invited to take to the airwaves to enjoy the global friendship with other amateurs and to show their skills and capabilities to the public. WARD is not a contest but rather an opportunity to talk about the value of amateur radio to the public and fellow amateur colleagues. It is also a great opportunity to talk about local radio clubs and amateur radio in local media as a lead-up to [ARRL Field Day](#), which is held each year during the fourth full weekend in June. You can also promote your personal WARD activities on social media platforms like X and Facebook by using the hashtag #WorldAmateurRadioDay.

For more ideas and information, visit [World Amateur Radio Day \(arri.org\)](#).

## Reminder: Solar Eclipse April 8

Amateur radio will play many roles in the upcoming solar eclipse that will cross much of North America. Radio amateurs are welcome to participate in ionospheric research that is being conducted. Find information about the [Solar Eclipse QSO Party on the HamSCI web site](#).



Many emergency communications groups, including those affiliated with the [Amateur Radio Emergency Service® \(ARES®\)](#) in the areas near totality are planning to be active surrounding the event. Hams will provide communications to served agencies, such as local governments, relief organizations, and other groups that could benefit from resilient communications during a time when millions are expected to travel.

## New Training Course Offered by the ARRL Puerto Rico Section

The ARRL Puerto Rico Section has a new online training course for prospective amateur radio operators. Fifty-three students have enrolled in the course, taught by ARRL Technical Coordinator and Instructor Carlos Roig, WP4AOH, who draws from the ARRL License Manual and the National Conference of Volunteer Examiner Coordinators pool of questions for the Spanish Zoom course. The course is open to anyone who is interested in becoming an amateur radio operator. In advance of the course, on March 16, 2024, Assistant Section Manager (ASM) Leyda Rios, WP4RBK, offered a Technician training demonstration to 10 registered students at the University of Puerto Rico, Mayaguez Campus.

The session was an overview of amateur radio and its various activities. Students were most interested in the band plan, the phonetic alphabet, and how to communicate with others. The instruction session also included an introduction to amateur radio equipment and antennas, including how to operate and set up the equipment. There was also a demonstration of a VHF/UHF radio to establish a simple repeater contact. "The range of amateur communication and the capabilities astounded the students," Rios said.

Several students were also interested in learning more about how to utilize the radio equipment and how to establish their first contact, while others have an interest in emergency communications for this year's hurricane season.



*Assistant Section Manager of the ARRL Puerto Rico Section Leyda Rios, WP4RBK, talks to the training course students. [Photo courtesy of Luis E. Collazo, WP4RAQ]*

For additional information about the training course, contact Leyda Rios, WP4RBK, at [wp4rbk@gmail.com](mailto:wp4rbk@gmail.com).

## Get Ready for the 2024 ARRL National Convention and Youth Rally

A full slate of programming has been committed for the 2024 ARRL National Convention, which will be hosted by Dayton Hamvention®, May 17 - 19, in Xenia, Ohio. Hamvention is the largest annual gathering of radio amateurs in the world. Coupled with the National Convention, this year promises to be a Hamvention not to miss. Building on a yearlong theme to "Be Radio Active," ARRL has planned exhibits, forums, panels, and activities that promise to engage and inspire attendees in a wide range of amateur radio interests.



Hamvention has committed one of its four forum rooms to a track of ARRL National Convention presentations with topics that span public service, technology, on-air activities, instruction, and youth outreach.

- In the Amateur Radio Emergency Service® (ARES®) forum, ARRL Director of Emergency Management Josh Johnston, KE5MHV, will discuss the role of SAFECOM in supporting the public safety community to improve the emergency communications ecosystem, as well as the importance of building mutually beneficial relationships with local emergency management officials.
- ARRL National Instructor Gordon West, WB6NOA, will lead an Instructor Academy, showing off many new training tools to help lead lively ham radio license classes.
- ARRL Education and Learning Manager Steve Goodgame, K5ATA, will cover Youth Outreach through Amateur Radio STEM Education, covering ways to inspire students



to pursue higher education and careers in technological fields.

- Enhancing Transmitter Performance will examine the ARRL Clean Signal Initiative, and presenters include ARRL Second Vice President Mike Ritz, W7VO; Rob Sherwood, NCOB, of Sherwood Engineering Inc., and ARRL Laboratory Manager George Spatta, W1GKS.
- Kyle Krieg, AA0Z, will present, How to Control Your Ham Shack with A Node-RED Dashboard, offering a tutorial for this easy-to-learn flow-based programming language that ham radio operators can use to build simple web-based dashboards that provide command, control, and automation in their ham shack.
- ARRL First Vice President Kristen McIntyre, K6WX, will examine the theory of ground, discussing dc grounds, RF grounds, and even talking about gravity, in her presentation, Ground is a Myth!
- ARRL CEO David A. Minster, NA2AA, will delve into the world of Gaming the Amateur Radio Modes, offering tips and tricks covering station design, operating, instruction, and mastering the art of amateur radio modes, including FT8.
- Five Steps to a Successful POTA (Parks on the Air®) Activation will be presented by Michael Martens, KB9VBR, of KB9VBR Antennas on YouTube.
- ARRL Regulatory Information Manager Bart Jahnke, W9JJ, will moderate a panel on Good Operators and Interference that includes Lark Hadley, KA4A, Director, Region Three, FCC Enforcement Bureau; ARRL Volunteer Monitor Program Administrator Riley Hollingsworth, K4ZDH, and ARRL Laboratory Manager George Spatta, W1GKS.
- ARRL Field Services Manager Mike Walters, W8ZY, will present, Tips for Successful Radio Clubs.

- ARRL Radiosport Manager Bart Jahnke, W9JJ, and Contest Program Manager Paul Bourque, N1SFE, will provide an ARRL Contest Program Update.
- Explore the full scope of operating privileges and ham radio activities that can be done with a Technician - class license, in the forum Beyond Repeaters: See How Far Your Tech License Will Take You, presented by ARRL Laboratory Digital RF Engineer John McAuliffe, KD2ZWN.

Additionally, an ARRL Membership Forum will be held on Saturday, May 18, covering several key areas of membership interest. The forum will be moderated by ARRL Great Lakes Division Director Scott Yonally, N8SY, and panelists include ARRL President Rick Roderick, K5UR; First Vice President Kristen McIntyre, K6WX, and CEO David A. Minster, NA2AA.



On Saturday, May 18, a 2024 ARRL Youth Rally will be a special feature of the National Convention at Hamvention. The Youth Rally is intended for students who are 11 to 21 years of age. While Hamvention offers free tickets for youth aged 12 through 18, advance registration for the Youth Rally is recommended. A preliminary Youth Rally agenda and registration instructions are on the ARRL website, at [www.arrl.org/expo](http://www.arrl.org/expo). The Youth Rally registration fee is \$20 and includes a tee shirt (to wear on Saturday), badge, lanyard, and reusable tote bag.

Youth Rally participants will enjoy a full day of activities, discovery, sharing, and fun. Rally day begins at 9:15 AM on Saturday with the annual Dayton Youth Forum -- open to all Hamvention attendees -- moderated by well-known amateur radio educator Carole Perry, WB2MGP. The forum includes presentations from young hams covering a variety of amateur radio activities, topics, and technology. After lunch (on your own) Youth Rally

registrants will gather in Forum Room 3 to get know each other and to explore a variety of amateur radio interests and activities. Learn about satellite communications, participate in a short sprint contest, contact a parachute mobile station, and participate in other fun! Bring a 2-meter handheld radio if you have one.

The Youth Rally will wrap up on Saturday with a presentation from the ARRL Collegiate Amateur Radio Program (CARP).

Learn more about the 2024 ARRL National Convention at [www.arrl.org/expo](http://www.arrl.org/expo), where you can find the full listing of ARRL-sponsored forums, exhibits, and activities.

Hamvention is held in Xenia, Ohio, on the sprawling grounds of the Greene County Fairgrounds and Expo Center. Visit the event's website at [www.hamvention.org](http://www.hamvention.org), where you can also purchase tickets, find the complete list of Hamvention forums, and learn more about the event.



*The ARRL Booth at 2023 Dayton Hamvention. [Bob Inderbitzen, NQ1R, photo]*

## FCC to Require Two Factor Authentication for CORES Users

The Federal Communications Commission (FCC) has announced an upcoming change to the [Commission Registration System \(CORES\)](#) that licensees use to pay any application or regulatory fees, manage or reset a password on an existing FRN, or request a



new FRN. Beginning March 29, 2024, multifactor authentication will be implemented. Users will be prompted to request a six-digit secondary verification code, which will be sent to the email address(es) associated with each username. The user will then need to enter the code into CORES before they can continue.

In a [public notice](#), the FCC said this change will make the system more secure. "This additional layer of security will further safeguard against unauthorized access, thereby enhancing the overall integrity of information contained within the CORES system and improving the security of user data," it read.

The FCC recommends that users confirm they have access to their username account email and to add a secondary email address, if need be.

Resources are available for those who need assistance with the system. For inquiries or assistance regarding the implementation of multifactor authentication on CORES, submit a help request at <https://www.fcc.gov/wtbhelp>, or call the FCC at 877-480-3201 (Monday through Friday, 8 AM to 6 PM ET).

## International Marconi Day 2024

This year, International Marconi Day (IMD) is on April 27. Italian inventor and electrical engineer Guglielmo Giovanni Maria Marconi was born on April 25, 1874, and is credited for inventing the radiotelegraph system, creating Marconi's law, and sending the first wireless transmission over the open sea.

IMD was created to honor Marconi and is hosted annually by the [Cornish Radio Amateur Club](#), GX4CRC. The purpose of the day is for amateur radio enthusiasts around the world to contact historic Marconi sites using communication techniques similar to those that he would have used.



The 24-hour event will operate from 0000 UTC to 2359 UTC, and registration is required. Participants can register at [GX4CRC's registration web page](#).

Stations in the United States, including Marconi Cape Cod Radio Club, KM1CC, in Massachusetts, are already registering for the event. KM1CC hosts several on-air events each year to keep the accomplishments and story of Marconi and his wireless station site in South Wellfleet alive. In 1975, the Wellfleet station was listed as a National Historic Landmark on the National Register of Historic Places and is now part of Cape Cod National Seashore, a unit of the National Park Service. When possible, KM1CC sets up a temporary radio station inside the park. More information about KM1CC is available on their [Facebook](#) page.



## Amateur Radio Stands Ready to Support Eclipse Operations

The upcoming April 8, 2024, solar eclipse has many excited about the opportunity to witness the darkness of totality. Spectators from across the country are traveling to the path of total darkness that will stretch from South Texas to Northeastern Maine.

Some states are anticipating more than a million travelers for the event. In the impacted areas, schools will be letting students out early for the day, and residents are being encouraged to avoid driving on the day of the event. Emergency response organizations are adding staff for the event in many areas. The eclipse is expected to directly impact parts of 14 states as it moves across



*The second "diamond ring" phase of the 2017 Great American Eclipse, as seen in Madras, Oregon. [Sierra Harrop, W5DX, photo]*

the country. The travel impact alone could be substantial.

In preparation for the event, many state emergency management organizations have called on local hams to provide communication services via HF nets and locally on VHF/UHF frequencies. There have been numerous planning meetings, exercises, and preparations across the country. The [ARRL Emergency Management department](#) has worked with ARRL Section Emergency Coordinators and Section Managers in the directly affected areas to collect the frequencies each Section plans to utilize, and to assist in any frequency conflicts. Hams across multiple states and ARRL Sections have been practicing their communications capabilities via Winlink, SSB, and CW. "It is great to see Sections along the path working together to be prepared to assist in any emergency, should it occur during the event," said ARRL Director of Emergency Management Josh Johnston, KE5MHV. "Heavy traffic is the major concern, but [anything can happen] during such a large event," he added.



Johnston went on to say, "There will be several on-air operating events on the day of the eclipse, but please give some space for any emergency traffic that may be taking place as well."

Ham Radio Science Citizen Investigation (HamSCI) is leading the [Solar Eclipse QSO Party](#) which will allow radio amateurs to participate in propagation research by operating during the eclipse and submitting their logs. Much of that activity will be focused on the FT8 frequencies of the non-World Administrative Radio Conference (WARC) HF bands, but all modes will be welcome during the event.



## 2024 ARRL Field Day Theme: Be Radio Active

The theme for 2024 ARRL Field Day is "Be Radio Active." The event will run on June 22 - 23, and it will be one-part contest, one-part emergency communications exercise, and one-part open house -- and a great time. The theme encourages radio amateurs to take advantage of the peak of Solar Cycle 25, which we are nearing. Activity this year is likely to be extremely high thanks to favorable solar conditions. The upper HF bands, such as 15 and 10 meters, should benefit most from the Cycle's peak.



There are resources available already for clubs and individuals to make their Field Day plans. ARRL will publish more information and tools so that hams can make the most of the event as it draws near. Amateurs interested in learning more are invited to join the [Field Day Facebook](#) group to connect with others who are planning for the big weekend.

Find links to all of the resources on the ARRL Field Day web page at [www.arrl.org/field-day](http://www.arrl.org/field-day).

## Dayton Hamvention® 2024 Award Winners Announced

The recipients of the 2024 Hamvention Awards were announced on March 8, 2024.

### *Special Achievement Award: Anthony Luscre, K8ZT*

Luscre is from near Akron, Ohio, and he was first licensed in 1981. He has been a low-power operator, contester, and teacher throughout his amateur radio career. He received his Amateur Extra-class license in 2000. Luscre is active on HF and VHF/UHF, and he operates on CW, phone, and digital modes. His low-power contacts now top 115,000. Between licensing classes, club programs, webinars, hamfests, conferences, youth and school

radio demonstrations, and other in-person and online talks, Luscre has presented more than 500 sessions since the beginning of the COVID-19 pandemic. He has presented multiple times for Contest University, the QSO Today Virtual Ham Expo, and Dayton Hamvention®. He holds a weekly class, "The Joy of Operating," for the Long Island CW Club. Anthony serves as the ARRL Ohio Section Youth Coordinator and he is an officer in the [Cuyahoga Falls Amateur Radio Club](#).



*Anthony Luscre, K8ZT. [Photo courtesy of Hamvention®]*

### *Technical Achievement Award: Ward Silver, NOAX*

For the past 15 years, Silver has been the Lead Editor of The ARRL Handbook and The ARRL Antenna Book, and he was a primary author of all three ARRL license manuals and study guides from 2004 until his retirement in 2023.



*Ward Silver, NOAX [Photo courtesy of Hamvention®]*

As an electrical engineer, he designed microprocessor-based products and medical devices for 20 years before beginning a second career as a teacher and writer. Licensed since 1972, he is a co-founder of the World Radiosport Team Championships and was inducted into the CQ Contest Hall of Fame in 2015, with numerous top scores and records. He is President of the [Yasme Foundation](#), and he is also a board member of the Ham Radio Science Citizen Investigation ([HamSCI](#)) collaborative research group. Silver's primary interests in amateur radio include radiosport, antenna design, and supporting his local emergency response team.

### *Club of the Year Award: The Young Ladies' Radio League (YLRL)*

The [Young Ladies' Radio League](#), Inc. (YLRL), is proud to be celebrating its 85th anniversary this year. With members from all over the world, the organization has been involved in everything from contests, to emergency events, to helping new hams get licensed and on the air, as well as everything in between.

Established in 1939, YLRL has been found at hamfests and conventions all over the world. The club is proud to have had a booth at Hamvention® every year since the 1950s and a YL Forum since the 1960s. "Women helping women in amateur radio" is a mission statement for this organization, but there are also contest and award opportunities for the OMs who support their YLs. YLRL has the motto "QRV -- I am ready," as they are always ready to assist in the radio community.



*The Young Ladies' Radio League at their Convention in Washington state in 2014. [Photo courtesy of Hamvention®]*

### *Amateur of The Year Award: Edward Engleman, KG8CX*

Engleman, KG8CX, is from Menominee, Michigan. He is the co-founder of the [Young Amateurs Communications Ham Team](#) (YACHT). He was first licensed in 1991 and received his Amateur Extra-class license in 2000. He has been a member of ARRL since 1991. Engleman serves his home club, the Marinette & Menominee Amateur Radio Club, as a volunteer examiner. Engleman's 33-year background as an elementary educator and principal was instrumental



*Edward Engleman, KG8CX. [Photo courtesy of Hamvention®]*

in developing the talents he now uses in his work with young amateurs.

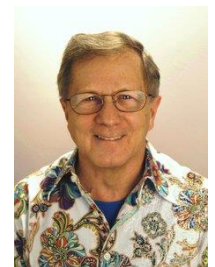
ARRL The National Association for Amateur Radio® and Hamvention® have announced that Hamvention will host the 2024 ARRL National Convention on May 17, 18, and 19 at the Greene County Fairgrounds in Xenia, Ohio. ARRL has an exciting lineup of forums and presentations for the ARRL National Convention. For information about the 2024 ARRL National Convention, go to [www.arrl.org/expo](http://www.arrl.org/expo). For tickets to Hamvention and further information, head to [www.hamvention.org](http://www.hamvention.org).

You can read more about the 2024 Hamvention award winners and the 2024 ARRL National Convention at [ARRL.org](http://ARRL.org).

### **Bob Heil, K9EID, Silent Key**

The man who defined the sound of live rock 'n' roll music and brought audio engineering principals into mainstream amateur radio use, Dr. Bob Heil, K9EID, has passed away at the age of 83.

He was an ARRL Life Member and in the ARRL Maxim Society. A Facebook post from Heil Ham Radio paid tribute to their founder: "Bob fought a valiant, yearlong battle with cancer, and passed peacefully surrounded by his family."



*Bob Heil, K9EID.*

Heil founded Heil Sound in 1966, through which he created the template for modern concert sound systems for musicians like the Grateful Dead, The Who, Joe Walsh, and Peter Frampton.

The talk box used on iconic live record Frampton Comes Alive! was Heil's design. His audio engineering products have been featured in the Rock & Roll Hall of Fame, and he was honored in 2007 with the Parnelli Audio Innovator Award for his impact on the live sound industry. "My life has been about achieving great sound, whether on the concert stage or in the amateur radio world," Bob Heil [recounted in 2022](#). "I've watched Heil Sound go from a regional sound company to a world-class microphone manufacturer. This company has been my passion," he said.



*"RIP, man. I love you and miss you already. Sending love to Sarah and to the world of audioheads you leave behind," said rocker Joe Walsh, WB6ACU, in [a Facebook post](#). [Joe Walsh, WB6ACU, photo]*

Parallel to his commercial and artistic success in live music, was his passion for amateur radio. He was active in ham radio from a young age, and he merged his expertise in audio engineering with his love for radio. Heil Ham Radio was founded to produce microphones, headsets, and other gear for radio amateurs with an emphasis on high-quality audio.

Heil was known as a mentor who enjoyed helping others find success in ham radio.

Recently, his grandson Charlie Hartley, KF00OP, became a licensed ham to surprise Heil for his birthday. [The pair attended the ARRL Midwest Convention/Winterfest](#) in St. Louis, Missouri, on January 27, 2024.



*Heil with his grandson, Charlie Hartley, KF00OP, at the ARRL Midwest Convention/Winterfest.*

Heil was a generous donor to amateur radio organizations,

including ARRL. Recently, [he donated a host of new audio gear](#) to the Hiram Percy Maxim Memorial Station, W1AW.

His generosity and kind nature will be missed by many, including ARRL Director of Development Kevin Beal, K8EAL. "Bob was a titan in many areas. He was generous with his time, offered keen insights, and had the heart of a philanthropist in the ARRL Maxim Society," Beal said. "He was a gentleman to his core, making friends easily and everywhere he went, from rock stars to captains of industry. I consider it a real privilege to have become a friend to him, too, all because of amateur radio."

Heil was known for his passion for AM operations. He served for many years as an on-camera host of the Ham Nation podcast. Tributes to Heil have been flooding social media, including from his co-hosts.

ARRL President Rick Roderick, K5UR, said Heil's passing is a significant loss. "Bob Heil's technical achievements that brought high-quality audio to amateur radio pale in comparison to his generosity and willingness to help his fellow ham. He's long been known as someone eager to help mentor and teach. His legacy on our hobby will be long-lasting. Our thoughts are with his loved ones."

An obituary for Heil may be viewed [at this link](#).



Bob Heil, K9EID, 1940 - 2024. [Heil Ham Radio, photo]

## FCC Job Opportunity for Recent Engineering Graduates

The Federal Communications Commission (FCC) has a job opening that might be a good opportunity for recently graduated amateur radio operators who have knowledge of the spectrum and RF.



This is a Recent Graduates position in the FCC's Pathways Program, and it will be located in the FCC Office of Engineering and Technology (OET) in Washington, DC. Applications are being accepted for engineering graduates who earned their degree in 2022 or later. For veteran applicants, earlier graduates qualify based upon their military service, including students expecting to graduate in May 2024.

There will be on-the-job training for the position. Some of the duties range from performing propagation analysis of terrestrial, satellite, and/or airborne systems, to evaluating the emission characteristics of various transmitters to validate coexistence with neighboring systems. Projects may involve various computer software engineering and scientific applications. Applications are being accepted through July 2, 2024, and a complete job description and required qualifications can be found at <https://www.usajobs.gov/job/767902700>.

## Bob Vallio, W6RGG, Named ARRL Honorary Vice President

Robert B. "Bob" Vallio, W6RGG, has been honored by the ARRL Board of Directors as an Honorary Vice President.

In a motion that passed with an extended standing ovation, the Board awarded the honor at their Annual Meeting in January 2024.



Bob Vallio, W6RGG.

The motion honored Vallio's lifetime of service to ARRL and amateur radio. He was first licensed as a Novice with the call sign WN6RGG in July 1952, and he later upgraded to General class as W6RGG in 1953. He has held an Amateur Extra-class license since its inception in 1968.

His tenure of service to ARRL started 46 years ago. He served as Communications Manager of the ARRL East Bay Section from 1978 to 1983, Section Manager of the East Bay Section from 1984 to 1999, Vice Director of the Pacific Division from 2000 to 2003, Director of the Pacific Division from 2003 to 2017, and Second Vice President of ARRL from 2018 to 2023.

The motion continued, in part:

*Robert B. Vallio has also served diligently as a member of the Executive Committee numerous times, a member of the Programs and Services Committee, a member of the Administration & Finance Committee, and many more.*

Vallio has been active in a number of high-profile DXpeditions, and he is an active contester.

## ARRL Podcasts Schedule

The Solar Eclipse QSO Party (or SEQP) is an on-air event coming up on April 8, the same day as the next total solar eclipse. The SEQP is a great opportunity for hams to contribute data to studies of Earth's ionosphere, the part of our atmosphere that makes radio communications possible, and all you have to do is get on the air and operate as you normally would. The lead organizer of Ham Radio

Science Citizen Investigation (HamSCI), Dr. Nathaniel Frissell, W2NAF, joins us in this episode to explain how to get involved.

## ARRL Audio News

Listen to [ARRL Audio News](#), available every Friday. ARRL Audio News is a summary of the week's top news stories in the world of amateur radio and ARRL, along with interviews and other features.



The On the Air podcast and ARRL Audio News are available on blubrry, iTunes, and Apple Podcasts - [On the Air](#) | [ARRL Audio News](#).

## Amateur Radio in the News

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

["Hamateur Hour: Radio operators prepare for total solar eclipse what-ifs"](#) / WFIE (Indiana) March 21, 2024

["Fulton County Amateur Radio Club ready to assist during April 8 total solar eclipse"](#) / WTOL (Ohio) March 25, 2024 -- The Fulton County Amateur Radio Club is an ARRL Affiliated Club.

["GEARS promotes radio use for emergencies in Butte County, preparing for future events"](#) / KRCR (California) March 27, 2024 -- The Golden Empire Amateur Radio Society is an ARRL Affiliated Club.

[" 'L.A. Hogs' Ham Radio Group Broadcasts From Jonquil Festival"](#) / HopePrescott.com (Arkansas) March 19, 2024 -- The Lower Arkansas Ham Operators Group.

["Ham Radio Club Revives Alternative Communication"](#) / The Parthenon (West Virginia) March 2, 2024 -- Thundering Herd Amateur Radio Club.

["Ham Radio Enthusiasts Dial In To 2024 Crossroads Hamfest & Radio Swap - Search News \(bing.com\)"](#) / WWMT (Michigan) March 10, 2024 -- The Southern Michigan Amateur Radio Society is an ARRL Affiliated Club.

["Peoria Radio Club hosts Storm Spotter Training"](#) / WMBD (Illinois) March 12, 2024 -- The Peoria Area Amateur Radio Club is an ARRL Affiliated Club.

[" 'HAMFEST' IN CAVE CITY MAKES WAVES THROUGH THE COMMUNITY"](#) / WCLU (Kentucky) March 2, 2024 -- Mammoth Cave Amateur Radio Club.

["America's Last Morse Code Station"](#) / The Atlantic March 2, 2024

["Amateurs of Action - The Women of Radio"](#) / Domestic Preparedness March 6, 2024 -- Desiree Baccus, N3DEZ, is a member of the ARRL Public Relations Committee

*Arrl.org. 2024. ARRL Letter. [online] Available at: <http://www.arrl.org/arrlletter?issue=current> [Accessed 06 Apr 2024]*



# NARS Monthly Club Meeting

## March General Meeting

In the March General Meeting, Rich Jones, W5VEK, led a discussion about Field Day planning and leadership needed for Field Day. As part of the discussion, it was decided that two leaders would be helping to run Field Day this year: 1) An administrative lead for handling the overall organization and coordination with other groups and 2) a technical lead for handling the management of radios, antennas, and operating schedules.

As a result of the discussion, Rich Jones volunteered to be the administrative lead for Field Day. Robert Ewers also indicated that he might be able to fill the technical lead role, but has since confirmed that he will not be able to fill this role. As such, a volunteer for the technical lead role is still needed.

## Next Club Meeting

Our next club meeting will be on April 19<sup>th</sup> at HCESD 16 Admin – 18606 Stuebner Airline Rd, Spring, TX 77379.

## 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: HCESD 16 Admin, [18606 Stuebner Airline Rd, Klein, TX 77379](#)  
Zoom Conference Call, Meeting ID: 2815436502, Passcode: 123456

# NARS Name Badges: Get Yours Today!

Cindy (KM4YGG) and Art (KM4YGH) Grant are offering the club a deal for the NARS club on getting membership name badges. Each badge costs \$10 and can be delivered at the next NARS meeting (if ordered two weeks or more before the next meeting).

To order, go to <https://badgesunlimitedllc.com/#!/4-2-NARS-CLUB-MEMBERS-ONLY/p/104217140/category=13635038> and pay the fees using the checkout capability on the website.



# 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.

## Leveraging System-on-a-Chip (SoC) Computers in Amateur Radio

In the ever-evolving landscape of ham radio, the introduction of small computers allows for new capabilities and opportunities for the hobby. These “credit card size” computers leverage a “System-on-a-chip” (SoC) platform, a concept that combines many or all high-level function elements of an electronic device onto a single chip instead of using separate components mounted to a motherboard. Some of these devices include the Raspberry Pi computer, the Banana Pi, the



Asus Tinker, BeagleBone, CherryPi, and many others.



These single-board computers (SBCs) generally allow for full operating systems (often Linux- or UNIX-based) while also including a full complement of I/O Interfaces (i.e. GPIO, I2C, SPI) for controlling external hardware. Once a hobbyist market with sluggish performance, these computing platforms have made a lot of progress in speed, responsiveness and usability. For

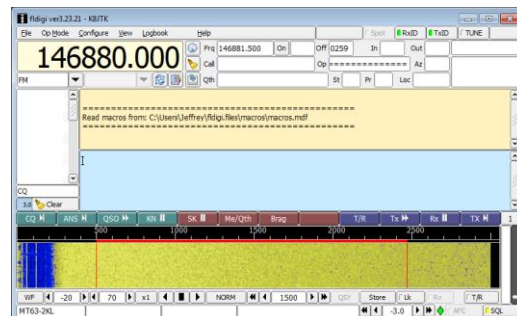
example, the current revision of Raspberry Pi – the Raspberry Pi 5 device – includes a quad-core, 2.5GHz, 64-bit ARM CPU, PCIe 2.0 interfaces, dual 4K@60p video outputs. These platforms, when coupled with appropriate software, can be a powerful tool in the Amateur Radio toolkit.



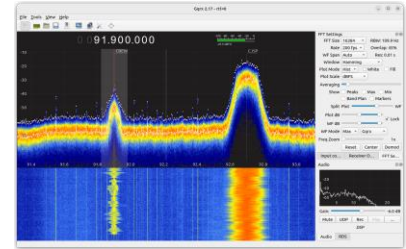
### Key Software Packages for Ham Radio

Harnessing the full potential of SBC computers includes a host of software packages tailored to radio enthusiasts. Here are some key software packages that can be utilized with the Raspberry Pi 5:

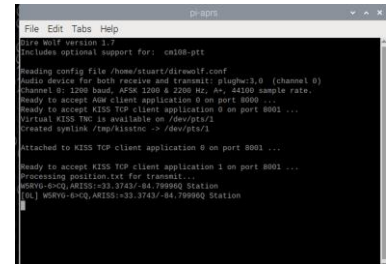
- **Flrig / fldigi:** A free and open-source set of programs which allows an ordinary computer's sound card to be used as a simple two-way data modem. The software is mostly used by amateur radio operators who connect the microphone and headphone connections of an amateur radio SSB or FM transceiver to the computer's headphone and microphone connections, respectively.
- **Gqrx:** Gqrx is a popular software-defined radio receiver application that allows users to visualize and demodulate various radio signals. With support for multiple SDR hardware platforms, including



those compatible with Raspberry Pi 5, Gqrx provides a user-friendly interface for exploring the radio frequency spectrum.



- CubicSDR:** Similar to Gqrx, CubicSDR is a versatile SDR receiver software that offers a clean and intuitive interface for monitoring and decoding radio signals. Compatible with Raspberry Pi 5 and a wide range of SDR hardware, CubicSDR is ideal for amateur radio operators looking to experiment with different modulation schemes and digital modes.
- WSJT-X:** WSJT-X is a popular digital mode software suite designed for weak-signal communication on the amateur radio bands. With support for modes such as FT8, JT9, and JT65, WSJT-X enables reliable communication under challenging propagation conditions. Raspberry Pi 5 users can leverage WSJT-X for digital mode operation, thanks to its efficient decoding algorithms and low system resource requirements.
- Dire Wolf:** Dire Wolf is a software-based modem and TNC (Terminal Node Controller) for amateur packet radio. It allows Raspberry Pi 5 users to set up a packet radio station for APRS (Automatic Packet Reporting System) and other digital packet communication modes. Dire Wolf offers robust performance and compatibility with a wide range of radio hardware configurations.



```

File Edit Tabs Help
Dire Wolf version 1.7
Includes optional support for: cml98-pit
Reading config file /home/stuart/direwolf.conf
Audio device for both receive and transmit: plughw:3,0 (channel 0)
Sample @ 32000 baud, 4096 12000 @ 2700 Hz, 4x, 44100 sample rate.
Ready to accept AOM client application 0 on port 8000 ...
Ready to accept KISS TCP client application 0 on port 8001 ...
Virtual KISS TNC is available on /dev/gps2
Created symlink /tmp/systemd- > /dev/gps1
Attached to KISS TCP client application 0 on port 8001 ...
Ready to accept KISS TCP client application 1 on port 8001 ...
Processing position.txt for transmit ...
KISS=KQ,ARISS=K1,7424=K4,79990 Station
[0] W0RVO-KQ,ARISS=K3,3743/-04,79990 Station
  
```

Many other software tools are available, depending on your interests.

### *Making it Easy: Amateur Radio Operating Systems*

Instead of installing individual tools, you can load your SBC with an operating system preloaded with all types of ham radio tools or view collections of packages that are easy to install on any Linux-based SBC. Below are just a few of these distributions and/or package lists:

- HamPi:** HamPi is a Raspberry Pi OS (formerly Raspbian) distribution preconfigured with numerous ham radio applications and utilities. It's optimized for use with Raspberry Pi single-board computers, making it an excellent choice for portable or embedded ham radio projects. Information for this distribution can be found at <https://github.com/dslotter/HamPi/wiki>.
- Ubuntu Ham Radio:** Ubuntu Ham Radio is an official flavor of Ubuntu Linux that includes a selection of ham radio software packages available in the Ubuntu repositories. It provides a familiar Ubuntu desktop environment with easy access to popular ham radio applications. Information on ham radio packages for Ubuntu can be found here: <https://wiki.ubuntu.com/UbuntuHamsPackages>.
- Fedora Amateur Radio SIG:** Fedora Amateur Radio SIG is a special interest group within the Fedora Linux community focused on packaging and maintaining ham radio software for Fedora Linux. While Fedora itself is a general-purpose distribution, the Amateur Radio SIG provides a curated collection of ham radio software packages for Fedora users. Information about the packages provided by the SIG members can be found here: <https://fedoraproject.org/wiki/AmateurRadio#Packages>

- **Debian Hams:** Debian Hams is a project within the Debian community dedicated to packaging ham radio software for Debian Linux. Debian is known for its stability and extensive software repositories, making Debian Hams a reliable choice for amateur radio enthusiasts seeking a robust Linux distribution. The downloads for this operating system can be found at <https://www.debian.org/blends/hamradio/>.
- **Arch Ham Radio:** Arch Ham Radio is a community-driven effort to maintain ham radio software packages for Arch Linux, a rolling-release distribution known for its flexibility and customization options. Arch Ham Radio provides up-to-date packages for a wide range of ham radio applications. Software packages for Arch Linux can be found described here: [https://wiki.archlinux.org/title/Amateur\\_radio](https://wiki.archlinux.org/title/Amateur_radio).

### *Exploring New Horizons*

With the Raspberry Pi 5 as your ham radio companion and a suite of specialized software packages at your disposal, the possibilities for experimentation and exploration are endless. Whether you're delving into the world of SDR, exploring digital modes of communication, or participating in APRS activities, the Raspberry Pi 5 empowers amateur radio operators to push the boundaries of what's possible in the world of ham radio. So, grab your Raspberry Pi 5, install your favorite software, and embark on an exciting journey of discovery and connectivity in the fascinating realm of amateur radio.

## **Harnessing the 2024 Eclipse for Ionospheric Discovery with HamSCI**

NASA is excited about its upcoming solar eclipse event in April 2024 and its significance for ionospheric research conducted by the Ham Radio Science Citizen Investigation (HamSCI) organization. The total solar eclipse provides a unique opportunity to study the effects of solar radiation on the Earth's ionosphere, particularly its impact on radio wave propagation. HamSCI encourages amateur radio operators to participate in ionospheric measurements during the eclipse by transmitting signals and observing how they propagate through the ionosphere. These observations will contribute to a better understanding of ionospheric dynamics and help improve models used for radio communication. The article emphasizes the collaborative nature of the project, involving both amateur radio enthusiasts and professional scientists, and highlights the valuable contributions that citizen scientists can make to ionospheric research. It also provides information on how interested individuals can get involved in the project and contribute to the scientific effort.

*For more information, please see the following article: <https://science.nasa.gov/solar-system/skywatching/2024-eclipse-ionospheric-discovery-with-hamsci>*

# New Amateur Extra-Class Question Pool Released Effective July 1, 2024

The (NCVEC) [Question Pool Committee](#) (QPC) has released the 2024 - 2028 Extra-Class FCC Element 4 Question Pool and Syllabus to the public. The new [Extra-Class Question Pool is effective from July 1, 2024, through June 30, 2028.](#)

The 2024 - 2028 pool is available as a Microsoft Word document and as a PDF. The 10 graphics required for the new Extra-Class Question Pool are available within the documents or separately in PDF and JPG file formats.

ARRL VEC Manager Maria Somma, AB1FM, and member of the NCVEC QPC, said, "The new pool incorporates significant changes compared to the 2020 - 2024 version. We carefully went over the pool for technical accuracy, relevancy to today's amateur radio practices, syntax, grammar, style, format, and clarity and redundancy within and between the pools. With these goals in mind, 82 new questions were created, and 101 questions were eliminated, resulting in a reduction [of] the number of questions from 622 to 603. Over 350 questions were modified. We considered a question modified when the knowledge being tested was not changed but wording was improved, or answers or distractors were replaced."

Somma advised that "the newly revised pool must be used for Extra-class license exams starting July 1, 2024. New test designs will be available to [ARRL Volunteer Examiners](#) (VEs) on that date. The ARRL VEC will supply its officially appointed, field-stocked VE teams with new Extra-class [exam booklet designs](#) around mid-June."

Extra-class examination candidates preparing for their exams using the 12th edition of [The ARRL Extra Class License Manual](#) or the 5th edition of [ARRL's Extra Q & A](#) are encouraged to test on or before June 30, 2024. New editions of ARRL licensing publications will be available in May for exams taken on or after July 1, 2024.

Notice provided by the ARRL at <https://www.arrl.org/news/new-amateur-extra-class-question-pool-released-effective-july-1-2024>, Accessed on January 1, 2024

## NARS Club Documents and Minutes

DID YOU  
KNOW



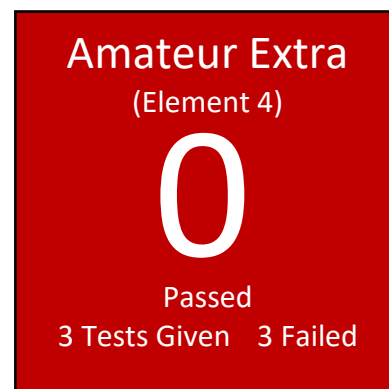
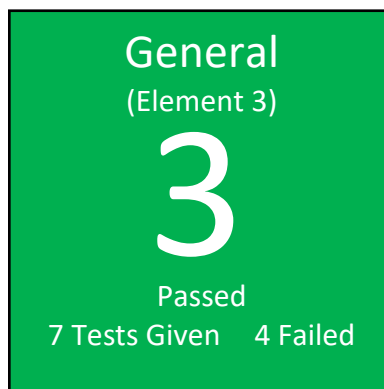
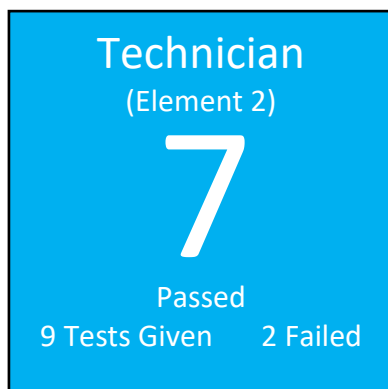
Did you know that you can find all of the club's public documents, including board meeting minutes, financial statements, and newsletters on the [club website](#) at [http://www.w5nc.club/doc\\_repos/](http://www.w5nc.club/doc_repos/)

## VE Sessions and Results

PROVIDED BY SHEREE HORTON, WM5N

### Attendees

On Saturday March 9, 2024, a VE Test Session was held at HCESD 16 Admin, 18606 Stuebner Airline Rd, Klein, TX 77379. During the testing session, 12 candidates took 19 tests.



### Congratulations!

Congratulations to the following for passing their new license exams<sup>1</sup>:

- Robert L Creacy – Technician
- Martin E Deutsch – Technician
- Cooper B Ham (youth) – Technician
- Nancy M Jackson – Technician
- Aaron M Jones – Technician
- William B Schranz – Technician
- Scott Taylor – Technician

Congratulations to the following for passing their upgrade exams:

- Allen D Beaux N5BRX – upgrade to General
- Greg Ham KJ5DBD - upgrade to General
- Robert R Showell Jr KJ5PBZ - upgrade to General

### Pre-registration for Testing Sessions

To pre-register for an upcoming testing session, you can use one of the following links:

HamStudy.org page link: <https://hamstudy.org/sessions/arrl/77070/inperson>

The next session will be April 20, 2024 at the HCESD 16 Admin Building. Please visit [www.w5nc.club](http://www.w5nc.club) for the announcement.

<sup>1</sup> 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:

- Vicki Owen AC5EW
- Paul Owen N5NXS
- Dale Schmirler KN5DS
- Brandy Lang WE9L

## Volunteering and Becoming a Volunteer Examiner

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

### VE Session Guidelines

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

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](mailto:wm5n@arrl.net) or [vec@w5nc.net](mailto:vec@w5nc.net)

## New & Renewing Club Members

### New Club Members

Welcome to the following new members of NARS!

- Robert Beauchamp, KJ5EUU
- Martin Deutsch, KJ5FEH

### Renewing Club Members

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

- Lance Clarke, KB5UC
- James Lovett, KI5NVD
- Jackie Shallington, KM5SC
- George Young, N5NBS

# Training and Education

## NARS

NARS Meeting Presentations - <http://w5nc.club/nars/index.php/club-info/technical-presentations>

## 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!

## Exam Practice Answers

**Technician:** T6D01 - B. Rectifier

**General:** G8C05 - B. Request retransmission of the packet

**Amateur Extra (Ending June 30<sup>th</sup>):** E7G11 - D. 14

**Amateur Extra (New):** E1B08 - C. The amateur station must avoid transmitting during certain hours on frequencies that cause the interference

## Of Interest to the Club

### Houston Local Traffic Net

The Houston Local Traffic Net (HLTN) was formed July 14, 2020 in preparation for ARRL Field Day 2020. Originally called the Fort Bend County Traffic Net, the HLTN has been in continuous operation since then.

The nets ran on Monday nights for one hour with training sessions during the net. Because of the volume and interest in the Traffic Net, on April 15, 2021 an additional session was added on Thursday nights for 30 minutes and in 2020 the time was increased for up to an hour to also accommodate training.

The Houston Local Traffic Net currently meets from 6:30pm – 7:30pm twice a week handling National Traffic System (NTS) traffic (Radiograms) into and around the Houston Metro area and also includes, time permitted, traffic handling/training.

Monday's net: 146.940 (-) PL 167.9  
Thursday's Net: 147.000 (+) PL 103.5

Backup repeater for both: 147.190 PL 123.0

A complete schedule of Area Traffic Nets is located on the HLTN.org 'Nets' web tab with the times and frequencies. Visitors are welcome and encouraged to check-in to listen and learn this important Amateur Radio skill.

Direct any questions, via phone or email, about the Houston Local Traffic Net, Radiograms, and Traffic handling to: Sheree Horton WM5N, ARRL South Texas Section Traffic Manager

### GHSN monthly Simplex Propagation Net

Beginning January 2022, the [Greater Houston Simplex Network](#) will return to its regular schedule of the 4<sup>th</sup> 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](mailto:N5PRD@yahoo.com)

# Calendar

## Club Activities and Events

Monthly Club Meeting – April 19<sup>th</sup> - HCESD 16 Admin – [18606 Stuebner Airline Rd, Klein, TX 77379](#)

VE Test Session – April 20<sup>th</sup> – [18606 Stuebner Airline Rd, Klein, TX 77379](#) - Check-in will start at 8:30am with testing lasting from 9:00am - 11:00am. All testing activities will be completed by noon.

The full NARS calendar can be viewed at: <https://w5nc.groups.io/g/main/calendar>

## 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.

## Hamfests and Conventions

May 17 - 19 | [Dayton Hamvention](#), ARRL National Convention, Xenia, Ohio

May 31 - June 2 | [SEA-PAC](#), ARRL Northwestern Division Convention, Seaside, Oregon

June 15 | [Knoxville Hamfest](#), ARRL Delta Division Convention, Knoxville, Tennessee

June 28 - 30 | [HAM RADIO](#), Friedrichshafen, Germany

July 12 - 13 | [HamCon: Zion](#), ARRL Rocky Mountain Division Convention, St. George, Utah

August 17 - 18 | [Huntsville Hamfest](#), ARRL Southeastern Division Convention, Huntsville, Alabama

August 22 - 25 | [Northeast HamXposition](#), ARRL New England Division Convention, Marlborough, Massachusetts

September 28 | [Red Rivers Radio Amateurs Hamfest](#), ARRL Dakota Division Convention, West Fargo, North Dakota

October 18 - 20 | [Pacificon](#), ARRL Pacific Division Convention, San Ramon, California

## Contests and Radiosport

*ARRL Contest Corral*

April 2024 - <http://www.arrl.org/files/file/Contest%20Corral/2024/April%202024%20Corral.pdf>

For a calendar of ARRL contests, please see <http://www.arrl.org/contest-calendar>.

For resources and results for all ARRL contests, please see <https://contests.arrl.org>.

# NARS Club Officers and Information

## Board Officers with Voting Privileges

President: Ron Matussek, WA6TQH, 713-825-9606, [officers@w5nc.net](mailto:officers@w5nc.net)

Vice President: Paul Kent, KI5FJS, [officers@w5nc.net](mailto:officers@w5nc.net)

Treasurer: Tom Hoherd, KK5YU, 713-828-8630, [treasurer@w5nc.net](mailto:treasurer@w5nc.net)

Secretary: Brandon Rogers, K5BLR, 713-294-6630, [officers@w5nc.net](mailto:officers@w5nc.net)

Director: Rich Jones, W5VEK, [officers@w5nc.net](mailto:officers@w5nc.net)

Director: TBN

## Board Non-Voting Associate Members

Administrative Secretary: Neal Naumann, N5EN

Social Media Liaison: Sam Labarbera, N6HB

Newsletter Editor: Brandon Rogers, K5BLR

Public Information Liaison: TBN

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Webmaster: Bill Buoy, N5BIA, [webmaster@w5nc.net](mailto: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.clubs>) 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 or via Allstar (node #59847). Kirc Breden, N5XJB, coordinates this Net.

## Repeaters

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

### Did you know...

that NARS has a 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.club/nars/index.php/social-media/email-reflector-groups>