W5NC
Houston, Texas
Northwest Amateur Radio Society
A 501(c)(3) Organization
An ARRL Affiliated Club

NARS NEWS

FEBRUARY 2024

Northwest Amateur Radio Society
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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

President's Message

BY RON MATUSEK, WA6TQH

OFF TO A RUNNING START

We started off the new year with our annual "Awards Banquet" on January 19th at the Valley Ranch BBQ. There were about thirty in attendance, and everyone had a wonderful time of fellowship and good food! There were multiple door prizes and of course a raffle for a couple of radios. All proceeds from the awards banquet will be used to purchase some needed equipment for our ongoing repeater network. Speaking of such, at our February general meeting our Repeater lead Mike Pate K5MAP will be presenting an update on repeater progress for LBT Houston, Galleria and Klein locations. Recent visits to these locations have enabled us to produce a road map of equipment upgrades to include new antennas and internet access. Several links are being set up or have already been set up for expanded access. I hope everyone has noticed the reduced noise on the VHF repeater and the new features added to our Allstar system. Details will be presented at the general meeting, however we will need input from the membership, so this is your chance to communicate to the repeater team your experiences and recommendations. Be sure to give the team a big THANK YOU!

Along with repeater upgrades remember to thank Klein ESD16 for the new HUGH HF tri-bander along with UHF/VHF antennas erected on a 50-foot tower at the admin building. This system will be available to us on field day and according to initial testing reports this antenna is exceeding expectations. Regarding Field Day for 2024, if you have an interest in being our Field Day Coordinator this year be sure to let a member of the board know, and we will announce that person as we release additional information on Field Day.

Read on in the newsletter to see other valuable information.

See you at the February General Meeting!

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)

T5A12

What describes the number of times per second that an alternating current makes a complete cycle?

A. Frequency
B. Pulse rate
C. Wavelength
D. Speed

General (Element 3)

G4D06

How much change in signal strength is typically represented by one S unit?

A. 6 dB
B. 15 dB
C. 12 dB
D. 18 dB

Amateur Extra (Element 4)

E4E04

How can conducted and radiated noise caused by an automobile alternator be suppressed?

A. By installing a high-pass filter in series with the radio's power lead and a low-pass filter in parallel with the field lead
B. By installing a noise suppression resistor and a blocking capacitor in both leads
C. By connecting the radio's power leads directly to the battery and by installing coaxial capacitors in line with the alternator leads
D. By installing filter capacitors in series with the DC power lead and a blocking capacitor in the field lead

See the answers on Page 28.

The ARRL Letter

An excerpt from the weekly ARRL Letter

ARRL Board Approves Free Membership for Students, New Vice Presidents Elected

The ARRL Board of Directors met in Windsor, Connecticut, on January 19 - 20, 2024, for its Annual Meeting.

ARRL President Rick Roderick, K5UR, presided over the meeting, and the Board welcomed Vice Director of the ARRL Great Lakes Division Roy Hook, W8REH, as a newly elected member to the Board.

ARRL President Rick Roderick, K5UR, [L], and ARRL Great Lakes Division Director Scott Yonally, N8SY [R], present a certificate to new ARRL Great Lakes Division Vice Director Roy Hook, W8REH [C].

The Board authorized a new, free ARRL membership for students. For decades, ARRL has offered a reduced dues rate for young hams, currently priced at $30 per year. At this meeting, the Board established a new option for a no-cost Associate membership for full-time students aged 21 and younger.

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

The Board re-elected ARRL President Rick Roderick, K5UR, to a fifth 2-year term.

The Board also elected Director of the ARRL Pacific Division Kristen McIntyre, K6WX, to be First Vice President, succeeding Michael Raisbeck, K1TWF.

Kristen McIntyre, K6WX, was elected ARRL First Vice President.

Director of the ARRL Northwestern Division Mike Ritz, W7VO, was elected Second Vice President, succeeding Bob Vallio, W6RGG. ARRL Vice President of International Affairs Rod Stafford, W6ROD, was re-elected.

Mike Ritz, W7VO, was elected ARRL Second Vice President.

The elections of McIntyre and Ritz to the Vice President positions mean that incumbent Vice Directors Anthony Marcin, W7XM (Pacific Division), and Mark Tharp, KB7HDX (Northwestern Division), will succeed as Division Directors, creating vacancies for Vice Director in those Divisions, which will be filled by appointment.

ARRL Pacific Division Director Anthony Marcin, W7XM.

The complete minutes of the 2024 Annual Meeting of the ARRL Board of Directors will be available soon on the ARRL website. Read more about the Board's actions in the ARRL Member Bulletin.

ARRL Northwestern Division Director Mark Tharp, KB7HDX.

The next meeting of the ARRL Board of Directors is scheduled for July 19 - 20, 2024.

ARRL is governed by an all-volunteer Board of Directors. Elections are held for five of the 15 ARRL Divisions each year, for terms of 3 years.

The ARRL Board of Directors met in Windsor, Connecticut, on January 19 - 20, 2024, for its Annual Meeting. [Sierra Harrop, W5DX, photos]

YLISSB Celebrates 61 Years On the Air

February 8, 2024, marks the 61st anniversary of the YL System, now known as the YL International Single Side-band System (YLISSB), founded by Vera Mayree Tallman, K4ICA (SK), in 1963.

Tallman received her first license in 1956 and later earned her General-class license. Though the system's name includes "YL," the amateur radio term for "young lady," membership is open to both women and men. YLISSB is a community of radio amateurs who provide support, service, and fellowship to one another and to the rest of the amateur radio community. YLISSB also encourages amateur radio skill development through both personal and system-wide support programs.

The YLISSB operates on 14.332 MHz every day of the year. On February 8 - 11, from 1323Z to 1323Z, special event station K4ICA will operate on 14.240 - 14.340 MHz and 7.230 - 7.260 MHz to commemorate the system's 61st anniversary.

To receive a QSL card, send a letter via self-addressed stamped envelope to John Ellis, W5PDW, at 26231 Huffsmith Conroe Rd., Magnolia, TX 77354.

Dr. Philip Erickson, W1PJE, New Director of MIT Haystack Observatory

ARRL Member and active radio amateur Dr. Philip Erickson, W1PJE, is the new director of the Massachusetts Institute of Technology (MIT) Haystack Observatory.

The prestigious scientific appointment is the continuation of a radio interest that began in his youth. "I started as a shortwave listener in the mid-1970's as a middle school student. So, in some sense, I was always fooling with antennas in the back yard and trying to understand why signals got to me at different times -- why were they different in the day and at night? What was the farthest place I could hear, or the closest place?"

Dr. Philip Erickson, W1PJE, is the new director of the Massachusetts Institute of Technology (MIT) Haystack Observatory. [Joy LeDuc, photo]

That early interest led him to an electrical engineering degree and ultimately, a doctorate in space plasma physics from Cornell University that he earned in 1998. Erickson was first licensed as a ham only about 10 years ago, but he says the professional hardware he worked with daily scratched the itch until he could gain amateur privileges. Erickson enjoys homebrewing gear, learning from the foundations of vintage equipment, and using amateur radio in the scientific space. "An intense interest to me that crosses the boundary of what I do professionally and what I do as a radio amateur is what's happening with the HamSCI Collective... Can you use the observations that are already being made in the process of conducting the hobby and extract information from them? It turns out you can -- there's a lot of ionospheric information buried in there," he said.

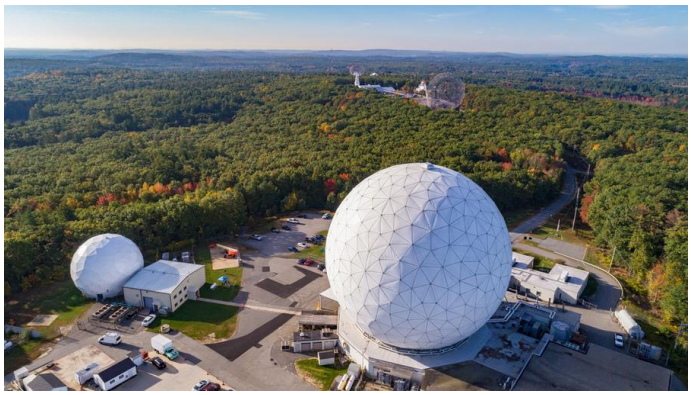
The mission of the Haystack Observatory is to develop technology for radio science applications, to study the structure of our galaxy and the larger universe, to advance scientific knowledge of our planet and its space environment, and to contribute to the education of future scientists and engineers, according to MIT. The facility is home to research projects that span spectrum from VLF to 388 GHz.

"We are almost a completely radio and radar observatory... We have a geospace group, which is most-closely associated with ARRL type ideas: the dynamics of the ionosphere and neutral part of the atmosphere, all the way out into near-Earth space. We are an observational group, so we use a bunch of different tools -- radars, radios, sometimes data from satellites, and mostly data from ground-based observations."

Erickson enjoys explaining to the uninitiated that amateur radio is not only still an active hobby, but that it is an important space for discovery. "You learn a lot about many different aspects of technical and science work [in ham radio]," he said.

While his day job keeps him on the edge of radio technology, Erickson is glad to see amateur radio is keeping pace. He says the coding of WSJT-X digital weak-signal modes such as FT8 and WSPR created by Dr. Joe Taylor, K1JT, are more advanced than most hams realize.

"If you were to go to an electrical engineering class, that's what you would see as the edge of how to pack information into a very small bandwidth. I enjoy pointing that out to people and getting them to understand that this other modulation mode is just one of the other palettes that are available."

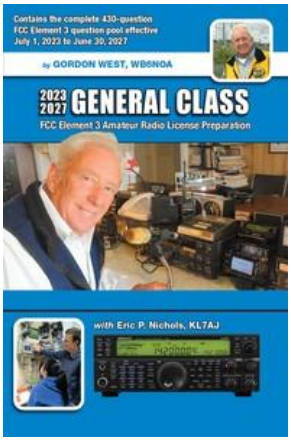


The MIT Haystack Observatory in Westford, Massachusetts. [Mark Derome, photo]

ARRL is New Publisher of Gordon West, WB6NOA

ARRL is the new publisher of the Amateur Radio License Preparation books and related resources authored by Gordon West, WB6NOA.

Gordon West's popular books, classes, and audio courses have been a mainstay of amateur radio licensing for over 40 years. Generations of hams have learned from 'Gordo', and now the impact of his knowledge and experience will continue with the reach and resources of ARRL.



General Class FCC Element 3 Amateur Radio License Preparation, 11th Edition 2023-2027, by Gordon West, WB6NOA, will be available soon from ARRL and ARRL publication dealers.

Current editions of Gordon West's popular license prep books will be available from ARRL and ARRL publication dealers soon. Look for the category "Gordon West License Prep" in the ARRL e-store.

The books, including future editions, will continue to be authored by Gordon West with Technical Editor Eric P. Nichols, KL7AJ. Nichols is a regular contributor to ARRL publications and has written several ARRL books. He has collaborated on the Gordon West books since 2013.

Gordon West Named ARRL National Instructor

ARRL Education and Learning Manager Steve Goodgame, K5ATA, has also announced that Gordon West has been named ARRL National Instructor.

Gordon West, WB6NOA.

Goodgame leads ARRL programs that benefit amateur radio volunteer instructors and professional educators. "Gordon West will serve as the ambassador for the new ARRL National Instructor Program," said Goodgame. "The program will place greater emphasis on connecting prospective hams with opportunities to find ARRL Affiliated Radio Clubs, classes, and exams. The National Instructor Program will also support ARRL volunteer instructors with new resources for teaching amateur radio courses and for developing licensees."

Read more about this exciting collaboration on ARRL News.

Download the press release here (PDF) and visit www.arrl.org/gordon-west for more information.

Amateur Radio Club Donation Helps Mississippi Library

The Jackson Amateur Radio Club (JARC) has donated two complete sets of ARRL books and posters on the information in amateur radio, valued at $2,000,

to the Madison County Library System (MCLS) in Canton, Mississippi.

"These book titles represent the brain trust of what we know about amateur radio today. We hope they will plant the seed and sow the future for radio-based technology in Madison County," said Frank Howell, K4FMH, an Assistant Director for the ARRL Delta Division. "The books, published by ARRL, include topics on basic electronics, antenna building, [and] rules and regulations, and [include] amateur radio license study guides."

MCLS Director Tammie Terry was excited about the donation. "The Jackson Amateur Radio Club and ARRL have been highly supportive of helping us with our science and technology emphasis throughout our library system," she said. "This large donation will help us get these reading materials to the patrons who will most certainly benefit from them for a long time."

JARC President Jim Armstrong, AK5J, said they hope to continue making donations. "We have worked out a formal partnership between our club and the Madison County Library System. With assistance from ARRL, we are making our first donation of material, equipment, and STEM-oriented programming to the Madison County's libraries. Our intent is to make this support an ongoing [club project]."

JARC will also be holding periodic events at various Madison County library locations this year. With the slogan, Saturday Morning Amateur Radio Time (SMART), the club is offering a public program at the Rebecca Baine Rigby Library entitled, "Amateur Radio: Do They Still Do That?" on March 2, 2024. A follow-up SMART event with a live on-air operation is planned for May.

From left to right: JARC President Jim Armstrong, AK5J; MCLS Assistant Director/System Administrator Ray Myers; MCLS Technology Training Specialist Tamra Bates; MCLS Director Tammie Terry, and ARRL Delta Division Assistant Director Frank Howell, K4FMH. [Photo courtesy of Frank Howell, K4FMH]

ARRL Delta Division Director David Norris, K5UZ, has promoted the Plant-the-Seed Initiative. "We have been very enthusiastic about the concept and program that our Assistant Director, Frank Howell, has created. This partnership concept is being promoted nationwide." Norris added, "The MCLS is the national leader now in using community resources, like area ham radio clubs, to extend their technology-based outreach and leverage the public dollars invested in the local library system."

Georgia State Parks on the Air 2024

The second annual Georgia State Parks on the Air will be held April 6 - 7, 2024. ARRL member and event coordinator Claude Ray, AC4SH, said that the first event was a success and that participants insisted on having another one.

"For both activators and hunters, the event went far beyond our expectations. Of the 50 listed parks, 48 were activated, with 109 activators making nearly 20,000 contacts with over 4,000 hunters," said Ray. He added that the 2024 event promises to be even better, with the addition of two new Georgia parks and, based on feedback from participants, the rules have been tweaked to add new opportunities receiving awards.

There are now separate classes for rovers and single-park activators, as well as a new category for QRP activators. There are also new bonuses available, not only for past winners but also for first-time activators and those who contact the two newly added locations. A new hike-in bonus has been added for operators who carry their gear more than a mile into the park and activate from there. Ray said the basic purpose of the event remains the same. "The objective is to encourage ham radio operators to visit Georgia state parks and experience the fun of Parks on the Air activations. This is a fun contest only. The rules are minimal, the scoring is simple, and the main award is simply the fun of getting on the air."

The contest period begins at 8:00 AM EDT on April 6, and ends at 7:59 PM EDT on April 7. Operating hours are subject to park rules and times. Every station participating in the event and registering will, upon request, receive a certificate of participation. The top finishers in each category will also receive an award certificate.

Further information and event rules are available at https://gaparks.org.

Radio Help Wanted: Must Like Geysers, Bison, and Helicopter Rides

Occasionally, The ARRL Letter shares job postings that may be of interest to radio amateurs, and this one may be the most scenic job yet -- Yellowstone National Park is looking for three radio technicians, according to posts on the park's social media and a listing on the USAJobs website.

The job listing says that the electronics technician (radio) positions are "located in Yellowstone National Park, in the Technology Services Radio Shop within the Administrative Division." There's even a provision for hazard-duty pay for mountaintop repeater helicopter flights and tower climbing.

On Facebook, the park has some fun with their post: "Does your idea of taking your career to new heights involve flying in a helicopter to 10,000 foot peaks? How about hiking, snowmobiling, and even skiing your way to telecom sites? Well... do we have the job for you! We are hiring not one, but 3... yes THREE, Electronic Radio Technicians," it says.

The lucky three who are hired for these positions will have their work cut out for them; the system has eight repeaters, more than 20 base stations, and 500 mobile and 1,000 portable radios -- all in a national park with 500 geysers and 5,900 American bison.

A radio technician works on a tower in scenic terrain in this photo from the job posting. [Photo courtesy of Yellowstone National Park.]

ARRL Responds to FCC Proposals

ARRL responded (PDF) to the Federal Communications Commission's (FCC) request for comments on removing the symbol (baud) rate restrictions that apply to data communications on the LF bands and the VHF and UHF bands below 450 MHz. The FCC also requested comments on the bandwidth limits applicable to those bands.

The FCC's action follows their 2023 decision to remove the symbol (baud) rate limits on the 160- to 10-meter amateur bands. Those limits were replaced with a 2.8 kHz bandwidth limit, a move ARRL had long advocated for.

The FCC's Further Notice of Proposed Rulemaking sought comments on updating the other amateur bands on which its symbol (baud) rate limits continue to throttle faster data rates. The subject bands are the LF bands (2200 and 630 meters) and the VHF and UHF bands below 450 MHz. In its comments, ARRL strongly agreed with the FCC's proposal to remove the symbol (baud) rate limits on the remaining bands.

Read more about ARRL's comments on ARRL News.

The public period for reply comments remains open until January 22, 2024. An ARRL guide to filing comments is at: https://www.arrl.org/arrl-guide-to-filing-comments-with-fcc

2024 Orlando HamCation Awards

The HamCation® Awards committee has announced the 2024 Orlando HamCation recipients of the Carole Perry Educator of the Year and the Gordon West Ambassador of the Year awards. Both awards will be presented at the 2024 Orlando HamCation, which is hosting this year's ARRL Florida State Convention, on February 9 - 11, 2024.

Lewis Malchick, N2RQ. [Photo courtesy of Michael Cauley, W4ORL]

Lewis Malchick, N2RQ, is the recipient of this year's Carole Perry Educator of the Year Award. Malchick holds an Amateur Extra-class license and is co-founder of the ARRL School Club Roundup, of which he's been active with for more than 25 years. He formerly taught chemistry at the Brooklyn Tech High School, where he's an advisor to the school's Amateur Radio and Wireless Tech Club, W2CXN. Malchick is the trustee for the Stuyvesant High School Amateur Radio Club, W2CLE, the chairperson of the Long Island Mobile Amateur Radio Club (LIMARC) Education Committee and has participated in five ARISS contacts. He's spent his lifetime educating children and adults about amateur radio.

The Carole Perry Educator of the Year Award was first awarded at the 2019 HamCation to its namesake, Carole Perry, WB2MGP, in honor of her work as an educator and teaching students about ham radio. It is given annually to individuals who've made outstanding contributions to educating and advancing youth in amateur radio.

Anita, AB1QB, and Fred Kemmerer, AB1OC. [Photo courtesy of Michael Cauley, W4ORL]

The 2024 Gordon West Ambassador of the Year Award winners are Fred, AB1OC, and Anita Kemmerer, AB1QB. The Kemmerer's hold Amateur Extra-class licenses and are active in the Nashua Area Radio Society promoting amateur radio instruction, youth outreach, and STEM education. Together, they've created and helped grow Ham Bootcamp, a program encouraging more than 900 hams to learn new skills. They're active in

the club's training and licensing events, along with Tech Night, which complements club meetings. Their participation in STEM activities includes high-altitude balloon launches, foxhunts, and ARISS contacts for many schools.

Fred Kemmerer is the ARRL New England Division Director, and he chairs and contributes to several subcommittees. Anita Kemmerer serves the Division as an Assistant Director for mentoring and new ham development.

The Gordon West Ambassador of the Award was first awarded the 2023 HamCation, in honor of West's contributions and inspiration to the amateur radio community. It's given to individuals who represent and inspire others and who embody the amateur radio spirit by making outstanding contributions to the amateur radio community.

HamCation has been sponsored by the Orlando Amateur Radio Club, W4PLB, since 1946, and is held annually on the second weekend of February.

ARRL Kids Day a Success in Nebraska

The Bellevue Amateur Radio Club and the Science Club at Yates Illuminates teamed up to offer the youth in Omaha, Nebraska, with an opportunity to get on the air for ARRL Kids Day.

The event occurred on Saturday, January 6, 2024, at Yates Illuminates, a former elementary school that is now a culture and community center. Amateur radio operators Dudley Allen, KD0NMD; Terry Gampper, N0BXQ; Frank Jozwiak, KB0EOR, and Mike Terneus, WB0BEE, served as volunteer operators and were extremely patient coaches who nurtured the kids' curiosities of talking on the radio. Dozens of youths as young as 4, as well as young-at-heart Bob Hutton, 91, used the event call sign to talk to amateur radio operators across the country and around the world.

Parents were impressed with Kids Day. One parent said, "The event organized by the Yates Illuminates Science Club was a perfect blend of education, technology, and community spirit. My kids were thrilled to delve into the world of amateur radio, thanks to the expert guidance of the Bellevue Amateur Radio Club. They learned about radio technology and how to contact other young radio enthusiasts across the country. This hands-on experience in communication technology was not only fun but also incredibly educational."

The final highlight of the day came as each child received their certificate of completion. Africa, Asia, Europe, and North America were all represented as the country of birth or the original nationality of the youth participants, and they talked with amateurs as far away as England and Canada.

ARRL Kids Day is already planned for next year, and the Yates Illuminates Science Club will continue to help youth learn the basics of electrical circuits, electronics, and radio propagation, as well as how to make homebrew antennas. Foxhunts, the integration of a course in radio, and other applied scientific learning opportunities (such as wildlife tracking and rescuing, aviation and space research, and communications) are also planned.

All photos courtesy Bellevue Amateur Radio Club.

More stories and photos of ARRL Kids Day can be found on the ARRL Contest Soapbox.

Winter Field Day 2024

Winter Field Day (WFD), sponsored by the Winter Field Day Association, is scheduled to run from 1900 UTC on Saturday, January 27, through 1859 UTC on Sunday, January 28.

WFD is held on the last full weekend in January and is a communications exercise that can be worked from the comfort of your home or in a remote location. You can participate by yourself, with your friends and family, or with a local club.

WFD is open to participants worldwide. Amateur radio operators may use frequencies on the HF, VHF, or UHF bands and are free to use any mode that can faithfully transmit the required exchange intact. Similar to ARRL's Field Day, bonus points are earned in several ways, including from using non-commercial power sources, operating from remote locations, making satellite contacts, and more.

WFD is designed to help increase your level of preparedness for disasters and for you to improve and practice your operating skills in winter environments, as the potential for freezing temperatures, snow, ice, and other hazards present unique operating conditions.

Also, remember to mark your calendar for 2024 ARRL Field Day on June 22 - 23. For additional information, visit Field Day (arrl.org).

"Marty on the Mountain" Engstrom, N1ARY (SK)

Avid radio amateur, Marty Engstrom, N1ARY, of Fryeburg, Maine, has become a Silent Key. He died on January 4. Generations of New England television viewers may know him as Marty on the Mountain from his weather reports on camera for WMTW-TV from the station's transmitter site on Mount Washington in Gorham, New Hampshire.

Engstrom was known to quip that he was not intentionally in the weather business: "I'm a TV engineer, not a meteorologist!," he would say. Engstrom served the viewers of New England for 38 years.

He began at the station in the mid-1960s, after a career in the United States Air Force, according to a memorial on the WMTW website. He retired in 2002.

Marty Engstrom, N1ARY, (SK), was well known to generations of television viewers in New England for his weather reports from Mount Washington as "Marty on the Mountain." [Marty Engstrom/Facebook, photo]

In 2003, Engstrom released his autobiography, Marty on the Mountain: 38 Years on Mt. Washington, in which he discussed his passion for amateur radio.

As a well-known radio amateur in his area and beyond, Engstrom's voice was easily recognizable. According to Bill Mann, W1KX, "You could recognize his heavy Maine accent before he even identified."

According to those who knew him, Engstrom frequently served his community through amateur radio. After a major ice storm in 1998, hams in Oxford County, Maine, banded together to form an emergency communications group. "Marty's low-key approach to various situations, even the more stressful ones, helped the group stay focused. His wealth of knowledge of transmitters and antennas certainly was a tremendous benefit to the less experienced hams," said Wayne Strout, N1YIS. "Marty actively worked as a member of our group with drills and training for both CERT and ARES."

Engstrom served for some time as the treasurer of the Yankee Amateur Radio Club and had been a longtime ARRL member at the time of his passing. He was 86 years old.

Friday: Teenage Hams on TODAY Show

Tomorrow morning, January 5, 2024, a story about the Harbor Creek High School students making amateur radio contact with astronauts on the International Space Station is expected to air on NBC's TODAY, according to a promotion for the segment that aired on Thursday's broadcast.

Journalist Harry Smith and a crew from the top-rated national morning show traveled to Harborcreek, Pennsylvania for the December 11, 2023 Amateur Radio on the International Space Station (ARISS) contact. As ARRL News reported at the time, the program at the school is a success story of the ARRL Teachers Institute on Wireless Technology.

ARRL has worked with NBC producers to provide additional footage to support the story.

A still frame from the Thursday, January 4, 2024 broadcast of TODAY on NBC, promoting a story about teenage ham radio operators contacting astronauts on the International Space Station through ARISS. According to the broadcast, the segment is planned to run on Friday, January 5, 2023. Check your local listings. [Image: NBC Universal]

HamSCI 2024 Workshop

Ham Radio Science Citizen Investigation (HamSCI) will hold its sixth annual workshop on March 22 - 23, 2024, at Case Western Reserve University in Cleveland, Ohio. The event is meant to bring together the amateur radio community and professional scientists.

The 2024 workshop's theme will be "Alignments" - specifically those between the Sun, Moon, and Earth; collegiate amateur radio recreation and science, technology, engineering, and math (STEM) curricula; data collection and analysis, and professional and citizen science. Workshop participants will prepare for the solar eclipse taking place on April 8, 2024, which will be seen in totality from Cleveland.

HamSCI's main interest is using amateur radio for the characterization and study of ionospheric phenomena like traveling ionospheric disturbances, sporadic E, solar flares, geomagnetic storms, the 2024 total solar eclipse, and other space weather events. To facilitate this science, continued development of the HamSCI Personal Space Weather Station and discussion about integrating

amateur radio into the collegiate curriculum will also take place during the workshop.

Registration is now open, and the deadline is March 1, 2024. HamSCI is also accepting presentations relating to amateur radio and science -- particularly space and atmospheric science, space weather, and radio astronomy -- that analyze the ionosphere, propose ideas for the Personal Space Weather Station, and discuss the 2024 eclipse.

Presentations should be the form of talks, posters, lightning talks, and demonstrations. The Science Program Committee will be accepting abstracts and presentations.

If you would like to present, please submit your abstract by February 10, 2024. Presenters will be notified about their acceptance by March 1, 2024. Questions about abstracts should be emailed to Nathaniel Frissell, W2NAF, at hamsci@hamsci.org.

For registration and additional information about the event, visit HamSCI Workshop 2024 | HamSCI.

ARRL Podcasts Schedule

Maintaining a "junk box" -- a collection of odds and ends that can be used in future projects and repairs -- is a time-honored practice among hams. Every ham radio junk box has to start somewhere, though, and the cover story of the January/February 2024 issue of On the Air, "A Fine Mess: Starting Your Junk Box," by Eric P. Nichols, KL7AJ, offers advice about how to do just that. The January 2024 episode of the On the Air podcast digs deeper by going on location to the workshop of W1AW, ARRL's Hiram Percy Maxim Memorial Station. Station Manager Joe Carcia, NJ1Q, welcomes us into this working space to show us some real-life junk boxes and discuss how they come in handy.

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.

"Radio pioneers: the enduring role of 'amateurs' in radio astronomy" / Physics World (United Kingdom) January 23, 2024 -- Podcast with astrophysicist Emma Chapman about the history of radio astronomy.

"NC homeowners tell legislators: We need more protections from unscrupulous HOAs" / The Charlotte Observer (North Carolina) January 11, 2024 -- Marvin Hoffman, WA4NC, is the Section Manager of the ARRL North Carolina Section.

"Fort Myers Amateur Radio Club to host Hamfest Jan. 19-20 at FSW" / Lehigh Acres Citizen (Florida) January 12, 2024 -- The Fort Myers Amateur Radio Club is an ARRL Affiliated Club.

"Radio to the rescue" / Midland Express (Australia) January 16, 2024 -- Tony Falla, VK3KKP, amateur radio operator from the Bendigo Amateur Radio and Electronics Club.

"The Bosque Amateur Radio Club is connecting with people in Ukraine. Here's how." / Albuquerque Journal (New Mexico) January 18, 2024 -- The Bosque Amateur Radio Club.

"Local organizations host nationwide Kids Day on the air radio event" / KETV (Nebraska) January 6, 2024 -- The Bellevue Amateur Radio Club is an ARRL Affiliated Club.

"Radio club holds annual dinner meeting" / The Times-Gazette (Ohio) January 2, 2024 --The Highland Amateur Radio Association is an ARRL Affiliated Club.

"Nine TVCC Students Receive their Radio Technician License" / Athens Daily Review (Texas) December 29, 2023 -Trinity Valley Community College.

"Teen Radio Program on Amateur Radio (Spanish)" / WIPR-AM (Puerto Rico) January 2, 2024.

Arrl.org. 2023. ARRL Letter. [online] Available at: http://www.arrl.org/arrlletter?issue=current [Accessed 01 Jan 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/?

NARS Monthly Club Meeting

January's Annual Banquet

In January, NARS held its annual banquet at Valley Ranch BBQ (at the corner of SH 249 and Spring Cypress). The event brought together around 30 club members, fostering a sense of camaraderie and celebrating the shared dedication to the world of amateur radio. The evening was not only a feast for the senses with the delectable barbecue but also a moment to acknowledge the outstanding efforts of our club members over the past year. It was a pleasure to introduce the esteemed leaders who will guide our club in 2024, promising another year of growth and success.

The evening ended with the announcement of the HAM of the Year, a recognition voted on by club members and chosen by the recipient's peers. We extend our heartfelt congratulations to Robert Ewers, K9HOU!

We express our gratitude to all who attended, making the evening a memorable celebration of our shared passion for ham radio.

Next Club Meeting

Our next club meeting will be the annual banquet on February 16th 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.

NARS Announces a Dues Increase

NARS has made the difficult decision to increase its annual membership dues for the first time in its history. While this was a difficult choice for the Board, it has become necessary to sustain the provision of our numerous services to the community. Over the years, prices on goods and services have risen, and we have faced these increases while maintaining our membership fees, despite enhancing our repeater system and other services to our members.

Effective January 2024, the dues will increase by $5.00 across the board. The new dues structure will be as follows:

- Individual Membership $25.00
- Family Membership $30.00
- Student Membership $17.50

We will continue to offer new licensees a $5.00 discount upon their initial sign-up.

Members who need to renew their membership before January 1 will pay the current dues, while those renewing after January 1 will see the increase. Membership terms run for one year from the day of joining, so many members will not experience the increase until sometime next year.

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.

The Ham Radio Lexicon

Ham radio enthusiasts have cultivated a rich tapestry of jargon, a lexicon that not only facilitates effective communication but also serves as a distinctive hallmark of the hobby. This jargon may be difficult for beginner operators to understand, but even experienced operators may not know some of it. Below you will find some well-known and no-so-well-known terms that can be used on the airwaves. Each of these terms and definitions can be found on ARRL’s Ham Radio Glossary. Visit the glossary to see the full list! How many do you know?

73

Ham lingo for "best regards." Used on both phone and CW toward the end of a contact.

The first authentic use of 73 is in the publication The National Telegraph Review and Operators' Guide, first published in April 1857. At that time, 73 meant "My love to you!"

In the National Telegraph Convention, the numeral was changed to a friendly "word" between operators.

In 1859, the Western Union Company set up the standard "92 Code." A list of numerals from one to 92 was compiled to indicate a series of prepared phrases for use by the operators on the wires. Here, in the 92 Code, 73 changes to "accept my compliments," which was in keeping with the florid language of that era.

Over the years from 1859 to 1900, the many manuals of telegraphy show variations of this meaning. Dodge's The Telegraph Instructor shows it merely as "compliments." The Twentieth Century Manual of Railway and Commercial Telegraphy defines it two ways, one listing as "my compliments to you;" but in the glossary of abbreviations it is merely "compliments." Theodore A. Edison's Telegraphy Self-Taught shows a return to "accept my compliments." By 1908, however, a later edition of the Dodge Manual gives us today's definition of "best regards" with a backward look at the older meaning in another part of the work where it also lists it as "compliments."

"Best regards" has remained ever since as the "put-it-down-in-black-and-white" meaning of 73 but it has acquired overtones of much warmer meaning. Today, amateurs use it more in the manner that James Reid had intended that it be used --a "friendly word between operators."

Amplitude modulation (AM)

A method of combining an information signal and an RF (radio-frequency) carrier. In double-sideband voice AM transmission, we use the voice information to vary (modulate) the amplitude of an RF carrier. Shortwave broadcast stations use this type of AM, as do stations in the Standard Broadcast Band (535-1710 kHz). Few amateurs use double-sideband voice AM, but a variation, known as single sideband, is very popular.

Antenna

A device that picks up or sends out radio frequency energy.

Antenna switch

A switch used to connect one transmitter, receiver or transceiver to several different antennas.

Antenna tuner

A device that matches the antenna system input impedance to the transmitter, receiver or transceiver output impedance. Also called an antenna-matching network, impedance-matching network or Transmatch.

Autopatch

A device that allows repeater users to make telephone calls through a repeater.

Beacon station

An amateur station transmitting communications for the purposes of observation of propagation and reception or other related experimental activities.

Beam antenna

A directional antenna. A beam antenna must be rotated to provide coverage in different directions.

Beat-frequency oscillator (BFO)

A receiver circuit that provides a signal to the detector. The BFO signal mixes with the incoming signal to produce an audio tone for CW reception. A BFO is needed to copy CW and SSB signals.

Chirp

A slight shift in transmitter frequency each time you key the transmitter

Continuous wave (CW)

Morse code telegraphy.

Courtesy tone

A tone or beep transmitted by a repeater to indicate that it is okay for the next station to begin transmitting. The courtesy tone is designed to allow a pause between transmissions on a repeater, so other stations can call. It also indicates that the time-out timer has been reset.

D region

The lowest region of the ionosphere. The D region contributes very little to short-wave radio propagation. It acts mainly to absorb energy from radio waves as they pass through it. This absorption has a significant effect on signals below about 7.5 MHz during daylight.

Duplexer

A device that allows a dual-band radio to use a single dual-band antenna.

Duty cycle

A measure of the amount of time a transmitter is operating at full output power during a single transmission. A lower duty cycle means less RF radiation exposure for the same PEP output.

E region

The second lowest ionospheric region, the E region exists only during the day. Under certain conditions, it may refract radio waves enough to return them to Earth.

Earth-Moon-Earth (EME) or Moonbounce

A method of communicating with other stations by reflecting radio signals off the Moon's surface.

F region

A combination of the two highest ionospheric regions, the F1 and F2 regions. The F region refracts radio waves and returns them to Earth. Its height varies greatly depending on the time of day, season of the year and amount of sunspot activity.

False or deceptive signals

Transmissions that are intended to mislead or confuse those who may receive the transmissions. For example, distress calls transmitted when there is no actual emergency are false or deceptive signals.

Front-end overload

Interference to a receiver caused by a strong signal that overpowers the receiver RF amplifier ("front end"). See also receiver overload.

Ground-wave propagation

The method by which radio waves travel along the Earth's surface.

Intermediate frequency (IF)

The output frequency of a mixing stage in a superheterodyne receiver. The subsequent stages in the receiver are tuned for maximum efficiency at the IF.

Ionizing radiation

Electromagnetic radiation that has sufficient energy to knock electrons free from their atoms, producing positive and negative ions. X-rays, gamma rays and ultraviolet radiation are examples of ionizing radiation.

Limiter

A stage of an FM receiver that makes the receiver less sensitive to amplitude variations and pulse noise.

Maximum useable frequency (MUF)

The highest-frequency radio signal that will reach a particular destination using sky-wave propagation, or skip. The MUF may vary for radio signals sent to different destinations.

Modulation

The process of varying an RF carrier in some way (the amplitude or the frequency, for example) to add an information signal to be transmitted.

Nonionizing radiation

Electromagnetic radiation that does not have sufficient energy to knock electrons free from their atoms. Radio frequency (RF) radiation is nonionizing.

Offset

The 300 to 1000-Hz difference in CW transmitting and receiving frequencies in a transceiver. For a repeater, offset refers to the difference between its transmitting and receiving frequencies.

Packet radio

A system of digital communication whereby information is broken into short bursts. The bursts ("packets") also contain addressing and error-detection information.

Peak envelope power (PEP)

The average power of a signal at its largest amplitude peak.

Pecuniary

Payment of any type, whether money or other goods. Amateurs may not operate their stations in return for any type of payment.

PL

(Also known as CTCSS - Continuous Tone-Coded Squelch System) A sub-audible tone system used on some repeaters. When added to a carrier, a CTCSS tone allows a receiver to accept a signal.

Procedural signal (prosign)

One or two letters sent as a single character. Amateurs use prosigns in CW contacts as a short way to indicate the operator's intention. Some examples are K for "Go Ahead," or AR for "End of Message." (The bar over the letters indicates that we send the prosign as one character.)

Q signals

Three-letter symbols beginning with Q. Used on CW to save time and to improve communication. Some examples are QRS (send slower), QTH (location), QSO (ham conversation) and QSL (acknowledgment of receipt).

Radio Amateur Civil Emergency Service (RACES)

A part of the Amateur Service that provides radio communications for civil preparedness organizations during local, regional or national civil emergencies.

Radioteletype (RTTY)

Radio signals sent from one teleprinter machine to another machine. Anything that one operator types on his teleprinter will be printed on the other machine. Also known as narrow-band direct-printing telegraphy.

Receiver overload

Interference to a receiver caused by a strong RF signal that forces its way into the equipment. A signal that overloads the receiver RF amplifier (front end) causes front-end overload. Receiver overload is sometimes called RF overload.

RST

A system of numbers used for signal reports: R is readability, S is strength and T is tone. (On single-sideband phone, only R and S reports are used.)

Silent Key

SK. Euphemism for a deceased Amateur Radio operator. In the Western Union company's "92 code" used even before the American Civil War, the number 30 meant "the end. No

Common amateur radio Q Signals can be found in the table below.

Code	Question	Answer or statement
QRA	What is the name (or call sign) of your station?	The name (or call sign) of my station is ____
QRG	Will you tell me my exact frequency (or that of ____)?	Your exact frequency (or that of ____) is ____ kHz (or MHz).
QRH	Does my frequency vary?	Your frequency varies.
QRI	How is the tone of my transmission?	The tone of your transmission is (1. Good; 2. Variable; 3. Bad)
QRJ	How many voice contacts do you want to make?	I want to make ____ voice contacts.
QRK	What is the readability of my signals (or those of ____)?	The readability of your signals (or those of ____) is ____ (1 to 5).
QRL	Are you busy?	I am busy (in contact with ____). Please do not interfere.
QRM	Do you have interference?	I have interference.
QRN	Are you troubled by static?	I am troubled by static.
QRO	Shall I increase power?	Increase power.
QRP	Shall I decrease power?	Decrease power.
QRQ	Shall I send faster?	Send faster (____ wpm).
QRS	Shall I send more slowly?	Send more slowly (____ wpm).
QRT	Shall I cease or suspend operation? / shutoff the radio?	I am suspending operation / shutting off the radio.
QRU	Have you anything for me?	I have ____ messages for you.
QRV	Are you ready?	I am ready.
QRW	Shall I inform ____ that you are calling (him) on ____ kHz (or MHz)?	Please inform ____ that I am calling (him) on ____ kHz (or MHz).
QRX	Shall I standby? / When will you call me again?	Please standby / I will call you again at ____ (hours) on ____ kHz (or MHz)
QRZ	Who is calling me?	You are being called by ____ on ____ kHz (or MHz)
QSA	What is the strength of my signals (or those of ____)?	The strength of your signals (or those of ____) is ____ (1 to 5).
QSB	Are my signals fading?	Your signals are fading.
QSD	Is my keying defective?	Your keying is defective.
QSG	Shall I send ____ telegrams (messages) at a time?	Send ____ telegrams (messages) at a time.
QSK	Can you hear me between your signals?	I can hear you between my signals.
QSL	Can you acknowledge receipt?	I will acknowledge receipt.
QSM	Shall I repeat the last telegram (message) which I sent you, or some previous telegram (message)?	Repeat the last telegram (message) which you sent me (or telegram(s) / message(s) numbers(s) ____).
QSN	Did you hear me (or ____ (call sign)) on ____ kHz (or MHz)?	I did hear you (or ____ (call sign)) on ____ kHz (or MHz).
QSO	Can you communicate with ____ direct or by relay?	I can communicate with ____ direct (or by relay through ____).
QSP	Will you relay a message to ____ ?	I will relay a message to ____ .
QSR	Do you want me to repeat my call?	Please repeat your call; I did not hear you.
QSS	What working frequency will you use?	I will use the working frequency ____ kHz (or MHz).
QST	Should I repeat the prior message to all amateurs I contact?	Here follows a broadcast message to all amateurs.
QSU	Shall I send or reply on this frequency (or on ____ kHz (or MHz))?	Send or reply on this frequency (or on ____ kHz (or MHz)).
QSW	Will you send on this frequency (or on ____ kHz (or MHz))?	I am going to send on this frequency (or on ____ kHz (or MHz)).
QSX	Will you listen to ____ (call sign(s) on ____ kHz (or MHz))?	I am listening to ____ (call sign(s) on ____ kHz (or MHz))
QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency (or on ____ kHz (or MHz)).
QSZ	Shall I send each word or group more than once?	Send each word or group twice (or ____ times).
QTA	Shall I cancel telegram (message) number ____ as if it had not been sent?	Cancel telegram (message) number ____ as if it had not been sent.
QTC	How many telegrams (messages) have you to send?	I have ____ telegrams (messages) for you (or for ____).
QTH	What is your position in latitude and longitude? (or according to any other indication)	My position is ____ latitude ____ longitude.
QTR	What is the correct time?	The correct time is ____ hours UTC.
QTU	At what times are you operating?	I am operating from ____ to ____ hours.
QTX	Will you keep your station open for further communication with me until further notice (or until ____ hours)?	I will keep my station open for further communication with you until further notice (or until ____ hours).
QUA	Have you news of ____ (call sign)?	Here is news of ____ (call sign).
QUC	What is the number (or other indication) of the last message you received from me (or from ____ (call sign))?	The number (or other indication) of the last message I received from you (or from ____ (call sign)) is ____.
QUD	Have you received the urgency signal sent by ____ (call sign of mobile station)?	I have received the urgency signal sent by ____ (call sign of mobile station) at ____ hours.
QUE	Can you speak in ____ (language) – with interpreter if necessary – if so, on what frequencies?	I can speak in ____ (language) on ____ kHz (or MHz).
QUF	Have you received the distress signal sent by ____ (call sign of mobile station)?	I have received the distress signal sent by ____ (call sign of mobile station) at ____ hours.

more." It also meant "good night." In Landline Morse, 30 is sent dididdahdit daaah, the zero being a long dash. Run the 30 together and it has the same sound as SK.

Skip zone

An area of poor radio communication, too distant for ground waves and too close for sky waves.

Sky-wave propagation

The method by which radio waves travel through the ionosphere and back to Earth. Sometimes called skip, sky-wave propagation has a far greater range than line-of-sight and ground-wave propagation.

Splatter

A type of interference to stations on nearby frequencies. Splatter occurs when a transmitter is overmodulated.

Tactical call signs

Names used to identify a location or function during local emergency communications.

Third-party communications

Messages passed from one amateur to another on behalf of a third person.

Third-party participation

The way an unlicensed person can participate in amateur communications. A control operator must ensure compliance with FCC rules.

Tropospheric bending

When radio waves are bent in the troposphere, they return to Earth farther away than the visible horizon.

Tropospheric ducting

A type of VHF propagation that can occur when warm air overruns cold air (a temperature inversion).

Unbalanced line

Feed line with one conductor at ground potential, such as coaxial cable.

Uncontrolled environment

Any area in which an RF signal may cause radiation exposure to people who may not be aware of the radiated electric and magnetic fields. The FCC generally considers members of the general public and an amateur's neighbors to be in an uncontrolled RF radiation exposure environment to determine the maximum permissible exposure levels.

Variable-frequency oscillator (VFO)

An oscillator used in receivers and transmitters. The frequency is set by a tuned circuit using capacitors and inductors. The frequency can be changed by adjusting the components in the tuned circuit.

NARS Membership – Due Dates and More

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!

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

The National Conference of Volunteer Examiner Coordinators (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

VE Sessions and Results

PROVIDED BY SHEREE HORTON, WM5N

Attendees

On Saturday, January 20, 2024, a VE Test Session was held at HCESD 16 Admin, 18606 Stuebner Airline Rd, Klein, TX 77379. During the testing session, 8 candidates took 11 tests.

Technician (Element 2)	General (Element 3)	Amateur Extra (Element 4)
3	4	2
Passed	Passed	Passed
3 Tests Given 0 Failed	6 Tests Given 2 Failed	2 Tests Given 1 Failed

Congratulations!

Congratulations to the following for passing their new license exams[1]:

- Morris W Cox – Technician
- Arthur J Scotto – Technician
- Charles (Chip) R Owen III – New General

Congratulations to the following for passing their upgrade exams:

- Andrew J Gafford KC5DJY – Upgrade to General
- Julio C Lopez KJ5DYG - Upgrade to General
- George W Moore W5GWM – Upgrade to General
- Ross Hardie W0TKO – Upgrade to Extra
- David W Indorf KC5UTA - Upgrade to Extra

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 February 10, 2024 at the HCESD 16 Admin Building. Please visit www.w5nc.club for the announcement.

[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:

- Michael Robinson KI0DE – Acting Session Manager
- Paul Owen N5NXS
- Synomen Hebert KG5IRS
- Bret Hebert KG5IQU
- Brandy Lang WE9L
- Dale Schmirler KN5DS

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 or vec@w5nc.net

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.

Renewing Club Members

New Club Members

Welcome to the following new members of NARS!

- Daniel Beights, KJ5DWS

Renewing Club Members

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

- Kyle Atkins, KE5SWK
- Tom Atkins, KD5EIJ
- Michael Ballesteros, WI5FI
- Samuel Barnes, NE5IE
- Bill Bierman, N5RDO
- James Blackburn, WB5AW
- Thomas Bladecki, N5PLO
- Ryan Callison, KA5K
- Jerry Davis, N5EKO
- Gary Greer, N5EXP
- Jorge Gutierrez, WK5J
- David Harnish, AD6ME
- Teresa Holmes, W5MOM
- Walter Holmes, K5WH
- Allen Majeski, WA5REJ
- David Meine, KI5MJD
- Tom Moore, N5RIV
- Michael Panico, KG5BBJ
- Robert Rude, KI5RDR
- Milton Samuels, KI5YIB
- Mark Tyler, K5GQ
- William Walker, KI5ZDD
- Clay Yeaman, K5YEA

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: T5A12 - A. Frequency
General: G4D06 - A. 6 dB
Amateur Extra: E4E04 - C. By connecting the radio's power leads directly to the battery and by installing coaxial capacitors in line with the alternator leads

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:

- 146.660 (-) PL 100.0,
- 444.375 (+) PL 100.0
- Echolink Node W5NC-R (all linked)

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 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

Calendar

Club Activities and Events

Monthly Club Meeting – February 16th - HCESD 16 Admin – 18606 Stuebner Airline Rd, Klein, TX 77379

VE Test Session – February 10, 2024 – 18606 Stuebner Airline Rd, Klein, TX 77379 - Check-in will start at 8:30am with testing lasting from 9:00am - 11:30am. 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

February 9 - 11 | Orlando Hamcation, ARRL Florida State Convention, Orlando, Florida

March 1 - 2 | Greater Houston HamFest, ARRL West Gulf Division Convention, Rosenberg, Texas

April 6 | Raleigh Hamfest, ARRL Roanoke Division Convention, Raleigh, North Carolina

May 17 - 19 | Dayton Hamvention, ARRL National Convention, Xenia, Ohio

Contests and Radiosport

ARRL Contest Corral

February 2024 - https://www.arrl.org/files/file/Contest%20Corral/2024/February%202024%20Corral.pdf

March 2024 - https://www.arrl.org/files/file/Contest%20Corral/2024/March%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 Matusek, WA6TQH, 713-825-9606, officers@w5nc.net

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

Treasurer: Tom Hoherd, KK5YU, 713-828-8630, treasurer@w5nc.net

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

Director: Rich Jones, W5VEK, 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

ARRL/VEC Liaison: Sheree Horton, WM5N

Repeater Team Lead: Mike Pate, K5MAP

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

Trustee: Paul Owen, N5NXS

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

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