



**W5NC**

Houston, Texas  
Northwest Amateur Radio Society

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# NARS NEWS

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SEPTEMBER 2023

Northwest Amateur Radio Society


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Spring, TX 77391

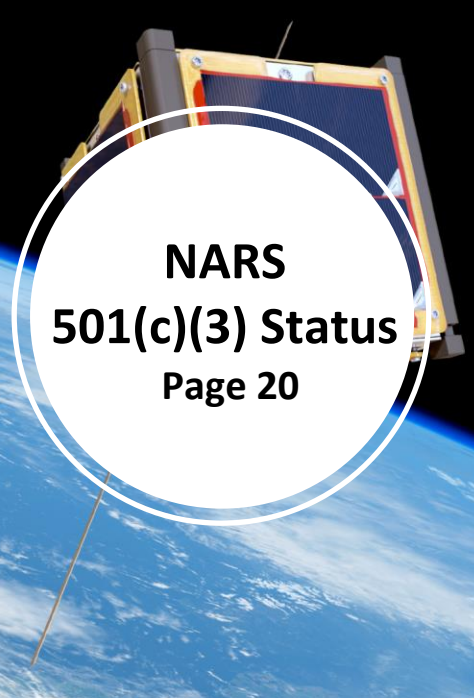
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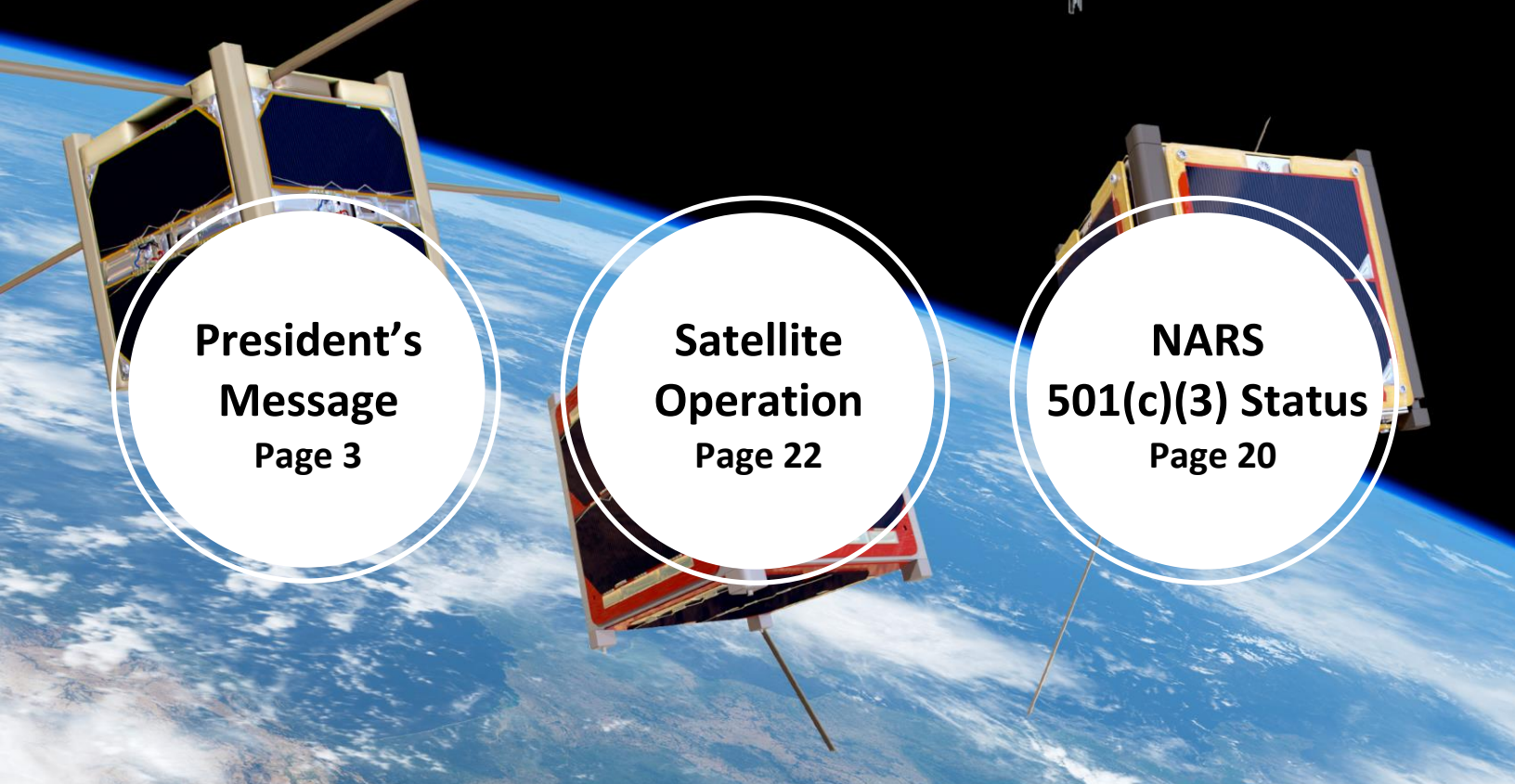
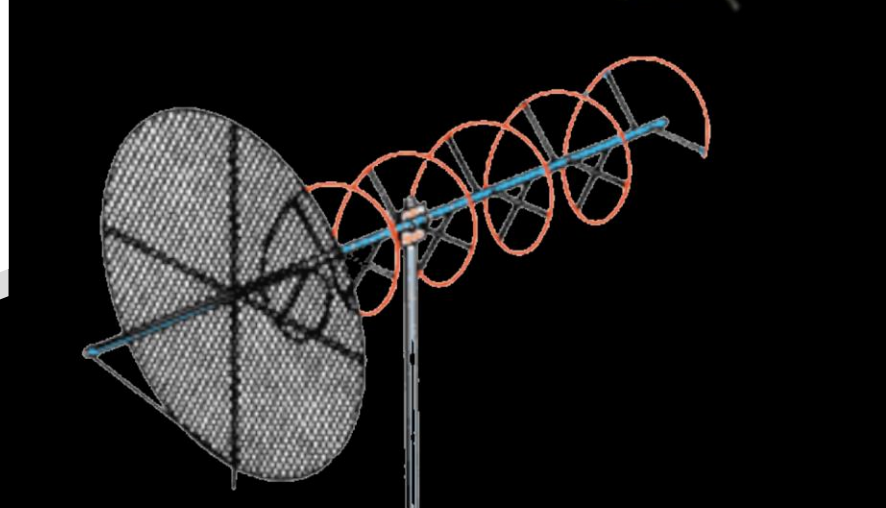
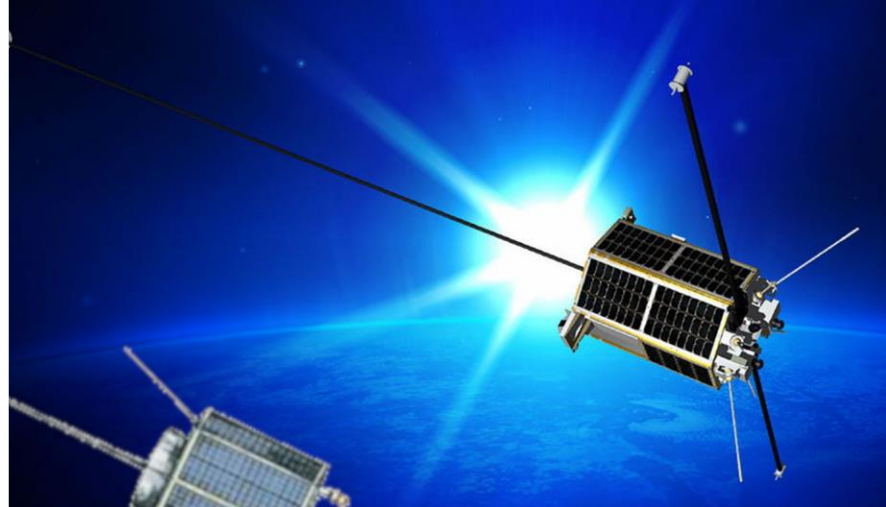
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**NARS News** is published monthly by the Northwest Amateur Radio Society (NARS). Northwest Amateur Radio Society is a Special Services Club affiliated with the American Radio Relay League, ARRL Club No. 2120.

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

It is with great pleasure that I announce that the NARS officers and board have looked to become a nonprofit organization since early this year. Our final paperwork was submitted to the Federal gov (IRS) on 27 July, and they have approved our request with a Determination Letter which we received earlier this week. The letter states we were retroactively approved back to May 15, 2023. Any donations to the club are tax-deductible on your Federal Income Tax.

One other task currently in process is to make some minor changes to the by-laws to reflect our new status.

Thanks to the membership for their continued support and patience we have enhanced our club's position and opportunities. I also want to specifically thank Rich Jones K5VEK and Paul Kent K15FJS for their contributions to making this a reality for NARS.

This corporation is a NON-PROFIT PUBLIC CHARITY and is not organized for the private gain of any person. It is organized under the Non-Profit Public Benefit Corporation Law for public and charitable purposes.

The purposes for which this Club is organized are the following:

- To render communications as a public service during impending storms or following severe weather, and to assist in disaster relief operations by providing communications when called upon by any official agency of the City, County, State or Government of the United States of America.
- To promote amateur radio individually or at established community functions, and to further the hobby of amateur radio.
- To educate members and future members at all levels of licensure and on the scientific background, the proper operating procedures, and revisions in rules or regulations associated with amateur radio by means of classes, mentoring, and exchange of technical information and assistance.

We certainly enjoy visiting each other at meetings, but our primary focus must be on those activities that validate our status as a non-profit organization.

Let's start working on Grants to further our Club Goals!

This Club is here for YOU, and we need YOU to help us all succeed.

See you at the General Meeting!

Ron Matusek  
President, Northwest Amateur Radio Society (NARS)

## 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)***

**T9B05**

What happens as the frequency of a signal in coaxial cable is increased?

- A. The loss increases
- B. The characteristic impedance increases
- C. The loss decreases
- D. The characteristic impedance decreases

### ***General (Element 3)***

**G8B06**

What is the total bandwidth of an FM phone transmission having 5 kHz deviation and 3 kHz modulating frequency?

- A. 3 kHz
- B. 16 kHz
- C. 8 kHz
- D. 5 kHz

### ***Amateur Extra (Element 4)***

**E6F04**

What is the photovoltaic effect?

- A. The conversion of light to electrical energy
- B. The tendency of a battery to discharge when exposed to light
- C. The conversion of electrical energy to mechanical energy
- D. The conversion of voltage to current when exposed to light

See the answers on [Page 28](#).

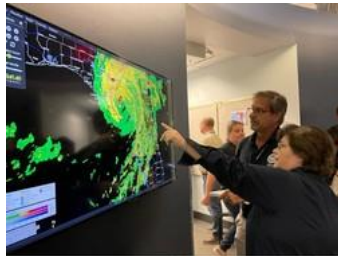


# The ARRL Letter

An excerpt from the weekly ARRL Letter

## Hurricane Idalia: Amateur Radio Serves Critical Functions

Hurricane Idalia made landfall Wednesday, August 30 on Florida's Big Bend region as a Category 3 storm sustaining winds of 125 miles per hour. The storm tracked across Georgia and into South Carolina, and on Thursday morning it had moved offshore of North Carolina.



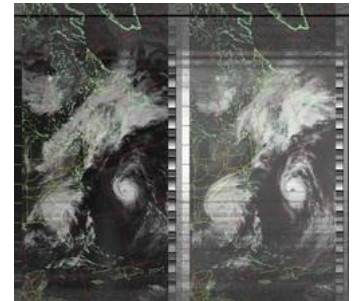
*FEMA personnel coordinate with their counterparts at Florida Division of Emergency Management in preparation of response efforts to Hurricane Idalia. ARES volunteers were staffing the same facility. [Photo: Johanna Strickland / FEMA]*

ARRL volunteers staffed key positions across the affected region. Section Emergency Coordinator of the [ARRL Northern Florida Section](#) Arc Thames, W4CPD, led the activation of [Amateur Radio Emergency Service](#)® (ARES®) volunteers within the Section. Thames said the ARES volunteers would be staffing the radio room at the state Emergency

## 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>

Operation Center (EOC) until 7:00 a.m. on Thursday, August 31 and will provide additional service if needed. "So far there does not appear to be a large communications impact that would require amateur radio support," he said.



*A real time visible satellite image of Hurricanes Idalia and Franklin, downlinked on August 30 from NOAA-18 at W1AW.*

The [Florida Statewide Amateur Radio Network \(SARnet\)](#) was the primary emergency communications system used during the storm. The system is a series of linked UHF repeaters that covers the entire state. There were also HF nets linking counties to the state EOC.



*ARES Newsletter Editor Rick Palm, K1CE, surveys the damage after a tree fell on his car at his home. "Our cars were smashed under this big tree in our backyard. I am using my handheld to report into the Columbia County ARES net and EOC. Much damage here in our yard and the surrounding community, and we experienced a very scary (terrifying actually) morning yesterday, being so close to the eye as it made landfall," he wrote.*

In a message to ARES leadership in the affected Sections, ARRL Director of Emergency Management Josh Johnston, KE5MHV, reminded them of gear at ARRL Headquarters that can be deployed if



necessary. "We have equipment assets in our Ham Aid program available to you for loan if you have a need to backfill. These can be used during - long term recovery efforts as needed," wrote Johnston.

The Federal Communications Commission (FCC) [approved an ARRL-requested emergency waiver to HF symbol rate limits](#), to allow higher speed data communications in the Amateur Radio Service response to Hurricane Idalia. [Read the waiver](#) (PDF)

Many counties in the ARRL Northern Florida Section were activated. Section Manager Scott Roberts, KK4ECR, was at the Clay County EOC for 27 hours. "We had a good number of our Northern Florida counties activated, as well as other places in the state. There were four shelters open here in Clay County alone," he said. As of press time, Roberts said the final information was still being tallied, but he knew of activations Duvall, St. Johns, Escambia, Marion, and Leon Counties.

In Ocala, the Marion County Emergency Radio Team (MERT) was activated to support shelter operations on Tuesday, August 29. Marion County ARES was placed on standby to support the MERT team and other served agencies. The county was spared the brunt of the impact. Marion County ARES Emergency Coordinator Hayden Kaufman, N2HAY, said the activation identified some opportunities for improvement in the area's disaster response. "We were very fortunate to have had little to do. However, the activation provided us some insight on factors that would impede communications in an emergency," he said.

Ham volunteers worked with the County Sheriff's office to ensure the amateur radio equipment onboard the Marion County Mobile Command Center was fully operational before it was deployed to Madison County, the area most heavily impacted by the storm.

Kaufman thanked the many local volunteers for their service during the hurricane. "I am personally proud to be a member of our increasingly tight-knit EmComm community," he said.

[Hurricane Watch Net](#) (HWN) Manager Bobby Graves, KB5HAV, said the storm called for "all hands on deck". Ahead of impact, the intensity and track of the storm greatly concerned him. "I have been watching and plotting hurricanes for over 35 years. I have witnessed, many times, a Hurricane cross a state line into another as a hurricane...two states were hit by the same hurricane. Never have I seen a storm cross three States as a Hurricane," said Graves.

The [WX4NHC amateur radio station at the National Hurricane Center](#) was also active during the storm, as was the [Hurricane VoIP Net](#).

*Amateur radio operators continue to serve impacted communities through served agencies as the recovery phase begins. Check [ARRL News](#) for the latest updates.*

## Former ARRL Oregon Section Manager John Core, KX7YT, SK

ARRL is sad to announce that John Core, KX7YT, Section Manager of the ARRL Oregon Section from 2016 - 2018, passed away suddenly on August 11, 2023. He was 80 years young.

John first earned his Novice-class license in 1970 with the call sign WN7PQL. He subsequently upgraded to his General-class license in 1971 with the call sign WA7PQL, his Advanced-class license in 1976, and finally, to his



Amateur Extra-class license in 2000 with the call sign KX7YT. While involved in consulting work abroad from 1998 - 2006, he was licensed in Bangladesh as S21YV and later licensed in India as VU3DXY. Most recently, John was active in the Department of Homeland Security CISA SHARES program as NNBOEC.

John was a passionate DX hound and contester. He was an active member of the Willamette Valley DX Club and a huge Amateur Radio Emergency Service® (ARES®) activist for Oregon amateurs. As the ARRL Oregon Section Manager, he was instrumental in coordinating Oregon ARES operations during the Cascadia Rising Simulated Emergency Test (SET) in 2016, which was a multi-state and multi-jurisdictional simulation of the anticipated catastrophic Pacific coast subduction zone 9.0-magnitude earthquake. John wrote an article for QST that was published shortly afterward, highlighting the SET results. In all, John penned no less than five articles for QST between 2001 and 2016, mostly related to Oregon ARES activities and his experiences operating in Bangladesh.

In 2017 - 2018, John worked with his ARES leadership team to produce a set of standardized statewide ARES Amateur Radio Operator (ARO) training materials that were used for many years. He was also instrumental in establishing a special website to enable amateurs across the state to receive their ARO training virtually.

During his tenure as Section Manager, John was a key part in ensuring reasonable amateur radio legislation related to distracted driving laws that were under consideration in Oregon. He provided expert testimony before several legislative committees, which resulted in a positive outcome for Oregon amateurs.

Among the many tributes from hams that knew him, one from the State Communications Officer for the

Oregon Department of Emergency Management (ODEM) Doug Jimenez, W7DMJ, stands out:

"I met John many years ago, while he was the ARRL Section Manager for Oregon. He was a good friend and volunteer for ODEM. One of his recent projects [had] been [to coordinate the] setup of VARA FM digipeaters to ensure contact between ODEM and the north coast of Oregon in the event of disaster. I really enjoyed working with John and learning new things from him. This is a huge loss to the community. He will be missed."

*Written by ARRL Northwest Division Director Mike Ritz, W7VO.*

## Amateur Radio Responds to Disasters Across the United States

The fires are out on the Hawaiian island of Maui but extensive search and rescue operations continue.

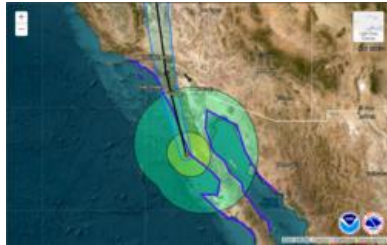
President Biden visited the island on Monday, August 21, 2023, and told residents the federal government will provide help "for as long as it takes" to recover from the devastation.



*Damaged buildings and vehicles in Lahaina. [Sp. Sean Walker, photo.]*

Numerous emergency response agencies and organizations are still arriving, and volunteers are helping to provide coordinated communications on the KH6COM repeater, on 146.520 MHz, and a VHF/UHF countywide system with emergency backup power. Hawaii has many amateur radio repeaters and an extensive internet-linked repeater system.

On the west coast of the United States, after a record amount of rainfall, [Hurricane Hilary](#) has downgraded to a tropical storm and is heading toward the Northeast. The west coast area is still experiencing flooding and mudslides as residents face major cleanup operations.



*Forecast advisory 17 for Hurricane Hilary, issued on Sunday, August 20, 2023. [NOAA]*

Section Manager of the ARRL Los Angeles Section Diana Feinberg, AI6DF, said there weren't any amateur radio activations, but Radio Amateur Civil Emergency Service and ARES groups were on heightened alert. There was minimal damage in the Los Angeles A Basin area. Feinberg also said the City of Los Angeles Auxiliary Communications Service was activated and reported to the Emergency Operations Center, but there weren't any communication outages.

Section Manager of the ARRL Santa Barbara Section John Kitchens, NS6X, said there was more concern for the 5.1-magnitude earthquake that hit his area during the storms. "There were no actual activations, but we were ready. Our folks [took] advantage of the situation and turned it into a real-time drill," said Kitchens.

The [Hurricane Watch Net](#), [WX4NHC amateur radio station at the National Hurricane Center](#), and the [VoIP Hurricane Net](#) were activated on Sunday, August 20, for Hurricane Hilary. Despite having bilingual operators in each group, and the storm's impact to the Baja California peninsula, there weren't any reports from Mexico, much to the concern of net operators. WX4NHC Amateur Radio Assistant Coordinator Julio Ripoll, WD4R, said,

"Hurricanes have no borders and ham radio has no borders."

Ripoll encouraged Mexican stations to check in and pass along reports when the net was active. "We can work together to help each other and those affected by hurricanes," he said.

Tropical storm alerts were issued along the south Texas coast on Tuesday, August 22, as Tropical Depression 9 formed in the Gulf of Mexico. The storm's center moved inland over south Texas by midday, when it became Tropical Storm Harold. It caused rain and wind, but there was little to no damage. The South Texas Amateur Radio Club said their amateur radio operators were ready even though they were not activated.

While tropical storms and an earthquake impacted large portions of the country, much of the Pacific Northwest has been dealing with wildfires.

In eastern Washington, the [Spokane County ARES®/ACS](#) was activated to deploy a mobile network unit (MNU) to the Gray Fire on Friday, August 18. The MNU is a self-contained, satellite-based internet and cell (AT&T, Verizon, and T-Mobile) support system. Volunteers set up the gear at an incident command post used by county officials.

*Radio amateurs are encouraged to participate in their local [ARES group](#).*

## Air Force and Marines Corps Marathons Need Amateur Radio Volunteers

This fall, amateur radio operators will have the opportunity to volunteer their services and share their communication skills at two different marathons.





The Air Force Marathon will occur on Saturday, September 16, on Wright-Patterson Air Force Base near Dayton, Ohio. The race will begin at 7:30 AM EDT.

Bob Baker, N8ADO, Greene County Emergency Communications Volunteer Lead, for Amateur Radio Support to the Air Force Marathon said, "We need a team of ham radio volunteers to support the event by operating several networks for logistics, [providing] medical information, monitoring and tracking runners, shadowing race officials, and supporting finish line operations."

He went on to say, "We need an excess of 60 volunteers to make all of this happen. Only 75% of the required number of volunteers have signed up and we could use amateur radio operators' help."

Most of the race takes place on the Wright-Patterson Air Force Base, and to comply with security regulations, all volunteer applications must be submitted by August 31, 2023, to allow for background checks.

To volunteer, visit [usafmarathon.com/volunteer/](https://usafmarathon.com/volunteer/) and click the "Volunteer Now button." You'll be redirected to the portal at [raceroster.com](https://raceroster.com), where you'll need to create an account. Once you've created an account, select "Volunteer," and sign in. Select the pull-down list under "Volunteer With Us," and then scroll down and select "Volunteer on Saturday, September 16, 2023." Continue to scroll down and fill out the required information.

Be sure to include your call sign in the appropriate box. Below that box, under "Amateur Radio Operator," click the "Add to Order box." Continue to the bottom of the web page and select your t-shirt size. Then, select "Continue" to submit your registration. Please report that you have signed in by sending a message with your name and call sign (and preferred email, if it's different from the

account from which you send the message) to [AFM.Hams@gmail.com](mailto:AFM.Hams@gmail.com)

As the race date nears, you'll receive an invitation to a training session and a link to the training materials, assignment list, and communications plan. Please arrive by 5:30 AM to accommodate ID checks and road closures.

The 2023 Marine Corps Marathon (MCM) will take place on Sunday, October 29 in Washington, D.C., and Arlington County, Virginia at 7:55 AM EDT. The MCM Ham Volunteers team is looking for 150 amateur radio operators to support the event by providing racecourse situation reports.

The Marine Corps Marathon, also known as the People's Marathon, expects to support more than 29,000 runners at this year's event.



Amateurs can register to volunteer at [www.hamcommunity.com/mcm-register](https://www.hamcommunity.com/mcm-register).

The mission of the MCM is to showcase physical fitness and generate community goodwill to promote the high standards and discipline of the Marine Corps. Annually ranked as one of the largest marathons in the US and the world, the MCM has been recognized as the "Best Marathon in the Mid Atlantic," "Best for Families," and "Best for Beginners."

## Amateur Radio Operators Serve in Hawaii Firestorm Relief Efforts

ARRL members, in the Hawaii Amateur Radio Emergency Service®, ([Hawaii ARES](https://www.hawaii-ares.org)®), continue to respond following to the deadly wildfires on the island of Maui.

The radio amateurs are coordinating with state and local officials during the response and recovery effort. Local hams continue to update lists of frequencies and repeaters that can be used in the response.



*Fire Damage at Wailuku, HI  
(Dominick Del Vecchio/FEMA,  
photo)*

ARRL Headquarters staff have been in daily contact with member-volunteers on the island. "Our thoughts and prayers go out to the people of Hawaii and especially the island of Maui," said ARRL Director of Emergency Management Josh Johnston, KE5MHV. "ARRL was in initial contact with Section Manager [of the ARRL Pacific Section] Joe Speroni, AHOA, on Wednesday, August 9, and we have had daily briefs with him. This is an exceedingly challenging time for Hawaii, and we will be available as needed." ARRL has offered equipment through ARRL Ham Aid, a program established in 2005 and funded by donations, Ham Aid makes emergency communications equipment available to amateur radio organizations during disasters.

Johnston emphasized that most amateur radio communications, including relayed messages are being handled on the existing repeater system in the state. On shortwave, HF stations across Hawaii are operating nets on 7.088 MHz.

On August 8, wildfires fueled by strong winds began burning in Maui, and by the next day, much of Lahaina had been destroyed. As of press time, 110 people have been killed in the blaze and 2,200 structures have been destroyed; 86% of those structures were residential, according to Hawaii Governor Josh Green.

Read more in [ARRL News](#).

## STEM in Action: YOTA Campers Contact the International Space Station

On July 18, 2023, a weeklong Youth on the Air (YOTA) summer camp at Carleton University in Ottawa, Ontario, Canada, hosted an Amateur Radio on the International Space Station (ARISS) radio contact.

The purpose of the camp is to connect young amateur radio operators from North, Central, and South America through amateur radio and science, technology, engineering, and mathematics (STEM) activities.



*YOTA campers show excitement upon hearing the ISS contact. (Left to right) Abby Matsuyoshi, KK7CFJ; Ruth Willet, KM4LAO; Alex Lammers, KO4ZMC, and Tripp Sanders, K5TRP.*

The youth talked with astronaut Steve Bowen, K15BKB, who answered 18 questions. ARISS volunteer Ruth Willet, KM4LAO, orchestrated their activities.

"[The ARISS contact] went so wonderfully -- I'm still on a high! It never, never, never gets old," said Willet. A reporter for the Radio Amateurs of Canada magazine, The Canadian Amateur, came to watch and report on the action.

Watch a [video of the contact on YouTube](#)

ARISS is a cooperative venture of international amateur radio societies and the space agencies that support the ISS. In the US, participating organizations include NASA, the ISS National Lab, ARRL, and AMSAT.

## Amateur Radio Operator Contacts Spacecraft

The headlines are sensational, although a bit exaggerated: "Ham Radio 'hacks' NASA Satellite".

While the phrase is eye-catching for social media, the truth is just as exciting. Amateur radio astronomer Scott Tilley, VE7TIL, has made contact with [NASA's STEREO-A spacecraft](#), which passed Earth for the first time in 17 years.

The STEREO-A (Solar TERrestrial Relations Observatory) spacecraft was launched on October 25, 2006, from Cape Canaveral, Florida, with its twin sister ship, STEREO-B. Both spacecraft were on a mission to circle behind the and send images back to Earth so scientists could make 3D models of solar activity. In 2014, STEREO-B failed and was not heard from again.

"I'm having fun with STEREO-A," Tilley reported to [Spaceweather.com](#). "The spacecraft is close to Earth this summer, and I can now receive its signal using a small 26-inch dish in my backyard."

Tilley began hearing rumors that other radio operators were picking up signals from STEREO-A on 8443.580 MHz. He decided to check it out. "The central carrier is very loud, almost 30 dB above the noise," he said. "I also noticed data sidebands, which are unusual to see on such a distant object for my small antenna."



*Scott Tilley's, VE7TIL, dish antenna for receiving NASA STEREO-A spacecraft. [Photo courtesy of Scott Tilley]*

Tilley was able to decode and demodulate STEREO-A's signal using a special program written by Alan Antonie, F4LAU, known as [SatDump](#), and now, he is monitoring almost all of STEREO-A's science instruments, including its Extreme Ultraviolet Imager (EUVI), two coronagraphs (COR1 and COR2), the heliospheric imager (HI), and a solar radio burst receiver (S/WAVES).

STEREO-A's closest approach to Earth was scheduled to occur on August 17, 2023.

Amateur radio operators who would like to monitor STEREO-A can check out [Tilley's technical blog](#) for more information.

[Thanks to Spaceweather.com and NASA for updated information in this story]

## New ARRL Video Helps Members Navigate Digital Magazines

ARRL members have [digital access](#) to four high quality magazines: QST, On the Air, QEX, and NCJ. If you have questions or concerns about how to get the most out of the digital editions, "How to View ARRL Magazines Digitally" on the ARRLHQ YouTube channel, will help walk you through it.



The video, hosted by Jherica Goodgame, K15HTA, explores the features of the digital presentation including switching between magazines, saving to PDF, searching for content, bookmarkings, and zooming in to content. It covers the web browser version, as well as the Android and iOS applications.

*The [video on YouTube](#) makes it easy for members to navigate the digital editions of QST, On the Air, QEX, and NCJ.*

If you download the ARRL magazines app for Android or iOS, ARRL will send a notification to your device when a new edition is available for reading. They are also available on Amazon Kindle.

The video can be viewed at <https://youtu.be/vmZfIC2IUIs>

## IARU Approves two Digipeating Amateur Satellites

The International Amateur Radio Union (IARU) has coordinated two European digipeating satellites that are scheduled to launch in fall 2023. At the Technical University of Kosice in Slovakia, satellite Veronika, a 1U CubeSat, is scheduled for launch on a Falcon 9 launcher on the Transporter 9 mission in October 2023.

The satellite will be equipped with a 24/7 digipeater on two different bands, as well as experimental slow-scan digital video (SSDV) transmissions. There is an education and outreach mission planned to involve Slovak grammar and high schools, and to transmit special CW and AX.25 messages on several special occasions. The satellite will be equipped with a novel Attitude Determination and Control System (ADCS) subsystem, including electromagnetic actuators and a global navigation satellite system (GNSS) receiver. This will also help to identify the satellite during the first days and weeks of orbit.

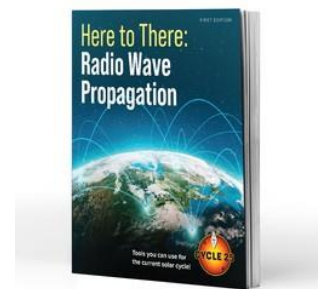


The satellite will communicate using [Spacemanic's](#) well-known Murgas transceivers (BDSat-1, BDSat-2, Planetum-1). Altogether, Veronika will provide: AX.25 telemetry, a CW beacon, a digipeater, AX.25 and CW messages on special occasions for community engagement, experimental SSDV transmissions, [SatNOGS](#) integration, a decoder, and a dashboard. A downlink on 436.680 MHz has been coordinated, and it will use 9k6 G3RUH AX.25 and a CW beacon. A SpaceX launch on the Transporter 9 mission will send the satellite to a 500/600-kilometer polar orbit.

The [Romanian Federation of Amateur Radio \(FRR\)](#) is preparing the ROM-3 for launch in October or November 2023. ROM-3 is a 50 x 50 x 100-millimeter picoSAT with three missions and objectives. Its primary mission is to act as a digital amateur radio repeater. Its secondary mission is to transmit low-resolution SSDV images in a Gaussian frequency shift keying (GFSK) mode. The tertiary mission is to transmit a CW beacon that will help amateur radio operators detect the presence of the satellite and measure basic properties of the signals, such as its strength, fading due to spinning, and Doppler to measure speed. A downlink on 436.235 MHz has been coordinated for 20 WPM on CW, 500 (bps) GFSK telemetry, and 5 (kBps) GFSK SSDV. A SpaceX launch will send ROM-3 into a 500-kilometer polar orbit.

## New ARRL Propagation Book Offers Tools for Solar Cycle 25

"Learning about propagation will make you a more effective operator and station builder," said Ward Silver, NOAX, editor of ARRL's newest book, [Here to There: Radio Wave Propagation](#). "It's a key part of 'radio know-how.'"



Silver and contributing editors present the principles of signal propagation in an easy-to-understand style. Other contributors include Carl Luetzelschwab, K9LA; Dr. Nathaniel A. Frissell, W2NAF; Frank Donovan, W3LPL; Ethan Miller, K8GU, and Hermann Schumacher, DF2DR.

*Get an understanding of propagation by reading Here to There: Radio Wave Propagation. Available now from ARRL.*

Here to There: Radio Wave Propagation provides



practical advice for understanding what's going on in the ionosphere and troposphere, how takeoff angle impacts your transmission, how far you can really communicate over VHF and UHF, and much more. Understanding ionospheric structures, how they form, and which bands they interact with will prepare you for practical operating and help you make the most of your time on the air. The book is timely, introduced as Solar Cycle 25 is in its upswing.

Order from the [ARRL Store](#) or find an ARRL publications dealer.

## ARRL Files Comments Against "Seriously Flawed" Shortwave Rules Petition

ARRL, as part of its mission to protect Amateur Radio, has filed [comments against a proposal](#) that would introduce high-power digital communications to the shortwave spectrum that in many instances is immediately adjacent to the Amateur HF bands.

The "Shortwave Modernization Coalition" (SMC), which represents certain high-frequency stock trading interests, filed [the petition](#) with the Federal Communications Commission (FCC). (Previous coverage can be found on [ARRL News](#).) ARRL responded on behalf of its members and the 760,000 licensees of the Amateur Radio Service in the US.



The ARRL Laboratory performed a detailed technical analysis over several months to determine if the proposed rules would affect operations on the bands allocated to Radio Amateurs that are inter-mixed with the Part 90 bands in the spectrum in question.

ARRL's analysis determined that, if the proposed rules are adopted, the new operations inevitably will cause significant harmful interference to many users of adjacent and nearby spectrum, including

Amateur Radio licensees. Ed Hare, W1RFI, a 37-year veteran of the ARRL Lab and internationally recognized expert on radio frequency interference, was the principal investigator on the study. Hare concluded the petition should not be granted. "This petition seeks to put 50 kHz wide, 20,000-watt signals immediately next to seven different amateur bands with weaker protections against interference than required in other services," said Hare.

In its formal opposition, ARRL stated, "That destructive interference would result if operations commenced using anything close to the proposed maximum levels."

ARRL's filed comments highlight flawed analysis and incomplete data submitted by the petitioners. It noted the petitioners "...significantly understate the harmful interference that is not just likely, but certain, if the rules proposed by SMC are adopted as proposed. It is noteworthy that SMC's proposed rules would provide less protection than the much-lower power amateur radio transmitters are required to provide Part 90 receivers." ARRL's opposition also noted that there was no reported tests conducted with Amateur or other affected stations, but referenced a spectrum capture in the Comments filed with the Dayton Group that showed actual interference into the Amateur 20-meter band from one of the High Frequency Trading experimental stations.

Part 90 HF rules currently authorize a maximum signal bandwidth equal to a voice communications channel, at up to 1000 W peak envelope power (PEP). The petition seeks multiplication of signal width, greater transmitted power, and weaker rules that protect users of adjacent spectrum. ARRL's comments expose the likely fallout:

"Incredibly, notwithstanding the significant increase in potential interference that would result from using digital schemes with 50 kHz bandwidths and 20,000 watts of power, SMC also proposes to

substantially lessen the protections required to protect adjacent and neighboring licensees. SMC proposes [out-of-band emissions] limits that offer less protection than the existing Part 90 limits and would actually permit no attenuation (0 dB) at the edge of adjacent allocations, many of which are bands allocated to and heavily used in the Amateur Radio Service. Consistent with lessening protections while increasing the potential for harmful interference, SMC also proposes a lower limit for spurious emissions. SMC would reduce the existing protection of -73 dB for the applicable 1000-watt power limit to just -50 dB protection for their proposed 20,000-watt limit. Due to the much wider 50 kHz proposed bandwidth, the resulting interference would penetrate deep into the adjacent Amateur bands."

The proposal has been assigned FCC Docket No. RM-11953. While the period for commenting on the petition has now closed, replies to comments in the record may now be submitted.

Hundreds of licensed Radio Amateurs filed comments in the Docket, expressing overwhelming opposition to the proposal. Those interested may read ARRL's full comments and the results of the technical analysis, which are included in the filing. "If granted as written, this would be devastating to Amateur operation for many tens of kHz into our bands," said Hare.

ARRL will continue to advocate for its members and the Amateur Radio Service in this proceeding.

Read ARRL's Opposition and the ARRL Lab's technical analysis [here](#).

## Amateur Radio Operators Can Help with HAARP Experiment

The High-frequency Active Auroral Research Program (HAARP) will host more than 50 researchers at their Alaska facility from August 1 - 14, 2023, for the resumption of a science summer

school that will conduct 30 experiments over a span of two weeks.

The Polar Aeronomy and Radio Science (PARS) summer school was last held more than 10 years ago. Its return is part of a 5-year, \$9.3 million National Science Foundation grant awarded to the University of Alaska Fairbanks in 2021. PARS is a group of more than 50 researchers committed to meeting the growing demand for skilled scientists and engineers with knowledge of the special effects that occur in the ionosphere at high latitudes.



*The HAARP antenna array at the University of Alaska Fairbanks. (Photo courtesy of HAARP)*

One of the experiments, Ghosts in the Air Glow by Canadian artist Amanda Dawn Christie, will give amateur radio operators and shortwave



*Ghosts in the Air Glow [website](#).*

listeners an opportunity to help with on-going geospace research. This transmission art project will begin on Monday, August 14, 2023, and use the HAARP Ionospheric Research Instrument to mix audio and images from the transition between Earth's atmosphere and outer space. They will then be received and decoded via software-defined radio. Amateur radio operators and shortwave radio listeners around the world are invited to tune in and submit reception reports.

Event information, including transmission times, frequencies, modes, and report submission guidelines, is available at the project's

website, [Ghosts in the Air Glow](#). Each experiment participants will receive a QSL card.

"The return of PARS and these experiments marks a milestone for HAARP and the geospace communities," said HAARP Director Jessica Matthews.

## ARRL Podcasts Schedule

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



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

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

## Amateur Radio in the News

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

["Do you copy?": Radio club communicates with Texas missile silo"](#) / Press-Republican (Texas) August 26, 2023 -- Champlain Valley Amateur Radio Club.

["North Carolina students speak with astronaut in space"](#) / WJHL-TV (North Carolina) August 28, 2023 - Bowman Middle School

["Amateur radio operators share Sabine Pass Lighthouse restoration story"](#) / The Orange Leader (Texas) August 30, 2023 -- International Lighthouse - Lightship Weekend.

["Part Social Media And Part Preppers' Paradise, Ham Radio Is The Perfect Hobby"](#) / The Federalist August 30, 2023 -- Roy Maynard, KJ5BVP, is an ARRL member.

["Huntsville Hamfest brings thousands of amateur radio enthusiasts to the Rocket City"](#) / WHNT (Alabama) August 21, 2023 -- The Huntsville Amateur Radio Club is an ARRL Affiliated Club.

["Local Radio Club Receives Grant To Provide Classes"](#) / Cleveland County Herald (Arkansas) August 23, 2023

["ARRL Battles Stock Traders for Spectrum"](#) / In Compliance Magazine August 24, 2023

["Mississippi Amateur Radio Operators gather for annual Mississippi Simulated Emergency Test"](#) / WLOX (Mississippi) August 13, 2023 -- Amateur Radio Emergency Service®.

["Ham Radio Enthusiasts Battle High-Frequency Traders for the Airwaves"](#) / The Wall Street Journal (New York) August 6, 2023.

["Amateur Radio Society conducts Emergency Response Training and Blood Drive"](#) / Lakelands Connector (South Carolina) July 26, 2023 - The Greenwood Amateur Radio Society is an ARRL Affiliated Club.

["Hamfest hobbyists combine electronics and communications at OCCC"](#) / KFOR - TV (Oklahoma) July 29, 2023 -- The Central Oklahoma Radio Amateurs is an ARRL Affiliated Club.

["Amateur radio seeing resurgence as hobby, sport, community service"](#) / New Albany Gazette (Mississippi) July 30, 2023 -- The Grid 54 Ham Radio Group.

*Arrl.org. 2023. ARRL Letter. [online] Available at: <http://www.arrl.org/arrlletter?issue=current> [Accessed 5 May 2023]*

# NARS Monthly Club Meeting

## August's Monthly Meeting

The August meeting featured our very own Sheree Horton, WM5N, who provided an overview of Radiograms and the activities and nets to help manage them.

## Next Club Meeting

Our next club meeting will be September 15<sup>th</sup> at HCESD 16 Admin – 18606 Stuebner Airline Rd, Spring, TX 77379. We look forward to seeing you there!

## 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, Spring, TX 77379](#)  
Zoom Conference Call, Meeting ID: 2815436502, Passcode: 123456

## Looking Back at the Club

The NARS club has been going strong for several decades and here's a look back at Field Day in 2005! Do you recognize any club members in these pictures?



Left to Right: KD5BXZ Rob Nixon, W5MF Marty, K5WH Walter Holmes, Satellite contacts





*Left to Right: W5MF Marty N1LN Bruce Meir*



*Tower, 6M 2M beams, and Circus tent setup*



*Left to Right: WF5W Cal and K5NZ Mike*



*Generator used during 2005 NARS Field Day*



## 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 - More Than Just a Texas Non-profit Club!

BY BILL BUOY, N5BIA

As many of you are no doubt aware, NARS has been a Texas non-profit club for some time. But our sights were set higher than that. A dedicated group of officers and members has been working on obtaining 501(c)(3) certification from the IRS for some time.

Today, August 29, 2023, we were notified that as of May 15, 2023, we have been classified as a public charity by the IRS.

So what does this mean for us? The benefits of being tax-exempt under IRC Section 501(c)(3) include the following:

- We can accept contributions and donations that are tax-deductible to the donor.
- We can apply for grants and other public or private allocations available only to IRS-recognized, 501(c)(3) organizations.
- We can apply for a sales tax exemption on items purchased for use by the organization.
- We have the public legitimacy of IRS recognition.
- We can get discounts on US Postal bulk-mail rates and other services.

We're looking forward to being able to serve the community at a much higher level now because of both the recognition aspects of this and the ability to raise funds to better equip ourselves to provide critical services in times of need. Great job by the 501(c)(3) team!



# Ham Radio and the world of amateur radio operators

Recently, Canadian Geographic published an article about amateur radio and the people involved in the hobby. The article delves into the captivating world of amateur radio operators, often referred to as "ham radio" enthusiasts, who embrace the timeless art of wireless communication. The narrative unfolds as the author recounts their personal experience making radio contact from Signal Hill National Historic Site in St. John's, Newfoundland, where Guglielmo Marconi once received the first-ever transatlantic radio signal.



The article explores the profound sense of history and nostalgia that resonates with amateur radio operators, who are dedicated to preserving this classic form of communication in an increasingly digital age.

With over 73,000 licensed operators in Canada, these individuals use their radio stations, ranging from simple bedroom setups to elaborate tech-filled rooms, to engage in one-on-one conversations with fellow enthusiasts. The author introduces us to passionate advocates like Rob Noakes, who strives to inspire younger generations to embrace ham radio and laments the declining interest in the hobby over the years.

While ham radio's popularity has waned due to technological advancements and the ubiquity of smartphones, the article highlights its enduring value. Young operators like Justin Noakes find excitement in bouncing signals off the moon and making contacts worldwide. The article explores the evolving technology that allows remote radio operation and the ongoing debate within the ham radio community about its impact.

The demographics of ham radio users skew towards older generations, raising questions about the hobby's future. However, initiatives to remove barriers, such as Morse code requirements, and the affordability of entry-level setups are aimed at attracting new enthusiasts. The article notes that ham radio offers diverse experiences, from collecting global contacts to participating in fast-paced contests, which appeal to a wide range of operators.

Despite the nostalgia surrounding ham radio, the article emphasizes its crucial role in emergency preparedness. When modern communication infrastructure fails during disasters or conflicts, ham radio remains a reliable means of communication. It provides a lifeline for individuals and communities in crisis, reaffirming its importance in a world fraught with natural disasters and political upheaval.

Ultimately, the article underscores the enduring allure of ham radio, combining elements of tradition and innovation. It highlights the dedicated operators who keep this unique form of communication alive, preserving a vital link to the past while serving as guardians of communication in an uncertain future.

To read the full article, please navigate to <https://canadiangeographic.ca/articles/ham-radio-and-the-world-of-amateur-radio-operators>.

# 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.

## Exploring the Secrets of Satellite Operation

Operating satellites has always fascinated both newcomers and seasoned veterans in the world of amateur radio. It's a unique blend of technology, skill, and communication that offers an exhilarating experience. Over the years, satellite enthusiasts have uncovered a wealth of tips, tricks, and hidden gems that can enhance your satellite operating journey. In this newsletter, we've compiled a treasure trove of resources to assist both novice and experienced operators in navigating the celestial waves.

### Fox-1 Operating Guide: Your Window to the Skies

The Fox-1 Operating Guide, freshly updated for 2019, is your launchpad into the world of satellites. This comprehensive guide provides essential pointers for newcomers, ensuring a smooth takeoff into satellite operation. It also serves as a handy reference for Fox-1 cubesat operating frequencies. The guide is available in two versions: [a low-resolution PDF for on-screen display](#) and a [high-resolution, press-quality PDF for printing](#).

### AMSAT Hamfest Brochure: Your Satellite Companion

Designed to be printed as a landscape, double-sided handout on standard letter-sized paper, the [AMSAT Hamfest Brochure](#) is a must-have for your satellite adventures. It folds into thirds, making it a perfect companion for your hamfest excursions. This compact resource is packed with valuable information for satellite enthusiasts.

### Best Practices for FM Satellite Operating

While operating FM satellites may seem straightforward, there's always room for improvement. Explore the document on [Best Practices for FM Satellite Operating](#) to enhance your skills and make the most out of your satellite contacts.

### Logbook of the World: Tracking Your Satellite Journey

Many satellite operators utilize the ARRL's Logbook of the World to confirm contacts and earn prestigious awards. If you want to join their ranks, follow our guide on "[How to log Satellite QSOs in Logbook of the World](#)" to start your journey towards recognition and achievement.

### LilacSat-1: Unveiling Digital Voice Signals

LilacSat-1 (LO-90) offers a unique experience with an FM voice signal on the uplink and a Codec2 digital voice signal on the downlink. Explore N8HM's article from the January/February 2019 AMSAT Journal, "[Digital Voice on Amateur Satellites: Experiences with LilacSat-OSCAR 90](#)," to delve into this intriguing satellite's capabilities.

## Going Portable: Satellite Operation Anywhere

The May/June 2017 AMSAT Journal article, "[Going Portable with the Amateur Radio Satellites](#)," is a how-to guide that covers operating current LEO satellites with everything from basic portable equipment to rotors and Yagi arrays. Whether you're a portable operator or prefer a home station setup, this article offers valuable advice.

## ARISS Packet: Connecting with the ISS

Discover the world of packet communication aboard the International Space Station (ISS) and other APRS-capable satellites with the January/February 2017 AMSAT Journal article, "[Get on the Air with ARISS Packet](#)." Learn how to set up and use your computer and soundcard to work the packet system in space.

## Digipeaters with Kenwood Radios: A Digital Connection

Interested in working digipeaters aboard the ISS and other APRS-capable satellites? Check out the January/February 2017 AMSAT Journal article, "[Working Digipeaters with the Kenwood TH-D72A and TH-D74A](#)," for insights into using the packet/APRS capability of these radios.

## Unveiling FalconSAT-3: A 9600bps Adventure

If you're eager to explore the world of 9600bps AX.25 V/U digipeaters, the November/December 2017 AMSAT Journal article, "[Working the FalconSAT-3 Digipeater](#)," is a must-read. This document offers a comprehensive guide to using this exciting mode with Kenwood radios.

## FM Satellites: Your Gateway to Satellite Operation

For those looking to start their satellite journey, operating FM satellites is the easiest way to begin. [This guide](#) introduces you to the basic equipment and techniques required to get on SO-50, with a [Spanish version](#) available for Spanish-speaking radio enthusiasts.

## Beyond Basics: Advanced Antennas and Equipment

Looking to take your satellite operation to the next level? The "Working FO-29 with a single FT-817 and Arrow Yagi" article offers timeless advice for advanced satellite enthusiasts. You'll also find information on antennas, duplexers, and more.

- [Working FO-29 with a single FT-817 and Arrow Yagi](#)
- [Mode-J Filter](#)
- [Grid Square Locator Map](#)
- [WA5VJB Kent Britain Cheap Yagis for Satellite](#)
- [CJU 70cm antenna](#)
- [ioIO Dual Band Antenna](#)
- [AA2TX 70cm Parasitic Lindenblad Omni Antenna](#)
- [An EZ-Lindenblad Antenna for 2 Meters](#)

## Navigating Doppler Effects: Tuning for Success

Tuning your radio for Doppler effects can be challenging, but it's a crucial skill for satellite operators. Explore articles like "[The One True Rule for Doppler Tuning](#)" and "[Bringing the One True Rule of Doppler Tuning into the 21st Century](#)" to master this essential technique.

## Icom IC-9700 Setup Guide: Unleash Your Satellite Radio

The Icom IC-9700 is a fantastic satellite radio, but configuring it for satellite operation can be tricky. Stefan Wagener, VE4SW, has written [a comprehensive guide](#) to help you set up this radio with SatPC32 for a seamless satellite experience.

## Additional Resources

Have you read all these articles and resources and still need more? Check out AMSAT's "Working Satellites for Beginners" page for additional links and resources at <https://www.amsat.org/introduction-to-working-amateur-satellites>.

## Conclusion: Soaring in Satellite Excellence

Satellite operation offers a unique and exhilarating experience for amateur radio enthusiasts. Whether you're just starting or looking to expand your knowledge, this collection of resources will guide you through the mysteries of satellite communication. Keep exploring the skies and unlocking the secrets of satellite operation!

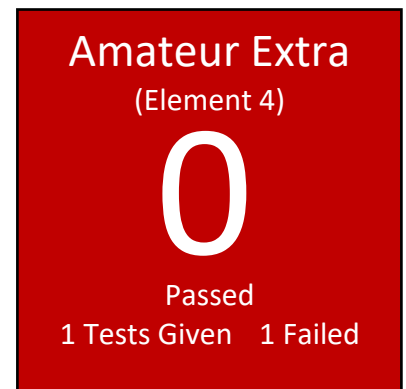
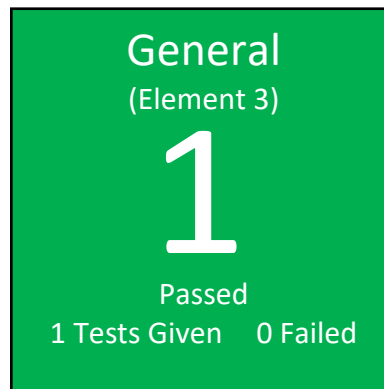
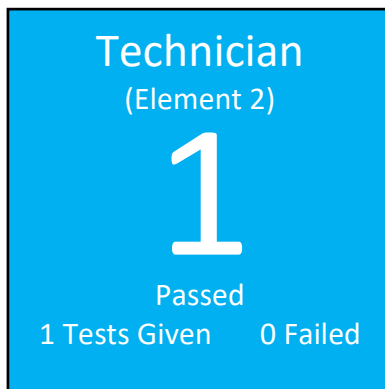


## VE Sessions and Results

PROVIDED BY SHEREE HORTON, WM5N

### Attendees

On Saturday August 19, 2023, a VE Test Session was held at HCESD 16 Admin, 18606 Stuebner Airline Rd, Spring, TX 77379. During the testing session, 1 candidates took 3 tests.



### Congratulations!

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

- Leah Trahan – Technician & 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 September 23, 2023 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:

- Bob Ewers, K9HOU
- Paul Owen, N5NXS
- Synomen Hebert, KG5IRS
- 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.

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

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

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

# Renewing Club Members

## New Club Members

Welcome to the following new members of NARS!

- Al Bird, N5NBA
- Darrell Kirk, KC5JAR
- William Norton, AI5MK

## Renewing Club Members

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

- Robert Ewers, K9HOU
- Paul Kent, KI5FJS
- Michael Lizzio, WA2TOP
- James Sitton, KD5JBT

## Did you know...

NARS now has the ability to run computer-aided tests through [Ham.Study](#). Computer-aided tests provides many benefits, including the ability to make the tests easier to administer, quicker to get results, easier for many test-takers, and many more!

# 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!

# 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!

## Upcoming Skywarn Spotter Training for 2023

Training is free and open to the public. More dates to be added soon. For more details, please see [SKYWARN - Schedule \(weather.gov\)](#).

Date/Time	Location	Point of Contact
<b>Advanced</b>  October 17 <sup>th</sup> – 5:30pm – 7:30pm	Walker County Storm Shelter Huntsville, TX	

### Exam Practice Answers

**Technician:** T9B05 – A. The loss increases

**General:** G8B06 - B. 16 kHz

**Amateur Extra:** E6F04 - A. The conversion of light to electrical energy



## 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 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 – September 15, 2023 - HCESD 16 Admin – [18606 Stuebner Airline Rd, Spring, TX 77379](#)

VE Test Session – September 23, 2023 – [18606 Stuebner Airline Rd, Spring, 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

September 9 - 10, 2023 | [QSO Today Virtual Ham Expo](#) (online)

September 23 | [Red River Radio Amateurs' Hamfest](#), ARRL Dakota Division Convention, West Fargo, North Dakota

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

November 18- 19 | [Fort Wayne Hamfest & Computer Expo](#), ARRL Central Division Convention, Fort Wayne, Indiana

## Contests and Radiosport

*ARRL Contest Corral*

September 2023 -

<http://www.arrl.org/files/file/Contest%20Corral/2023/September%202023%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, 281-370-2941, [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: Jerry Davis, N5EKO, [officers@w5nc.net](mailto:officers@w5nc.net)

## Board Non-Voting Associate Members

Administrative Secretary: Neal Naumann, N5EN

Social Media Liaison: Sam Labarbera, N6HB

Newsletter Editor: Brandon Rogers, K5BLR

Public Information Liaison: Sheree Horton, WM5N

ARRL/VEC Liaison: Sheree Horton, WM5N

Repeater Team Lead: Marty Fitzgerald, W5MF

Webmaster: Bill Buoy, N5BIA, [webmaster@w5nc.net](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. 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>