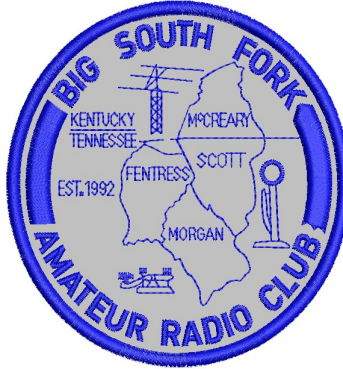


kc8spv@gmail.com

From: Big South Fork Amateur Radio Club <w4bsf@bsfarc.org>
Sent: Friday, May 29, 2026 8:10 AM
To: Bill Green
Subject: Modulator May- 2026

[View this in your browser.](#)



Volume 34 Number 5- May 2026

The Modulator

Newsletter and happenings of the Big South Fork Amateur Radio Club. Serving the Big South Fork Region since 1992.

If you enjoy reading our publication, be sure to open it fully or you will be automatically dropped from our mailing list in 6 months.

From the editor: This month we are testing a new format and hope to get your feedback. Let us know if it is easier to read or if you want us to go back to a 2-column format.

Club Bi-Monthly Meeting

June 11, 2026

Our next regular club meeting will be held on April 11th - 2026 at 7:00pm Eastern at Roane State Community College in Huntsville TN. This will be our bi-monthly business meeting plus a meet & greet. We always meet the 2nd Thursday of each month.

Club Bi-Monthly Training Session

July 9, 2026

Our training will be held on May 9th - 2026 at 7:00pm Eastern at Roane State Community College in Huntsville TN. Topic to be determined.

Meeting Minutes

If you did NOT receive the meeting minutes for the last meeting you may have been dropped from the club roster. Our member only portal password has also been changed. Contact Nancy (KC8VTT at gmail.com) to check on your membership status. Our dues are still only \$10.00 per year for the first person in your household!

MODULATOR
NEWSLETTER ARCHIVES

Previous copies of 'The Modulator' are now on our web site. You can also subscribe to the newsletter there too.

Mountain Laurel Festival- Wartburg TN

Was held on May 16, 2026



Dave Beiser K4IDB was able to represent BSFARC and Morgan ARES at the recent festival. While the bands were not in the best shape he was able to talk about ham radio to the attendees. Hopefully next year it will not be so hot/humid and the bands will cooperate as well. Thanks Dave for a taking this on as public awareness is key.

MOUNTAIN LAUREL FEST

Museum Ships On The Air Weekend June 6-7th



Thanks to Buddy W7BSF as he has volunteered to chair this event. Buddy is working through his final plans and still needs radio operators to make this event successful. Many of the club members have conflicts this year and Buddy really needs YOUR help. We are a couple of weeks away now so please reach out to W4BSF@BSAFRC.ORG as we need all hands on deck for this year's event.

USS TENNESSEE INFO

ARRL America250 Worked All States

A Year-Long Worked-All-States Operating Event Celebrating the 250th Anniversary (Semiquincentennial) of the signing of the Declaration of Independence.



While the object of the America250 WAS event is to make as many contacts with W1AW/portable states as possible, on as many bands and modes as possible (except 60 Meters), all operators are encouraged to explain celebrating America's 250th anniversary with the ARRL America250 WAS Award to the degree that your operating time allows.

Summary:

- The America250-WAS begins as a **Basic Worked All States Award** by contacting all 50 States in 2026.

Endorsements:

- Contacting W1AW/Portable stations in all 50 States.
- Contacting ARRL Affiliated Club Call Signs in all 50 States.
- Contacting all 50 States on CW and Phone and Digital for a 'TRIPLE PLAY'.

Working All States toward achieving your America250 WAS by contacting W1AW/Portable

Stations: There will be week-long activations of portable W1AW/portable stations in all 50 states, and potentially in several US Possessions/Territories, that will generate on-air activity to achieve this unique WAS Award. For this operating event, ARRL will provide a listing of all W1AW/portable stations, who will each operate for 7 days (from a Wednesday through the following Tuesday) for 2 separate weeks in the year (an early week between January and July, and a late week between July and December). A few weeks will be listed as non-W1AW/portable weeks due to contests and ARRL Field Day.

- There will be three (3) specialty Endorsements, including:

- Earn WAS by contacting W1AW/portable stations in all 50 states (applying for this endorsement will become possible sometime into July or thereafter when the first wave of 50-state activations is completed and the second wave of state activations is underway - ending December 31, 2026).
- Earn WAS by contacting ARRL Affiliated Club stations in all 50 states (see the ARRL [Club Search web page](#) to determine the locations and call signs of ARRL Affiliated Clubs). *As an affiliated club we count for those making contact with us under the club's call sign of W4BSF.*
- Earn WAS Triple Play by contacting all 50 states *on all three modes* (CW/Phone/Digital)

**EXTERNAL LINK GENERAL
INFORMATION**

W1AW Operating Upcoming Schedule:

6-3-2026: New Jersey, Oregon
6-10-2026: Alaska, **Tennessee**
6-17-2026: Arkansas, Nebraska
6-24-2026: No activations
7-8-2026: No activations
7-13-2026: Georgia
7-15-2026: Indiana
7-15-2026: Pennsylvania
7-15-2026: Utah
7-22-2026: Rhode Island
7-22-2026: South Carolina
7-29-2026: Minnesota
7-29-2026: Wyoming
8-5-2026: Iowa
8-5-2026: New Jersey
8-5-2026: Louisiana

**EXTERNAL LINK
SCHEDULE**

Volunteers Needed for W1AW/4 Tennessee!!

We have submitted a couple of names along with days/times for the June activation. We will see how that goes and what we can do to support the September 16th through the 22nd for the WAS 250 event.

2026 ARRL Field Day

June 27 - 28



ARRL Field Day is a radio communications event that brings together amateur radio operators (also called “hams”) within your community. The theme for 2025 Field Day is “Radio Connects” – highlighting the many ways that wireless technology connects people across distances near and far. The event is part picnic, campout, practice for emergencies, informal contest, and most of all, fun! ARRL Field Day is the most popular ham radio activity held annually in the US and Canada. On the fourth weekend in June each year, more than 31,000 hams get together with their radio clubs, schools, or friends to operate from remote locations.

For many radio clubs, ARRL Field Day is one of the highlights on their annual calendar. A typical Field Day site will showoff many aspects of amateur radio and its many roles.

Some groups use Field Day as an opportunity to practice their emergency communications readiness. ARRL Field Day is an annual demonstration and invites the general public and organizations to see how amateur radio can serve in an emergency, When All Else Fails®. Hams are well-known for their communications support in real disaster and post-disaster situations. Despite the development of very complex, modern communications systems – or maybe because they are so complex – ham radio has been called into action, again and again, to provide communications in crises when it really matters.

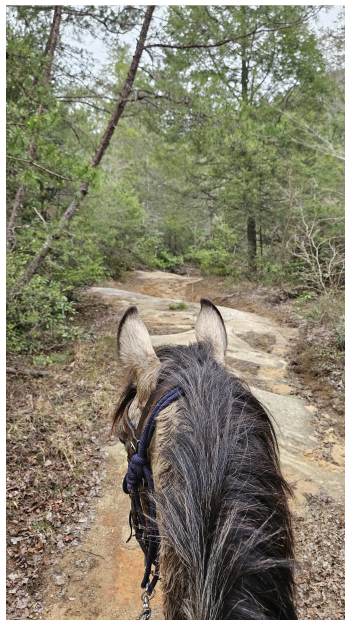
Amateur radio also inspires the next generation of technical leaders by providing a hands-on sandbox where students gain experience in the fields of science, technology, engineering, and mathematics (STEM).

For those with a competitive spirit, Field Day stations compete to make radio contacts with as many other stations as possible while learning to operate radio equipment in challenging situations and less-than-optimal conditions. These same skills are used by hams who volunteer to help with large, preplanned, non-emergency events such as marathons and bike-a-thons; fundraisers such as walk-a-thons; celebrations such as parades, and exhibits at fairs, malls, and museums.

**EXTERNAL LINK TO ARRL
FIELD DAY**

BSF Endurance Horse Ride

September 11-12, 2026



This two day event is held near the Bandy Creek visitors center in Big South Fork and is celebrating its 32nd year. While details are forthcoming they typically have a 25 and 50 mile endurance horse ride starting early on Friday morning. The rides are then repeated on Saturday. We are reaching out to them to see if they need our help. Our past roles included calling in rider status (as they pass your location) and any health and welfare traffic. There are NO aid stations as we may be the only person the rider sees on the course. All locations can be driven to. Let us know that you are able to help support this event as we await more information from them. You can drop us an email at W4BSF@BSAFRC.ORG if you can help in anyway with this event.

**ENDURANCE RIDE (2025
INFO)**



October 23-24, 2026

First a big thank you for the recent donation we received from the No Business 100 event.

The race is on as they have opened registration which was sold out in a matter of hours. This year being even the course will be run in a counter clockwise direction. That means that our normal aid-stations will be active Saturday during the day. Our chairperson for coordinating communication volunteers is once again Joe N4YLA. This is a great way of not only giving back to the community but also practicing your emergency radio skills. No prior experience is necessary and if needed we can pair up unlicensed volunteers with a radio operator. We will be providing health and welfare communications in addition to participant information such as drops and those in need of transportation. More to come but reach out to Joe and let him know that you are able to help support this event. You can also drop us an email at W4BSF@BSAFRC.ORG if you can help in anyway with this event.

The BSFARC web page is a work in progress and the link is below:

**No Business 100
Information**

JOTA October 16-18, 2026

Jamboree on the Air (JOTA) is an annual Scouting event that connects Scouts around the world with the use of amateur radio. Short-wave radio signals carry their voices to virtually any corner of the world. The use of amateur radio techniques offers an extra educational dimension for Scouts. Many boys and girls grasp the opportunity to discover the world of wireless radio techniques and electronics.

Thousands of Amateur Radio operators will assist the Scouts over the JOTA-JOTI weekend with their knowledge, equipment, enthusiasm and ethics. In some countries, Scouts may speak over the air themselves; in others, special permission can be obtained for Scouts to speak on the radio themselves during the JOTA weekend.

As a club we have a unique opportunity to introduce amateur radio to the next generations of hams. Ideally, we need a volunteer to lead this effort. With about 200 days before the event time is getting short as we should register a special event station for the weekend in the QST magazine and on the

ARRL web site. We also need to plan for a couple of training sessions to get the scouts ready for on the air contacts. It truly takes a village to make something like this happen. The question is there enough interest to approach one or more scout troops to see if we can team up together? Let us know at the next club meeting or send us an email at W4BSF@BSFARC.ORG.

State QSO Parties



June 6-7: Kentucky

June 7-8: Atlantic Canada

June 20-21: West Virginia

July 25-26: Alabama

August 8-9: Maryland

August 22-23: Hawaii

August 22-23: Ohio

August 29-30: Kansas

September 6-7: Tennessee

Here is a link to a YouTube video about state QSO parties: [LINK](#)

LOCAL HAM FESTS 2026



07/11/2026 – Greater Nashville & Middle Tennessee HamQuest – Lebanon, TN.
<http://midtnhamquest.com/>

07/18/2026 – McMin County ARC Ham Fest – Athens, TN.
<https://mcminnarc.github.io/mcarc-website/>

09/19/2026 - W4DXCC by SEDCO – Pigeon Forge, TN.
<https://www.arrl.org/hamfests/w4dxcc-by-sedco-2>

10/17/2026 – Short Mountain Repeater Club Hamfest – Wartrace, TN.
<https://www.smrclub.com/>

To search for all other ham fests go to: <https://www.arrl.org/hamfests/search>

TN ARES Open Positions



Our club has been and continues to be a big supporter of emergency communications and TN ARES. We can continue that support by helping them to recruit a amateur radio operator to take on the role of Emergency Coordinator as we have vacancies in Fentress and Morgan counties. Joe N4YLA has submitted his application and awaiting a response for the Scott EC position. As a club we would also like to update our roster of ARES volunteers in order to help out the new ECs develop their teams. Drop us an email at W4BSF@BSFARC.ORG if you are interested in emergency communications.



Every amateur operator counts in the efforts to preserve our band privileges and the growth of amateur radio. We need to unite under one banner to support the efforts of the ARRL to keep the lobbyists and campaigns going. So, please join or renew your membership today! There has never been a more important time than now to make a difference in the future for yourself and your fellow hams! Go to: <https://www.arrl.org/membership> Together we can keep our bands free from corporate takeover at the FCC. And thanks for your support!

ARRL has announced free membership for full-time students aged 21 and younger.

ARRL Membership



2026 has been designated by the ARRL Board of Directors as the Year of the Club, recognizing that radio clubs are the backbone of ARRL. The growth and development of amateur radio rely on our vibrant community of radio clubs. As BSFARC is an Affiliated Club we are eligible to participate! This should be an exciting promotion for our hobby and could help us better focus on the needs of our members while getting the word out to others.



TN-3980 Phone Simulated Emergency Test

Tim-WB4GBI called the quarterly S.E.T. on May 26,2026. Tim did a good job as usual. He was clear and precise on the manner in which we were to check in. He repeated that a few times also. Some

did not hear evidently since some did not follow his instructions for procedures in checking in. Lesson, listen closely to announcements especially for SETs.

We experienced quite a bit of QSB also. I received notifications of some who could not hear NCS that tried to participate. That may always be the case for various reasons. We cannot even guess what conditions may be if and when an emergency might exist so we take and do the best we can under all conditions.

Out of state stations received no announcement about the SET today. Some adjusted and participated. There were 83 who checked in with power varying. One person used one (1) watt and was heard. I used 75 watts. There were 140 souls counted today.

Thanks Tim and thanks to all who participated. These are very important for the good of our preparedness in our state.

73/WD4LAR/Harrell
TN STM



By: [K Thomas W1DED](#)

Mike Case W8MSC, and Thom Martin W8TAM, two of the key architects behind Parks on the Air and current board members, discuss upcoming system improvements during Hamvention 2026 in Xenia, Ohio. On a gray Sunday morning at Dayton Hamvention 2026, while much of amateur radio's largest gathering had already begun drifting toward flea markets, radios, and the long drive home, one conference room inside the Greene County Fairgrounds remained unexpectedly full. The people who stayed behind weren't there for a DXpedition slideshow or a new radio unveiling. They were there to hear three volunteers talk about databases, cloud architecture, award engines, and the future of Parks on the Air.

Under ordinary circumstances, that would sound like a guaranteed way to empty a room.

Instead, operators leaned forward in their chairs as the Forum Room #1 filled to capacity with hundreds of POTA activators and hunters eager to hear about future IT developments.

At the front stood Parks on the Air (POTA) board members, Mark Torigian K8MST, alongside Mike Case W8MSC, and Thom Martin W8TAM—the latter two part of the founding technical core behind one of the fastest-growing programs in amateur radio. Torigian opened with a joke about “computer guys” but the mood inside the room quickly shifted into something more serious. This was not merely a software update presentation. It was an unusually candid look at the strain created when a volunteer-built hobby project suddenly becomes global infrastructure.

“These guys are the subject matter experts,” Torigian told the crowd. “They work hard.” That understatement hung over the rest of the session.

Because what Parks on the Air’s leadership described over the next hour was not a routine modernization effort. It was a complete architectural rebuild of a platform that now supports nearly 85,000 operators worldwide, processes millions of QSOs annually, and has outgrown nearly every assumption made when the original system was assembled years earlier by a handful of volunteers teaching themselves as they went.

The remarkable part is that none of this was planned.

Parks on the Air was never designed as a large-scale global platform. It evolved into one almost accidentally, growing out of the energy created by the ARRL’s National Parks on the Air event in 2016 and the parallel Michigan State Parks on the Air program that followed. What began as a continuation of portable operating enthusiasm slowly transformed into something much larger: a worldwide operating ecosystem with its own culture, statistics economy, software infrastructure, awards architecture, and social identity.

In the early days, the technical foundation was almost laughably modest. The original site ran on what Mike Case described as a “home lab style system,” a small Linux-based server with limited memory and minimal processing power. The platform used a classic LAMP stack—Linux, Apache, MySQL, and PHP—because, as Case admitted with a grin, “that was the thing at the time.” Jeremy Turner N0AW, and Colby Dillion WR5B, were also instrumental in shaping those early systems, and the current platform still relies heavily on software they developed, with both continuing to provide occasional support behind the scenes. The interface itself was functional but rough, packed with statistics tables and improvised design choices created by volunteers who were simultaneously building the airplane and teaching themselves aeronautical engineering.

At the time, perhaps 1,200 people used the system.

Today, the scale is almost difficult to comprehend within the context of amateur radio. Parks on the Air now consumes roughly \$6,000 per month in IT infrastructure costs alone, with cloud-hosted systems dynamically scaling to support spikes in traffic and spotting activity. The original architecture survived far longer than anyone expected, largely because the developers continuously patched, modified, and expanded systems that were never intended to support a global audience. What emerged during the Hamvention session was a portrait of technical debt not in the abstract Silicon Valley sense, but as a deeply human problem. Every successful feature added over the years

created additional complexity underneath. Awards were bolted onto systems that had never been designed to generate awards. International expansion introduced geographic and political complications nobody had anticipated. Mapping systems multiplied. Spotting infrastructure evolved. APIs emerged unofficially through reverse engineering because users wanted integration tools faster than the organization could formally provide them.

And all of it remained volunteer-run.

Thom W8TAM acknowledged the reality bluntly. The core database structure still traces back to decisions made in 2018. In technology terms, that is ancient history. More importantly, the aging architecture has become increasingly difficult to maintain because fewer volunteers possess the specialized knowledge required to work on it. The problem is not simply performance. It is sustainability.

That realization sits at the heart of what I will call, unofficially, POTA 2.0.

The rebuild now underway is not merely about adding features. It is about creating a platform that future volunteers can realistically maintain without requiring enterprise-level engineering expertise. The new system, built around the Laravel framework and redesigned cloud infrastructure, aims to simplify development while simultaneously expanding capability. Public APIs, multilingual support, integrated documentation, improved accessibility, enhanced mapping, club-specific statistics, faster log processing, and expanded award systems are all part of the roadmap.

One of the names that surfaced during the presentation was James Linden VE3JLN, a developer who was not present in Xenia but whose work sits underneath much of the transition now underway. As the Parks on the Air team described the enormous challenge of rebuilding award systems, recalculating activations, and restructuring years of accumulated data into internationally standardized formats, they paused to acknowledge Linden's contribution directly. According to the presenters, he carried "a lion's share" of the technical work required to recalculate awards and rescore activations as the system migrated away from its older U.S.-centric structure toward internationally standardized geographic coding. That kind of invisible backend labor may not generate the excitement of a new feature announcement, but it forms the foundation making the larger POTA 2.0 transition possible in the first place. Yet throughout the presentation, the technical discussion kept circling back to something more philosophical.

How do you modernize Parks on the Air without losing what made people fall in love with it in the first place?

What became clear in Xenia was that the future of Parks on the Air will not be determined solely by software frameworks, cloud infrastructure, or database migrations. It will depend on whether the volunteer culture that built Parks on the Air in the first place can continue scaling alongside the technology itself. The radios may still be portable, improvised, and deeply human, but the infrastructure supporting them has quietly become one of the most ambitious volunteer-run systems in amateur radio.

[Read More \(Full Article\)](#)

FCC Warns Pittsburgh Amateur Radio Operator for 911 Interference

The Federal Communications Commission has sent a notice of licensed operation and harmful interference to an amateur radio operator in Pittsburgh regarding transmissions on a 911 emergency services channel from a handheld transceiver.

Last summer, the FCC received a complaint from Allegheny County, Pa., Emergency Services concerning interference with one of its UHF “T-Band” emergency communications channels. The interference affected the county’s west EMS dispatch channel on 470.4375 MHz.

On July 30, 2025, agents from the Columbia Office of the FCC’s Enforcement Bureau conducted an investigation and determined, using direction-finding techniques, that the source of the interference was a signal emanating from the residence of David Kundston, a licensed amateur radio operator with the callsign KD3ASC.

[\(Read the FCC’s notice.\)](#)

After the agents notified Kundston of the issue, he produced a Baofeng BTech UV-Pro handheld radio. The BTech UV-Pro Tan edition lists for approximately \$165 on Amazon. It is capable of transmitting on the VHF and UHF amateur radio and private land mobile radio bands. An examination of the radio by the agents determined it had been programmed to monitor the Allegheny County channel in question, and its “audio relay” feature had been activated. This feature takes audio traffic from one channel and retransmits it on another. He surrendered the radio to the agents, and they verified that the interference to Allegheny County’s system had ceased, according to the FCC’s account. Radio stations, including those operating at 470 MHz, must be licensed with the FCC, with the only exception being operation at a power level in accordance with Part 15 of its rules.

The UV-Pro is not certified as a Part 15 device, according to the FCC’s Office of Engineering Technology’s 2024 grant of equipment authorization for the device. It is certified as a Part 90 device, rated for up to seven watts of transmitting power – far above Part 15 power limits. No person shall interfere with or cause interference to any radio communications of a licensed station, according to FCC rules. Kundston must respond to the Enforcement Bureau within 10 days of the notice, describing the steps he is taking to avoid operating on unauthorized frequencies.

[Read More \(Full Article\)](#)

The Ham Radio World Comes to Xenia

By: Michael Kalter W8CI

Hamvention 2026 drew a world of kindred spirits to the Greene County Fairgrounds and reminded us that radio waves have always been humanity's most quietly miraculous language.

It is over already, and already missed. The 74th annual Dayton Hamvention, held at the Greene County Fair and Expo Center in Xenia, Ohio, recently came to a close, leaving behind a fairground full of memories, friendships renewed and forged, and a quiet sense of awe at just how far a radio signal can travel.

From the moment the gates opened on Friday morning, it was clear this year's gathering was something special. Crowds poured in from across the United States and more than 43 countries around the world – engineers and experimenters, veterans and curious teenagers, seasoned DX chasers and brand-new licensees. Every walk of life. Every mode of communication. All converging on a single fairground in Greene County, Ohio, united by one invisible thread: the radio wave.

Hamvention is often called the world's largest amateur radio convention, and the numbers bear that out. A record 37,924 attendees filled the exhibit halls, forums, and the sprawling flea market tucked inside the fairground's horse track infield. Over 350 vendor booths offered everything from brand-new transceivers to decades-old components, with 162 vendors representing the full spectrum of the hobby.

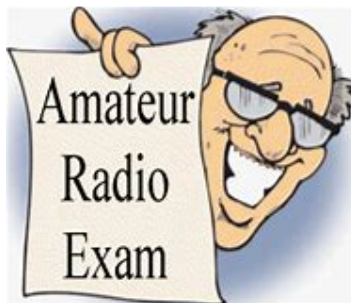
[Read More \(Full Article\)](#)

Club Apparel



The club has ordered some extra t-shirts and currently has 1 medium and 3 large shirts available. Let Kelly KI4JAV know if you want and she will bring them to the next meeting. They are only \$7.00 each thanks to Rugby Screen Printers as we are able to purchase at a discounted rate. Show your support for BSFARC and Rugby Screen Printers by ordering yours today!

Local and In-Person Exams



Let us know if you are ready for the exam at W4BSF@BSFARC.ORG as we can schedule a session just for you!

The VE (Volunteer Examiner) team has made the transition to electronic submission for testing documents. While we still only do in-person testing the applicant can choose to take a paper exam or complete their test using a computer. Forms are then emailed to the applicant, ARRL and to the

FCC for faster processing. The ARRL testing fee is still \$15 for adults and under the age of 18 it is only \$5. The \$35 license fee is paid directly to the FCC and with the ARRL youth program they will reimburse the youths that fee! We will work with you to schedule an exam in your area at a convenient time. No more waiting, long drives or trying to take an on-line test with multiple cameras. We try to make it as easy as possible to take but it's up to you to pass!

The technician question pool will change in July 2026.

LICENSE EXAM



A **BIG** BSFARC shout out to Stephen West KR4JIQ/AG who passed his general class exam on 2026-05-28 and now has access to 95% of the available frequencies. After his test he made his first HF POTA contact to a station in Indiana on 40-meters. While there was quite a bit of QSB he is off and running now.

Calendar of Events 2026



6/6/2026	KY QSO Party
6/6/2026	Museum Ship Weekend SES
6/7/2026	Museum Ship Weekend SES
6/7/2026	KY QSO Party
6/11/2026	BSFARC Meeting/Meet & Greet
6/13/2026	Knoxville Hamfest/ARRL convention
6/27/2026	ARRL Field Day
6/28/2026	ARRL Field Day
7/9/2026	BSFARC Training/Meet & Greet
7/11/2026	Greater Nashville & Middle Tennessee Hamquest
7/12/2026	Harvest Ready Fest (Planning Session D. Pullins)
7/18/2026	MCARC (McMinn) Ham Fest
7/18/2026	POTA Support Your Parks Weekend
7/19/2026	POTA Support Your Parks Weekend
8/13/2026	BSFARC Meeting/Meet & Greet
8/22/2026	Huntsville AL Hamfest
8/23/2026	Huntsville AL Hamfest
8/23/2026	Cedars of Lebanon Hamfest – Lebanon, TN.
9/11/2026	Endurance Horse Ride
9/12/2026	Endurance Horse Ride
9/6/2026	Tennessee QSO Party
9/10/2026	BSFARC Training/Meet & Greet
9/19/2026	W4DXCC by SEDCO Pigeon Forge
9/19/2026	Big South Fork Haunting in the Hills Story Telling Festival
9/19/2026	Harvest Ready Fest (Fentress County D. Pullins)
10/8/2026	BSFARC Meeting/Meet & Greet
10/17/2026	Big South Fork Blue Heron Ghost Mine

10/17/2026	POTA Support Your Parks Weekend
10/18/2026	POTA Support Your Parks Weekend
10/23/2026	NB 100 Race
10/24/2026	NB 100 Race
11/12/2026	BSFARC Training/Meet & Greet
12/5/2026	Skywarn Recognition Day
12/10/2026	BSFARC Meeting/Meet & Greet
12/12/2026	ARRL 10-Meter Contest
12/13/2026	ARRL 10-Meter Contest

Rydberg atoms detect clear signals from a handheld radio

For the first time, a team of US researchers has used sensors containing highly excited Rydberg atoms to detect signals from an ordinary handheld radio. Through a careful approach to demodulating the incoming signals, Noah Schlossberger and colleagues at the National Institute of Standards and Technology (NIST) were able to recover audio encoded in multiple public radio channels, with promising implications for everyday uses in consumer electronics. The research has been published in [Physical Review Applied](#). In a Rydberg atom, a single electron is excited to an extremely high energy level, pushing it far from its host atom's nucleus. From a distance, these atoms resemble a single electron orbiting a positively charged ion. When any atom is exposed to an external electric field, the positions of its electrons' energy levels shift through a process called the Stark effect. Yet in a Rydberg atom, the shift becomes far more pronounced, causing particularly striking changes in the spectral patterns produced when the atom is probed by a laser.

Untapped potential

This effect ultimately means that Rydberg atoms are ideally suited as electric-field sensors: a possibility the Rydberg Sensor project's group leader, Christopher Holloway, began to explore in 2009. After embarking on the project, Holloway's team soon realized that the possibilities were far more wide-ranging than they first anticipated.

"One of the more intriguing applications is [atom-based receivers](#), where these Rydberg-atom sensors act like an antenna to detect the signal, and perform the demodulation and down conversion automatically," Holloway describes. "In principle, these Rydberg receivers could eliminate a lot of the front-end devices and electronics when compared to conventional receivers."

So far, however, the possibilities of these atomic sensors have largely been explored within the confines of the lab—leaving the full scope of their potential real-world applications largely unexplored.

EXTERNAL LINK READ
MORE

Satellite Status and Online Tracker

This is a list of all amateur satellites and other sats of interest. It is also a simple online tracker (click on Track for a satellite). At the top you can find the best active satellites at the moment with comments from AMSAT-SM. The data is collected from [KFØIA](#). For suggestions and feedback please [contact AMSAT-SM](#).

More satellite frequency sources: User reports at [AMSAT Live OSCAR Satellite Status Page](#), [JE9PEL, SatNOGS database](#), [KE0PBR Cheat Sheet](#), future planned satellites at [IARU Satellite Database](#). AMSAT-NA has a lot of information under menu selection "[Satellite Resources](#)".

More tools: How to show [current observations from SatNOGS](#). A useful tool is [SatMatch](#) for satellite prediction to find times when a satellite is visible from two locations.

ARISS Beyond the ISS

With 25 years of experience connecting astronauts and cosmonauts to tens of thousands of kids and adults around the world via amateur radio, ARISS is plotting a course to continue our mission in the government and commercial space realm beyond the targeted decommissioning of the ISS in the 2030 timeframe.

As you know, we've already been active in conducting ham radio operations in commercial space ventures including all four Axiom Space flights to the ISS and the Fram2 free-flying mission, and that's a big hint on where we'll be focused in the post-ISS era. ***We've identified commercial space stations as a key growth area for ARISS and we're in conversations with anyone and everyone in this emerging sector about making ham radio an asset for crews.***

EXTERNAL LINK READ
MORE

By [H. Ward Silver](#)

Rings, beads, cores — hams recognize these instantly as the most common shapes of ferrite materials and soon you will, too!

FERRITE — WHAT IS IT?

Black, brittle, and heavy are all characteristics of ferrites — a family of ceramic materials made from oxides of metals like iron (Fe), zinc (Zn), manganese (Mn), and nickel (Ni). You have encountered ferrites as magnets and inductor cores and those odd lumps at the ends of cables. First created in 1930, they have since become important materials in the electronics and RF world. They have a high *permeability* (see the sidebar) but don't conduct electricity very well at all. However, these properties make them ideal for a variety of uses in electronics.

[EXTERNAL LINK READ
MORE](#)

WSJT-X 3.0 now available

The latest version introduces a new program called QMAP, new Special Operating Activities Q65 Pileup and SuperFox mode, an option to Update Hamlib at the click of a button, a new program feature Message System, and a number of other enhancements.

[EXTERNAL LINK READ
MORE](#)

SolarCdx.com -Tactical HF propagation intelligence

SolarCdx.com is dedicated to providing vital solar weather data essential for Amateur radio communication enthusiasts. Our mission is to enhance the understanding and management of solar impacts on HF radio. By delivering accurate and timely solar weather updates, we empower users to optimize their radio operations. Our data, sourced from leading scientific organizations, is crucial for predicting and mitigating the effects of solar events on communication systems, making SolarCdx.com an indispensable tool for the radio community.

[EXTERNAL LINK WEB SITE](#)

UPCOMING EVENTS AND INFORMATION

Special Event Stations

Contact these stations and help commemorate an historical occasion or other special event. Many special event stations provide a special QSL card or certificate.

Certificates and QSL cards: To obtain a certificate from any of the special-event stations offering them, send your QSO information along with a 9x12 inch self-addressed, stamped envelope to address listed in the announcement. To receive a special event QSL card (when offered), be sure to include a self-addressed, stamped business envelope along with your QSL card and QSO information.

June 2026

06/01/2026 | W2W D-Day Commemoration

Jun 1-Jun 14, 1300Z-2200Z, K3NEM, Middle River, MD. Amateur Radio Club of the National Electronics Museum. 14.244 14.044 7.244 7.044. Certificate & QSL. ARC NEM, c/o Fred Heath AI3Z, 202 Baltimore-Annapolis Blvd., Severna Park, MD 21146-1368. Amateur Radio Club of the National Electronics Museum (ARC NEM) will operate W2W in commemoration of the anniversary of D-Day and the role of electronics in WWII. Primary operation will be June 1-June 6 with additional operation possible during June 7-14 as operator availability permits. Operation on 80M (3.544, 3.844), additional bands and digital modes possible during event. Frequencies +/- according to QRM. QSL and Certificate available via SASE; details at ww-2.us WW-2.us

.....

06/06/2026 | DDay

Jun 6, 1400Z-1900Z, W6J, CHRISTIANSBURG, VA. New River Valley Amateur Radio Club. 14.262. QSL. Danny Wylam, 710 McDaniel Drive Southeast, CHRISTIANSBURG, VA 24073-3848. dannywylam@gmail.com

.....

06/06/2026 | Historic Ship USS NAUTILUS SSN 571

Jun 6-Jun 7, 0000Z-2359Z, N1S, Groton, CT. Generations Amateur Radio Club. 3.950 7.250 14.270 21.075. QSL. N1S, Generations ARC, 110 Vinegar Hill Road, Gales Ferry, CT 06335.

06/06/2026 | Lewis and Clark Trail on the Air

Jun 6-Jun 21, 0000Z-2359Z, W7AIA, Various Cities and States. Clark County Amateur Radio Club. 14.240. Certificate & QSL. Clark County Amateur Radio Club, PO Box 1424, Vancouver, WA 98661.
<https://www.lctota.org>

06/06/2026 | Museum Ships Weekend

Jun 6-Jun 7, 1700Z-2359Z, NI6IW, San Diego, CA. USS Midway Museum Ship CV-41 COMEDTRA NI6IW. 7.250 14.320 14.070 DStar on PAPA System Repeaters. QSL. USS Midway CV-41 Museum Ship COMEDTRA NI6IW, 910 N Harbor Drive, San Diego, CA 92101. All Museum Ships to operate through the week-end, see www.qrz.com/db/ni6iw for QSL information also.

06/06/2026 | Museum Ships Weekend - NS Savannah

Jun 6-Jun 7, 1400Z-2200Z, K3SAV, Baltimore, MD. Nuclear Ship Savannah ARC. 7000. QSL. Ullis Fleming, 980 Patuxent Road, Odenton, MD 21113. qrz.com/db/K3SAV

06/06/2026 | National Museum of the Great Lakes Museum Ships Weekend

Jun 6-Jun 7, 1400Z-1830Z, K8E, Toledo, OH. Toledo Mobile Radio Association. 7.039 7.260 14.239 14.260. QSL. TMRA James M. Schoonmaker, PO Box 9673, Toledo, OH 43697.
www.qrz.com/db/k8e or www.w8hhf.org

06/06/2026 | NB9QV USS Cobia Museum Ships Weekend

Jun 6-Jun 7, 1400Z-2000Z, NB9QV, Manitowoc, WI. USS Cobia Amateur Radio Club. 7.240 14.240. Certificate. KC9YL, kc9yl@arrl.net, n/a. <https://www.qrz.com/db/NB9QV>

06/06/2026 | USS TN Battleship Museum

Jun 6-Jun 7, 0001Z-2359Z, W4BSF, Oneida, TN. Big South Fork Amateur Radio Club . 3.900 7.200
14.750 28.400. QSL. Buddy McCartt - W7BSF, 275 Hunter Hill Rd., Oneida, TN 37841-3578.

<https://bsfarc.org>

06/06/2026 | USS Wisconsin Museum Ship on the Air, Battleship USS Wisconsin BB-64 will be on the air each day until 2130 UTC

Jun 6-Jun 7, 1400Z-2130Z, N4WIS, Norfolk, VA. USS Wisconsin Radio Club. 14.264 7.064, 7.264
21.064, 21.364 28.364. QSL. Nauticus c/o USS Wisconsin Radio Club N4WIS, One Waterside Drive,
Norfolk, VA 23510. <https://n4wis.com>

06/10/2026 | 190th Anniversary of Arkansas Statehood

Jun 10-Jun 15, 0000Z-2359Z, K5A, Springdale, AR. Bella Vista Radio Club. 14.040 14.260 7.040
7.260. QSL. Don Banta, 3407 Diana Street, Springdale, AR 72764. www.qrz.com/db/k5A or

<https://bellavistaradioclub.org>

06/11/2026 | "Football/Futbol On The Air - the 2026 World Soccer Tournament."

Jun 11-Jul 19, 0000Z-2359Z, W5C, Dallas, TX. Lake Whitney Amateur Radio Society . 14.074.
Certificate & QSL. Ron Franklin , 120 PR 22223, Whitney, TX 76692. www.wc2026ses.org.

info@wc2026ses.org

06/12/2026 | World Soccer Tournament

Jun 12-Jul 19, 0000Z-2300Z, WM3PEN, Philadelphia, PA. Holmesburg Amateur Radio Club. 14.276
7.276. QSL. Bob Josuweit, 3341 Sheffield Ave, Philadelphia, PA 19136.

<https://www.qrz.com/db/WM3PEN>

06/13/2026 | Honoring Emigrants on the Oregon Trail at Fort Laramie, WY

Jun 13-Jun 14, 1400Z-2200Z, K7WY, Fort Laramie, WY. Oregon Trail Radio Pioneers . 28.525 21.290
14.235 52.0. Certificate & QSL. Lee Milner, 123 Arrowhead Road, Torrington, WY 82240.

K7WY.Lee@gmail.com

06/20/2026 | 20th Anniversary of the Museum Ship Icebreaker Mackinaw

Jun 20, 1400Z-2359Z, W8AGB, Mackinaw City, MI. CCECPSCO. 14.250. QSL. W8AGB, P. O. Box 844,
Harbor Springs, MI 49740.

06/20/2026 | East Coast Reflector Meet and Greet

Jun 20, 1400Z-2100Z, W2ECR, Orchard Park, NY. East Coast Reflector. 7.217 14.317. Certificate.
Steven Fook, 351 Regal Dr, Abingdon, MD 21009. <https://www.eastcoastreflector.com>

06/20/2026 | U.S.A. 250th

Jun 20-Jun 21, 1400Z-2100Z, W8FO, Perrysburg, OH. QCWA Chapter #142. 14.235 21.235 28.535
50.125. QSL. Kurt Meyers, 3680 Schneider Rd, Toledo, OH 43514-3647. pasteur@bex.net

06/21/2026 | World Giraffe Day

Jun 21, 1200Z-2200Z, W3G, Trexlertown, PA. East Penn ARC/Education Alliance for Amateur Radio .
7266. QSL. Walter J Skavinsky, 1574 Layfield Road, Pennsburg, PA 18073-1702. kb3sbc@arrl.net

06/24/2026 | Field Day 2026

Jun 24-Jan 1, 0000Z-0000Z, N6R, Thousand Oaks, CA. Ventura county ars. 14.255. QSL. Peter
Heins, N6ZE, 1559 Norwich Ave, Thousand Oaks, CA 91360. Celebrating lives of President Ronald
Reagan and Mrs Nancy Reagan vcars.org

06/25/2026 | 37th Red Power Roundup

Jun 25-Jun 27, 1500Z-1800Z, W0NOZ, Huron, SD. Huron Amateur Radio Association. 28.385 21.385
14.285. Certificate. Lloyd Timperley, PO Box 205, Huron, SD 57350.

06/25/2026 | America250 DARC

Jun 25-Jul 8, 0000Z-2359Z, KM0DRC, Doniphan, MO. Doniphan ARC. 28.500. QSL. Kent Wilfong, 209 Locust St, Doniphan, MO 63935. doniphanarc@outlook.com

06/27/2026 | GSBARC FIELD DAY

Jun 27-Jun 28, 1800Z-1800Z, W2GSB, Babylon, NY. GREAT SOUTH BAY AMATEUR RADIO CLUB. 14.245 28.500 21.325 7.275. QSL. GSBARC FIELD DAY , 200 East Sunrise Hwy, Lindenhurst, NY 11757. WWW.GSBARC.ORG

06/28/2026 | Trail to Eagle (TTE)

Jun 28-Jul 3, 0100Z-0400Z, K2BSA/8, Metamora, MI. Boy Scouts of America/Michigan CrossRoads Council . 14.330 7.270 3.840. QSL. GCARC, P.O. Box 482, Garden City, MI 48136-0482. <https://michiganscouting.org/camping/trail-to-eagle>

To learn more about and to search even more special event stations click the adjacent link:

**ARRL LINK SPECIAL
EVENT STATIONS**

BSFARC.ORG



Be sure to like and follow us on FaceBook



Visit us on the web at
<https://BSFARC.ORG>

[Unsubscribe](#) | [Manage your subscription](#)

The Modulator newsletter is published monthly for members and friends of the Big South Fork Amateur Radio Club. BSFARC denies any responsibility for the accuracy or content of articles published herein. The opinions expressed are solely those of the authors. BSFARC neither necessarily endorses nor opposes said opinions, brand names, products, businesses, organizations, etc. Submission of any amateur radio related articles is encouraged and welcomed. Submit your article to

the editor: Bill Green-KF4TY, PO Box 5029., Oneida, TN 37841 (or E-mail to: KC8SPV@gmail.com) for publication in THE MODULATOR. The deadline for articles is the 15th of each month.

MailPoet