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John E. Ross, KD8IDJ, [Editor](#)

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## T-Minus 3 Three Weeks: 2024 ARRL National Convention at Hamvention®

The 2024 ARRL National Convention is just 3 weeks away, on May 17 - 19, 2024. The event is being hosted by Dayton Hamvention in Xenia, Ohio.

ARRL has a significant amount of technical content planned for the convention program. (see the full rundown at [www.arrl.org/expo](http://www.arrl.org/expo)). There are also presentations planned to challenge and inspire attendees throughout each step of a radio amateur's journey in the world of wireless communication technology.



**Calling All Technicians**

"Beyond Repeaters: See How Far Your Tech License Will Take You" will be an exciting presentation from ARRL Digital RF Engineer John McAuliffe, KD2ZWN, who will be at the convention representing the ARRL Laboratory. Geared for Technician class hams, attendees will explore all that can be done within Technician class privileges. (Hint: it's a lot!)

McAuliffe will lead an engaging discussion that will focus on three main areas: UHF use and potential projects and activities that can be enjoyed beyond 70 centimeters; 10-meter digital modes, satellite, and long-range communications; and HF CW privileges including a short guide on how to build your own CW encoder/decoder.

ARRL Lab Digital RF Engineer John McAuliffe, KD2ZWN, holds one of the projects he will cover in his presentation in "Beyond Repeaters: See How Far Your Tech License Will Take You." [Sierra Harrop, W5DX, photo]

### **Build Your Ham Community**

Amateur radio clubs can be a driving force for getting people licensed and keeping them engaged. In "Tips for Successful Radio Clubs", ARRL Field Services Manager Mike Walters, W8ZY, will share some of the best practices that can be learned from high performing ARRL Affiliated Clubs.

This forum will include a discussion of ideas and opportunities for radio clubs that are seeking growth and greater member participation. Topics will include recruitment, licensing, training, engagement, and leadership development.

These forums are part of the 2024 ARRL National Convention track. Plan your must-see presentations using the ARRL Events app. Find the app in your devices' app store or at [this link](#).

You can learn more about Hamvention and buy tickets at [www.hamvention.org](http://www.hamvention.org).



**Colorado Students Contact the International Space Station**

In Colorado Springs, Colorado, students at the [Thrive Home School Academy](#) (THSA), along with students at Stratton Meadows Elementary (SME), were able to have a space chat with NASA astronaut and mission specialist Jeanette "Jo" Epps, KF5QNU, on board the International Space Station (ISS) on April 22, 2024. At the time of the contact Epps, a member of the SpaceX Crew-8 mission, was on her 47th day of the 180-day mission.

The [Amateur Radio on the International Space Station](#) (ARISS) event was organized with equipment provided by [ARRL The National Association for Amateur Radio](#)® and NASA for science, technology, engineering, and mathematics (STEM) education and outreach purposes. The [Pikes Peak Radio Amateur Association](#) (PPRAA) helped with technical coordination and Harrison School District 2 provided a link to livestream the event.



Students were able to ask questions ranging from

"Do things smell or taste differently in space?" to "What is your favorite thing you have

THSA opened in 2009 and serves students with a 1-day-per-week that is highly interactive and engages students in hands-on

Amateur radio is used extensively in their classrooms to provide hands-on and prepare students for future

ARRL prepares teachers to engage students with amateur radio through the [ARRL Teachers Institute on Wireless Technology](#). ARRL TI graduate Dara Gardner, KFONIX, is a teacher who helped organize this



A crowd watches students ask questions during the ARISS contact from Thrive Home School Academy. [Desiree Baccus, N3DEZ, photo]

seen in space?"

serves homeschooled school day program experiential and activities.

extensively in their on STEM learning careers.

engage students with the [ARRL Teachers Institute on Wireless Technology](#). ARRL KFONIX, is a teacher contact.

Students wait to talk to astronaut Jo Epps, KF5QNU. [Desiree Baccus, N3DEZ, photo]



## Amateur Radio Contact in Space and on the Ground

On April 22, 2024, students at Pleasant Knoll Middle School in Fort Mill, South Carolina, enjoyed a full day of learning all about amateur radio from the Earth to the stars. In all, nearly 2,000 students learned how to operate VHF, UHF, and HF amateur radios in four sessions throughout the day, as well as listened, watched, and participated in a contact with the International Space Station (ISS), coordinated by the [Amateur Radio on the International Space Station](#) (ARISS) program.

Nine volunteers from the [York County Amateur Radio Society](#) (YCARS)

helped coordinate the event and ARISS contact. Thirteen students, along with eighth grade science teacher Allison Killowitz, asked astronaut Matthew Dominick, KC0TOR, 23 questions during their 10-minute contact. Their questions ranged from how an astronaut uses the bathroom on the ISS to what astronauts eat. Dominick is also a Navy test pilot, and he's on the ISS as part of the SpaceX Crew-8 mission.

Pleasant Knoll Middle School students and science teacher Allison Killowitz during a "space chat" with astronaut Matthew Dominick, KC0TOR, aboard the International Space Station. [Photo courtesy of Section Manager of the ARRL South Carolina Section John P. Gendron, NJ4Z.

Four members of the [Radio Amateur Satellite Corporation](#), known as AMSAT, volunteered to help with equipment. They provided the school with a communication trailer and van with 52-foot masts, equipped with high-gain Yagi and vertical antennas, an elevation and azimuthal rotator, and multiple computers and IC-9700 radios. ARRL South Carolina Section Traffic Manager Dean French, N4AJK, helped coordinate and produce a livestream of the event to YouTube channels for the ARRL South Carolina Section, ARISS, YCARS, and YouTuber Steve McGrane, KM9G. Currently, there are 2,000 views between all four YouTube channels. The event was also covered by two local television channels.

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's Space Communications and Navigation program (SCaN), the ISS National Laboratory -- Space Station Explorers, [ARRL](#), and AMSAT.



## Amateur Radio in the News

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

["Santa Barbara Amateur Radio Club site agreement ends, and an urgent search for a new location is underway"](#) / KEYT-TV (California) April 18, 2024 -- *The Santa Barbara Amateur Radio Club is an ARRL Affiliated Club.*

["South Carolina middle school makes contact with International Space Station"](#) / WCNC -TV (North Carolina) April 23, 2024 -- *The York County Amateur Radio Society is an ARRL Affiliated Club.*

[Share](#) any amateur radio media hits you spot with us.



## ARRL Podcasts

### On the Air

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Served Agencies: Who They Are and How We Serve Them

We often hear about served agencies when hams talk about disaster response and emergency communications. ARRL Director of Emergency Management Josh Johnston, KE5MHV, joins the podcast this month to discuss exactly what and who served agencies are, and where the Amateur Radio Service fits into their responses.

### ARRL Audio News

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

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



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## Announcements

**2024 ARRL Field Day gear is now shipping!** [ARRL Field Day](#) is June 22-23. Get ready for amateur radio's largest on-air operating event with official 2024 ARRL Field Day [merchandise](#), now available. T-shirts, hats, mugs, pins, patches, and more are a great way to show off your involvement in this annual event. This year's design features the theme "Be Radio Active." The back of the t-shirt includes a check-off list of ARRL and RAC Sections - a fun way to keep track of your Field Day contacts.

Encourage club members, family, friends, and prospective hams to take part using ARRL Field Day with recruitment [posters](#) and "Get on the Air" (GOTA) [pins](#) for newcomers. Get your 2024 ARRL Field Day supplies from the ARRL [online store](#) or by calling 1-888-277-5289 toll-free in the US, Monday through Thursday 8 AM to 7 PM and Friday 8 AM to 5 PM Eastern Time. Outside the US, call (860) 594-0200. The complete 2024 [ARRL Field Day](#) packet is online. ARRL encourages participants to register their Field Day operations using the [Field Day Site Locator](#).



The [National Voice of America \(VOA\) Museum of Broadcasting](#) in West Chester, Ohio, will be open with special hours during Dayton Hamvention weekend from May 16 - 19, 2024.

The museum is about an hour away from the Greene County Fairgrounds in Xenia. Museum Executive Director Jack Dominic said they will be open May 16 and 17 from 1:00 - 9:00 PM, May 18 from 12:00 - 9:00 PM, and May 19 from 12:00 - 5:00 PM. Admission is \$10. A map from the Hamvention to the museum, as well as additional information is available [here](#).

The [West Chester Amateur Radio Association's](#) (WCARA), WC8VOA, ham shack is located in the museum building and includes exhibits like a collection of R. L. Drake radios and the recently restored WLWO (W8XAL) transmitter.

**The Big Bear Mini Hamcation will take place on April 26 - 28, 2024, at The Lodge at Big Bear Lake in Southern California.** The event will focus on emergency communications, overcoming mic fright, and getting outside to play radio. Tech Talk breakout sessions will also be held for more advanced ham radio operators. Gordon West, WB6NOA, author of the Amateur Radio License Preparation books and related resources, will present the opening remarks, and ARRL Orange Section Manager and Section Emergency Coordinator Bob Turner, W6RHK, will welcome attendees. The Young Ladies Radio League will hold a meet and greet, and there will be opportunities for POTA and SOTA operations and a chance to participate in an off-road event, called "I am Lost." Outside of the lodge there will be a display of various antennas and a demonstration of amateur television. Other anticipated sessions include topics on how to operate during special events in order to prepare for emergency communications and support your community; a discussion of portable and mobile antennas; a lesson on making DX contacts, and an introduction to contesting. For more information, visit [Big Bear Mini Hamcation - April 26 - 28, 2024](#).



The historic Bethany Relay Station at the National Voice of America Museum of Broadcasting [Photo courtesy of the National Voice of America Museum of Broadcasting]

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## In Brief...

**Youth on the Air (YOTA) will be accepting in-person donations of eclipse glasses.** Recycled glasses will be sent home with Argentinian campers attending the 2024 YOTA Summer Camp in the Americas, so that amateur radio operators and youth can safely watch the [Annular Solar Eclipse](#) in October. Donations are only being accepted in person at the Dayton Hamvention YOTA Booth #4304 from May 17 - 19 and at the YOTA Summer Camp in the Americas in Halifax, Nova Scotia, Canada, from July 7 - 12. Applications for the 2024 Youth on the Air Camp will be accepted until May 30. The camp will take place from July 7 - 12 at Mount Saint Vincent University in Halifax, Nova Scotia, Canada. First-time attendees are strongly encouraged to apply. For more information and to apply, visit <https://youthontheair.org/halifax2024>.

**The National WWI Museum and Memorial in Kansas City, Missouri, will activate WW1USA from Friday, May 24 until Monday, May 27, 2024.** Amateur radio operators are invited to participate in this special event and contact stations around the world. Amateurs are also welcome to serve as guest operators of WW1USA at any time and receive a special amateur

radio operator certificate. QSL with WW1USA will be available by mail with a SASE or other postage provided, or via an eQSL. After the event, information will be provided regarding how to request a commemorative certificate. WW1USA operation dates often coincide with other events held at the museum and memorial, highlighting lessons from the first worldwide war. The station helps to raise awareness of the Great War and how it continues to affect the world today. Learn more about the National WW1 Museum and Memorial at [WW1USA Amateur Radio Station \(May 2024\) | National WWI Museum and Memorial \(theworldwar.org\)](#).

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## The K7RA Solar Update

Tad Cook, K7RA, of Seattle, Washington, reports for this week's ARRL Propagation Bulletin, ARLP0017:

After a big jump in solar activity, conditions continued to improve throughout the past week.

Twelve new sunspot groups emerged: two on April 18, three on April 19, five on April 21, one on April 22, and one on April 24.

This solar disk image was taken on April 25, 2024. [Photo courtesy of NASA SDO/HMI]

The average daily sunspot number jumped from 142.7 to 265.9, and the average daily solar flux rose from 177.4 to 216.

The predicted solar flux over the next month shows values peaking at 215 during May 15 and 16, and again on May 19 and 20.

We see solar flux at 195, 185, 170, 160, and 140 on April 25 - 29; 135, 135, and 130 on April 30 through May 2; 160 on May 3 - 6; 165, 170, 180, 185, 190, 195, 200, and 210 on May 7 - 14; 215 on May 15 - 16; 212 on May 17 - 18; 215 on May 19 - 20, and 200 and 190 on May 21 - 22.

The predicted planetary A index is 20, 18, 15, 12, 10, and 8 on April 25 - 30; 10 on May 1 - 3; 5 on May 4; 8 on May 5 - 7; 5 on May 8 - 18, and 10, 15, 10, and 12 on May 19 - 22.

Watch this new report from Space Weather Woman Dr. Tamitha Skov, WX6SWW: [https://youtu.be/MIB\\_OnxhpLk](https://youtu.be/MIB_OnxhpLk).

Sunspot numbers for April 18 - 24, 2024, were 247, 243, 240, 283, 283, 282, and 283, with a mean of 265.9. The 10.7-centimeter flux was 226.9, 213.4, 209.5, 217.1, 226.8, 219.1, and 199.1, with a mean of 216. Estimated planetary A indices were 4, 41, 12, 19, 9, 8, and 4, with a mean of 13.9. The middle latitude A index was 5, 21, 10, 14, 10, 9, and 4, with a mean of 10.4.

Send your tips, questions, or comments to [k7ra@arrl.net](mailto:k7ra@arrl.net).

A comprehensive K7RA Solar Update is posted Fridays on the ARRL website. For more information concerning radio propagation, [visit](#) the ARRL Technical Information Service, [read](#) "What the Numbers Mean...", and [check out](#) the Propagation Page of Carl Luetzelschwab, K9LA.

A propagation bulletin [archive](#) is available. For customizable propagation charts, visit the [VOACAP Online for Ham Radio](#) website.



[Share](#) your reports and observations.

A weekly, full report is posted on [ARRL News](#).

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## Just Ahead in Radiosport

- April 25 -- RSGB 80m Club Championship (digital)
- April 27 - 28 -- 10-10 Int'l Spring Contest (digital)
- April 27 - 28 -- SP DX RTTY Contest (digital)
- April 27 - 28 -- UK/EI DX Contest (CW)
- April 27 - 28 -- Florida QSO Party (CW, phone)
- April 28 -- UA1DZ Memorial Cup (CW, phone)
- April 28 -- BARTG Sprint 75 (digital)

Visit the [ARRL Contest Calendar](#) for more events and information.

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## Upcoming Section, State, and Division Conventions

- May 11 | [ARRL Nebraska State Convention](#), Lincoln, Nebraska
- May 17 - 19 | [Dayton Hamvention](#), hosting the ARRL National Convention, Xenia, Ohio
- May 31 - June 2 | [SEA-PAC](#), hosting the ARRL Northwestern Division Convention, Seaside, Oregon
- June 1 | [Atlanta Hamfest](#), hosting the ARRL Georgia Section Convention, Marietta, Georgia
- June 9 | [BreezeShooters Hamfest](#), hosting the ARRL Western Pennsylvania Section Convention, Butler, Pennsylvania
- June 15 | [ARRL Maine State Convention & Hamfest](#), Augusta, Maine
- June 15 | [Knoxville Hamfest and Electronics Convention](#), sponsoring the ARRL Delta Division Convention, Knoxville, Tennessee

Search the [ARRL Hamfest and Convention Database](#) to find events in your area.

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## Have News for ARRL?

Submissions for the ARRL Letter and ARRL News can be sent to [news@arrl.org](mailto:news@arrl.org). -- *John E. Ross, KD8IDJ, ARRL News Editor*

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## ARRL -- Your One-Stop Resource for Amateur Radio News and Information

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- Listen to [ARRL Audio News](#), available every Friday.
- *The ARRL Letter* is available in an accessible format, posted weekly to the [Blind-hams Groups.io](#) email group. The group is dedicated to discussions about amateur radio as it concerns blind hams, plus related topics including ham radio use of adaptive technology.
- [NCJ -- National Contest Journal](#). Published bimonthly, features articles by top contesters, letters, hints, statistics, scores, NA Sprint, and QSO parties.
- [QEX -- A Forum for Communications Experimenters](#). Published bimonthly, features technical articles, construction projects, columns, and other items of interest to radio amateurs and communications professionals.



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