RCA Amateur Radio Club
Indianapolis, IN

ARRL Affiliated Club
www.w9rca.org

JULY 2025 MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE TUESDAY, JULY 8, 6:30 PM AT NORTH SIDE EVENTS, FORMERLY THE KNIGHTS OF COLUMBUS, 2100 EAST 71st, INDIANAPOLIS, IN

RCA ARC NEWS

JUNE MEETING SUMMARY – Thanks to all who attended the June meeting. Discussed the Hamvention. All in all very positive reports. Good crowd, good food, good weather. There seemed to be a lot of talk about a new radio from TenTech. Field day is coming together. Our Club has made it's contribution. Several folks reported an increase in the number of QSLs they have been receiving by email. At the recent RCA Alumni meeting Bill Mengel gave a good talk on DSS. Dave, N9KZJ, reported the ships on the air event worked about 25 other ships. Also, it was noted that SteppIR has quit producing consumer (amateur radio) antennas.

Our Club web site, W9RCA.org, was recently changed to a secure site. To access the site, you will have use https://w9rca.org

AMATEUR RADIO LICENSE TEST SESSION

Date: July 12, 2025
Time: Starting at Noon **by appointment only**.
Location: Salvation Army EDS Training Facility, 4020 Georgetown Rd Indianapolis, IN 46254-2407
Contact: **James Kajder (505) 228-3704**
Email: testing@indyradioclub.org
Required: FCC FRN and a completed NCVEC 605 license application form.
Laurel VEC test sessions: https://www.laurelvec.com/?pg=exams\

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

Salvation Army Open Net, Thurs. 7PM, W9RCA repeater, 146.88 MHz, tone 88.5 Hz

July 12-13	IARU HF World Championship
July 26 -	East Central Indiana Hamfest, Portland, IN
Aug 09 -	Hendricks County Tailgate Fest, Avon, IN
Aug 17	Rookie Roundup
Sept 13-15	September VHF contest
Sept 13 -	MARC Tailgate Hamfest, Edinburgh, IN
Oct 04 -	Shelbyville Tailgate, Shelbyville, IN

WA7BNM expanded contest calendar, https://www.contestcalendar.com/

Visit the **ARRL Special Event Stations database** at www.arrl.org/special-event-

station to find other on-the-air events and commemorations.

Hamfest or Convention: www.arrl.org/hamfests

Find a license exam in your area: www.arrl.org/exam
ARRL Home: www.arrl.org

2025 ARRL FIELD DAY A SUCCESS

Tens of thousands of hams are celebrating a successful 2025 ARRL Field Day! The largest annual amateur radio event is also one of the most beloved, as shown by countless social media posts. Activity was high, with 1536 sites in the ARRL Field Day Site Locator, and that doesn't even count home stations, portable operations, or other participants.

"There's a reason that hams look forward to ARRL Field Day," said ARRL Public Relations and Outreach Manager Sierra Harrop, W5DX. "It is easy to see how much fun people have during the event. Across the country, people come together in town squares, public parks, green spaces, and other locations – all to celebrate the joy of amateur radio and to share it with others," she said.

PHOTOS: See 2025 ARRL Field Day from around social media

On the town green in West Brookfield, Massachusetts, between Springfield and Worcester, the Quaboag Valley Amateur Radio Club held its activation front and center in the postcard town. There was a steady line of onlookers visiting the setup that stretched out for several hundred yards. Many of them sat down to try their hand at the GOTA (Get On the Air) station. Nestled across from an antique church with a white steeple, and on green grass that surrounds a fountain, the hams brought a steady call of "CQ Field Day" to the quiet hamlet.

Aboard the International Space Station, Astronaut Jonny Kim, KJ5HKP, was active. Social media and YouTube show several clips of hams talking with Kim. James Walker, KC1UYZ, shared a video of his contact with Kim to Instagram and other platforms. "KC1UYZ, welcome to the International Space Station," said Kim. A quick rest of the contact was followed by enthusiastic whoops from Walker, who was elated to have talked with an orbiting astronaut.

W1AW, the Hiram Percy Maxim Memorial Station at ARRL Headquarters in Newington, Connecticut, was active for the event. The station's three operating studios were configured as a 6F-class station. On Saturday afternoon, and well into the overnight, ARRL Education and Learning Support Specialist Max Freedman, N4ML, was operating alongside Audrey McElroy, KM4BUN. "It is always great to help people get W1AW in their logs," he said. Freedman is an experienced contester, but this was his first operating event at the historic station. "It is such an honor to operate as W1AW," he said.

McElroy was honored as the Bill Pasternak, WA6ITF, Memorial Amateur Radio Newsline Young Ham of the Year in 2022. She's in Connecticut for an internship in support of her electrical engineering degree – a career that her ham radio background has inspired.

ARRL Contest Program Manager Paul Bourque, N1SFE, reports nearly 2500 entries have already been received via the online entry form at **field-day.arrl.org/fdentry.php**. "We are encouraged by the surge in early submissions, but there's still time to get entries in," he said. Bourque noted that Field Day participants should check that all the required supporting documentation related to their entries has been received by checking the Entries Received web page at **field-day.arrl.org/fdentriesrcvd.php**.

If the status of your entry is listed as Pending Documents, one or more of the required documents still needs to be submitted to complete your entry. Entrants may use the link provided in the confirmation email they received to add additional documents or to modify their entries. Field Day entries must be received by Tuesday, July 29, 2025.

Complete information about ARRL Field Day is available at www.arrl.org/FieldDay

LOCAL, COUNTY, AND STATE GOVERNMENTS PROCLAIM VALUE OF AMATEUR RADIO

The Amateur Radio Service is of great value to communities around the nation. Through served agencies, the trained corps of technical and civic-minded operators provide a no-cost service to the public that has shown to be valuable before and When All Else Fails®.

The 2025 hurricane season has been forecast to be above normal by the National Oceanic and Atmospheric Administration (NOAA). As we saw just last year in the aftermath of Hurricane Helene, ham radio saves lives through volunteers who use their skills and equipment during emergencies by providing surface weather observations, relaying messages from shelters, and providing health and welfare information to concerned loved ones.

“While ARRL Field Day is a fun, social, occasion to get together and get on the air, it also serves as an opportunity to test equipment in a way that it would be needed in a time of crisis. The same people who come to visit your site under blue skies are the community members who would be served in an identical manner during and after an emergency,” said ARRL Public Relations and Outreach Manager Sierra Harrop, W5DX.

In recognition of the value of amateur radio, government officials at all levels have issued proclamations and citations across the country. On the ARRL amateur radio proclamations page, you can see the many official documents that have been sent to us at ARRL Headquarters.

“We all know how great the ham community is, but seeing all the proclamations come in around Field Day gives perspective to the efforts of radio amateurs. To have a governor or a councilmember recognize June as Amateur Radio Month truly honors the impact hams have on their community,” said Harrop. --ARRL

ARRL TEACHERS INSTITUTE – MULTIPLYING THE MESSAGE

ARRL The National Association for Amateur Radio® welcomed the year’s first cohort of educators to attend a session of the ARRL Teachers Institute on Wireless Technology (TI) at headquarters this week. The group follows on the success of the Louisiana-based session last week, and one on Staten Island in New York City this past in January.

The educators traveled from all over the country to attend and learn how to take radio and wireless technology back into the classroom as part of science, technology, engineering, and mathematics (STEM) lessons. Many of the teachers took and passed their amateur radio license exams during the week, including Professor Charnell Long, Ph.D. She is a professor at North Carolina A&T University who works with pre-service educators to become certified teachers. She hopes to be a multiplying force for the information.

“It was fun to me,” said Long. “It is an opportunity to deep dive into radio in ways I never have before.” She will incorporate the hands-on training into her courses at the university. Long learned about the program when ARRL Education and Learning Manager Steve Goodgame, K5ATA, exhibited TI at the National Science Teachers Association convention.

“I see value in bringing [my students] scientific skills,” said Long. Goodgame is encouraged by the reach just one participant in TI could have. “We’re always excited to get educators hands-on with radio, but especially those who take what they learn here and go back and teach it to other educators,” he said.

Professor Long is one microcosm of ARRL’s focus on multiplying the reach of TI’s impact. The ARRL Board of Directors voted unanimously in July 2024 to authorize taking the high-quality education of TI to communities around the country. Increasing the number of teachers and therefore students reached by the training is one peg in the mission to inspire the next generation of radio amateurs.

While Professor Long and the other newly-minted radio amateurs in the cohort wait for their

call signs to be issued, they continue to get hands-on with radio. Thursday's session was focused on software-defined radios. "To see these educators have fun learning new things is a real boost, not only to the ARRL Education and Learning Department, but the future of ham radio as well," said Goodgame. --ARRL

ARRL® LOGBOOK OF THE WORLD® RETURN TO SERVICE

The ARRL has returned Logbook of The World® (LoTW®) to service as of **10:00 AM EDT on Wednesday, July 2, 2025.**

We are happy to be bringing the upgraded LoTW servers online, as we know radio amateurs around the world rely on LoTW to receive QSLs and apply for awards. The improvements we made will make no change in the visual appearance of LoTW but will provide enhanced performance and continued reliability of the system.

To those LoTW users who donated in response to my letter last week—thank you! Over $4,000 was raised in this short time. But there's still work to be done and funding the ongoing operations of LoTW is critical.

If you are not a member of ARRL, please join! There's no better way to support LoTW. If you'd like to donate, there's still time for you to help! You can make your LoTW supporting gift of $20, $50, or more toward the ARRL LoTW Fund or visit **www.arrl.org/donate** to support the maintenance and expansion of LoTW.

Thank you, and very 73!

David A. Minster, NA2AA ARRL CEO

About Logbook of The World®

Logbook of The World® -- LoTW® -- is a web-accessed database and repository that enables you to submit electronic logs for amateur radio contacts (QSOs) and for confirmation (QSLs). Users can view submitted QSOs and resulting QSLs online. Radio amateurs can use LoTW to track their progress toward achievements and awards, such as The ARRL Worked All States Award, and amateur radio's premier award, DXCC®, in which membership is achieved by confirming on-the-air contacts with 100 countries. LoTW was introduced by ARRL in 2003. Today, over 2.1 billion QSO records have been entered into the system. --ARRL

MOBILE BROADBAND PROVIDER SEEKS AMATEUR FREQUENCIES FOR SATELLITES

The Federal Communications Commission has received a request from the 5G broadband service provider AST SpaceMobile to modify its license so that it can transmit on the portion of the 70cm band used by amateur radio. The Texas-based company is seeking the frequencies between 430 and 440 MHz for telemetry, tracking, and telecommand between ground stations and its satellites. At the same time, the company is seeking FCC approval for its operation of 248 low-earth orbit, non-geostationary satellites. It is presently licensed for five.

The company's request to use the 70cm band is not insignificant: In 2023, the German regulator, BNetzA [pronounced: BEE NETS EH] ordered AST SpaceMobile to shut its operations when in range of the country, citing harmful interference that violated ITU regulations. In March of 2024, the company said it had "updated" its constellation's filings with the ITU and the FCC. It also reduced some of its power levels and changed the heights of its orbits, according to the Advanced Television website.

AST SpaceMobile is a rival of SpaceX, which operates the StarLink satellite constellation, which is testing direct-to-cell with T-Mobile.

Earlier this year AT&T and AST SpaceMobile received FCC permission to test direct-to-

cellular satellite connectivity.

Public comments are due by July 21st. For a link to the filing:

https://docs.fcc.gov/public/attachments/DA-25-532A1.pdf --Newsline

ARRL AT HAM RADIO 2025 IN GERMANY

ARRL greeted and served members atthe International Amateur Radio Exhibition, HAM RADIO 2025, in Friedrichshafen, Germany. The event was held June 27 – 29. ARRL has around 6,000 international members, and this is Europe's largest amateur radio event. The theme of the event focused on the latest in remote radio technology.

The ARRL delegation enjoyed visiting with radio amateurs from all over the world. Representatives attending included ARRL President Rick Roderick, K5UR; CEO David Minster, NA2AA; Director of Marketing and Innovation Bob Inderbitzen, NQ1R, and Radiosport and Regulatory Information Manager Bart Jahnke, W9JJ.

A photo album of the event is available on the ARRL Facebook page. --ARRL

SHORTS

SATELLITE PAINT EXPERIMENT TACKLES 'LIGHT POLLUTION' The paint that BMW used six years ago on one of its cars as an experiment, is now being looked at as a way to reduce light-pollution from satellites that has been plaguing radioastronomers.

What is blacker than black? It's the super black paint known as Vantablack and its creator, Surrey NanoSystems, designed it to absorb 98 percent of light. BMW tested it out on one of its crossover model X6 cars just as an experiment in 2019. According to Space.com, the paint reflects only 2 percent of visible and infrared light.

Now AMSAT-UK is preparing to launch Vantablack on its Jovian-1 CubeSat mission to test its ability to avoid interference with space telescopes. The Jovian-1 goes into space sometime next year. Attendees at this year's AMSAT-UK Colloquium in October can expect to learn more about this adventure in light-pollution reduction.

Meanwhile if things work out, Vantablack might provide a solution for the private satellite constellations that researchers say have been interfering with ground-based astronomical research. As more satellites are being sent into space, that's not insignificant to observatories here on the ground --Newsline

UNHEARD-OF DATA SPEED REPORTED FROM CHINESE SATELLITES Scientists in China are claiming they have achieved unprecedented speed in sending data from satellites - using low-power laser.

In a development that some observers say could someday replace satellites' reliance on RF, scientists in China are claiming that they have developed a transmission method using minimal laser power. The method is known as "AO-MDR synergy" and utilises a 2-watt laser. Scientists at Peking University and the Chinese Academy of Sciences have said that by employing this technique, they recently accomplished a 1 Gigabit-per-second data transmission to Earth from a geostationary satellite.

Researchers praise the development, adding that it addresses a common challenge for satellite downlinks - the distortion caused by atmospheric turbulence. The developers of the process said that "AO-MDR" addresses this by stabilizing the laser signal even when it faces atmospheric turbulence. The technique combines Adaptive Optics and Mode Diversity Reception. --Newsline

MYSTERY SIGNALS FROM THE GREAT BEYOND It's pretty well-known that some

scientists study outer space in search of extraterrestrial life – but what happens when researchers believe they have instead stumbled upon...the afterlife?

Rest in peace, NASA Relay 2 satellite. The spacecraft was one of two launched at different times in the 1960s by the US space agency to serve as experimental communication satellites. Unlike NASA's Relay 1, which transmitted American TV signals into Japan and Europe, Relay 2 was used for barely a year. It stopped operations in 1965 and its transponders were believed to have died in 1967

The key word here is "believed" - because one year ago this month, researchers in Australia were certain they'd heard Relay 2 returning radio pulses to earth in much the same way some so-called "zombie" satellites, like the famous AMSAT OSCAR-7, have been known to do.

In this case, no seances or Ouija boards were necessary to understand this message from The Great Beyond. Some scientists theorize that the pulses came from the discharge of electrostatic energy, or ESD, that had built up on Relay 2 over time. Another theory is that its impact with a micrometeoroid released a cloud of plasma capable of sending such a signal.

Researchers plan to study both ESD and the micrometeoroid effect in the hope of a better understanding in the future. It's not about alien life or afterlife, then: Just breathing new life into solving more mysteries of space. --Newsline

THANKS FOR READING

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