



RCA Amateur Radio Club

Indianapolis, IN

ARRL Affiliated Club

www.w9rca.org



MARCH 2024

MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE TUESDAY, MARCH 12TH, 6:30 PM AT NORTH SIDE EVENTS, FORMERLY THE KNIGHTS OF COLUMBUS, 2100 EAST 71ST, INDIANAPOLIS, IN

RCA ARC NEWS

FEBRUARY MEETING SUMMARY – Thanks to all who attended the Feb. meeting. Greg, K0GAH gave the treasurer's report, Jim K9RU reported on the new insurance policy and commented on Field Day 2024. The Indiana Repeater Council dues have not been paid yet. There are new pictures of the field day operations on the W9RCA.org web site. Hamvention tickets can be ordered on the Hamvention.org web site. Our Club will have a dinner get-together on Friday evening of the Hamvention. Hopefully at the same restaurant as last year. K9RU reported the Mini-Marathon may like to use the '88 repeater this year. The popularity of POTA was discussed. Greg, K0GAH is looking for a 600 watt HF amplifier.

AMATEUR RADIO LICENSE TEST SESSION

Date: Saturday, March 9, 2024
Time: Starting at Noon **by appointment only.**
Location: Salvation Army EDS Training Facility, 4020 Georgetown Rd
Indianapolis, IN 46254-2407
Contact: Jim Rinehart (317) 721-1458
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
Mar 30 WVARA Spring Hamfest, Clay County 4-H Fairgrounds, 6550 N SR
59, Brazil, IN

May 17-19 Dayton Hamvention <https://hamvention.org/>
Dayton Hamvention Tickets: <https://hamvention.org/purchase-tickets/>

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

LAST CHANCE – WEATHER SPOTTING TRAINING OPPORTUNITIES -- Spring time in Indiana normally means storms. So, for storms, we need storm spotters. Here is a listing of Spotter training classes for some of the “donut” counties:

Marion County:

March 7, 6 pm to 8 pm at Salvation Army EDS Marion County:

March 20, 2 pm to 4 pm at Indiana State Fairgrounds, Purdue Extension Bldg.

Hancock County:

March 21, 6 pm to 8 pm at Ninestar Connect, Greenfield

The complete list of training sessions for the state can be found at <https://www.weather.gov/ind/spotter#train> -- IRC Newsletter, KJ9B

BOB HEIL, K9EID, PASSED AWAY AT THE AGE OF 83

The man who defined the sound of live rock ‘n’ roll music and brought audio engineering principals into mainstream amateur radio use, Dr. Bob Heil, K9EID, has passed away at the age of 83. He was an ARRL Life Member and in the ARRL Maxim Society. A Facebook post from Heil Ham Radio paid tribute to their founder: “Bob fought a valiant, yearlong battle with cancer, and passed peacefully surrounded by his family.”

Heil founded Heil Sound in 1966, through which he created the template for modern concert sound systems for musicians like the Grateful Dead, The Who, Joe Walsh, and Peter Frampton. The talk box used on iconic live record *Frampton Comes Alive!* was of Heil’s design. His audio engineering products have been featured in the Rock & Roll Hall of Fame, and he was honored in 2007 with the Parnelli Audio Innovator Award for his impact on the live sound industry. “My life has been about achieving great sound, whether on the concert stage or in the amateur radio world,” Bob Heil recounted in 2022. “I’ve watched Heil Sound go from a regional sound company to a world-class microphone manufacturer. This company has been my passion,” he said.

Parallel to his commercial and artistic success in live music, was his passion for amateur radio. He was active in ham radio from a young age and merged his expertise in audio engineering with his love for radio. Heil Ham Radio was founded to produce microphones, headsets, and other gear for radio amateurs with an emphasis on high-quality audio.

Heil was known as a mentor who enjoyed helping others find success in ham radio. Recently, his grandson Charlie Hartley, KF0OOP, became a licensed ham to surprise Heil for his birthday. The pair attended the ARRL Midwest Convention/Winterfest in St. Louis, Missouri, on January 27, 2024.

Heil was a generous donor to amateur radio organizations, including ARRL. Recently, he donated a host of new audio gear to the Hiram Percy Maxim Memorial Station, W1AW.

His generosity and kind nature will be missed by many, including ARRL Director of Development Kevin Beal, K8EAL. “Bob was a titan in many areas. He was generous with his time, offered keen insights, and had the heart of a philanthropist in the ARRL Maxim Society,” Beal said. “He was a gentleman to his core, making friends easily and everywhere he went, from rock stars to captains of industry. I consider it a real privilege to have become a friend to him, too, all because of amateur radio.”

Heil was known for his passion for AM operations. He served for many years as an on-camera host of the Ham Nation podcast. Tributes to Heil have been flooding social media, including from his co-hosts.

ARRL President Rick Roderick, K5UR, said Heil’s passing is a significant loss. “Bob Heil’s technical achievements that brought high-quality audio to amateur radio pale in comparison

to his generosity and willingness to help his fellow ham. He's long been known as someone eager to help mentor and teach. His legacy on our hobby will be long-lasting. Our thoughts are with his loved ones." [Editor's note: Bob gave several very good presentations at Indianapolis Radio Club Zoom meetings on how to get better audio out of your station, as well as lots of interesting facts and demonstrations. I, like most hams, own a Heil mic or headset. – Jim ,K9RUJ – ARRL Letter

THE [SOUTHWEST OHIO DX ASSOCIATION](#) (SWODXA)

In conjunction with Icom® America, Inc., SWODXA has announced a DX Mentor Recognition Program to recognize and reward amateur radio operators who have helped others achieve [DXCC](#).

An application form is now available for those who wish to nominate their DX mentor. Amateurs who have received mentoring from a nominee must be under 30 years of age during the calendar year of the award; targeting this age group is meant to keep such amateurs engaged in the hobby after they achieve DXCC. The judging committee will comprise SWODXA representatives and a representative from both the Northern California DX Foundation (NCDXF) and the International DX Association (INDEXA). The awards will be presented at the DX Dinner, held annually in conjunction with [Dayton Hamvention®](#). More information and the entry form can be found at www.swodxa.org/DX-Mentor-Program or by emailing thedxmentor@gmail.com. – ARRL Letter

HIGHLIGHTS FROM 2024 ORLANDO HAMCATION

Warm weather greeted the crowds of radio amateurs who attended the 2024 Orlando HamCation® from February 9 - 11. The convention hosted the ARRL Florida State Convention, but drew attendees from across the country, and some from even farther, renewing HamCation's place as the second largest US ham radio convention.

HamCation is sponsored by the Orlando Amateur Radio Club (OARC). The convention was sprawled out across the Central Florida Fairgrounds, including a huge outdoor tailgate and buildings filled with exhibitors and swap tables. The convention enjoys significant participation from amateur radio manufacturers, dealers, clubs, and organizations. In the months leading up to this year's convention, HamCation International Relations Co-Chairs, Lidy Meijers, KJ4LMM, and Peter Meijers, AI4KM, traveled to ham radio conventions across Europe to cast a spotlight on the convention. Their work paid off, garnering an attendance of amateurs from many other countries, and even attracting other international societies to exhibit, including the Radio Society of Great Britain, and the Deutscher Amateur Radio Club (Germany).

"It was very successful and very busy," said OARC President John Knott, N4JTK. "The vendors reported traffic at their booths was high and both the trunk fest and the flea market were busy." Knott also said that reservations filled 200 RV spaces.

The East-West Hall included a row of booths organized by ARRL.

In addition to supporting renewing members and those who joined ARRL for the first time, attendees also had the opportunity to meet ARRL President Rick Roderick, K5UR; CEO David Minster, NA2AA, and Southeastern Division Director Mickey Baker, N4MB. Baker also moderated the ARRL membership forum on Saturday afternoon. Together, Baker, Roderick, and Minster covered several key areas of membership interest. Roderick, who asked attendees to consider what they've done for amateur radio lately urged members to find opportunities to support new licensees and strengthen radio clubs.

Minster spoke about a new, free ARRL membership offering for students 21 and younger that will be introduced soon. He also described ways that ARRL is increasing amateur radio's role in education through teachers, students, and schools. "ARRL knows that amateur radio is an

effective tool in developing student experiences in the STEM (science, technology, engineering, and math) disciplines," said Minster. "Our efforts to increase our outreach in education and other areas is playing a prominent role with the development of the new ARRL strategic plan."

Also participating at HamCation was ARRL Education and Learning Manager Steve Goodgame, K5ATA. Goodgame presented a forum covering recent efforts and success stories to develop pathways for more teachers and students to use amateur radio in their classrooms. His wife and member-volunteer Cyndi Goodgame, K5CYN, who is also an educator, engaged dozens of young and prospective hams by collecting their experiences and interests for ARRL's ongoing work to increase outreach to students.

A familiar face to many was ARRL National Instructor Gordon West, WB6NOA. In January, ARRL announced that it had become Gordon West's new publisher of his popular license preparation books. "There was a steady stream of visitors that included recent licensees and instructors who enjoyed an eyeball with Gordo," said Goodgame. HamCation attendees were also drawn to the ARRL booths to meet West. He was introduced as ARRL National Instructor at the membership forum. On Saturday night, HamCation recognized Director Fred Kemmerer, AB1OC, and his wife Anita, AB1QB, awarding them with the 2024 Gordon West Ambassador of the Year Award.

The ARRL team also included Great Lakes Division Vice Director Roy Hook, W8REH; Northern Florida Section Manager Scott Roberts, KK4ECR and Section Emergency Coordinator Arc J. Thames, W4CPD; West Central Florida Section Manager Mike Douglas, W4MDD; Collegiate Amateur Radio Program Advisor Andy Milluzzi, KK4LWR; Maxim Society Member Holly Roderick; Honorary Vice President Frank Butler, W4RH; Assistant Member Services Manager Kim McNeill, KM1IPA; Director of Marketing and Innovation Bob Inderbitzen, NQ1R, and many DXCC card checkers, including: N2MFT, K3GO, K4SV, AG4W, KS4WA, KX4TT, K6ND, WA6POZ, W8BLA. ARRL also recognized member-volunteers Sloan Davis, N3UPS, and Tom Gaines, KB5FHK, for their help organizing satellite operating demonstrations. ARRL Letter

AMATEUR RADIO AS EDUCATIONAL TOOL REPRESENTED TO POLICYMAKERS IN WASHINGTON DC

ARRL and Amateur Radio Digital Communications (ARDC) represented Amateur Radio at a symposium in Washington on February 1 at which the top domestic spectrum policymakers from across the federal government considered implementation of the [National Spectrum Strategy \(NSS\)](#) [PDF].

ARRL ensures that Amateur Radio is represented at sessions such as this so that decision makers understand amateur radio's roles when spectrum decisions are made, including its substantial contributions to student interest and education in STEM subjects at schools throughout the country and its role during emergencies and natural disasters.

In the NSS, released by the White House in November, national policymakers identified some 2,790 megahertz of spectrum to be considered for future commercial needs. No new amateur spectrum was included, with only the ongoing reallocation studies related to 3.1 - 3.45 GHz being addressed.

The NSS was prepared for the President by the National Telecommunications Information Administration (NTIA) in collaboration with the Federal Communications Commission (FCC). NTIA considered input from Federal Executive Branch agencies that use spectrum as well as from other spectrum users, including amateur radio operators. As the NSS was being formulated during 2023, ARRL's Washington Counsel presented information on amateur radio to the policymakers at an NTIA listening session. This was followed with a written submission about amateur radio spectrum concerns, and later with a one-on-one meeting with NTIA's Senior Spectrum Advisor in overall charge of formulating the NSS.

The February symposium followed release of the NSS in November and was in support of finalizing implementation plans for the strategy that are expected to be announced by the White House in mid-March.

For the symposium, ARRL Life Member Phil Karn KA9Q, a director and past-president of ARDC, participated as a panelist and reinforced amateur radio's important national role in workforce development with personal testimony based on his own career.

Karn's recruitment by Qualcomm in its early days was due directly to his pioneering amateur radio accomplishments with digital wireless projects that included many firsts. Karn retired from Qualcomm as Vice President for Technology in 2011. He shared with policymakers the value of amateur radio to interest and recruit youth into STEM areas and into wireless specifically. Karn's life experience lent special weight to his remarks about amateur radio's role in attracting youth to STEM projects.

"I see [amateur radio] - having been involved in it for 52 years now - as fundamental as an educational system... It is a type of hands-on intuitive learning that is almost impossible to get any other way," said Karn. Watch a video of the panel on YouTube. ARRL Letter

AMATEUR RADIO OPERATORS NEEDED FOR HELP WITH SOLAR ECLIPSE PROJECT

The [Case Amateur Radio Club, W8EDU](#), the club station at Case Western Reserve University in Cleveland, Ohio, is asking for amateur radio operators to help with a research project centered around the April 8, 2024, solar eclipse.

W8EDU club member Adam Goodman, W7OKE, said the project centers around studying the effects of the eclipse on propagation to better understand the recombination time of the ionosphere.

"To do this, we are recruiting North American amateur stations interested in recording the Canadian time standard station CHU (Canada's WWV) for two weeks surrounding the eclipse," added Goodman. "Anyone with a [KiwiSDR](#) or a rig that can interface with analysis/recording software such as [Fldigi](#) is encouraged to reach out to us to participate."

W8EDU club member and project software manager Maris Usis, KE8TXG, said that while the software is simple to use, there is some detailed work involved. "We can help make it easier and there are good online instructions as well," said Usis.

All of the participation details are on the club's website at <https://w8edu.wordpress.com/chu-eclipse-data-collection/>.

W8EDU club faculty advisor David Kazdan, AD8Y, said the research project has received positive attention from the [ARRL Collegiate Amateur Radio Program](#) community, the Ham Radio Science Citizen Investigation ([HamSCI](#)) community, and Case Western Reserve University's engineering deans. "It is already a truly international effort, and we are collaborating with more than 20 stations across the continent, from collegiate and high school stations, to a representative from the Radio Amateurs of Canada, to a station in Mexico," said Kazdan.

The [2024 solar eclipse](#) will over Mexico, the United States, and Canada. ARRL is a partner with HamSCI to help promote this opportunity for radio amateurs to participate in an active science experiment, through the Solar Eclipse QSO Party.

YLRL CELEBRATES INTERNATIONAL WOMEN'S DAY WITH SPECIAL EVENT

The Young Ladies Radio League (YLRL) is hosting an International Women's Day YL Parks on the Air® (POTA) Party from 0000Z - 2359Z on March 8. [International Women's Day](#) is a

global day celebrating the social, economic, cultural, and political achievements of women. This year's theme is Inspire Inclusion.

To celebrate the day, the goal of this special event is to activate any POTA park during the 24-hour event window using any mode and frequency within your license class. Contacts can be submitted to the POTA database. YLRL encourages participants to wear pink, decorate their station, and to share experiences and photos on social media using the hashtag #YL_POTA_Party.

The YLRL was founded in 1939 by Ethel Smith, K4LMB (SK), who was the group's first president, and it continues to use her call sign today. She served as the Section Emergency Coordinator for the ARRL Virginia Section from 1966 - 1969, and later as ARRL Assistant Director for four different Roanoke Division Directors. In 1972, she received the ARRL Roanoke Division Service Award.

The YLRL will [celebrate its 85th year](#) in July 2024.

K7RA SOLAR UPDATE SUMMARY, CYCLE 25

This is a personal opinion, but from recent numbers I suspect that we may be at the peak of Solar Cycle 25 or just prior to the peak. We won't know when the actual peak occurred until six months after.

Average daily sunspot number declined from 142.3 to 134.6, but average daily solar flux increased from 165.5 to 190.

I don't know why the solar numbers were so seemingly out of whack, but average daily sunspot number declined as average daily solar flux rose, by a lot.

Average daily planetary A index rose from 5.1 to 7.4, while middle latitude numbers from 4.4 to 6.1.

So, what is the outlook for the next few weeks?

Concerning solar flux, it seems we are currently in the midst of a peak over the next few days at 185 and 182 on February 15-16, then another short term peak at 170 on March 3-10

[Spaceweather.com](#) reported on giant sunspot AR3590: "In only 23 hours spanning February 21-22, the active region unleashed three powerful X-class solar flares (X1.8, X1.7 and X6.3). The X6.3 flare is the strongest of Solar Cycle 25, so far, and the most powerful flare since the great solar storms of September 2017.

Because there were no CMEs, there were no geomagnetic storms, but extreme ultraviolet radiation ionized the top of Earth's atmosphere and caused several shortwave blackouts over Hawaii and Australia on February 21-22.

Sunspot group AR3590 is the largest of the current solar cycle.

Weekly Commentary on the Sun, the Magnetosphere, and the Earth's Ionosphere - February 29, 2024 from OK1HH:

"Over the past seven days, we have seen the deflection of an active region of AR3590 on the Sun, 760 millionths of the size of the solar disk. On February 25, it already occupied an area of 1450 millionths, making it the largest group of spots so far since the beginning of the 25th cycle. It produced its largest and extra proton flares on February 21-22, including three X-class flares in 23 hours. The largest of these, X6.3 on 22 February, with a maximum at 2324 UT, was the most important flare since the beginning of Solar Cycle 25.

I decided to ask an AI bot when Cycle 25 will peak. From [Google's Gemini AI bot](#):

There are two main perspectives on when Solar Cycle 25 will reach its maximum. Original prediction: an expert panel convened by [the National Oceanic and Atmospheric

Administration (NOAA), the National Aeronautics and Space Administration (NASA), and the International Space Environment Service (ISES)] in 2019 predicted a peak in July 2025 with a maximum sunspot number of 115. This prediction assumed a similar strength to the weak Solar Cycle 24.

Revised prediction: in October 2023, NOAA's Space Weather Prediction Center (SWPC) released a revised prediction based on observed activity. This new prediction suggests a faster rise and higher peak, likely between January and October 2024, with a sunspot number between 137 and 173. However, it's important to note that the timing could still fall within the broad error range of November 2024 to March 2026.

So, the answer depends on which prediction you consider. Original prediction: July 2025. Revised prediction: between January and October 2024 (more likely than July 2025). It's important to stay updated on the latest information as scientists continue to monitor the sun's activity. You can find more details and updates on the NOAA Space Weather Prediction Center website at <https://www.swpc.noaa.gov/products/solar-cycle-progression>.

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. – ARRL Letter, Edited K9RU

ONLINE THIS MONTH

1. **History of RCA:** <https://www.youtube.com/watch?v=qjnRE305k2s>
2. As some of you know, Dave, K9DC, is a volunteer member of **Amateur Radio Digital Communications (ARDC)** Technical Advisory Committee. One of the walk around video crews stopped by the booth at the Orlando Hamcation and posted this five minute video interview with two staff members, Rebecca KO4KVG and John K7VE, linked below. It gives an overview of what ARDC is about, and some of the things we do. <https://www.youtube.com/watch?v=Nm6wXZ9Xst0>
3. A rather extensive video presentation about **Grounding and Bonding** by Ward Silver, NOAX: <https://www.youtube.com/watch?v=WizvvhQgtoA&t=2486s> (One of many on Youtube.)
4. **Ray, W2RE**, promotes his business on Facebook. Not endorsing his business here, but the antennas he puts up are awesome! Worth a look:
<https://www.facebook.com/RayW2RE/videos/1073711653936637/>
<https://www.facebook.com/RayW2RE/videos/278337038467567/>
5. Not Ham radio, but...**GPS jamming and spoofing** by Mentour Now!
<https://www.youtube.com/watch?v=wbd9eSw6Gfl>

SHORTS

Round One of the YOTA Contest – The first round of the [Youngsters On The Air](#) (YOTA) Contest begins at 1000 UTC on Sunday, March 10, and concludes at 2159 UTC. The objective of the event is to increase the amount of ham radio youth activities. The contest is organized by the IARU Region 1 Youth Working Group, in cooperation with the Hungarian Radio Amateur Society. For more information, visit the YOTA website at www.ham-yota.com/contest/.

For World Amateur Radio Day (WARD) on April 18, 2024, the [International Amateur Radio Union](#) (IARU) has chosen the theme, "A Century of Connections: Celebrating

100 years of Amateur Radio Innovation, Community and Advocacy." WARD is the day when IARU Member-Societies show their capabilities to the public and enjoy global friendship with other amateurs worldwide. The IARU was founded in Paris, France, in 1925, and it has worked to promote innovation in amateur radio and to encourage the growth of the Service in communities throughout the world. The IARU will celebrate its centenary in 2025.

2024 - 2028 Amateur Extra-Class Question Pool Released - The National Conference of Volunteer Examiner Coordinators (NCVEC) Question Pool Committee (QPC) has released errata for the new 2024 - 2028 Element 4 Extra Class Question Pool, which goes into effect on July 1. The errata includes minor question changes, the removal of one question, and one modified graphic. These updates are reflected in the new downloadable files, dated January 31, 2024. The ARRL VEC advises the community to regularly check the NCVEC website at <https://www.ncvec.org/> for updates to the question pools. Submit feedback or questions to the Question Pool Committee.

Shocking! Toyota Prius BANS Ham Radios?! - Ham Radio 2.0 Youtube video. -

Sixteen virus scanners for Windows 10/11 tested and compared -

<https://www.guru3d.com/story/sixteen-virus-scanners-for-windows-10-11-tested-and-compared/>

-- N9KT

Valparaiso Telegraph School --Did you know that Valparaiso used to be home to the largest private telegraphy school in the western hemisphere? Mark Gregory AB9ZA wrote about it in his weekly 7605 Amateur Radio News. After starting out teaching telegraphy, the school branched out into teaching radio and television repair. You can watch a YouTube video of a presentation made by Lee Hite K8CLI about the school at: <https://youtu.be/KLVoEC-hous>

[Editor's note: This is a very good talk, worth watching. It shows the involvement of Ham Radio with the VOA, US Army Signal Corps, and other organizations.--Jim, K9RU.] – Indiana ARRL Section Newsletter

THANKS FOR READING

THE RCA ARC MONTHLY NEWSLETTER IS COMPILED AND EDITED BY JIM RINEHART, K9RU AND JIM KEETH, AF9A. ALL MATERIAL CONTAINED HEREIN IS OBTAINED FROM THE SOURCES CREDITED AND EDITED FOR THIS NEWSLETTER.
