



RCA Amateur Radio Club

Indianapolis, IN

ARRL Affiliated Club

www.w9rca.org



AUGUST 2022

MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE TUESDAY, AUGUST 9TH, 6:30 PM AT
NORTH SIDE EVENTS, FORMERLY
THE KNIGHTS OF COLUMBUS, 2100 EAST 71ST, INDIANAPOLIS, IN

RCA ARC NEWS

JULY MEETING SUMMARY – Thanks to all who attended the July meeting. Field Day report: Band conditions were good on Saturday. Sunday not so good due to a solar storm until the final hour. The turnout was good with the scheduled operators and guests. Great food! The score will not be announced until after the deadline for reporting entries which is the end of July. Dick, W9ZB reported he racked up 16,000 points in the recent VHF contest. Good goin' Dick! Jim, K9RU, reported that he has set up an appointment to inspect our remote receiver at Ivy Tech site. Hopefully it will also result in a contact person for future visits. The folks who have helped us in the past have retired. Jim also reminded us the FCC now requires CORES2 for business with the FCC. <http://www.arrl.org/fcc-cores-registration-instructions>

AMATEUR RADIO LICENSE TEST SESSION

Date: **Saturday, August 13, 2022**

Time: Starting at 12:00 pm **by appointment only.**

Location: Salvation Army EDS Training Facility, 4020 Georgetown Rd
Indianapolis, IN 46254-2407

Required: FRN and completed form NCVEC 605.

Contact: Jim Rinehart, k9ru@arrl.net, 317 721-1458

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

Aug 13 [Hendricks County Tailgate Fest, Avon, IN](#)

July 9-10 [IARU HF World Championship](#)

Aug 6-7 [222 MHz and Up Distance Contest](#)

Aug 21 [Rookie Roundup – RTTY](#)

An expanded, downloadable version of QST's [Contest Corral](#) is available as a PDF. Check the sponsors' website for information on operating time restrictions and other instructions

MESSAGE FROM BOB BURNS AK9R, THE NEW ARRL INDIANA SECTION MANAGER

I've been a licensed amateur radio operator since 1991 and an ARRL Life Member since 2002. Over those years, I've had many positions and done many things in amateur radio, so I think I bring a wide range of experience to the position.

Before I continue, a big thank you to our out-going Section Manager, Jimmy Merry KC9RPX, who served Indiana amateur radio operators for the past four years.

My goals as Section Manager are to:

- Engage Indiana amateur radio operators to help them achieve their goals in amateur radio.
- Empower Indiana amateur radio clubs to serve their members with interesting activities and programs.
 - Enable Indiana ARES teams and volunteers to be relevant, resilient, and ready to serve the auxiliary communications needs of their served agencies.
 - Execute the Section Manager responsibilities to recruit, appoint, and supervise section-level staff; maintain timely communications with Indiana ARRL members; and make personal visits to clubs, hamfests, and conventions.

The key, of course, is how to accomplish those goals and that's what I, along with my section staff, will be working on for the next few months.

If you have ideas on what you'd like to see from the ARRL in Indiana, please let me know. You can reach me by email at ak9r@arrl.org or telephone at 317-520-1188. Or, stop by and bend my ear at one of the many hamfests coming up in Indiana.

73, Bob

ULRICH R. ROHDE, N1UL, TO RECEIVE ENGINEERING ACHIEVEMENT AWARD

[Editors note: Google [N1UL](#) and take a look at N1UL's ham stations. Pretty impressive!]

ARRL The National Association for Amateur Radio® is pleased to recognize Dr. Ulrich L. Rohde, N1UL, as the 2022 recipient of the Institute of Electrical and Electronics Engineers (IEEE) Photonics Society Engineering Achievement Award. The award is for outstanding engineering achievement in the field of optoelectronic signal generation and optical measurement equipment for next-generation intelligent optical networks. Dr. Rohde is an ARRL Maxim Society and Life Member.

Dr. Rohde is currently a partner of Rohde & Schwarz, in Munich, Germany, and Chairman of Synergy Microwave Corporation in Paterson, New Jersey. He is also President of the Communications Consulting Corporation, serving as an honorary member of the Senate of the University of the Armed Forces in Munich, honorary member of the Senate of the Brandenburg University of Technology Cottbus-Senftenberg, and past member of the Board of Directors of Ansoft Corporation in Pittsburgh, Pennsylvania. Throughout his career he has been active in microwave technology, and in 2017 was honored for his work developing software-defined radio (SDR).

Dr. Rohde has been an avid amateur radio operator holding several licenses in the United States and Germany. He has been licensed since 1956 and involved mostly in technology and systems. In 2015, he won first place in the ARRL DX Contest in the Northern New Jersey Section. He also operates N1UL/MM on his yacht, the *Dragonfly*, and is Trustee of the Marco Island Radio Club, K5MI.

"We congratulate Dr. Rohde on this prestigious award," said ARRL Laboratory Manager Ed Hare, W1RFI. "We in the amateur radio community have long benefited from Dr. Rohde's expertise. His advice and guidance on technical procedures and his generosity have been invaluable to ARRL members and our Lab." In 2021, Rohde donated a Rohde & Schwarz SMBV100A vector signal generator to the ARRL Lab.

Dr. Rohde will receive the 2022 Engineering Achievement Award at the IEEE Photonics Conference in November in Vancouver, British Columbia, Canada. --ARRL

THE 2021 ARRL TECHNICAL INNOVATION AWARD HONORS WOJCIECH KACZMARSKI, SP5WWP

The 2021 ARRL Technical Innovation Award honors Wojciech Kaczmarek, SP5WWP, for developing a

new digital radio communication protocol, M17, for the good of amateur radio.

M17 is a new open-source and patent-free digital radio protocol with a goal to provide a fully sustainable option for digital radios in the future.

ARRL member Ed Wilson, N2XDD, the Community Manager of the M17 Project, accepted the 2021 Technical Innovation Award plaque on behalf of Kaczmarek when Wilson visited ARRL Headquarters on Tuesday, July 12, 2022. The award plaque is being shipped to Kaczmarek in Poland

The efforts of Kaczmarek and other M17 community team members have led to the development of DroidStar, an Android application by Doug McLain, AD8DP. The protocol has also been incorporated within other amateur radio-related projects to help advance the radio art. --ARRL

FCC HIRING FOR HIGH FREQUENCY DIRECTION FINDING CENTER

The Federal Communications Commission (FCC) has started accepting applications for a Telecommunications Specialist at its High Frequency Direction Finding Center (HFDFC) in Columbia, Maryland.

HFDFC supports the FCC Over-the-Air spectrum observation capabilities, and provides direct support to the public safety community and other federal partners by locating interference sources on HF radio spectrum (below 30 MHz). The Center is part of the FCC's Public Safety and Homeland Security Bureau in the Operations and Emergency Management Division.

The duties for the incumbent are described at www.usajobs.gov/job/665764100 and include performing "watch duty" and serving as a technical authority providing technical assistance and guidance to communication systems users to resolve radio interference complaints and problems, and collecting radio signal analysis information. Using radio signal analysis equipment deployed throughout the United States to collect, correlate, and analyze characteristics of radio signals involved in interference problems, distress or safety-related signals, or other radio signals involved in other high-priority activities, such as law enforcement or national defense, to include HF, VHF, and UHF. Collecting radio signal analysis information; analyzing complaints, inquiries, and comments from multiple sources; investigating compliances with the FCC's rules and regulations, and determining the appropriate actions utilizing the FCC's remote HF network of radio direction finders and radio signal analysis equipment. Developing definitive technical solutions concerning telecommunications system architectures, interoperability, expansion potential, and overall end-to-end compatibility and net centrality. Interacting with the public, licensees of various radio services, private industries, other government agencies, and representatives of foreign governments. Representing the Bureau in meetings within and outside the agency. Conducting formal and on-the-job training of co-workers, new recruits, clients, and participants of the United States Telecommunication Training Institute (USTTI).

ARRL invites you to be part of "Club Station," the newest column in *QST*. This column is a space for radio clubs to share the different ways in which they're successful to help other clubs grow. They do this by offering advice, and practical solutions to common experiences and problems.

In each issue, a different club will share how they undertook a specific activity or project, how and why it was successful, and any challenges they may have had to overcome throughout the process. Some examples include, but aren't limited to, successful community club projects, innovative ways to attract new members, getting youth involved with ham radio, and developing active hams.

"Clubs are the backbone of the amateur radio community," said ARRL Field Services Manager Mike Walters, W8ZY. "If your club is doing something that will inspire other clubs, we want to hear from you!"

"In order to help you tell your story, ARRL has published author guidelines that are geared toward 'Club Station,' and they include a club profile form," said *QST* Editor Leanna Figlewski, KC1RMP. Both of these documents can be found at www.arrl.org/qst-club-station-guidelines-and-profile-form. "You don't have to have writing experience to be published in *QST*. If your submission is accepted, our editorial staff will work with you to get your story ready for publication."

All clubs are welcome to participate. The first iteration of "Club Station" appeared in the August 2022

issue of *QST* and includes more information about what members can expect to see from the column.

If you have any questions, contact us at clubs@arrl.org. We look forward to hearing from you about your radio club!

QST is an ARRL membership benefit. Join ARRL or renew your membership at www.arrl.org/join.
--ARRL

ARRL AND TAPR DIGITAL COMMUNICATIONS CONFERENCE RETURNS IN SEPTEMBER 2022

The 41st ARRL and TAPR Digital Communications Conference (DCC) will be held September 16 - 18, 2022, in Charlotte, North Carolina. Last year's conference was held virtually due to COVID-19 concerns, but this year's 3-day event will be held at the Hilton Charlotte Airport Hotel.

The DCC is for everyone, beginners and experts alike, with an interest in all forms of digital communication.

The official call for technical papers has been issued and general topic areas include, but are not limited to: software-defined radio (SDR); digital voice; digital satellite communications; digital signal processing (DSP); HF digital modes; adapting IEEE802.11 systems for amateur radio; global positioning system (GPS); automatic position reporting system (APRS); Linux in amateur radio; AX.25 updates; internet operability with amateur radio networks; TCP/IP networking over amateur radio; MESH and peer-to-peer wireless networking, and emergency and homeland defense digital communications in amateur radio.

Authors can submit their papers for this year's conference by email to ARRL Production Coordinator Maty Weinberg, KB1EIB. The deadline is September 1, 2022. The conference papers will be published exactly as submitted. The authors will retain all rights and do not need to be present at the conference, and all papers will be distributed to DCC attendees. Printed copies will be available for sale at Lulu.

More information about TAPR -- Tomorrow's Ham Radio Technology Today can be found at their website. --ARRL

ARRL FIELD DAY 2022 CONTACTS RISE TO OVER 1.2 MILLION

Updated numbers from ARRL Field Day 2022 now show 1,235,265 total reported contacts as of July 26, 2022.

ARRL Contest Program Manager Paul Bourque, N1SFE, reported that 4,774 Field Day entries have been submitted, and there were 28,250 Field Day participants.

The class breakdown is as follows:

1,141 Class A (club / non-club portable)

598 Class B (one or two person portable) and Battery (one or two person portable)

56 Class C (mobile)

2,093 Class D (home stations)

735 Class E (home stations using emergency power)

151 Class F (Emergency Operations Centers)

The last day to submit entries was Tuesday, July 26, so the numbers will change in the coming weeks. Bourque added that 237 entries are missing, either the required dupe sheet (or in lieu of that, a Cabrillo-formatted log) or supporting documentation for claimed bonus points. He encourages all entrants to check the ARRL Field Day Entries Received page at <http://field-day.arrl.org/fdentriescvd.php> to verify that their entry has been accepted, and if it is complete or pending any supporting documentation.

Additional documentation and log files can be added to previously submitted Field Day entries by using the link that was provided in the confirmation email that was received upon submittal. Any questions regarding Field Day entries should be directed to fieldday@arrl.org. --ARRL

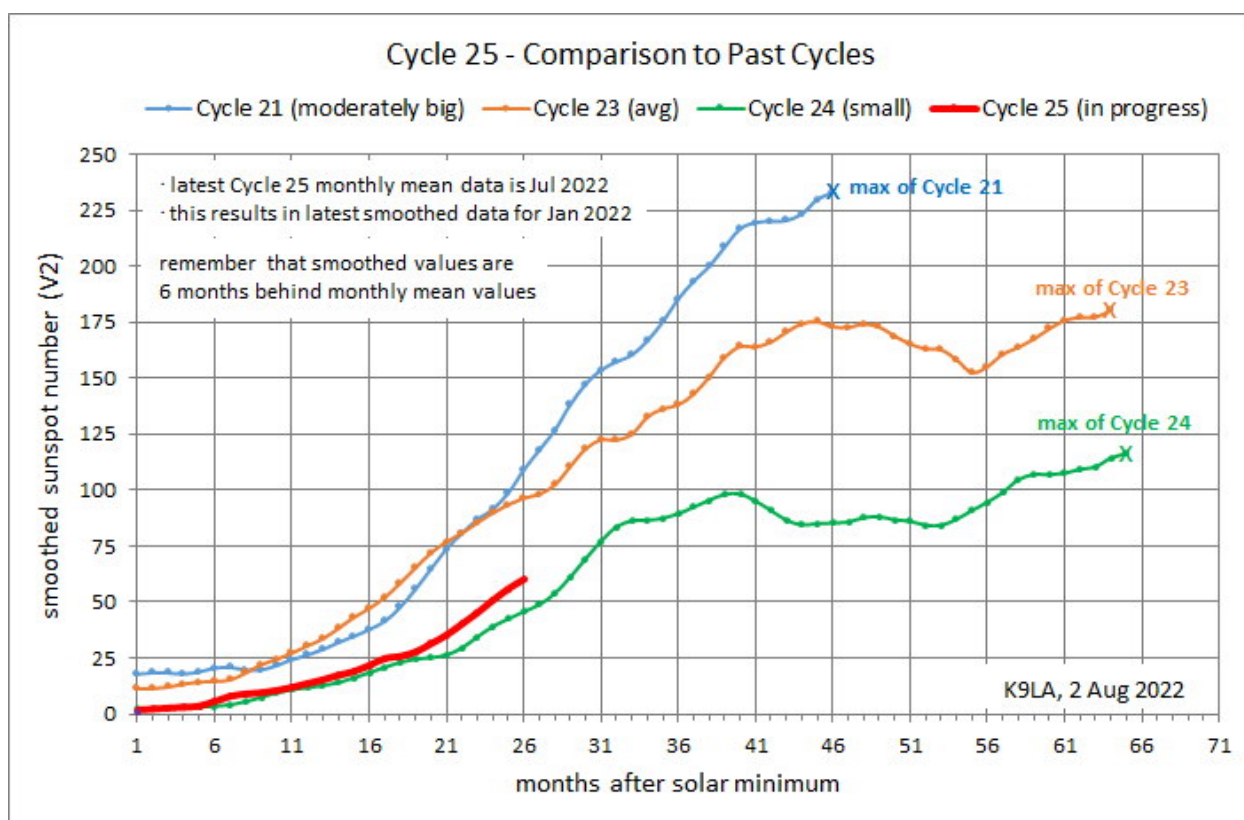
THE SUN IS NOW MORE ACTIVE THAN NASA PREDICTED. IT COULD BE IN ITS STRONGEST CYCLE SINCE RECORDS BEGAN ?

If Cycle 25 is going to be as big as the article suggests, it better start doing something interesting real soon.

Regardless of what happens, this fall and winter should have noticeably improved propagation on 15m, 12m and 10m due to Cycle 25's rise and the change in the northern hemisphere's atmosphere that's more conducive to electron production. Get radio-active!

Carl Luetzelschwab, K9LA

Here's the latest Cycle 25 data (in red) compared to a small cycle (Cycle 24 in green), an average cycle (Cycle 23 in orange) and a moderately big cycle (Cycle 21 in blue).



FCC LEGACY CORES SYSTEM TO BE RETIRED

The Federal Communications Commission (FCC) will retire the [Legacy version](#) of its Commission REGistration System (CORES) on July 15, 2022. CORES is the FCC's public-facing database that enables and tracks certain types of FCC and FCC applicant actions, including amateur radio applications and licenses. Its implementation has enabled routine amateur applications and licenses to be issued overnight instead of over weeks, as was the case with earlier methods. ARRL The National Association for Amateur Radio® advises the amateur radio community to transition to the [updated version of CORES](#) as soon as possible.

In essence, CORES is designed to identify those who hold certain types of FCC licenses and FCC authorizations, including amateur licenses, and organize them in an easily accessible manner under a common FCC Registration Number (FRN) regardless of whether one holds a single such authority or thousands. The new CORES, in addition to assigning individual FRNs, allows holders of multiple FRNs to aggregate them under a single account where the licenses and authorization, fees and payments, and related actions can be administered from within the same account.

In effect, new CORES can be conceptualized as an electronic interactive file folder. The [updated version of CORES](#) has been available since 2016, and now its use will be mandatory for all amateur licensees when submitting amateur-related applications.

Starting on July 15, 2022, the Legacy CORES website will re-direct users to the [Commission's updated CORES](#) site. Although some functionalities in the old system will continue to work for a short time, the [FCC has urged all users](#) to transition to the updated CORES system to take advantage of its enhanced security and functionality.

Register with the FCC

Licensees that do not already have an FCC CORES Username Account must create one with a unique username (a valid email address) and password. After creating the account, when logged in, users should associate their existing FRN or FRNs with this account. Instructions for doing so are on the [FCC Registration Help](#) page. One's FRN is printed on all current amateur applications and licenses, and will not change. FRNs can also be found by looking up one's call sign in the Commission's ULS (<https://wireless2.fcc.gov/UlsApp/UlsSearch/searchLicense.jsp>) or by using the FCC's [advanced search](#) page.

The FCC has posted [Tutorial Videos](#) to assist with the transition. ARRL VEC Manager Maria Somma, AB1FM, recommends viewing the videos "Getting Started With the New CORES," which explains how to register for a CORES Username Account, and "Associating an FRN to a Username," which instructs Legacy CORES users on how to link one or more existing FRNs to a username. [FCC CORES Registration Instructions](#) can also be found on the ARRL website.

Additional information is available on the [FCC](#) website or by calling the FCC Licensing Support Center at (877) 480-3201, Option 4, and on the FCC's [e-support](#) page.

ARRL FOUNDATION ANNOUNCES 2022 SCHOLARSHIP AWARDS

The ARRL Foundation Board of Directors has approved the recipients of the [2022 ARRL Foundation Scholarships](#) as recommended by the Scholarship Committee. Foundation Scholarships totaling \$921,250 will be awarded to 139 deserving radio amateurs pursuing higher education. Individual scholarship awards range from \$500 to \$25,000.

Applications for 2023 ARRL Foundation Scholarships are expected to open on October 1, 2022. More information about the ARRL Foundation Scholarship Program is available at www.arrl.org/scholarship-program.

The [ARRL Foundation](#) administers programs to support the amateur radio community, and was established in 1973 by [ARRL The National Association for Amateur Radio](#)®. The full list of scholarship awards and recipients can be found in the complete story on [ARRL News](#).

SHORTS

Yaesu reveals the FT-710 AESS HF Ham Radio - NEW for 2022! Youtube:
<https://www.youtube.com/watch?v=STGpsrQnTOY>

Remembering the The First Accidental Geomagnetic Storm – Sixty years ago this month, one of the biggest geomagnetic storms of the space age struck Earth. However, it didn't come from the sun. You

can read more about this phenomenon in Dr. Tony Phillip's article, "Starfish Prime: The First Accidental Geomagnetic Storm," at spaceweatherarchive.com/2022/07/08/starfish-prime-the-first-accidental-geomagnetic-storm/. Thanks to Dave Heimke, AL7LO

The ARRL DX Advisory Committee (DXAC) recently appointed John Sweeney, K9EL, as the new Central Division representative. Sweeney replaces Jim O'Connell, W9WU, who served for over 20 years on the Committee. The committee also appointed Central Division Director Carl Luetzelschwab, K9LA, to Board Liaison, who replaces Delta Division Director David Norris, K5UZ. The ARRL DXAC addresses and advises the ARRL Board on issues concerning the DXCC program, amateur radio's premier award that hams can earn by confirming on-the-air contacts with a minimum of 100 countries. The DXAC is composed of a representative from each ARRL Division, a representative from Radio Amateurs of Canada, an ARRL Board Liaison, a Staff Liaison, and an Administrative Liaison. To learn more about the DXAC and representatives in each Division, visit <http://www.arrl.org/dx-advisory-committee> and click the Contact Us button.

Testing antennas using WSPR-- Al Williams WD5GNR writes on Hackaday about how Matthew Miller MODQW (TechMinds) uses the data mode WSPR to test HF antennas

There are many ways to test HF antennas ranging from simulation to various antenna analyzers and bridges. However, nothing can replace simply using the antenna to see how it works.

Just as — supposedly — the bumblebee can't fly, but it does so anyway, it is possible to load up some bed springs and make contacts. But it used to be difficult — although fun — to gather a lot of empirical data about antenna performance. Now you can do it all with WSPR and Matthew Miller MODQW (@TechMindsYT) suggests a moderately-priced dedicated WSPR transmitter to do the job. You can see a video about the results of this technique at

<https://hackaday.com/2022/07/29/testing-antennas-with-wspr/> Southgate News

Space traffic is boosting noctilucent clouds – Never before have so many rockets been launched. 2021 broke the all-time record, and 2022 looks to do it again.

At the same time, noctilucent clouds (NLCs) are surging. A new study links the two. Rockets launched during the month of July are unexpectedly good at boosting NLCs. Full story @ [Spaceweather.com](https://spaceweather.com).

Don't miss the next solar flare: Subscribers to our [Space Weather Alert Service](#) receive instant text messages when strong solar flares are underway. Southgate News

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.
