



RCA Amateur Radio Club Indianapolis, IN



ARRL Affiliated Club
www.w9rca.org

JULY 2022

MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE TUESDAY, JULY 12th, 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. The plans for the upcoming ARRL Field Day were discussed. The RCA ARC will help support the Indy United FD Club, especially the VHF (6m) station. Our Club made a contribution to help cover some of the expenses. Greg, K0GAH, will be bringing his son and perhaps other scouts to participate in operating the GOTA station. The GOTA station will use the W9RCA call sign, the other CW/SSB stations will use W9SU. Jim, K9RU, reported that the FCC has retired the legacy CORES system and began using CORES2 for business with the FCC. [<http://www.arrl.org/fcc-cores-registration-instructions>] Also discussed was the remote receiver for the '88 repeater which is located at IVY Tech and has not been operational for some time. Getting access to the site is a problem after our previous contacts there have retired. K9RU will attempt to follow up.

AMATEUR RADIO LICENSE TEST SESSION

Date: Saturday, **June 9, 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

June 11-13 ARRL June VHF-UHF Contest <http://www.arrl.org/june-vhf>
July 30 [East Central Indiana Hamfest](#), Winchester, IN
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

INDY UNITED W9SU/W9RCA - ANOTHER OUTSTANDING FIELD DAY EFFORT

Great ops, great rigs, great food and hopefully a great score despite a pair of unwelcome storms: An overnight thunderstorm that shut us down for a couple of hours, and a geomagnetic storm that put a damper on Sunday band conditions.



W9SU was a 3A operation, at the Victor Conservation Club south of Mooresville, IN, with two CW stations setup in an RV and a camper using Elecraft K3s and a phone station with an Elecraft K4 in the club building. The W9SU VHF station was setup and operated by the RCA ARC with a ICOM 756 Pro III on FT8. W9RCA was the GOTA station operating phone and FT4 with a K3.

So how did we do on the scoreboard? Well, we won't know that until the logs are combined totaled up. That process will take us well into July. (The deadline for Field Day entries is July 26.) Plus, I have a policy of not revealing our exact score until after the deadline. Loose lips sink ships, you know.



What I can tell you is that we were running ahead of last year's score for several hours Saturday until the geomagnetic storm hit. HF propagation declined dramatically overnight and improved slightly on Sunday morning, but still wasn't as good as Saturday.

We won't be breaking our own all-time Indiana scoring record of 19,666. But since standings are relative, it's hard to say what place we'll finish overall.

I want to thank everybody who played a part in our 2022 effort, whether it was large or small, and whether you participated in person or supported us with a donation or an equipment loan.

Special thanks to fellow leaders Bill Kennedy, WY9T, and Dale Hammer, K9NN, for the months they spent helping to put our Field Day effort together; and to Cathy Harris, W9QKR, for the best Field Day menu that Central Indiana has ever seen (and tasted)!

In the meantime, keep an eye on our club Field Day Facebook page as we continue to post photos of our FD 2022 operation.

Again, thanks for joining the best Field Day team in existence. Whether or not any clubs with more transmitters outscored us, we all know it would have been a different story if they'd had to battle us on even terms!

73,Brian, W9IND

RCA ARC FIELD DAY WITH THE INDY UNITED FD CLUB

The RCA ARC had a good turn out, Jim Keeth, AF9A, Dick Davis W9ZB, John Garino KF9UH, Dave Bacon, KA9SRP, and Greg Holbrook, K0GAH with his son and another scout.

Special thanks to Tom Carroll, W9CSX who helped with the setup and operation of the VHF station..6 meter band conditions were not good and it finally opened the last hour of the FD.

Jim, K9RU

ARRL FIELD DAY 2022: 500,000 CONTACTS ALREADY REPORTED

2022 ARRL Field Day wrapped up nearly a two weeks ago. ARRL Headquarters, in the first week, already received over 2,400 entries submitted via the online Field Day Entry web application. Early analysis reveals that most of the entrants participated as Class D -- home stations, and Class E -- home stations using emergency power.

As of June 29, the breakdown of Field Day entries by Class showed 2,723 total entries, with 272 in Class A, 361 in Class B, 32 in Class C (mobile), 1,524 in Class D, 484 in Class E, and 50 in Class F.

So far, a total of over 517,000 contacts were reported for the event and those numbers are changing daily. In 2021, there were 1.5 million contacts made during Field Day activities.

Many participants were keeping their hopes up for better propagation, as early forecasts were looking promising. ARRL Contest Program Manager Paul Bourque, N1SFE, said that propagation aside, there was substantial activity. "While band conditions might not have been the greatest, there was a good amount of activity all the bands. Many participants seemed to agree that the recent rule changes, capping transmitter power output to 100 W, were a good idea," he said.

However, band conditions took a dramatic turn for the worse overnight and never fully recovered on Sunday.

Geomagnetic storm, right? Sure – but not just any geomagnetic storm. A very rare variety. Here's how the July 1 ARRL Propagation Bulletin explains it:

<https://www.arrl.org/w1aw-bulletins-archive/ARLP026/2022><https://www.arrl.org/w1aw-bulletins-archive/ARLP026/2022>

"On Sunday the geomagnetic activity was a problem, although not severe, with many stations in Field Day reporting increased absorption. The planetary K index peaked at 5 (a big number) at the end of the UTC day on Saturday and continued into the early hours of Sunday." But there's more to the story, as described by the U.K. website Unilad:

<https://www.unilad.co.uk/news/geomagnetic-storm-opens-crack-in-earths-magnetosphere-20220629>

"A geomagnetic storm 'cracked open' Earth's magnetosphere over the weekend much to the surprise of scientists."

"Geomagnetic storms are often caused by solar flares – or coronal mass ejection (CMEs) – which are enormous expulsions of plasma from the sun's outer layer. However, last weekend's storm didn't appear to have originated from a solar flare, hence scientists' surprise ... Sky News said astronomers think it was the result of a much rarer phenomenon that's caused when two streams of solar wind meet. A co-rotating interaction region (CIR) could well be behind the storm. These happen when solar wind streams moving at different speeds interact and cause a build-up of plasma at extraordinary speeds."

So you see, what we experienced on the second day of FD 2022 wasn't just lousy band conditions – it was lousy band conditions caused by a rare astronomical phenomenon.

There is still plenty of time to submit your 2022 Field Day entry. Participants who submit their entries using ARRL's Online Submission Form can earn 50 bonus points and will receive an email confirmation of their completed entry. Be sure to check the Entries Received web page to verify your entry's status. If it indicates "Pending documents," the required dupe sheet (or in lieu of that, a Cabrillo log file) or other supporting documentation of claimed bonus points is missing.

Participants can edit or add documentation to their online submissions by using the link provided in the confirmation email. Field Day entries must be submitted online or postmarked no later than 2059 UTC on July 26, 2022. -Thanks Brian, W9IND, and ARRL

FCC PROPOSES RECORD \$34,000 FINE FOR ALLEGED INTERFERENCE AND UNAUTHORIZED TRANSMISSIONS DURING IDAHO WILDFIRE

The Federal Communications Commission (FCC) has proposed a \$34,000 fine against Jason Frawley of Lewiston, Idaho, for allegedly interfering with radio operations of the U.S. Forest Service during firefighting activities for the Johnson Creek Fire near Elk River in July 2021. The FCC issued a *Notice of Apparent Liability for Forfeiture (NAL)* on June 8, 2022 to Frawley. The FCC states in the NAL that Frawley holds an Extra-class Amateur Radio Service license, WA7CQ, and is the owner/operator of Leader Communications LLC, licensee of eight microwave licenses and one business license.

The FCC alleged in the *NAL* that "On July 17, 2021, using his amateur hand-held radio, Frawley transmitted five (5) times, and on July 18, 2021, Frawley transmitted three (3) times on frequencies allocated and authorized for government use, apparently causing harmful interference with his apparently unlawful transmissions."

The frequencies with which Frawley is alleged to have interfered were being used to coordinate firefighting crews from the U.S. Forest Service and Idaho Department of Land to fight the 1,000-acre Johnson Creek Fire, including the communications between fire suppressant aircraft and ground crews.

The *NAL* includes details of the Forest Service's complaint and the FCC's investigation. On July 18, 2021, the Johnson Creek fire operations section chief drove to the Elk River airstrip and hanger where Frawley, who had disclosed his location, was found holding a radio next to a banner that read, "Leader Communications." Frawley admitted to transmitting on government frequencies and identifying himself as "comm tech." He argued that he was not trying to cause interference but instead was transmitting to provide information to the fire fighters.

"[A]t no time was I trying to disturb any other communications or air traffic. I was honestly just giving them information I had since I have been working on the butte since the early 90's . . ." wrote Frawley in his October 15, 2021 response to a Letter of Inquiry from FCC Special Counsel Laura Smith.

The FCC however concluded that "Frawley's admitted unauthorized transmissions on frequencies for which he did not have a license had the potential to cause substantial harm to life and property."

The FCC held that Frawley, by his own admission, apparently willfully and repeatedly violated the Commission's rules when he made eight separate radio transmissions on a frequency for which he did not have a license. The FCC stated that unauthorized transmissions on frequencies licensed to public safety entities using those frequencies to respond to emergencies also constitutes a violation of Section 333 of the Communications Act of 1934, as amended.

A news release from the FCC states that the fine is the largest of its kind proposed. "The Communications Act prohibits such interference with authorized radio communications and the Commission takes very seriously any interference with public safety communications," said the FCC. In a separate statement, FCC Chairwoman Jessica Rosenworcel added, "You can't interfere with public safety communications. Full stop. So today we propose the largest fine of its type for this interference that put fire suppression and public safety itself at risk. --ARRL"

REVERSE BEACON NETWORK LAUNCHES UPDATED WEBSITE

At 0500 UTC (1 AM EDT) on Thursday, June 16, the Reverse Beacon Network (RBN) launched their updated website (www.reversebeacon.net). The intent of the revised website was to replace the original and beta websites and to include a Secure Sockets Layer (SSL) to enhance security for users of the site.

The RBN is a network of stations that listen to the bands and report what stations they hear, including when and how well. The website's database of past spots allows operators to instantly find what stations (from any given country or zone) have been heard, at what times, and on what frequencies. Operators can also see when they have been spotted, who spotted them, and how loud the contact was.

There is an option to compare your signal with those of friends and competitors, in near real time, or look at historical data of previous transmissions. If you wonder how your signal compared to others' during a previous contest, the website's Signal Comparison Tool will provide real, quantitative data. For an instant report, query what stations you want to compare, based on signals heard by a given reverse beacon on a certain band at a certain time.

In 2009, Pete Smith, N4ZR, and Felipe Ceglia, CT7ANO, worked to get the first version of RBN online. The work of Mark Glenn, K7MJG, on the website and Dave Pascoe, KM3T, on connecting the servers, contributed to RBN as a resource for listening and tracking signals. The new version is the first major upgrade for the site.

A guide to the website's new features is available on the [beta site](#), as well as on the new site under the 'about' tab. -- *Thanks to Pete Smith, N4ZR*

SOUTHERN CALIFORNIA EXERCISE TESTS WINLINK GLOBAL RADIO EMAIL

For 2 days in mid-June, over 100 amateur radio operators were joined by the United States Geological Survey (USGS), local and county law enforcement agencies, and the EmComm Training Organization (ETO) for participation in a functional earthquake exercise in southern California, known as SoCal Shifting 2022.

The goal of the exercise, which took place June 18 - 19, was to test the operational capability and readiness of the Winlink Global Radio Email® system using amateur radio frequencies.

Oliver Dully, K6OLI, District Emergency Coordinator of the Amateur Radio Emergency Service® (ARES®) Los Angeles Northeast District, said the exercise came together quickly over 5 days, with the help of the Los Angeles County Sheriff's Department Disaster Communications Service (DCS), the San Diego ARES, and the Ventura County ARES.

Dully said, "Amateur operators routinely hold weekly tests but need to be network-aware and used to the battle rhythm during emergencies to move traffic in [a] more timely manner."

The exercise scenario included a cluster of earthquakes occurring on June 18 at 10:18 AM Pacific Standard Time, and amateur radio operators were asked to send a series of messages ranging from a Did You Feel It (DYFI) report to a Field Station Report (FSR).

Dully said the exercise was a great success, stating: "Participants were only given a short 3 days' notice, so the great success of the SoCal Shifting 2022 functional exercise again demonstrates the value of regular, mission-focused training and collaboration."

Dully said the numbers from the final after-action report were outstanding:

- The ARES Los Angeles Northeast District tactical call sign received 372 messages from 101 participating stations during this exercise. Seventy-six of those stations sent all four messages, 16 sent three, the remainder sent two or fewer. The Winlink check-out was most often overlooked.
- Over 95% of stations correctly located themselves in North and Central America. Three stations missed a (-) sign in their longitudes in some (but not all) of their form submissions. Two stations elected not to send latitude and longitude.
- Over 95% entered the correct exercise name in the DYFI form. That was of special importance, as it helps USGS aggregate and analyze exercise data.

The exercise scenario and a brief after-action review are [available](#).

SHORTS

Starting July 5, 2022, the Hendricks County ARES Weekly Tuesday Night Net will be on the 145.130 MHz W9HCA Repeater. This Repeater does require a PL-Tone off 88.5Hz for access. The Repeater is located in Danville Indiana, at the Danville Community School Corporation's Maintenance Garage. This Repeater will be the new home of the Hendricks County ARES & Skywarn activities. Make sure your radios are programmed with the sub-audible tone before July 5th. All Amateurs are encouraged and welcome to use the repeater. Ken, KJ9B

Central States VHF Society 2022 Conference Registration Registration is now open for the 2022 Central States VHF Society Conference, held on July 22 - 23 at the Radisson Hotel La Crosse in La Crosse, Wisconsin. The program includes technical and non-technical VHF+ presentations, and equipment swapfest, antenna testing range, and more. For more information and registration, visit <https://2022.csvhfs.org/>

A new Czech satellite, the eleventh in a row, was placed into orbit on the evening of May 25, 2022, after launch by Falcon-9 rocket from Florida. PLANETUM-1 transmits as OK0PLA in the 2-meter and 70-centimeter bands with CW and GFSK. The control center is the Planetarium in the capital city of Prague. More information about PLANETUM -1 is available at this link: www.planetum.cz/druzice-planetum1/pro_radioamatery.

DX Engineering has announced that it has added Penta Laboratories RF vacuum tubes to its product line. "In the ham radio community, special RF power vacuum tubes are essential replacements for current model amplifiers. They are also used to revive legacy amplifiers, and some technically savvy operators build vintage-style homebrew equipment and other devices using vacuum tubes," included the DX Engineering announcement. [Penta Laboratories](#) describes that it "was founded in 1951, and quickly achieved industry-wide recognition for the development of the beam-power Pentode vacuum tube." The company stocks thousands of tubes for a range of disciplines, including vacuum tubes designed for ham radio and other radio frequency applications. Penta Laboratories' states that their tubes are burned in for a minimum of 48 hours, dissipating full power with filament plate, and support screen voltages that are normally used in amplifier applications.

ARRL Adds Fourth Weekend to International EME Contest A fourth weekend has been added to the ARRL International EME Contest in August. In addition to contest weekends occurring in September, October, and November, participants can now work as many amateur stations via the Earth-moon-Earth (EME) path on the 2.3 GHz and above bands for a weekend in August. For all four weekend dates and complete contest rules, visit www.arrl.org/eme-contest.

June 2022 144 MHz EME Newsletter Published Bernd Mischlewski, DF2ZC, has published the June 2022 edition of the *144 MHz EME NewsLetter*. The newsletter is available for download at www.df2zc.de/newsletter.

THANKS FOR READING

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