



RCA Amateur Radio Club

Indianapolis, IN

www.w9rca.org



JUNE 2021

MONTHLY NEWSLETTER

A VIRTUAL ZOOM MEETING WILL BE SCHEDULED FOR
TUESDAY JUNE 8th AT 7:00 EDT
INVITATIONS TO JOIN WILL BE EMAILED JUNE 7th

RCA ARC NEWS

THE JUNE 8th MEETING – For the June 8th meeting, we shall again use a Zoom virtual meeting courtesy of the Indianapolis Hamfest. The meeting will start at 7:00 pm. You will receive an email message with a link, meeting ID and password on June 7th.

If you can access your emails by your smart phone, then you can join using it. If you join using your desktop or laptop and do not have a video camera, then it will join you with audio only assuming you have some type of microphone connected to the computer. If not, then you will be logged as listen only. You can also use your phone and call in using the numbers listed in the email for the session.

MAY MEETING SUMMARY – Thanks to all who attended our May Zoom meeting. Our Club will rent a total of ten tables at the Indy Hamfest. This includes a few tables for individual members who will bring their own stuff to sell. The Club will send a contribution to the Indy United field day group. Reminder: June VHF contest is coming up. Our Club in-person meetings may resume in the fall.

AMATEUR RADIO LICENSE TEST SESSION

Date: Saturday, June 12, 2021

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

(Required: FRN and completed form NCVFC 605. A mask is also required)

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

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

2021 ARRL Field Day is June 26-27 – The RCA ARC will be part of the Indy United ARC, W9SU Field Day operation again this year. Last year, they had the highest FD score in the country.

Operation will again be from the Victor Conservation Club, south of Mooresville and in the 3A class with 2 HF CW stations, a GOTA and VHF stations. The RCA ARC will handle the 6 meter setup and operation. – Jim K9RU

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

June 12-14 ARRL VHF Contest <http://www.arrl.org/june-vhf>
June 26-27 ARRL Field Day <http://www.arrl.org/field-day>
July 9-10 Indianapolis Hamfest - <http://indyhamfest.com/>
July 17-18 CQ WW VHF <https://www.cqww-vhf.com/>

For more contest info: <https://www.contestcalendar.com/contestcal.html>

RCA ARC AT THE INDY HAMFEST July 9 & 10 --There will be an Indy Hamfest this year and we will have tables in the commercial building. Both AF9A and K9RU have been gathering and storing stuff to sell at the Hamfest and storing it at our homes.

We will have a lot of stuff to move to the Marion County Fairgrounds to sell and will need help both moving it and manning the tables.

The money we get from selling the stuff funds the operation of the repeater and the Club.

YOU WILL NOT RECEIVE A HAMFEST FLYER IN THE U.S. MAIL THIS YEAR. THERE IS A .PDF VERSION ON WWW.INDYHAMFEST.COM. --Jim K9RU

WANT TO BE PART OF THE INDY HAMFEST? – If you would like to be a part of the hamfest committee (meetings held on the 3rd Monday via Zoom) please contact [Mike Sercer, WA9FDO](mailto:Mike.Sercer@WA9FDO.com). This year is the 50th Indy Hamfest and they are looking for new people wanting to be involved.

ARRL FOUNDATION ANNOUNCES 2021 SCHOLARSHIP AWARDS --The ARRL Foundation has announced the recipients of its 2021 scholarship awards. There were 122 awards this year, totaling \$564,250. Congratulations to all scholarship recipients!

If you are a parent or grand parent of a student who has an amateur license and is studying electronics or related fields, look into the ARRL Foundation scholarship program. Only two students living in Indiana received scholarships this year. The Indianapolis Amateur Radio Association scholarship (Indy Hamfest) was awarded to a student in Wisconsin (ARRL Central Division) although qualified Indiana students are given preference for this scholarship.

The Amateur Radio Digital Communications (ARDC) Scholarships, \$10,000 each
Carolina M. Whitaker, KD9NKM, of Indianapolis, Indiana

The David Knaus Memorial Scholarship, \$2,000
Ryan J. Sissons, KD9BGD, of Bargersville, Indiana

The Indianapolis Amateur Radio Association Scholarship, \$1,000
Laura A. Accola, W9MBA, of Fall Creek, Wisconsin

[Take away here: Not many Indiana students apply. Your chances may be good! All else being equal, your ham radio activities may benefit you. Having a license longer than a month before submitting your application may help.]

RADIO AMATEUR'S VINTAGE HOME MOVIE FILM SHEDS LIGHT ON HINDENBURG DISASTER

Vintage home movie film provided by New Jersey radio amateur Bob Schenck, N200, was the highlight of a PBS documentary about the *Hindenburg* disaster. The film, shot by his uncle Harold Schenck, may provide clues as to what initiated the disastrous 1937 fire that destroyed the airship *Hindenburg* and claimed 35 lives as the German zeppelin was landing at Lakehurst, New Jersey. Harold Schenck tried to interest government investigators in his film, shot from a different angle than newsreel footage that begins only after the fire was well under way, but it was largely overlooked. "Nobody ever asked for it," Bob Schenck explains in the documentary.

The Schenck film is the highlight of a PBS "NOVA" documentary, *Hindenburg: The New Evidence*, that investigates the issue in considerable depth in an effort to unlock the secrets of the cold case. The program aired on May 19 and remains available for streaming.

"My dad had bought this nifty Kodak camera — a wind-up movie camera, 8 millimeters — and he couldn't come [to the *Hindenburg* landing] because he worked," Bob Schenck recounted during the documentary. "So, he asked my uncle and my mom if they would take some shots and see the *Hindenburg* land."

Bob Schenck approached Dan Grossman, an expert on airships, including *Hindenburg*, in 2012 during a commemoration of the disaster that forever memorialized radio reporter Herbert Morrison's plaintive on-air reaction, "Oh, the humanity!" The NOVA documentary not only shares Schenck's footage, which provided new clues to re-examine the cause of the explosion. The documentary also reviews scientific experiments that helped investigators come to a fresh understanding of what set off the fire.

The original investigation concluded only that the fire resulted from leaking hydrogen ignited by a spark, but it was never determined just what caused the spark. Witness accounts suggested the fire started near the airship's tail, but supporting evidence was hard to find until the Schenck footage was examined.

"The *Hindenburg* remains vivid in our collective memories all these years later because of the searing images and film of the explosion," said NOVA co-executive producer Chris Schmidt in a *Manchester Patch* article. "We feel honored to share this new footage with the world and to bring the NOVA audience behind the scenes of this pivotal new investigation into the crash." — *Some information from Manchester Patch; thanks to Pete Varounis, NL7XM*

RADIO AMATEURS OF CANADA INVITES PARTICIPATION IN THE RAC CANADA DAY CONTEST

Here's a chance to enjoy an operating event that is *not* on a weekend. Help Canada celebrate its birthday on the air during the RAC Canada Day Contest on Thursday, July 1 — just a few days ahead of Independence Day in the US. Canada Day is the anniversary of Canada's confederation, when the three colonies of Canada, Nova Scotia, and New Brunswick united into the Dominion of Canada on July 1, 1867. The RAC Contest Committee is asking all participants in the 2021 Canada Day Contest to follow guidelines provided by the government and by health officials in their respective areas for any multioperator categories.

The Canada Day Contest begins on July 1, 0000 UTC (the evening of Wednesday, June 30, in North American time zones) and continues through 2359 UTC. Bands include 160, 80, 40, 20, 15, 10, 6, and 2 meters, CW and phone (SSB, FM, AM, etc.). Stations in Canada send signal report plus province or territory. VE0s and stations outside Canada send a signal report and a serial

number. Contacts with stations in Canada or VE0s are worth 10 points. Contacts with stations outside Canada are worth 2 points. Contacts with RAC official stations — all have RAC as the suffix — are worth 20 points. Stations may be worked once on each mode on each of the available bands. CW contacts in conventional phone subbands are not allowed, nor are phone contacts in the conventional CW subbands.

Canada's 10 provinces and three territories serve as multipliers for the event.

JUNE 2021 ECLIPSE FESTIVAL SEEKS HAM PARTICIPANTS

HamSCI is looking for ham radio operators to make recordings of time-standard stations during the June 2021 annular solar eclipse across the Arctic Circle as part of a citizen science experiment. Researchers will use the crowd-sourced data to investigate the superimposed effects of auroral particle precipitation and the eclipse on HF Doppler shift.

Participants would collect data using an HF radio connected to a computer running open-source software. A precision frequency standard, such as a GPS-disciplined oscillator, is desired but not required to participate. Radio amateurs and shortwave listeners around the globe are invited to take part, even stations far from the path of totality.

Last year's eclipse festivals included more than 100 participants from 45 countries. The experiment will run June 7 – 12. All participants will receive QSL certificates and updates as the data is processed. This is a pilot experiment for HamSCI's Personal Space Weather Station project, which seeks to develop a global network monitoring the geospace environment. For more information and set-up instructions, visit the [June 2021 Arctic Eclipse Festival page](#) on the HamSCI website.

FORMER DAYTON HAMVENTION VENUE HARA ARENA IS NOW A PILE OF RUBBLE

Hara Arena originated as a ballroom in 1956. Dayton Hamvention began using Hara Arena in 1964, when the main 5,500-seat arena was built. Six buildings were added later. Over the years, Hara Arena was home to sports teams, concerts, conventions, and social activities. It closed in August 2016, due to ongoing financial issues and a 20-year-long legal fight over the unresolved estate of founder Harold Wampler. Eventually a new owner was found. In May 2019, Hara was severely damaged by a tornado and considered not worth rebuilding. The building's iconic logo as well as bricks from the structure were to be auctioned for charity. The site has since been cleared for redevelopment, and [only piles of rubble remain](#) of the original Hara Arena facility.

[HAM CENSUS](#) IS INVITING ALL RADIO AMATEURS TO TAKE PART IN A UNIQUE SURVEY.

The project's organizers are hoping to hear from hams in the US, Canada, and around the world. Survey questions deal with operating preferences, gear, your shack, views on regulations, clubs and associations, and the future of amateur radio. Cemil "Jim" Alyanak, K3MRI, the co-administrator of Ham Census and [Ham Community](#), says the aim of the census is to give operators a louder voice to better inform club leaders, associations, manufacturers, and regulators. "We all want the amateur radio community to grow organically and collaboratively, and for that, we need to know what operators are thinking," he said. Divided into



six parts, Ham Census runs year-round, delivering constant updates. Taking and using the survey is free, but only those completing all six sections get access to the complete results.

WOODEN SATELLITE TO LAUNCH BY YEAR'S END

The WISA Woodsat project, being sponsored by plywood supplier WISA in an unconventional PR initiative, is poised to place a wooden satellite into orbit by the end of the year. The idea is to test the suitability of treated wood as a low-cost and widely available material for space applications. The IARU posting for Woodsat indicates that several amateur radio experiments will be on board as well as photo downlinking, including selfies.

The wooden satellite is based on a basic, versatile CubeSat format, Kitsat, which is designed with educational use in mind. It retails for just \$1,500. Based in Finland, the Woodsat project began with students across the country contributing parts to a CubeSat launched by balloon. The satellite will be a 10-centimeter cube weighing 1 kilogram, covered on all sides by coated birch plywood from WISA plywood. Nine small solar cells will power the satellite, which will orbit at an altitude of 500 – 550 kilometers.

As the sponsor quipped, “WISA Woodsat will go where no wood has gone before. With a mission to gather data on the behavior and durability of plywood over an extended period in the harsh temperatures, vacuum and radiation of space in order to assess the use of wood materials in space structures.”

Once in orbit, Woodsat will be able to extend a selfie stick to capture photographs of the wooden box as it hurtles through space at 40,000 kilometers per hour (24,800 miles per hour). This will allow the mission leaders to monitor the impact of the environment on the plywood.

The satellite would downlink its telemetry and images from two cameras using amateur radio frequencies.

“The wooden satellite with a selfie stick will surely bring laughter and goodwill,” added mission manager Jari Mäkinen of Arctic Astronautics. “Essentially, this is a serious science and technology endeavor. In addition to testing plywood, the satellite will demonstrate accessible radio amateur satellite communication; host several secondary technology experiments; validate the Kitsat platform in orbit, and popularize space technology.”

An April 23 *Engineering and Technology* article has more information. — Thanks to AMSAT News Service via JoAnne Maenpaa, K9JKM; *E&T*, and the IARU

APRIL 2021 VOLUNTEER MONITOR PROGRAM REPORT RELEASED

The Volunteer Monitor (VM) Program is a joint initiative between ARRL and FCC to enhance compliance in the Amateur Radio Service.

A General class renewal applicant withdrew his application after FCC notice that the renewal application would be held up pending review of Volunteer Monitor complaints. As a consequence, the Quakertown, Pennsylvania, applicant has no operating privileges.

Twenty-one operators in 14 states received *Advisories* because of their operation in the March CQ World Wide DX Contest. While making contacts with VC3T and VC2W, their LSB signals extended *below* 7.125 MHz, which is the lower limit of the 40-meter amateur phone band.

Volunteer Monitors participated in a nationwide training program on April 7 that was conducted by ARRL and the FCC.

The Volunteer Monitor Coordinator had two meetings in April with FCC Enforcement Bureau personnel.

The totals for VM monitoring in March were 1,394 hours on HF frequencies and 2,515 hours on VHF and above frequencies. -- Thanks to Volunteer Monitor Coordinator Riley Hollingsworth, K4ZDH

AMATEURS' EMAIL ADDRESSES WILL CONTINUE TO BE KEPT PRIVATE, FCC SAYS

Starting on June 29, all applications filed with the FCC must include an email address for FCC correspondence. After receipt of the initial announcement that all future applications would require an email address, ARRL was concerned for the privacy of its members and requested that amateurs' email addresses not be made public. This week, the FCC agreed, stating in an email to ARRL counsel that it will continue to "mask" amateurs' email addresses from public view in the Universal Licensing System ([ULS](#)). The FCC will use the email address supplied by amateurs to correspond with applicants, including to send a link to the official electronic copy of the license when an application is granted.

The FCC is transitioning to fully electronic correspondence and no longer mails hard-copy licenses. Amateurs are able to view, download, and print their official license grant using the ULS. When a license is first granted, each applicant will receive an email with a direct link to the license. Although the link expires in 30 days, the license itself will remain available in the ULS and may be downloaded at any time by signing into the licensee's account using their FCC Registration Number (FRN) and password.

On or after June 29, a valid email address must be provided with each application, and must be kept current by filing a modification application, as necessary. Under the amended Section 97.23, "The email address must be an address where the grantee can receive electronic correspondence. Revocation of the station license or suspension of the operator license may result when correspondence from the FCC is returned as undeliverable because the grantee failed to provide the correct email address."

Applicants lacking an email address should consider using the email address of a friend or family member on their FCC applications. Read [an expanded version](#).

HF RADARS CONTINUE TO BE TROUBLEMAKERS, IARU REGION 1 MONITORING SERVICE SAYS

The biggest headache for International Amateur Radio Union Region 1 Monitoring Service participants continues to be HF over-the-horizon radars (OTH-Rs). Already an interference issue for several years, OTH-R activity seems to be multiplying exponentially. Most of the stations are located in China and Russia.



"The same troublemakers every month, the OTH-Rs [are] by far the most troublesome!" said IARUMS Coordinator Peter Jost, HB9CET, in the [April edition](#) of the IARUMS *Monthly Newsletter*.

Monitor reports from Europe and Africa showed OTH-R signals littering the 20-meter phone band, with some also showing up as high as 15 meters, as well as down on 40 meters and lower. These include the infamous "Foghorn" OTH-R -- so-called because of the sound of the approximately 10 kHz wide transmissions -- mostly in short bursts. The Russian Kontayner OTH-R has also been spotted on 20 meters and elsewhere, generating an approximately 12 kHz bandwidth signal.

A newcomer of sorts has been Super Dual Auroral Radar Network (SuperDARN) HF radar signals causing interference to radio amateurs on 14.210 MHz and possibly elsewhere. The SuperDARN system is an international scientific radar network consisting of 35 HF radars in both the Northern and Southern Hemispheres. These radars are primarily used to map high-latitude plasma convection in the F region of the ionosphere, but they're also used to study a wider range of geospace phenomena, including geomagnetic storms.

"What is always surprising is how strongly intruders from the Far East can be heard [in IARU Region 1], sometimes even during the day in the 40-meter band, e.g., the 160 kHz wideband radar or also some other radars like the 'Foghorn' or similar," Jost said.

SuperDARN network radars look into Earth's upper atmosphere and operate continuously to observe the motion of charged particles (plasma) in the ionosphere and other effects that provide scientists with information on Earth's space environment. Knowledge gained from this work provides insight into space weather hazards, including radiation exposure for high-altitude travelers and disruptions to communication networks, navigation systems (GPS), and electrical power grids.

TECHNICAL

THE REBIRTH OF HF – Rohde & Schwarz is one of the world's leading manufacturers of Test & Measurement, Secure Communications, Monitoring and Network Testing, and Broadcasting equipment. Founded more than 80 years ago, the independent company has an extensive sales and service network with subsidiaries and representatives in more than 70 countries.

In the Rohde & Schwarz High Frequency (HF) Learning Center you'll find videos, tutorials, white papers, brochures, applications notes, quick links, and articles focused on High Frequency Test and Measurement Solutions; our portfolio of HF radios for land, air, and sea; and our HF monitoring and direction finding solutions.

https://www.rohde-schwarz.com/us/campaigns/rsa/adt/hf-learning-center_253628.html?cid=802_us_sma_ADT_facebook_20-10_i_HFLC_&fbclid=IwAR2git4mjWX9EStcnP7PZ6rvbYY2Z_A4kflUvIQ_5uVDiWG_Eb4J0jBwyOY#media-gallery-5

SHORTS

WSJT-X 2.4.0 Achieves General Availability! Here's part of the announcement from Joe, K1JT: "We are pleased to announce the General Availability (GA) release of WSJT-X version 2.4.0, which includes the new digital mode Q65. Q65 is designed for two-way QSOs over especially difficult propagation paths, including ionospheric scatter, troposcatter, rain scatter, TEP, EME, and other types of fast-fading signals. Details and recommendations concerning the Q65 sub-modes are provided in the "Quick-Start Guide to Q65", available [here](#)." For the complete announcement, see the [WSJT-X website](#).

Scott, N3FJP, announces the availability of Amateur Contact Log 7.0, with the following features/improvements:

- Easy, direct, integration with WSJT-X
- Support for the 13 Colonies annual event
- States lookup for DX spotting (and WSJT-X)
- Support for the free HamDB Callbook Lookup service (which includes USA, Canada and a few other countries)
- Grid is now returned with the free callbook lookup service (grid is already provided in most other callbook lookup options)
- Right-clicking on the main form's Spot Last button provides the opportunity to add a comment

Other N3FJP programs have also been updated:

- ARRL RTTY Roundup 3.9 (which also supports FT Roundup)
- CQ WPX 4.9 (not WSJT-X applicable, but you can enjoy the rest of the enhancements in next week's CQ WPX CW contest)
- Field Day Log 6.6
- VHF Log 6.6
- World Wide Digi DX 1.2

For more information, see the [announcement](#), or visit the [N3FJP website](#).

Indiana Motor Speedway Special Event Station W9IMS currently is being featured up front on a shortwave listening website known as The SWLing Post (<https://swling.com/blog/>).

This site is devoted to the various aspects of shortwave listening, from tuning in Voce of America broadcasts to collecting QSL cards and certificates from special event amateur radio stations like W9IMS.

Dan, KB6NU, [link to this page](#) on Sporadic E Propagation from the Electronics-Notes.com website. Further pages talk about meteor scatter and auroral propagation.

Larry, K8UT, writes: "Announcing the FreqEZ2 Band Decoder Software release candidate: After many months of development and local testing, the [next generation of FreqEZ](#) has been posted to the [hamprojects.info](#) website. The program may resemble version 1.x, but this is a complete rewrite of the desktop application. Despite rigorous testing here, I expect there will be problems and am standing by to react quickly to all questions and bug reports.

A new 8-meter propagation beacon, call sign EI1CAH, is now on the air from the west of Ireland on 40.016 MHz. The new beacon will transmit in both CW and PI4 modes with an output power of 25 W into a horizontal dipole.

The Intrepid-DX Group has announced that DXer Johannes Hafkenschied, 5T5PA, is the recipient of the 2020 Intrepid Spirit Award. Hafkenschied was very active while living and working in Mauritania throughout

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