RCA Amateur Radio Club
Indianapolis, IN

ARRL Affiliated Club

www.w9rca.org

DECEMBER 2022 MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE TUESDAY, DECEMBER 13th, 6:30 PM AT NORTH SIDE EVENTS, FORMERLY THE KNIGHTS OF COLUMBUS, 2100 EAST 71st, INDIANAPOLIS, IN

RCA ARC NEWS

NOVEMBER MEETING SUMMARY – Thanks to all who attended the November meeting. Jim, K9RU, commented that AMBA had taken over Mercer for our club liability insurance. The actual underwriter is: New Hampshire Insurance Company. Our new contact at Ivy Tech was discussed, with Mark Atkins retiring at Ivy Tech. For Field Day next year, Greg, K0GAH, commented that his son's boy scout troop are considering operating a station. Dick, W9ZB, finished first in Indiana in the Sept. ARRL VHF Contest, Single Operator, 3 Band category. Jim, K9RU, confirmed that the club could do license testing at the monthly meeting but arrangements would need to be made in advance. The meeting is not the best location due to the noise and it would be limited to just one exam.

AMATEUR RADIO LICENSE TEST SESSION

Date: **Saturday, December 10, 2022**
Time: Starting at Noon **by appointment only**.
Location: Salvation Army EDS Training Facility, 4020 Georgetown Rd
Indianapolis, IN 46254-2407
Contact: Jim Rinehart, K9RU email: kj9ru@arrl.net Phone: 317 721-1458

Required: FCC FRN and a completed NCVEC 605 license application form.

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

Salvation Army Open Net, Thursday, 7PM, W9RCA repeater, 146.88 MHz, tone 88.5 HZ

ARRL 160M Contest http://www.arrl.org/160-meter
Dec 10-11 ARRL 10M Contest http://www.arrl.org/10-meter

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

TECHNICIAN CLASSES COMING IN FEBRUARY – Bruce Enz, W9ENZ, will be hosting Technician classes on Saturday February 18th and 25th at the Chapel next to the Church of Jesus Christ of Latter-day Saints Temple in Carmel. The Chapel address is 11257 Temple Drive, Carmel, Indiana 46032. Bruce asks that on February 18th, please arrive at 8:45, with the class starting at 9 AM and running to 4 PM, with a 1-hour lunch break. On Saturday February 25th, please arrive at 8:45. Class will run 9 AM to noon, followed by a 1-hour lunch break, with testing starting at 1 PM until done. Bruce says testing normally concludes around 2:30 or 3 PM. Testing for General Class and Extra Class will also be available. The registration link for the test will be emailed to class members the week of the test.

Bruce says that the class is free, and testing is free. **Those testing will need to obtain an FRN (FCC Registration Number) prior to testing**. Emails will be sent to class members explaining how to obtain an FRN. The 10-year license costs $35 to the FCC. Bruce will send those registered for class websites where they can self-study and take practice tests for free.

If you know of someone who wants to get licensed, have them contact Bruce at bruceenz@gmail.com or (317) 201-8299 to get registered. IRC Newletter – Ken Bandy , KJ9B

NATIONAL WEATHER SERVICE – INDIANAPOLIS OFFICE – Winter Weather Webinar The NWS Indianapolis office is offering two Winter Weather Spotter and Safety virtual presentations. Attendees will learn about winter weather hazards, how to stay safe, and how to measure and make reports to NWS Indianapolis. Each class should last about 90 minutes. Registration is required. After registering, you will receive a confirmation email containing information about joining the webinar. --ARRL IN Section Letter

Registration Information: Dec 14, 4 PM EST:

https://register.gotowebinar.com/register/4877371878469314 71 NWS has also posted their 2022 Winter Partners Webinar to YouTube at: https://youtu.be/TCRbIoWF7Ls

SSTV Net Simplex I will be doing an experimental trial net dedicated for SSTV on Thursday night at 8:00pm after the 6m net. The purpose of the net is to have topics and then transmit images digitally related to the topic, for example, The topic is about what is your favorite radio, then transmit an image of your radio through digital transmit SSTV. We will also discuss what mode we will be using depending how long the duration of the net will be.

What I will do is that it will be a hybrid Net phone/digital.

This is not a Repeater I'm using, we are going to meet on simplex on 145.520mhz just 1mhz below the national calling frequency. If anyone is interested in participating in the net and has equipment for digital transmission, join with me on simplex this Thursday. I will be doing some testing around this frequency prior the trail net.

If you're interested I will post the Facebook group and you can become a member:
https://www.facebook.com/groups/1210446659591763/?ref=share&mibextid=S66gvF
If you have any questions give me an email: cfmstudio@gmail.com via indyradioclub.org

Carl KD9HQT

ARRL VOLUNTEERS ON THE AIR (VOTA) OPERATING EVENT FOR 2023

CEO David Minster, NA2AA, gave a review of the ARRL's accomplishments during 2022 in his editorial column in the December QST, and he said we are going to see a bright spotlight in 2023 focused on volunteerism in Amateur Radio, especially with the ARRL. In his forthcoming January 2023 editorial column, CEO Minster will be announcing the Volunteers on the Air (VOTA) operating event for 2023. It is structured similar to the 2014 ARRL Centennial operating event that was a huge success. Each state and many US possessions will be operating W1AW/X (W1AW/9 for us in the

Central Division) for two week long periods. More details will follow in QST and on the ARRL website.
In 2023, I hope you continue your involvement (or start your involvement):

1) in public service/emergency communications
2) in contributing to the advancement of the radio art
3) in advancing skills in both the communication and technical phases of the art
4) in expanding the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts, and
5) in continuing and extending the amateur's unique ability to enhance international goodwill

If these five bullets sound familiar, they are the five reasons in Part 97 Amateur Radio Service (of CFR Title 47: Telecommunication) for why we have frequency allocations.

With respect to hamfests and conventions in 2023, eight events have already been approved (five in IL, two in IN and one in WI). Please get your applications to Steve Ewald WV1X at HQ. Hopefully 2023 will be an even better year for these events.

Finally, get radio-active! Solar Cycle 25 continues its ascent, and the higher HF bands (15-meters and 10-meters) are offering worldwide opportunities – even if you run modest power and have simple antennas.

--ARRL Central Division Director: Carl Luetzelschwab, K9LA k9la@arrl.org

CROSSBAND CONTACT OPPORTUNITY WITH BATTLESHIP IOWA DECEMBER 6 AND 7

A neat opportunity to make a unique contact and get a cool QSL! Before attempting to make contact with the ship, be sure your radio is operating in "split" mode, and you're transmitting in the amateur band.

As the representative of the National Museum of the Surface Navy at Battleship IOWA in San Pedro, California, the Battleship IOWA Amateur Radio Association (BIARA) will honor the sailors and ships previously home ported in San Pedro who were attacked on December 7, 1941, with special crossband activations of NEPM on December 6th and 7th, 2022.

With authority from the Navy and Marine Corps Spectrum Office Southwest, the IOWA will transmit using its NEPM call sign on assigned military frequencies and listen for calls from the amateur radio community in their adjacent bands. NEPM will transmit on 14.375 MHz, 18.170 MHz, and or 21.460 MHz on J3E/USB and or A1A/CW. The operator will advise listeners as to where they are listening. Amateur participants are reminded not to transmit on the NEPM military frequencies. Operations on both days are expected to be from 1500 to 2400 UTC. QSL procedures can be found at https://biara.org/ **---**Ken, KJ9B

QUARTER CENTURY WIRELESS ASSOCIATION TO CELEBRATE 75 YEARS

The Quarter Century Wireless Association (QCWA) will celebrate its 75th anniversary on December 5, 2022.

Founded in 1947, QCWA's mission includes promoting "friendship and cooperation among Amateur Radio (Wireless) operators who were licensed as such at least a quarter of a century ago."

Today, QCWA has 230 chapters in the US. During the organization's 75 years, it has had nearly 40,000 members. The Cleveland, Ohio, chapter was the first chapter chartered in 1951, and now has over 100 members.

To celebrate its 75th anniversary, the QCWA Special Event Station, W2MM, will operate from 0001 UTC December 3 to 2359 UTC December 10, 2022. Only QCWA members in the US and its territories will have an opportunity to activate W2MM for this event. More information is available at https://qcwa.org/w2mm-special-event.htm.

QCWA is also hosting the members-only Worked 75/75 Members Contest from December 5, 2022, through February 18, 2023. The contest encourages QCWA members to contact a minimum of 75 QCWA members during the contest period. All contest entrants will receive a special certificate. Additional information is available at https://qcwa.org/1-worked-75-75-members-contest.htm.

YOUTH/YOUNGSTERS ON THE AIR MONTH-LONG EVENT BEGINS DECEMBER 1

On December 1, 2022, YOTA begins a month-long, special event to celebrate young amateur radio operators -- YOTA Month 2022. YOTA is Youth or Youngsters on the Air. Amateur radio operators aged 25 and younger will be on all bands using all modes throughout the month to make contacts around the

world. In 2021, YOTA participants worldwide made 119,516 contacts, surpassing their goal of 100,000 contacts.

In the United States, the call signs for the event will be K8Y, K8O, K8T, and K8A. Argentina will be active as LR1YOTA, Canada as VC3YOTA and VB7YOTA, El Salvador as YS1YOTA, and Honduras as HQ2YOTA. Amateur radio operators are encouraged to listen for and contact these stations, as well as all call signs ending in the letters "YOTA" across the globe.

In addition to the month-long celebration, on December 30 from 1200 to 2359 UTC, round three of the YOTA Contest will be active.

Various YOTA activities and events are organized throughout the world. The International Amateur Radio Union (IARU) Youth in Amateur Radio web page includes additional information and links at https://www.iaru.org/on-the-air/youth-in-amateur-radio.

ELLEN WHITE, W1YL, SILENT KEY, DEVOTED LIFETIME TO AMATEUR RADIO AND ARRL

Ellen White, W1YL, of Brandon, Florida, passed away on Sunday, November 6, 2022. She was 95. White became a radio amateur in 1946 and devoted over 75 years of her life to ham radio, including more than 25 years on the headquarters staff for ARRL The National Association for Amateur Radio®. She retired in 1978 as Deputy Communications Manager and became editor of the "How's DX?" column for ARRL's membership journal, *QST*. White was an ARRL Life Member and donor.

At its meeting in January 1978, the ARRL Board of Directors adopted a resolution recognizing White and her husband Robert (Bob) L. White, W1CW (SK), after having "completed a quarter-century of faithful service to the American Radio Relay League." The resolution cites that Ellen White had "built a reputation for thoroughness and objectivity on a mountain of contest logs," and celebrated her "intelligent and creative work as Deputy Communications Manager."

White was admired by the worldwide amateur radio community. In 2019, she was the sole US radio amateur to be awarded the Russian E.T. Krenkel Medal, a prestigious award granted to individuals and organizations for outstanding global contributions to amateur radio.

Director of ARRL's Publications and Editorial Department Becky Schoenfeld, W1BXY, reflected on the news of White's passing. "Ellen was a trailblazing woman in amateur radio. She and I corresponded over the years [before] finally meeting up at Orlando HamCation® in 2020. Ellen often marveled at how much farther women had come in the ham radio hobby, service, and community since she got her start. Every time I talked to her, I thanked her for paving the way," said Schoenfeld.

White had learned Morse code in high school, and only rarely operated any other mode. "Ellen loved CW, contesting, and DXing," said former ARRL Field & Educational Services Manager Rosalie White, K1STO (no relation) who was hired by Ellen White to work for ARRL in 1973. Rosalie White is now an ARISS-International US Delegate representing ARRL. She recounted that in the 1940s, Ellen and Bob White earned First Class Radiotelephone and Second Class Radiotelegraph commercial licenses. "She [Ellen White], being a maverick, also took the Class B FCC amateur radio test to become W2RBU, and promptly joined ARRL. Radio broadcast station KPOA based in [Hawaii], hired her (then KH6QI) as Station Engineer in the days when it was unheard of for a woman."

Read the full story and remembrances on ARRL News.

OMOTENASHI, AN AMATEUR RADIO MISSION TO THE MOON, IS LOST AND NOT OPERATING

Controllers were not able to receive radio communication from OMOTENASHI as of November 21, 2022. OMOTENASHI, technically known as Outstanding MOon Exploration TEchnologies demonstrated by NAno Semi-Hard Impactor, was a small two-part spacecraft onboard NASA's Artemis I mission. Launched on November 16, 2022, the payload contained an orbiting module and a surface probe. After

landing on the surface of the moon, it was going to transmit a beacon in the amateur 70-centimeter band, UHF 437.41 MHz, while the orbiting module transmitted digital telemetry on UHF 437.41 MHz. Engineers will investigate the cause of the incident and proceed with future operation plans while consulting with mission managers. JAXA Ham Radio Club reports, "We were very encouraged by the warm support we received as a team. It's such a shame that it can't live up to expectations. Although we were not able to land on the moon, the opportunity to travel beyond the moon is valuable, so we would like to continue working on recovery and realize some of our mission." Amateur radio operators can continue to listen for the orbiting module downlink using the following information:

Frequency: 437.31 MHz, Antenna: SRR antenna, Polarization: Linear, Modulation: Beacon, PSK31 Sync Word C1 (ASCII code), Power: 30 dBm

Project updates are periodically posted at https://www.isas.jaxa.jp/home/omotenashi/JHRCweb/jhrc.html.

Thanks to AMSAT, the JAXA Ham Radio Club, and paralink.com for information contained in this story.

ARRL PROGRAMS TO BENEFIT FROM AUCTION PROCEEDS

The 17th Annual ARRL Online Auction, sponsored by RT Systems Inc., took place on October 21 - 27, 2022. There were over 200 participants who submitted bids, vying for *QST* "Product Review" equipment, new ham radio gear, vintage books, and the popular ARRL Lab mystery junque boxes. Plenty of spectators also contributed additional traffic to the auction site by browsing items and watching the bids climb.

ARRL Auction Manager Lisa Tardette, KB1MOI, reported that "695 bids were recorded, and a number of items went into overtime bidding." After all was tallied, this year's auction grossed more than $32,000. Tardette said the items that drew the highest interest from bidders had been previously tested for the popular "Product Review" column in *QST*. The Elecraft K4D HF/6M SDR transceiver, reviewed in the September 2022 issue of *QST*, had a winning bid of $5,850. The Four State QRP Group Bayou Jumper 40-meter CW transceiver, reviewed in the March 2022 issue of *QST*, went for $675, while it currently retails for $105. Bidders like to support a good cause and know that these "Product Review" items have been rigorously tested in the ARRL Lab.

Comments from bidders included, "Thank you, I'm excited about my new radio," and, "Happy to participate in an event for a great cause."

The ARRL Online Auction is an important fundraiser and a critical means of support for many of the association's programs, which rely on funding sources beyond basic membership dues. ARRL Education and Learning Manager Steve Goodgame, K5ATA, said that the auction raises funds to further projects that otherwise would go unsupported. "Following the launch of the ARRL Learning Center (learn.arrl.org) late last year, we are developing more content to help amateur radio operators increase their knowledge and skills," said Goodgame. "The Learning Center provides ARRL members with instruction and training for getting on the air, emergency communications, and electronics and technology."

Goodgame said that several full courses are under development. ARRL Emergency Communications Training courses are being updated and modernized. ARRL has also partnered with Dave Casler, KE0OG, to offer his supplemental amateur radio license instruction on the ARRL Learning Center. These efforts are made possible in part through the proceeds of the ARRL Online Auction.

"We would like to express our appreciation to all of the winning bidders, RT Systems -- this year's auction sponsor -- and to all of our donors who provided such a diverse mix of items," said Tardette. "We look forward to our 18th Annual ARRL Online Auction in 2023."

ARDC IS LOOKING FOR VOLUNTEERS FOR ITS ADVISORY COMMITTEES

Amateur Radio Digital Communications (ARDC) is looking for volunteers for its 2023 Grants Advisory Committee (GAC) and Technical Advisory Committee (TAC).

The GAC reviews proposals submitted by organizations seeking ARDC grants. The committee usually meets twice a month for at least an hour, with additional time spent reviewing proposals and email correspondence that happen between meetings. The estimated time commitment from a volunteer on this committee is about 2 - 5 hours per week.

The TAC advises ARDC's staff and Board on 44Net technology, architecture, and policy. The TAC usually meets once or twice a month for at least an hour. Additional time may be spent working on or attending meetings related to projects, such as refining 44Net use-cases and standards, developing a new 44Net portal, and developing a proposal for Points of Presence (PoPs).

If you're interested in joining either committee, please send a resume and brief cover letter to contact@ardc.net by November 12, 2022.

For more information on the GAC, go to www.ampr.org/now-accepting-applications-for-grants-advisory-committee. For more information on the TAC, go to www.ampr.org/now-accepting-applications-for-the-2023-technical-advisory-committee.

ARRL'S CALL FOR INSTRUCTORS

ARRL is embarking on a journey of training for club officers and members. The new club development webinar series will include live Q&A, and the live sessions will be available to everyone. The webinars will be recorded and available to ARRL members through the ARRL Learning Center. We're looking for ARRL members to help us produce, create, and deliver the webinars.

The purpose of this program is to offer a series of short webinars that offer training for the skills needed to build and run a successful club. Topics will include leadership, activities, finance, and recruiting. Envisioned is a series of 10 or more webinars, all lasting from 20 to 30 minutes.

The hope is that club officers and members will view the series as an opportunity to learn from others that have been able to put those skills to use. To do this, we need the help of membership. We're looking for instructors to help with building the training. We're also looking for members that can present in a standard format and have the skills necessary to do the training. If this sounds like something that you are interested in, please contact Mike Walters, W8ZY, at mwalters@arrl.org for further details. We hope to start this series in late January 2023.

DR. ULRICH ROHDE, N1UL, TO BE INDUCTED TO THE INDIAN NATIONAL ACADEMY OF ENGINEERING

The Indian National Academy of Engineering (INAE) will induct Dr. Ulrich Rohde, N1UL, as a fellow during ceremonies in mid-December. Dr. Rohde is only the third foreign fellow elected by the INAE, preceded by Dr. Jeffrey Wineland, who won a Nobel Prize in Physics, and Dr. Philip H. Knight.

In the formal announcement issued November 19, 2022, the INAE thanked Dr. Rohde for "outstanding contributions to engineering and also your dynamic leadership in engineering domain, which have immensely contributed for the faster development of the country."

The INAE was founded in 1987 and describes itself as including "India's most distinguished engineers, engineer-scientists, and technologists covering the entire spectrum of engineering disciplines."

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 International 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.

"It is great to see Ulrich get this award," said Ed Hare, W1RFI, ARRL Laboratory Manager. "His contributions to technology have clearly been global in scope and even though his accomplishments have clearly been professional, amateur radio has also played a role in his being a world-class engineer.

The ARRL Lab has appreciated his help and support over decades of time, and we join in offering our congratulations for another important achievement.

ARRL The National Association for Amateur Radio® recognized Dr. Rohde 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.

75TH ANNIVERSARY OF THE INVENTION OF THE TRANSISTOR

This article is part of a special report in *IEEE Spectrum* on the . 75th anniversary of the invention of the transistor

SEVENTY-FIVE YEARS is a long time. It's so long that most of us don't remember a time before the transistor, and long enough for many engineers to have devoted entire careers to its use and development. In honor of this most important of technological achievements, this issue's package of articles explores the transistor's historical journey and potential future.

In "The First Transistor and How it Worked," Glenn Zorpette dives deep into how the point-contact transistor came to be. Then, in "Tehe Ultimate Transistor Timeline," Stephen Cass lays out the device's evolution, from the flurry of successors to the point-contact transistor to the complex devices in today's laboratories that might one day go commercial. The transistor would never have become so useful and so ubiquitous if the semiconductor industry had not succeeded in making it small and cheap. We try to give you a sense of that scale in ".The State of the Transistor"

So what's next in transistor technology? In less than 10 years' time, transistors could take to the third dimension, stacked atop each other, write Marko Radosavljevic and Jack Kavalieros in "Taking Moore's Law to New Heights." And we asked experts what the transistor will be like on the 100th anniversary of its invention in "The Transistor of 2047."

Meanwhile, IEEE's celebration of the transistor's 75th anniversary continues. The Electron Devices Society has been at it all year, writes Joanna Goodrich in The Institute, and has events planned into 2023 that you can get involved in. So go out and celebrate the device that made the modern world possible. --IEEE

SHORTS

Don Kirk, WD8DSB, found a new RFI source on 160 meters and tracked it to a location 1.1 miles from his house. The culprit? A variable speed drive running a large blower to inflate a balloon at a museum. You can read the story in this post to the RFI mailing list, and view a short YouTube video about the signal. Don uses a PC-based SDR and handheld directional antennas to locate sources in the field.

W9PA, Dave Zeff was her 1000th QSO on 15 meters! At the end of CQWW SSB 2022 contest, Dave Zeff, W9PA. was contact number 1000 for Raisa, OH7HG. 1000 was her goal operating single operator, single band, 15 meters, high power.
Here is a link to the video starting at the 8:44 mark https://youtu.be/ikp3W-9Y-LE

Basic Electronics Class --The Hancock County Amateur Radio Club is planning to offer a basic electronics class sometime this winter. If you live in the Hancock County area and would like to learn more about electronics, you can find out about their plans and take a survey to indicate your interests by clicking here: https://w9atg.org/basic-electronics-class/

***WXWarn 2.0*, software that uses the National Weather Service (NWS) real-time weather data feed, is now available.** The application constantly monitors NWS weather updates and displays user-selected alerts as they're issued. *WXWarn 2.0* can be configured to display a simple heads-up, unfolding weather conditions at the county, statewide, or regional level, or severe weather alerts for the entire US. *WXWarn*

2.0 is useful for individual use, but also for volunteers supporting amateur radio emergency communications as part of the complement of resources they utilize. Developers and ARRL members Scott Davis, N3FJP; Kimberly Davis, KA3SEQ, and their son, Chris Davis, KB3KCN, report that the updated software is a complete recreation from the previous 1.8 version. They also state that it is operating-system agnostic and will run entirely in a browser. There is nothing to install, and it will even work on a phone, but Chrome or Firefox should be used for the best results. The latest version of *WXWarn* is available at https://wxwarn.affirmatech.com.

J**ohn Fallows, VE6EY, has blogged about a NanoVNA Current Choke Test Rig project** by Mark Smith, N6MTS, to enable quick "design and test of all sorts of common-mode chokes in your home lab." The accompanying video shows how to test common-mode chokes using this or similar setups.

The 3rd Annual Youth "Dream Rig" Essay Contest is now under way. The contest is sponsored by the Intrepid-DX Group, a US-based 501(c)(3) nonprofit organization that promotes amateur radio activities around the world for youth. The contest is open to US and Canadian amateur radio operators aged 19 or older. The first-place winner will receive a new HF transceiver. Second- and third-place winners will receive a handheld transceiver. To enter, contestants must write a two-page essay answering the question, "How does amateur radio factor into your career plans?" The submission needs to be in plain text, PDF, or a Microsoft Word attachment. Additionally, contestants must promise to use the radios on the air for 1 year and not trade, sell, or "flip" the equipment. The entry deadline is November 30, 2022, and winners will be announced on December 15, 2022. More information about the Intrepid-DX Group is available at their website.

For those trying to use N1MM Logger+ and other Microsoft Windows software under the Parallels environment on a M1 MacBook, things may have recently gotten a little easier. Ron Bolton, WU4G, reported to the N1MM Logger+ group that www.eterlogic.com has a virtual serial port emulator (VSPE) available in beta that works with this configuration.

Merry Christmas, Happy Holidays!

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.