RCA AMATEUR RADIO CLUB

Legacy Amateur Radio Club

AFFILIATED CLUB

INDIANAPOLIS, INDIANA

RCA ARC Indianapolis 60th Anniversary 1956 – 2016

DECEMBER, 2016 MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, DECEMBER 13th, 6:30 PM AT G.T. SOUTH'S,
5711 E. 71st STREET, INDIANAPOLIS, IN

Merry Christmas and Happy Holidays

RCA ARC NEWS

SUMMARY OF THE NOVEMBER MEETING – Thanks to everyone who attended the November meeting, we had a good turnout! AF9A reported that there have been some on-going repeater problems including white noise during the voice announcements and some "desense" for lack of a better term, in the digital receive mode. The question of whether we should renew membership in the Indiana Repeater Council was discussed. Upcoming events include the Ft.Wayne Hamfest next weekend, ARRL SS Phone and the CQWW CW on Thanksgiving weekend. The 10 meter contest is Dec. 10th and it'll be interesting to see what the 10 meter conditions are like. Dick, W9ZB, discussed some of the problems and successes of programming various radios using CHIRP and RT Systems software.

FT. WAYNE HAMFEST – Weather was great, crowd was good, the flea market area was smaller again this year. The was still a lot of stuff in the flea market to look through, it is a great place to meet up with old friends and still is one of the largest hamfests in Indiana. Flea market prices are still better than on the internet plus you can bargain! --K9RU

NEXT RCA / IRC AMATEUR RADIO LICENSE TEST SESSION

Time: Saturday, January 14th. Exams start at 12:00 noon. Walk ins allowed.
Location: Salvation Army EDS Training Facility,
4020 Georgetown Rd,
Indianapolis, IN 46254
Contact: Rhonda Curtis, WS9H ws9h@arrl.net (317) 363-7457

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

Dec 10-11	ARRL 10 meter contest http://www.arrl.org/10-meter
Jan 1	ARRL Straight Key Night
Jan 7	Kids Day
Jan 7-8	RTTY Roundup
Jan 14-16	Purdue Outing Club Adventure Race (POCAR
Jan 21-23	January VHF Contest
Jan 27-29	CQ 160M CW Contest
Feb 13-17	School Club Roundup

Feb 18	Brownsburg Hamfest, http://www.hcars.org
Feb 18-19	ARRL International DX Contest – CW
Feb 24-26	CQ 160M SSB Contest
Mar 4-5	ARRL International DX Contest – SSB
Mar 25	Sam Costa Run, Hamilton County

Opportunities for public service: http://indyhams.org/events

ARRL ISSUES URGENT LAST CALL TO PRESS FOR SENATE PASSAGE OF AMATEUR RADIO PARITY ACT

It's now down to the wire: ARRL has issued a last call for members to urge their US Senators to support the Amateur Radio Parity Act (H.R. 1301) when it comes up during the "lame duck" session of Congress that adjourns in a couple of weeks. The House of Representatives approved the bill in September, and the Senate must follow suit if the bill is to succeed. If it fails in the Senate, the entire process will have to be repeated in the new Congress. The legislation is now in the Senate in two forms -- as H.R. 1301 and alternately in the packaged bill S. 253.

"We are on our final push for the Amateur Radio Parity Act before Congress adjourns," said ARRL President Rick Roderick, K5UR. "The grassroots effort by the Amateur Radio community has been outstanding. Since September, over 110,000 e-mails have been sent to legislators in Congress. Thanks to everyone who has helped, but we can't stop now. Please, keep the e-mails coming and also work the phones down the stretch. Call your Senators! We are almost there. Let's get it done!"

ARRL Hudson Division Director Mike Lisenco, N2YBB, who chairs the ARRL Board's Legislative Advocacy Committee and has been heavily involved in efforts to move H.R. 1301 forward, echoed President Roderick's sentiments. He said the bill was just starting to build momentum in the Senate following its unanimous passage in the House, when Congress shut down for the 4 weeks prior to Election Day. He pointed out that H.R. 1301 has received broad support from both parties.

There are no guarantees. "In order to have a chance at overcoming political obstacles that have little or nothing to do with the legislation, we need our voices to be heard and we, need that input today!"

President Roderick urged members to "reach out one more time to your Senators *today*! Right away. Right now!" Read more. --ARRL Letter

TRANSATLANTIC RECEPTION ANNIVERSARY SPECIAL EVENT SET FOR DECEMBER 11

An Amateur Radio special event on December 11 will commemorate the 95th anniversary of the first transatlantic shortwave reception between Greenwich, Connecticut, and Scotland. A school near the original site is hosting the event. ARRL, the Radio Society of Great Britain (RSGB), and the Radio Club of America (RCA), are partnering in sponsoring the activity. The Greenwich Historical Society will also participate.

On December 11, 1921, reception in Ardrossan, Scotland, of a radio signal transmitted from the official test station of Minton Cronkhite, 1BCG, in a small shack on the corner of Clapboard Ridge Road and North Street in Greenwich, helped to usher in the age of global communication. The special event will use N1BCG, the call sign of Clark Burgard of Greenwich, who obtained that call sign to commemorate this bit of radio history. Burgard was instrumental in making arrangements for the event.

The N1BCG special event will begin on Sunday, December 11, at 1200 and conclude at 0300 UTC on December 12. It will include an attempt at a two-way contact between N1BCG and GB2ZE, operated by Jason O'Neill, GM7VSB, in Ardrossan.

Reception in Scotland of the 1BCG signal was part of the second series of ARRL transatlantic tests. For the receiving end, the ARRL Board had selected a receiver designed by Paul Godley, 2ZE, and Godley traveled to the UK to oversee that end of the circuit. Joining Godley in a field in Ardrossan, southwest of Glasgow, was Marconi Company District Inspector D.E. Pearson. As the *QST* article, "The Transatlantic Tests" (*QST* Dec. 2014) by Michael Marinaro, WN1M, recounted, "The two attempted to keep out of the driving wind and rain by sheltering themselves -- and their equipment -- in a tent. This rough listening post was comprised of a (super heterodyne and regenerative) receiver, a 1,300-foot Beverage antenna suspended 12 feet above ground, batteries, and auxiliary equipment."

On the morning of December 10, CW signals of 1BCG, which had been designed and constructed by Radio Club of America members -- were solidly copied on 230 to 235 meters (about 1.3 MHz). They were the only signals heard that morning in Ardrossan. By the end of the test, eight spark and 18 CW stations had been heard as well.

N1BCG operation will be on AM on 75 and 40 meters; CW and SSB on 40 meters, CW on 30 meters, and CW and SSB on 20 and 17 meters.

Approximate frequencies are 3.880 (AM), 7.290 (AM), 7.235 (SSB), 7040 (CW), 10.112 (CW), 14.280 (SSB), 14.040 (CW), 18.125 (SSB), and 18.088 MHz CW. --ARRL Letter

ARRL EXPANDS INITIATIVE TO FIRE UP COLLEGIATE AMATEUR RADIO CLUBS

A growing number of campus radio clubs and student radio amateurs have begun to share ideas and suggestions on the ARRL Collegiate Amateur Radio Initiative (CARI) Facebook page, which is aimed at sparking renewed participation, activity, and idea-sharing among this special sector of the Amateur Radio community. The now-expanded initiative stemmed from two well-attended ARRL New England Division Convention forums for radio amateurs attending college, one hosted by the Amateur Radio clubs at Harvard (W1AF) and Yale (W1YU). As the forum explained, the activity level at campus Amateur Radio club stations can vary wildly from one year to the next, as students graduate and newcomers arrive

"The most common difficulty stems from uneven interest over time," said ARRL CEO Tom Gallagher, NY2RF, in his "Second Century" editorial, "Cheers for College Amateur Radio: Sis-boom-bah!" in the December 2016 issue of *QST*. "Even the strongest leaders in college Amateur Radio graduate every 4 years, sometimes leaving their clubs without adequate continuity or leadership succession."

Gallagher pointed out that "recognized" student activities require *students* in order to maintain that status. However, even officially recognized college club stations may find themselves at the mercy of administrations in terms of space for a station and antennas, and some clubs have had to move more than once to accommodate their schools' space requirements. Issues involving safety and security can also affect college radio clubs.

In a recent post, Kenny Hite, KE8CTL, a graduate teaching assistant at West Virginia University, said the university's Amateur Radio club, W8CUL, has been unable to participate in recent on-the-air events "due to lack of working equipment and questionable antenna setups," as he put it. Another poster, Dennis Silage, K3DS, who's associated with the Temple University Amateur Radio Club (K3TU), said, "A key to a successful and long-running college club seems to be faculty involvement for stability and recognition." He invited other CARI participants to check out the club's website.

"It occurred to us that, if college Amateur Radio could galvanize [mutual interests], then colleges might just provide the ideal bridge between youthful interest in the subject and lifelong participation in our community," Gallagher wrote. Read more. --ARRL Letter

FCC SPECIAL COUNSEL LAURA SMITH SAYS AMATEUR ENFORCEMENT WILL BE AGGRESSIVE

FCC Special Counsel Laura Smith told a standing-room-only audience at the ARRL Pacific Division Convention (Pacificon) in October that, despite FCC cutbacks, Amateur Radio enforcement will not be compromised. Smith spoke for nearly an hour and a half on a variety of FCC issues related to Amateur Radio, and the entire presentation is available on YouTube, thanks to Bob Miller, WB6KWT, and his son Robert, KA7JKP, who recorded the forum. Smith said that with the FCC set to shut down 11 field offices across the country in January, the Enforcement Bureau has reorganized into three US regions, and she does not anticipate any significant issues for the Amateur Service as a result.

"The amateur community will go forward," she said, noting that amateurs have "an incredible ability to self-police." In light of the field office closings, she has been working with ARRL to revamp the Official Observer (OO) program.

"We are going to redo the entire program," she told the Pacificon forum. Given that the field office cutbacks have left the FCC short staffed, the OO program will step into the gap, with OOs serving as the first line of defense in Amateur Radio enforcement, she explained. Working more closely with the OOs, Smith said, will get information on problems to the field staff more quickly, so they can follow up.

Smith praised the OOs for contributing their time and effort to monitor the bands and to alert licensees both to problematic and positive behavior on the air.

She also said the FCC is more aggressively policing the Amateur Radio bands.

HamRadioNow's Gary Pearce, KN4AQ, used Smith's talk as the centerpiece of his episode 281. Read more. --ARRL Letter

HAMVENTION® COUNTDOWN: WITH 6 MONTHS TO GO, PLANS PROCEED APACE AT NEW VENUE

With just 6 months to go until Hamvention® debuts at its new Greene County Fairgrounds and Event Center venue in Xenia, Ohio, May 19-21, General Chair Ron Cramer, KD8ENJ, and Dayton Amateur Radio Association (DARA) Board Member Mike Kalter, W8CI, assure that all is progressing smoothly. Cramer and Kalter made another appearance this week on Amateur Radio Roundtable, hosted by Tom Medlin, W5KUB, to update progress on preparations for the all-new Hamvention. Cramer and Kalter said they continue to be bombarded with questions, concerns, and rumors regarding how the event will be staged.

"You have to remember, we're starting from the ground up," Cramer said. "So it's taken a while to get things going." He asked for patience from prospective visitors, but he and Kalter told Medlin that the vast all-volunteer team has everything well in hand, and that plans are coming together. Both maintained that those attending Hamvention 2017 "will be very impressed."

Cramer predicted parking would not be an issue, and that there would be plenty of room for the anticipated number of vehicles, with overflow parking available and transportation to the buildings housing the vendors and events from the parking areas, as needed.

Traffic and transportation logistics are being addressed, Cramer said, and Hamvention is working with four police departments as well as a professional traffic planner to ensure that all goes smoothly.

Cramer said Hamvention 2017 tickets will become available starting in December -- a bit earlier than in past years. The cost of admission will rise by $2 from the 2016 price of $20 for advanced tickets, and $25 for those purchased at the gate. But, he pointed out, there will be no parking charges on site.

The Hamvention website is yet to be updated to reflect the 2017 event, but Cramer and Kalter said that both indoor and outdoor layout maps will be made available online in advance of the

show, and these will be included in the Hamvention program as well.

Hamvention announced in August that it would be relocating to Xenia, following the closure of Hara Arena, where the show took place for more than 50 years.

The *Amateur Radio Roundtable* show included a DX Engineering-produced video taken from a drone operated by Greg Ordy, W8WWV, and narrated by DX Engineering's Tim Duffy, K3LR. Read more. --ARRL Letter

HAMVENTION® SOLICITS NOMINATIONS FOR 2017 AWARDS

The 2017 Hamvention® Awards Committee, chaired by Frank J. Beafore, WS8B, has announced that nominations are open for 2017 awards, sometimes considered the Academy Awards of Amateur Radio. The program will bestow awards for Amateur of the Year, Technical Achievement, Special Achievement, and Club of the Year.

"The Hamvention Awards event has been held since 1955," a Hamvention news release said. "Over these years, many amateurs have been honored for their dedication and selfless contributions to our avocation and to mankind." Nominees are invited for these awards.

Technical Achievement Award: Given to a selected Amateur Radio operator who has achieved technical excellence within the realm of Amateur Radio. Examples are inventions, processes, discoveries, experiments, other technical accomplishments, or any other outstanding technical achievement that contributed to Amateur Radio.

Special Achievement Award: Presented to a deserving radio amateur who has made an outstanding contribution to the advancement of the radio art and/or science. This award is usually given to a respected amateur who has spearheaded a single significant project.

Amateur of the Year Award: Honors a radio amateur who has made a long-term commitment to the advancement of Amateur Radio. This individual will have a history of contribution to ham radio and will be dedicated to service, professionalism, and the advancement of Amateur Radio avocation.

Club of the Year: Recognizes a club that clearly demonstrates its involvement in varied aspects of Amateur Radio for the greater good of their community and/or the nation.

Below are links to forms dedicated to the appropriate award nomination. At a minimum, each form should be completed with the information indicated. Please make sure that the nominating person is identified with a method to reach them in the case of questions from the nomination committee.

Separate nomination forms are provided for individual awards and for the club award. Submit forms via e-mail to awards@hamvention.org or via USPS to Hamvention Awards Committee, Box 964, Dayton, OH 45401-0964. The nomination period closes on February 1, 2017. Read more. --ARRL Letter

ISS PACKET DIGIPEATER IS NOW ON 70 CENTIMETERS

The Amateur Radio on the International Space Station (ARISS) packet digipeater aboard the ISS has been active for several days now on 437.550 MHz. The UHF frequency means users will have to make adjustments for Doppler on both uplink and downlink.

The change to 70 centimeters comes in the wake of a problem that has sidelined the Ericsson VHF transceiver, so the UHF model has been put into service. The digipeater operates just as it did when it was on its former 145.825 MHz frequency.

AMSAT suggests that users program a group of five memory pairs to permit an operating range that will compensate for Doppler, with transmit frequencies from 437.560 to 437.540 MHz, and receive frequencies from 437.540 to 437.560 MHz, in 5 kHz increments (i.e., the transceiver would be in simplex for 437.555 MHz).

More information is available from the AMSAT Station and Operating Hints page. Scheduled ARISS contacts and APRS operations will also utilize the Ericsson UHF transceiver in the Columbia module. — Thanks to AMSAT News Service

TECHNICAL

THE CHIRP HEARD 'ROUND THE UNIVERSE – Not amateur radio related but maybe interesting... LIGO (Laser Interferometer Gravitational-Wave Observatory) described here on the Analog Devices web site:

http://www.analog.com/en/landing-pages/001/ligo.html?adicid=bnad_na_p1286_ieees-ntv-1x1_90

Rare Polar Openings Reported on 630 Meters - John Langridge, KB5NJD/WG2XIQ, reports that "extremely rare polar openings" have been occurring the past three nights on 630 meters between a number of North American stations and Rolf Torvik, LA2XPA, in Norway.

"This path is straight through the auroral oval, and quiet geomagnetic conditions have allowed signals to traverse the polar regions," Langridge told ARRL. He said LA2XPA has "an amazing station on an isolated island and is using 500- to 700-meter long Beverages. It's quite remarkable."

He said these openings also appear to be happening on 160 meters to a lesser extent, "based on a number of reports."

While Amateur Radio does not yet have access to 630 meters in the US, several enthusiasts of the nether regions, such as Langridge, have FCC Part 5 Experimental licenses or are part of the ARRL 600 Meter Experiment (WD2XSH). Langridge has been chronicling the activity on his blog.

What's The Difference Between HDMI And DisplayPort? The High Definition Multimedia Interface (HDMI) and DisplayPort are both modern serial interfaces for carrying digital video from one product to another over cables. They replace long-running analog interfaces like VGA, S-video, and RGB. http://electronicdesign.com/communications/what-s-difference-between-hdmi-and-displayport

What's The Difference Between Satellite Radio And HD Radio? If you like to listen to the radio, you have a few choices. There's AM and FM radio, as well as satellite and HD radio. Satellite and HD Radio both are digital forms of broadcast radio, but they're very different.

http://electronicdesign.com/communications/what-s-difference-between-satellite-radio-and-hd-radio?code=UM_Classics11216&utm_rid=CPG05000005400079&utm_campaign=8586&utm_medium=email&elq2=235cd0cd56854219820fa32b96acc4ef

SHORTS

JOTA 2016 Report Shows Participation was Up: The Boy Scouts of America has released the final report on the 2016 Jamboree on the Air (JOTA), and the news is good. Participation was up from 2015, despite what the report called "terrible propagation." According to the report, 10,761 Scouts took part, an increase of more than 50% from a year earlier, and the number of stations filing reports, at 267, jumped by 28% from 2015 (the record was 271 in 2013). The number of Amateur Radio operators was up by 14% to 1,120, although the number of radios reported in use dropped by 25% to 631. Total JOTA 2016 contacts remained flat at 8,254. Over the next several months, the BSA National Radio Scouting Committee will review various

suggestions to determine improvements that can be made for JOTA 2017. These include concerns over conflicting on-the-air activities and the need for better advance publicity. -- *Thanks to JOTA Coordinator Jim Wilson, K5ND*

Dave Kalter Youth DX Adventure Offering Complete Ham Station to Essay Contest Winner: The Dave Kalter Youth DX Adventure (YDXA) has announced an exciting essay competition for young radio amateurs. Due to the generosity of the 2016 raffle winner Paul Ewing, N6PSE, and the co-founders of the YDXA, the winner of the essay contest will receive a complete Amateur Radio station. The prize includes an Alinco SR8T HF, a 12 V, 30 A power supply (Jetstream or equivalent), vertical antenna (Jetstream JTV680 or equivalent), and 100 feet of coax feed line fitted with PL-259 connectors. Eligibility is limited to Technician class or higher US licensees 12 to 18 years old, residing in the 48 contiguous US states. Entrants are to submit an essay of up to 500 words describing their involvement in, personal future plans for, and importance of Amateur Radio. All entries must be postmarked (or system dated, in the case of e-mail entries) by December 23, 2016. The winner will be announced no later than January 31, 2017. Entrants should adhere to all contest rules. --ARRL

NCVEC Question Pool Committee Seeks Comments on the Technician Question Pool: The National Conference of Volunteer Examiner Coordinators (NCVEC) Question Pool Committee (QPC) is reviewing the 2014-2018 Technician question pool for revisions and updates. The QPC will accept comments and suggestions from the Amateur Radio community via e-mail through March 31, 2017. The NCVEC QPC will take all comments and suggestions into consideration as it updates the Technician question pool for 2018-2022. Input from the Amateur Radio community may include suggestions for new questions, changes to the topic areas, or changes to existing questions in *any* of the current Amateur Radio examination question pools. --ARRL

The Mexican Districts list and map have been updated for the ARRL 10-meter contest (Dec 10, 0000z to Dec 12, 0000z; CW, Phone) to conform with the changes announced by Mexico in January 2016. It's also recommended that ARRL 10-meter contest participants:

- Update your logging software and any supporting files
- Log "CMX", if either CMX or DF is sent
- If your logging software will not accept CMX, enter DF for the QSO

Report is: W/VE: RST + State/Province, XE: RST + State, DX: RST + Serial No., MM: RST + ITU Region. -ARRL Contest Newsletter

The BARTG (British Amateur Radio Teledata Group), sponsors of popular RTTY contests, has announced some changes to contest rules for 2017. While the complete details are on the BARTG website for the particular BARTG contest, they include limiting of the SOAB class to 100 W, with no SO2R operation permitted. The Multioperator class will be split into Multi-Single and Multi-Multi, to encourage participation from contest groups. Remote operation will be permitted for all classes. For the January 2017 Sprint, and March 2017 HF contests, a QRP category (5 W or less) replaces the SWL category.

Array Solutions is providing a service to repair Alpha amplifiers, according to a recent post on the Topband Reflector. Note that there are other third-party repair services available for these contest workhorses, some of which can be found with a Google search for "alpha amplifier repair.

DX Engineering now carries a number of RM Italy's solid-state HF and VHF amplifiers. For low-power HF radios, the HLA-305V is a wideband compact amplifier for the 160-10 meter bands. When

driven with up to 10 watts, it develops a maximum output power of 250 watts. An LCD screen displays amplifier status and a series of switches allow users to control amplifier output. The HLA-305V has six built-in band filters, selected by a front-panel rotary knob. The HLA-305V amplifier boasts dual cooling fans for safe, reliable operation. (Tim, K3LR)

Class E amplifiers, credited to Nathan Sokal and Alan Sokal, and described in a QEX article in January/February 2001 by Alan, WA1HQC, feature high efficiency achieved by switching active components under the conditions of zero voltage and current. I recently ran across a web page entitled "VK1SV Class-E design Class for Beginners," which provides a practical design tutorial for these amplifiers. Class E amplifiers by themselves are non-linear, which limit their simple application in amateur service to CW, FM, FSK, and other modes not requiring linearity. AM aficionados use these amplifiers in conjunction with audio modulators.

Radio Australia Shortwave Broadcasts to End on January 31 - Another prominent shortwave broadcaster is going dark, “The SWLing Post” blog reports. Radio Australia has announced that it will cease its shortwave transmissions on January 31. The station, popular with SWLs, broadcasts in the 31-, 25-, 19-, and 16-meter bands.

“The move is in line with the national broadcaster’s commitment to dispense with outdated technology and to expand its digital content offerings, including DAB+ digital radio, online and mobile services, together with FM services for international audiences,” the Australian Broadcast Corporation (ABC) said in a news release. The ABC said it would put the money saved from ending shortwave broadcasting into other program distribution technology.

Radio Australia programming will remain available via streaming, satellite, and other media.

THANKS FOR READING. HAVE A SAFE AND HAPPY HOLIDAY SEASON!

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. EMAIL TO mailto:WebMaster@w9rca.org. Check our web site at http://www.w9rca.org/