



Legacy Amateur Radio Club

RCA AMATEUR RADIO CLUB



AFFILIATED CLUB

INDIANAPOLIS, INDIANA

APRIL 2018

MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, APRIL 10th, 6:30 PM AT
[SQUEALERS](#), 5899 E. 86th STREET, INDIANAPOLIS, IN

RCA ARC NEWS

SUMMARY OF THE MARCH MEETING – Thanks to all who attended the March meeting. Field Day planning at Camp Belzer is underway. The grounds have been rented by the IRC. The operation is expected to be pretty similar to last year's. We need to decide at the April meeting how many tables to reserve at this year's Indy Hamfest. Speaking of hamfests, it's time to order your Hamvention tickets. Help is still needed for the Mini Marathon on May 5th. ARRL Section Manager for Indiana, Kermit Carlson, W9XA, Central Division Director will be at the March Indianapolis Radio Club meeting discussing the ARRL Board of Director meeting and what is new at the ARRL. Other upcoming events were discussed including ARRL FMT (April 5), ARRL DX and 160 Meter contests, and WPX.

AMATEUR RADIO LICENSE TEST SESSION

Time: Saturday, Apr. 14, 2018, 12:00 pm (Walk-ins allowed)

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

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

MINI MARATHON HAM RADIO VOLUNTEERS – It's that time of year again to sign up for of the 2018 Mini Marathon ham radio volunteers. The Mini is Saturday May 5th, starting at 6AM and usually you done by noon. The 500 Festival offers some great benefits, tickets to the first day of Qualification, Parking, Garage Passes and a Volunteer's Dinner with prizes.

If you're a new volunteer, there will be a training session before the event.

Contact:

Michael R. Palmer, N9FEB

Marion County IN Events Coordinator for Ham Radio

Cell Phone: (317) 753-8691 email: n9feb@comcast.net

More info: <http://indyhams.org/event/500-festival-mini-marathon>

RCA ARC AT THE DAYTON HAMVENTION – RCA ARC Friday Dinner - The Hamvention closes at 6 pm. We are planning to go to: BJ's Restaurant & Brewhouse, 2715 Fairfield Commons Dr., Beavercreek, OH 45431 (Ph: 937-956-0500).

This is close to the Hamvention site and is the same place we went to last year. You can check out the menu at: <https://www.bjsrestaurants.com/locations/oh/beavercreek>. We'll get a reservation for 5:30 pm, so we can beat the crowd out of the Hamvention.

We'll be putting together a list of those interested in attending the dinner after the April club meeting.

The Friday and Saturday RCA ARC lunch get together in the bleachers by the track, the same as last year. They say there will even be more food trucks at the Hamvention this year.

We will use the RCA ARC 144.43 MHz simplex frequency to coordinate the noon meetings and the Friday evening dinner. Be sure to bring your HT and charge the batteries (charge batteries first).

The Indianapolis Radio Club is hosting a bus to the Dayton Hamvention. This is a great way to avoid the traffic and parking headaches while attending the Dayton Hamvention this year.

You don't need to be a member of the IRC to ride over on the bus. Cost for the round trip is the same as last year, \$30 per person. Tickets are available for purchase at a IRC meeting or can be purchased by mailing your request with a check to the club's treasurer: Rhonda Curtis, 5936 Riva Ridge Dr, Indianapolis, IN 46237.

The first pick up will be at Southern Plaza Shopping Center, 4200 South East St, Indianapolis at 5:30am, and the second pick up will be at Peddler's Mall, 7803 E Washington St, Indianapolis at 6:00am. There will be a stop for breakfast on the way over and a dinner stop on the return trip (meals not included in ticket price). Transportation for flea market purchases to the bus can be arranged and there will be space on the bus for them.

Tickets for the Hamvention are available on line for \$22 or \$27 at the door.
<http://hamvention.org/purchase-tickets/>

2018 Indianapolis Hamfest, July 13 – 14 will Host the ARRL Indiana State Convention –

The Indianapolis Hamfest will host the Indiana State Convention July 13th and 14th at Marion County Fairgrounds on the Southeast side of Indianapolis. The ARRL Emergency Preparedness Manager, Mike Corey K11U, will be attending the hamfest and speaking at one of the Saturday forums. The ARRL Central Division Director Kermit Carlson W9XA will also be in attendance. Friday from 5 – 7 pm "Meet and Greet Social" with your ARRL elected officials.

Brent Walls, N9BA, the current Section Manager for Indiana has decided not to run for reelection. Two nomination petitions for the position of Indiana Section Manager were received for:

Brian G. Jenks, W9BGJ of Fort Wayne, Indiana

James Merry Jr., KC9RPX of Ellettsville, Indiana

Ballots for the election should be sent out by ARRL HQ around April 1st and are due back by May 18th.

I would like to thank Mr. Walls, N9BA, for his hard work and excellent management of the Indiana Section. - Kermit Carlson, W9XA, Central Division Director

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

April 7	Columbus Indiana Hamfest http://carcnet.net/
April 28	North Central Indiana Hamfest http://nci-hamfest.net/
May 5	Indiana QSO Party http://www.hdxcc.org/inqp/
May 5	Indianaolis Mini-Marathon http://indyhams.org/event/500-festival-mini-marathon
May 18-20	Dayton Hamvention http://hamvention.org/
July 13-14	Indianapolis Hamvest http://indyhamfest.com/

For More Contests Information: <http://www.contestcalendar.com/>

Opportunities for public service: <http://indyhams.org/event>

WHY ARRL IS RECOMMENDING ENHANCED HF PRIVILEGES FOR TECHNICIANS

ARRL has asked the FCC to expand HF privileges for the entry-level Technician license to include limited phone privileges on 75, 40, and 15 meters, plus RTTY and digital mode privileges on 80, 40, and 15 meters, where Technicians already have CW privileges. ARRL believes the additional digital privileges will attract younger people to Amateur Radio.

The proposed additional HF phone privileges are 3.900 to 4.000 MHz, 7.225 to 7.300 MHz, and 21.350 to 21.450 MHz. Technicians already have HF privileges on parts of 10 meters.

Some in the Amateur Radio community have questioned the need for expanded Technician privileges or to express other perspectives. ARRL has responded to point out some of the key advantages of its [petition](#), which recognizes the tremendous technological advances and changes in Amateur Radio. Some key points:

- A thorough review of operating privileges available to the entry-level license has not taken place since the late 1970s, when the Novice-class license -- the entry-level license at that time, and no longer issued -- was modified to allow Novices access to a limited portion of 10 meters. This included the first HF phone privileges for Novices.
- The 2-year process that led to the development of ARRL's petition includes *significant* input from the Amateur Radio community. The two surveys that the ARRL board's Entry-Level License (ELL) Committee conducted on this issue drew more than 8,000 responses from ARRL members.
- The 378,000 Technician licensees comprise more than half of the US Amateur Radio population, yet the Technician-class license no longer serves its original purpose from 18 years ago. Many Technicians do not participate actively, pursue on-air and public service opportunities, renew their licenses, or upgrade. An uncomfortably large attrition rate exists among Technician licensees. Technician licenses are not upgrading, because they don't find their operating privileges interesting enough to keep them in the hobby.
- The proposed addition of 275 kilohertz of HF phone privileges, spread across 80, 40, and 15 meters, would allow Technicians the opportunity to develop and expand their understanding of HF propagation. In addition, this proposed change would allow Technician licensees to participate in public service-oriented, emergency, and Section traffic nets on 75 meters, from 3900 to 4000 kHz, where primary state/Section-wide public service activities often take place.
- Additional operating privileges for Technicians will not limit their incentive to upgrade. ARRL points out that Technicians now have access to 850 kilohertz of spectrum in four HF bands. ARRL proposes an additional 275 kilohertz on three of those bands, so the total under this proposal is 1,125 kilohertz on four bands -- 80, 40, 15, and 10 meters. Compare that to current General-class HF privileges: 3150 kilohertz across nine HF bands -- 160, 80, 40, 30, 20, 17, 15, 12, and 10 meters. In addition, Generals have access to the five 60-meter channels and to the two newest bands, 2200 and 630 meters. The incentive to upgrade from Technician to General is a tripling of the available HF spectrum; upgrading to General allows access to eight additional bands, including the prime daytime bands of 20 and 17 meters. Also, Technicians upgrading to General or higher are permitted the maximum amateur power level of 1500 W PEP. Read [more](#).

VALERIE HOTZFELD, NV9L, IS "AMATEUR OF THE YEAR," AS HAMVENTION ANNOUNCES AWARD WINNERS

Valerie Hotzfeld, NV9L, of Crescent City, Illinois, is the 2018 Hamvention® "Amateur of the Year." First licensed in 2006, Hotzfeld has been very active in local Amateur Radio clubs and in ARES. Once she "discovered" HF, she became obsessed with DXing and contesting. In the past few years, she has enjoyed inviting new hams to her station to DX or contest. She has been the pilot or lead pilot for four major DXpeditions. Hotzfeld also is a co-host of the *Ham Nation* webcast and has created how-to videos on YouTube for the ham radio community.

In 2017, Hotzfeld became engaged in public service, first traveling to Texas in the wake of Hurricane Harvey to help rescue small animals. She subsequently was deployed to Puerto Rico with the American Red Cross for 3 weeks as part of an Amateur Radio volunteer contingent, facilitating critical communications after Hurricane Maria.

Club of the Year

The Portage County Amateur Radio Service ([PCARS](#)) of Ravenna, Ohio, is Hamvention's 2018 Club of the Year. PCARS was established in November 2005, and it is an ARRL-Affiliated Special Service Club. PCARS members average more than 40 hours of club activities each month, including special interest groups, license training, contesting run from the club site (K8BF), and club social events.

The club donated more than \$6,000 in time and money to the community last year. It has created its own contests and events, including the annual Freeze Your Acorns Off in February and Ohio State Parks on the Air, which was used as a model for ARRL's year-long National Parks on the Air event in 2016.

PCARS sponsors several "Build Days" each year, with projects including home-built transceivers, antennas, and digital equipment to allow members to expand their horizons into new areas of Amateur Radio. A monthly "Get on the Air Day" lets members and non-members use club site equipment to learn about HF and new operating modes. "It is all about building our hobby, helping our community, building our skills, and, most of all, having fun," PCARS said.

Technical Achievement Award

Chip Cohen, W1YW, of Belmont, Massachusetts, has received the Hamvention 2018 Technical Achievement Award. Licensed for 52 years and bitten by the antenna bug, Cohen became a radio astronomer and astrophysicist, working at Arecibo, the National Radio Astronomy Observatory (NRAO), the Very Large Array (VLA), and others. While a professor at Boston University, Cohen connected fractal geometry with antennas, pioneering a paradigm shift in the design of fractal antennas and what they make possible. The holder of 41 US patents, Cohen is known for inventing the invisibility cloak using fractal antenna techniques.

Starting 30 years ago with simple flea market treasures, W1YW bootstrapped fractal antennas with modest gear and employed ham radio to report on the success of his new technology. He started Fractal Antenna Systems, Inc. with WA1ZWT (SK) in 1995, and is presently its CEO.

Cohen is a DXCC Top of the Honor Roll DXer and a strong advocate for technical "innovation culture" through Amateur Radio. He is a Life Member of ARRL and a Fellow of the Radio Club of America, where he has served as vice president and director.

Special Achievement Award

Heriberto Perez, KK4DCX; Victor Torres, WP4SD, and Emilio Ortiz Jr., WP4KEY, are Hamvention's 2018 Special Achievement Award winners. In the wake of Hurricane Maria, which devastated Puerto Rico last September, Perez mobilized his radio equipment to Radio Sol in San Germán, the local public broadcasting station, accompanied by Torres and Ortiz. The team handled health-and-welfare traffic to thousands of families across the continental US. Thanks to

the support of more than 45 radio amateurs across the US, more than 4,000 messages were delivered via telephone to anxious families.

A formal awards presentation will take place this May at Hamvention 2018 in Xenia, Ohio.
--ARRL Letter

LOTW SUPPORT FOR CQ WORKED ALL ZONES (WAZ) AWARD GOES LIVE

ARRL and CQ magazine have announced the launch, effective immediately, of Logbook of The World ([LoTW](#)) support for CQ's Worked All Zones ([WAZ](#)) Award program. The goal of the project, under way since last year, has been to create the proper technical support system to enable radio amateurs to submit LoTW confirmations for WAZ credit, and that has been accomplished, CQ and ARRL said in a joint statement. LoTW already supports CQ's [WPX Award](#) program.

"We are very pleased that participants in CQ's WAZ award program will now be able to use their LoTW confirmations for award credit," CQ Editor Rich Moseson, W2VU, said. "CQ WPX Award participants have found it very helpful, and we are sure it will be equally helpful for those pursuing WAZ and its many variations."

ARRL First Vice President Greg Widin, K0GW, concurred. "Users of LoTW have been telling us for some time that they would like to use QSLs from LoTW to apply for the WAZ award," he said. "They will now be able to select confirmations to be used for WAZ credit."

LoTW user were given an additional WAZ account. Standard LoTW credit fees and separate CQ award fees will apply. --ARRL

INTERNATIONAL SPACE STATION ASTRONAUTS CALLING "CQ STUDENTS"

The deadline is April 30 for US schools, museums, science centers, and community youth organizations (working individually or together) to submit proposals to host an Amateur Radio on the International Space Station ([ARISS](#)) contact with an orbiting crew member on the International Space Station (ISS). Contacts would be scheduled between January 1 and June 30, 2019.

Each year, ARISS provides tens of thousands of students with opportunities to learn about space technologies and communications through Amateur Radio. The program provides learning opportunities by connecting students to astronauts aboard the ISS through a partnership between ARRL, AMSAT, and NASA, as well as other Amateur Radio organizations and worldwide space agencies. The program's goal is to inspire students to pursue interests and careers in science, technology, engineering, and mathematics (STEM) and Amateur Radio.

More than 90% of educators who have participated in the program have indicated that ARISS provided ideas for encouraging student exploration and participation. Some teachers and students have become radio amateurs after experiencing a contact with an ISS crew member.

ARISS is looking for organizations that can draw large numbers of participants and integrate the contact into a well-developed education plan.

Proposal webinars for guidance and getting questions answered are offered on Thursday, March 29, at 7 PM EDT (0000 UTC on Friday, March 30) and on Monday, April 16, at 4 PM EDT (2100 UTC). [Advance registration](#) is required. [More details](#) and a proposal form, are on the ARISS website. -- Thanks to ARISS via Dave Jordan, AA4KN

JUST WHEN YOU THOUGHT IT WAS SAFE: CHINESE OVER-THE-HORIZON RADAR APPEARS ON 40 METERS

The International Amateur Radio Union Region 1 ([IARU-R1](#)) Monitoring System ([IARUMS](#)) reports that one of China's over-the-horizon radar (OTHR) installations has been causing interference in the Amateur Radio 7 MHz band. The IARUMS [February newsletter](#) reports on that intruder and others.

Other Top 5 intruders include a "single-letter beacon" transmitting either the letter "K" or the letter "T" on 7039.3 kHz. The source is believed to be in the Russian Pacific, Petropavlovsk-Kamchatsky. A Russian F1B teleprinter signal (RDL) has appeared on 7193 kHz, with an encrypted frequency-shift-keyed (50-baud) signal, originating in Kaliningrad. Authorities in Germany and Switzerland have filed official complaints.

A Russian orthogonal frequency-division multiplex OFDM 60 signal has been showing up on 14.235 MHz, covering nearly 3 kilohertz. It's said to be located in Moscow. Three Russian OFDM 60 signals were active at the same time on February 13. A Russian F1B signal has been observed on 14.308 MHz, 50 baud, 500 Hz shift, also reported to be in Moscow.

In the "miscellaneous or bad news" category, IARUMS Region 1 Coordinator Wolf Hadel, DK2OM, reports Spanish-speaking "fishermen" on 3560 kHz (USB), heard daily at 1600 UTC or later. These signals have been heard on other 80-meter frequencies. Broadcaster Radio Hargeisa in Somaliland continues to be reported on 7.120 MHz (AM) daily. --ARRL Letter

LAUNCH OF "SPACEBEEES" UNAUTHORIZED, FCC TELLS CALIFORNIA TECHNOLOGY DEVELOPER

When an Amateur Radio satellite launched on January 12 from India on Polar Satellite Launch Vehicle (PSLV) C40, some tiny 0.25 U CubeSats called SpaceBEEs -- not to be confused with the fantasy insects in the "Futurama" TV cartoon -- went into space on the same flight that apparently should not have.

Last December, in a letter to their developer, [Swarm Technologies Inc.](#) of Los Altos, California, Anthony Serafini, the Chief of the FCC's Experimental Licensing Branch, advised that the FCC was unable to grant the company's application for an experimental authorization in association with deployment and operation of "four spacecraft smaller than 10 cm in one of their three dimensions." In dismissing the application without prejudice, the FCC said the spacecraft were below the size threshold "at which detection by the Space Surveillance Network (SSN) can be considered routine."

The FCC has told Swarm Technologies that its application for an additional experimental authorization had been set aside "to permit assessment of the impact of the applicant's apparent unauthorized launch and operation of four satellites, and related statements and representations, on its qualifications to be a Commission licensee. Read [more](#). --ARRL Letter

HAM RADIO IN FRIEDRICHSHAFEN PUTS SCOUTS IN THE SPOTLIGHT

"Radio Scouting -- The Adventure of Youth Amateur Radio" is the theme for the 43rd edition of the international Amateur Radio exhibition, HAM RADIO, in Friedrichshafen, Germany.

"In past years, we have presented exhibits that have shown all of the different settings where radio is used," said the Deutscher Amateur Radio Club's ([DARC](#)) Stephanie Heine, DO7PR. "This year, we have invited Scouts who are active on the airwaves." Visitors will be able to learn more about radio Scouting at an exhibition and at a booth at the Friedrichshafen Fairgrounds

(Die Messe). "In addition, a huge yurt tent and a pioneering tower will be put up on the West Open Air Grounds," Heine said.

After taking place in late June for many years, the dates of Europe's largest Amateur Radio gathering have more recently become a bit of a moving target. This year's show will shift to June 1 - 3, in conjunction with the 69th Lake Constance Convention -- both organized by the DARC -- and the separate, but concurrent, [Maker Faire](#). HAM RADIO once again will host a Software-Defined Radio Academy ([SDRA](#)) conference, and [HamCamp](#) on Lake Constance, for younger visitors and youth groups.

In 2017, when the events were held in mid-July, the attendance for both events was more than 17,100. This year's event will feature some 180 exhibitors from 30 countries.

President Rick Roderick, K5UR, will head ARRL's contingent to HAM RADIO 2018, which will also include ARRL International Affairs Vice President Jay Bellows, K0QB; Marketing Manager Bob Inderbitzen, NQ1R; Field Services and Radiosport Manager Norm Fusaro, W3IZ, and Radiosport Administrative Manager Sabrina Jackson.

On hand for the International Amateur Radio Union (IARU) will be IARU President Tim Ellam, VE6SH/G4HUA; Vice President Ole Garpestad, LA2RR, and Technical Representative Dale Hughes, VK1DSH. Read [more](#). -- *Thanks to HAM RADIO; Thomas Wrede, DF2OO, and Bob Inderbitzen, NQ1R*

AMATEUR RADIO CUBESATS AMONG NASA NINTH-ROUND CUBESAT LAUNCH INITIATIVE PICKS

AMSAT reports that two of its "GOLF" (Greater Orbit, Larger Footprint) series CubeSats are among 21 missions recommended for NASA's CubeSat Launch Initiative (CSLI) -- GOLF-TEE (Technology Evaluation Environment) and GOLF-1, were among the 21 missions recommended for selection. AMSAT now must negotiate and execute a Cooperative Research and Development Agreement with NASA for each project, in order to finalize selection.

"The GOLF-TEE project tees off the next phase of our CubeSat program," AMSAT Vice President-Engineering Jerry Buxton, N0JY, quipped. According to AMSAT, NASA anticipates a sufficient number of launch opportunities but does not guarantee that all recommended payloads will be launched. GOLF-TEE will also carry a Fox-1E design V/u linear transponder and radiation effects experiment for Vanderbilt University.

GOLF-TEE will serve as a rapidly deployable low-Earth-orbit (LEO) testbed for technologies necessary for a successful CubeSat mission to a wide variety of orbits, AMSAT said. GOLF-TEE is aimed at providing AMSAT with the hardware and knowledge for attitude determination and control capability, and the opportunity to develop a 3U spaceframe with deployable solar panels suitable for LEO or high-Earth-orbit (HEO) missions, two of the major systems required in future GOLF and HEO missions.

AMSAT Vice President-Engineering Jerry Buxton, N0JY (left), introduces the GOLF project last October at AMSAT's Symposium and Annual Meeting.

GOLF-TEE and the GOLF program will provide for the development of "five-and-dime" field-programmable gate array software-defined radio (FPGA SDR) transponders for use on a variety of missions and orbits. The target GOLF-TEE launch date is in the final quarter of 2019.

GOLF-1 will serve as a follow-on mission; AMSAT has not yet specified its Amateur Radio payload. Launch is targeted for 2020 - 2021. The GOLF-1 CubeSat will require a de-orbiting plan that complies with NASA requirements for limiting orbital debris, due to the high altitude that AMSAT has requested.

AMSAT-NA unveiled the GOLF program its annual meeting last October as a crucial

step toward fulfilling AMSAT's strategic goals involving high-altitude, wide-access satellite missions. -- Thanks to AMSAT News Service via Paul Stoetzer, N8HM

CHINESE LUNAR-ORBIT AMATEUR RADIO PAYLOAD COULD LAUNCH THIS SPRING

China's twin-launch Chang'e 4 mission to the far side of the moon will place a pair of microsatellites in lunar orbit this spring "to test low-frequency radio astronomy and space-based interferometry." The two satellites, unofficially called *DSLWP-A1* and *DSLWP-A2* (DSLWP = Discovering the Sky at Longest Wavelengths Pathfinder), could launch this spring.

The pair represent the first phase of the Chang'e 4 mission, which involves placing a relay satellite in a halo orbit to facilitate communication with the Chang'e 4 lander and rover, which will be sent to the far side of the moon in December. Because the moon's far side never faces Earth, the satellite is needed to serve as an Earth-moon relay. The Chang'e 4 mission will be the first-ever attempt at a soft-landing on the far side of the moon.

The two spacecraft also will carry Amateur Radio and educational payloads, but not a transponder. Developed by students at the Harbin Institute of Technology, the Amateur Radio payload on *DSLWP-A1* will provide a telecommand uplink and a telemetry and digital image downlink. Radio amateurs will be able to transmit commands that allow them to send commands to take and download an image.

The satellites will piggyback on the Chang'e 4 relay package and will deploy themselves into a 200 × 9,000 kilometer lunar orbits. The Harbin Institute of Technology team has proposed downlinks in the 435 and 436 MHz range.

Equipped with low-frequency antennas and receivers, the astronomy objectives of *DSLWP-A1* and *-A2* will be to observe the sky at the lower end of the electromagnetic spectrum -- 1 MHz to 30 MHz -- with the aim of learning about energetic phenomena from celestial sources. The launch is anticipated for May or June. Read [more](#). --ARRL Letter

ARRL TO SHINE SPOTLIGHT ON PUBLIC SERVICE COMMUNICATIONS AT HAMVENTION 2018

[Hamvention](#)[®] 2018 is May 18-20 at the Greene County Fairgrounds and Expo Center in Xenia, Ohio. The largest annual Amateur Radio gathering in the US, this year's event has been sanctioned as the 2018 ARRL Great Lakes Division Convention. The theme for this year's Hamvention is "Amateur Radio...Serving the Community." ARRL has responded in that spirit, and four ARRL-sponsored forums -- to include many guest presenters -- will comprise a Public Service Communications track on Friday and Saturday of Hamvention.

"Getting Started in Public Service Communications," an introduction to public service communication training and emergency preparedness, will take place on Friday at 9:15 AM, moderated by Ken Bailey, K1FUG, the ARRL Emergency Preparedness Assistant and Continuing Education Program Administrator. He will cover the many ways that radio amateurs serve their communities in good times and in bad.

"Building Partnerships," with ARRL Emergency Preparedness Manager Mike Corey, K11U, and FEMA Community Partners Specialist, External Affairs Sarah Byrne as co-presenters, will begin at 11:50 AM on Friday. Acknowledging that collaborative and mutually beneficial partnerships are key to successful disaster and emergency response, this session will explore how Amateur Radio public service groups rely on such partnerships when serving their communities.

Corey also will moderate a panel discussion on Saturday at 9:15 AM. This session will offer a chance to hear from representatives of Amateur Radio's largest organizations and partnerships that are active during times of disaster and emergency.

"Stories from the 2017 Hurricanes" is ARRL's final forum in the Public Service Communications track. It will take place at 1:30 PM on Saturday. Special guests will share firsthand accounts of Amateur Radio's response to the 2017 hurricanes in Puerto Rico, US Virgin Islands, and across the southeastern US. Speakers will include ARRL Section Manager (SM) for Puerto Rico, Oscar Resto, KP4RF; US Virgin Islands SM Fred Kleber, K9VV, and Andy Anderson, KE0AYJ, who was among the Amateur Radio operators organized by ARRL as American Red Cross volunteers who deployed to Puerto Rico in the wake of Hurricane Maria. Anderson and fellow volunteer -- and Hamvention Amateur of the Year -- Val Hotzfeld, NV9L, who also deployed to Puerto Rico, will be keynote speakers at the 2018 ARRL Donor Recognition Reception on the Thursday evening before Hamvention.

A complete list of Hamvention forums is on the [Hamvention website](#). [Purchase](#) Hamvention tickets online. --ARRL Letter

HAARP FACILITY TO RESUME IONOSPHERIC RESEARCH THIS WEEK

Alaska's super-power High-Frequency Active Auroral Research Program (HAARP) transmitters in Gakona, Alaska, will fire up again for the spring research campaign April 6 – 14. University of Alaska Fairbanks (UAF) Space Physics Group researcher and HAARP Chief Scientist Chris Fallen, KL3WX, told ARRL that more than 40 hours of "externally funded" experiments are in the queue.

"Scientists from US universities and government labs will explore the physics of scintillations, magnetic field-aligned plasma irregularities, artificial and natural atmospheric airglow, stimulated electromagnetic emissions, plasma waves, and radio-enhanced ionization," Fallen said. "The HAARP transmitter is still at 80% net power, but by summer we expect to have the final 'column' of transmitters restored, bringing the array back to 100%."

For his part, Fallen said he still has some time remaining on his National Science Foundation (NSF) grant to study artificial airglow, but added that this is "a tough time of year in a tough year of the solar cycle" for such experiments. "It will not be dark enough in Gakona to observe artificial airglow emissions until 10 PM at the beginning of the campaign and 10:30 PM at the end of the campaign, due to the rapidly lengthening days in the Land of Midnight Sun."

Fallen said that due to weakening solar activity, the critical frequency of the ionosphere's F2 layer (foF2) is relatively low during the day, peaking at a little more than 4 MHz above Gakona in the late afternoon, and falling rapidly in the evening. "This limits the time available for experiments, since airglow is usually only created when the HAARP transmission frequency is near or below foF2," Fallen explained. "The lower limit of the HAARP transmitter is approximately 2.7 MHz, and so we can only expect perhaps 30 minutes or less of usable airglow experiment time each day."

Fallen said he is considering his options and plans to continue "bundling" amplitude modulations in the airglow experiments of interest to hams. His previous airglow experiments were accompanied by tones and music to illustrate the Luxembourg effect and slow-scan television (SSTV) images in Scottie 1 format.

"In future experiments, I want to try sending text and images using one of the MFSK modes," Fallen told ARRL. "Several hams have requested I try the smoking hot FT8 mode with HAARP. Since that is a mode primarily designed for two-way contacts and makes use of time synchronization to help achieve amazing efficiency, it is not yet clear to me how to best do this with HAARP which currently has no receive capability."

Fallen said he has to be at UAF for much of the April campaign but will be at HAARP toward the end. He plans to tweet selected transmitter frequencies and other information throughout the campaign from his personal Twitter page. HAARP's official Twitter page will share photos and other information of general interest, "such as what the HAARP dog is up to," Fallen said.
--ARRL Letter

W5KUB WILL ONCE AGAIN BE WEBCASTING FOR THE 17TH YEAR WHAT HE CALLS THE HAMVENTION MARATHON WEBCAST

It will be over 40 hours of live streaming of our yearly event. There are many people who can not attend hamvention due to health, finances, work, and age. Our motto is "Bringing ham radio to you". We want to give everyone the experience of feeling like they are part of this ham radio event.

It's as simple as going to W5KUB.COM where you can watch all the activities and also join in the chat room with viewers from around the world and also communicate directly to the W5KUB group. We give away thousands of dollars in prizes to our viewers. If we call your name and you answer, you are a winner. Prizes like antenna analyzers, mobile rigs, HTs, antennas, etc are just a few to name. Astronaut Doug Wheelock is scheduled to be with us again for the 5th year as a cohost.

The excitement is not just at the booth at Xenia. We stream our 10 hour drive live there and back to Memphis, TN. Watch the drive, the scenery, communicate with the group. Watch us get in traffic, get lost, or even get stopped by police for speeding (yes that has happened before and everyone in the chat room was taking up a collection to bail us out of jail)

Here is our schedule of live streaming:

May 16 0800 am central until 1800 PM eastern live stream of the 550 mile drive

May 17 0900 Eastern until 1700 Eastern set up at Hamvention booth. You will see many people come by and say hello to the viewers that day

May 18th 0800 eastern until 1700 eastern 1st day of Hamvention

May 19th 0800 eastern until 1700 eastern 2nd day of Hamvention

May 20th 0800 eastern until 1400 eastern final day of Hamvention.

May 21 0900 eastern until 1800 central as we stream the 550 mile drive back to Memphis, TN

W5KUB also has a weekly ham radio show called Amateur Radio Roundtable every Tuesday night at 8:00 PM central, and the show is also simulcast on world famous international shortwave station WBCQ on 5130 Khz. Click here for [more](#)

SHORTS

Work the world with WSJT-X is the title of Joe Taylor's Presentation at the MicroHAMS Digital Conference, March 24, 2018. A very interesting up to date look at the various modes in the WSJT-X program and what amateurs around the world are doing with it. How it works and why it is like it is. Everything from FT-8 to LIGO!

<https://www.youtube.com/watch?v=j1sWCtVzzak&feature=youtu.be&t=4h47m55s>

Kim, WG8S, announces the VHF and above dinner at Dayton, to be held Friday, May 18, at the Double Tree Suites, Miamisburg, Ohio. Guests will arrive at 6 PM, and dinner will be at 7 PM. "If you are into anything 50 MHz and above - you're included and invited!" Contact Kim to

arrange your attendance.

Ed, W0YK, reminds that the Dayton RTTY Contest Dinner will be held Thursday, May 17, 2018 at 6pm, at the Spaghetti Warehouse in downtown Dayton. Please see this link for more information.

Scott, N3FJP, announces that version 6.2 of Amateur Contest Log is available, featuring automatic upload of contacts to LoTW, eQSL, and Clublog, additional support for Icom and Yaesu radios, and support for feeding multiple real-time scoreboards. (Scott, N3FJP)

Azimuthal Map is a great new way to view Reverse Beacon Network (RBN) data on various maps and graphs, thanks to HA8TKS and CT1BOH. Go to the Azimuthal Map website, then check "Dxcall" and enter your own call sign to see where you are being heard displayed on a Great Circle map. Other tabs at the top provide many other useful ways to look at the live data RBN data, including a scrolling "band map". (Bob, N6TV)

The [HF Voyager](#) is an 'autonomous, ocean-going drone' with a remotely controlled Amateur Radio station on board. [According to Rusty, W6OAT](#), it's possible to work the craft using FT8 on 20 meters. Depending on battery state and whether the functionality is enabled by the remote operator, the craft will respond to direct calls and upload completed QSOs to its [website](#). (via Elecraft email reflector)

DR9A, the Northern Black Forest Contest Group, posted video of their 2017 effort in the IARU VHF Contest. The video intersperses operating with detailed drone footage of their antennas. Note how rotators aren't used on 432 MHz, since they have fixed, stacked Yagi antennas in eight directions. (PackRats Cheese Bits via Ward, N0AX) https://www.youtube.com/watch?v=2Rh3-K8V4_o

Fort Wayne Radio Club's monthly Fox Hunt Kevin, KB9LRW posted a video on YouTube showing the equipment and describes and demonstrates the techniques used. Two transmitters, one high power and one micro-fox, are hunted, with the higher-power transmitter is used to get hunters in the vicinity of the smaller transmitter. <https://www.youtube.com/watch?v=3RY4gt4oq0c>

If you'd like to compare two different ADIF log files, try the beta version of the Clublog service adifdiff at adifdiff.clublog.org. (Michael, G7VJR, via Twitter)

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