



Legacy Amateur Radio Club

RCA AMATEUR RADIO CLUB



AFFILIATED CLUB

INDIANAPOLIS, INDIANA

AUGUST 2017

MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, AUGUST 8th, 6:30 PM AT [G.T. SOUTH'S](#),
5711 E. 71st STREET, INDIANAPOLIS, IN

RCA ARC NEWS

SUMMARY OF THE JULY MEETING – Thanks to all who attended the July meeting! Jim, K9RU, announced that we've taken down the two towers from Dave Brown's estate. Greg, K0GAH, bought one complete with VHF/UHF antennas. There is a possible buyer for the second. Dave also had a small covered trailer he used which he used to transport stuff to hamfests. His wife would like to give this to a good home. Contact K9RU if you're interested. The Club still has a few parts left over from the Indy Hamfest which we plan to sell next year. The Club did very well in this years' Hamfest. Thanks to all who helped out. Field Day also went well despite various problems with coax and power supplies! (A separate FD report has been sent out.)

AUGUST AMATEUR RADIO LICENSE TEST SESSION

Time: Saturday, Aug. 12, 2017, 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

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

- Aug 5-6 222 MHz and Up Contest <http://www.arrl.org/222-mhz-and-up-distance-contest>
 - Aug 20 Tippecanoe Hamfest, Lafayette, IN <http://w9reg.org>
 - Aug 26 Owen County ARA Hamfest, Spencer, IN <http://www.owencounyara.org>
 - Sept 9-10 ARRL September VHF Contest <http://www.arrl.org/september-vhf>
 - Sept 15-16 W9DXCC Convention <http://www.w9dxcc.com/>
 - Sept 16 Greenfield Hamfest, <http://www.w9atg.org>
 - Sept 23 Bloomington Hamfest, <http://www.BloomingtonRadio.org>
 - Oct 7 56th Hoosier Hills Hamfst, Mitchell, IN <http://www.w9qyq.org/hamfest>
 - Nov 18 Fort Wayne Hamfest and Computer Expo, <http://www.fortwaynehamfest.com>
 - Nov 25 TurkeyFest 2017, Brazil, IN <http://w9uuu.org/turkeyfest.html>
- Opportunities for public service: <http://indyhams.org/events>

ARRL PRESIDENT ISSUES CALL FOR MEMBERS TO REACH OUT TO THEIR SENATORS TO SUPPORT S. 1534

ARRL President Rick Roderick, K5UR, is calling on League members to urge their US Senators to support the [Amateur Radio Parity Act](#) of 2017, S. 1534. ARRL has opened a [RallyCongress](#)

[page](#) to simplify the task.

"[W]e are at a crossroad in our efforts to obtain passage of The Amateur Radio Parity Act," Roderick said. He said the campaign to secure passage of the bill scored a major victory earlier this year when H.R. 555 passed unanimously in the US House of Representatives. Obtaining passage of the companion Senate bill, S. 1534, is the final legislative hurdle.

"Now is the time for all hams to get involved in the process!" Roderick said. "Many of you already live in deed-restricted communities, and that number grows daily."

He urged radio amateurs now restricted by a homeowners association from installing effective outdoor antennas to visit the RallyCongress site and e-mail their two US senators. He also encouraged those not currently affected by deed covenants, conditions, and restrictions (CC&Rs) to support their fellow radio amateurs by doing the same.

"If you want to help create an opportunity -- not available before now -- for Amateurs who live in deed-restricted communities to install effective outdoor antennas on property that you own or lease, send these e-mails today!" Roderick said. "We need you to reach out to your senators today. Right away."

S. 1534 was introduced in the US Senate on July 12, marking another step forward for this landmark legislation. Senators Roger Wicker (R-MS) and Richard Blumenthal (D-CT) are the Senate sponsors. The measure will, for the first time, guarantee all radio amateurs living in deed-restricted communities governed by a homeowners association (HOA) or subject to any private land-use regulations, the right to erect and maintain effective outdoor antennas at their homes, while protecting the aesthetic concerns of HOAs. --ARRL Letter

FT8 MODE IS LATEST BRIGHT SHINY OBJECT IN AMATEUR RADIO DIGITAL WORLD

It's still in beta testing, but FT8 — the latest digital bauble to capture the imagination of the Amateur Radio community — has been luring away many of those already using the popular JT65 "weak-signal" mode. FT8 is included in a beta release of [WSJT-X](#), version 1.8.0-rc1. Among its biggest advantages is a shorter transmit-receive cycle, meaning quicker contacts. The [notes](#) for the "candidate" release say that FT8 offers "sensitivity down to -20 dB on the AWGN channel," as opposed to -30 dB for JT65. Contacts are four times faster than with JT65 or JT9, however. An entire FT8 contact can take place in about 1 minute.

The new mode is named after its developers, Steven Franke, K9AN, and Joe Taylor, K1JT. The numeral designates the mode's 8-frequency shift keying format. Tones are spaced at 6.25 Hz, and an FT8 signal occupies just 50 Hz. Unlike JT65 or JT9, transmit and receive cycles in FT8 each last about 15 seconds. Like JT65, FT8 requires accurate time synchronization. An auto-sequencing feature offers the option to respond automatically to the first decoded reply to your CQ.

"FT8 is an excellent mode for HF DXing and for situations like multi-hop Es on 6 meters, where deep QSB may make fast and reliable completion of QSOs desirable," Taylor's release notes assert.

The beta release came out just days before the July CQ VHF Contest and proved to be a boon to many operators who took advantage of FT8 on 6 meters. In a limited outing for the CQ VHF, Frank Donovan, W3LPL, made 22 FT8 contacts on 6 meters, "during which the FT8 software reported SNRs from my receiver below -10 dB (measured in a 2,500-Hz bandwidth). Some of the 22 QSOs may have been difficult to complete on CW."

Enthusiasts will have to wait a little longer for Logbook of The World ([LoTW](#)) to accept FT8 contacts. Because FT8 is still in beta, it has not yet been added to the ADIF tables. A new *TQSL* configuration will be released when the new mode has been accepted to ADIF,

which could happen within a week.

Operational documentation for FT8 has not yet been finalized. "We know that the advent of new mode FT8 means that new material is needed for the *User Guide*," Taylor told the Yahoo [Meteor Scatter and Weak Signal Group](#) this week. "We will be working on that in the near future."

A new [Facebook group](#) has been established for FT8 experimenters. --ARRL

MANY SPECIAL EVENTS WILL BE ON THE AIR TO MARK THE TOTAL SOLAR ECLIPSE IN AUGUST

Radio amateurs from several states will gather in southern Illinois on August 17-21 to operate special event station [W9E](#), leading up to and during the 2017 solar eclipse on August 21. W9E will operate from Marion, Illinois.

"This will be the first total eclipse on American soil since 1991, the first on the mainland United States since 1979 and the first to sweep across the entire country since 1918. It will be an event you do not want to miss!" the W9E announcement said. "The far southern tip of the state of Illinois is the only place viewers can see the totality of the eclipse."

W9E plans to operate on 80, 40, and 20 meters (and perhaps other bands, if conditions permit), on CW, SSB, and digital modes (JT65, JT9, and PSK31). All amateur operators visiting the area for the eclipse are invited to visit. A copy of your license and photo ID are required to operate. Amateur Radio license testing also will be offered during the event.

While the W9E special event is under way, organizers are planning a joint exercise with ARES® Illinois District 11 Emergency Coordinator W. Bruce Talley, WA9APQ, hoping not only to assist with local communication during the eclipse but to coordinate with other ARES groups as the eclipse travels from northwest to southeast.

"Our plan is to be proactive and ready to respond, as needed," said Talley. "Local volunteers and those from outside the area are welcome to [sign up on the database](#). We are especially interested if you are coming to the area to view the eclipse and know where you will be stationed."

Solar Eclipse QSO Party

The Solar Eclipse QSO Party ([SEQP](#)), sponsored by [HamSCI](#), will take place on August 21, 1400 to 2200 UTC. As the *QST* article "[The Solar Eclipse QSO Party — Are You Ready?](#)" explains, "The objective...is to flood the airwaves with contacts, all measured by the automated receiver networks of the Reverse Beacon Network, PSKReporter, and WSPRNet. When those observations are combined with the logs from individual stations, the result will be one of the largest ionospheric experiments ever performed."

Other Total Eclipse Special Events

The South Dakota's Black Hills Amateur Radio Club in South Dakota plans to operate [special event K0E](#) on the day of the eclipse, August 21, 1500-1930 UTC, from Harrison, Nebraska. Operation will be on 20 meters (14.260-14.280 MHz) and on VHF and UHF. [Contact](#) Bob Ewing, W0RE, for more information.

The Near Zero Sunlite, Great American Eclipse N0S special event will take place August 20-22, 1400-2200 UTC, in Crystal City, Missouri, sponsored by the [Jefferson County Amateur Radio Club](#). Operation will be on or about 3.850, 7.250, and 14.300 MHz. QSL with SASE to Jim Berger, WA0FQK, 131 Ozark Dr, Crystal City, MO 63019.

K7E will be on the air for the Great American Total Solar Eclipse 2017 special event, August 21-22, 1500-0300 UTC, from Laramie, Wyoming, near the path of totality, on or about 7.183 and 14.256 MHz. [QSL Perry Lehman](#), N7FST, 19828 N. 78th Ln, Glendale, AZ 85308.

The North East Wyoming Amateur Radio Association ([NEWARA](#)) will field special event W7S from historic downtown Gillette, Wyoming, August 19-21, 1200-0600 UTC, on or about 3.945,

7.265, and 14.265 MHz as well as on 147.360 MHz. QSL to [Garth Crowe](#), WY7GC, PO Box 2208, Gillette, WY 82717.

The Lincoln County Amateur Radio Club ([LCARC](#)) will operate special event N7E, August 20-22, 1600-1900 UTC, from Newport, Oregon, on or about 3.820, 7.200, 14.245, and 28.350 MHz. Contact [Michael Eastman](#), N7ONP.

Total Solar Eclipse special event N9E will be on the air on August 21, 1400-2000 UTC, from Hopkinsville, Kentucky, 7.180-7.190 MHz. Contact [Peter Herman](#), KD9VV.

The Lewis and Clark Radio Club ([LCRC](#)) will operate special event K9HAM from Godfrey, Illinois, on August 21, 0900-1700 UTC, on or about 7.225 and 14.280 MHz. [Contact](#) the LCRC for more information.

In North Carolina, the Greater Gaston Amateur Radio Society ([GGARS](#)), will be on the air as N4S from Lexington, South Carolina, on August 21, 0000-1900 UTC, on or about 7.180 and 3.895 MHz. QSL to [Robert Wells](#), W7CSA, QSL. Robert Wells, 409 Elizabeth St, Gastonia, NC 28054.

The Southern Illinois University Amateur Radio Club ([SIUARC](#)) will sponsor W9S, August 18-22, 0000-2359 UTC, from Carbondale, Illinois, CW on 160 meters and all modes on 80 through 10, with a focus on the lower bands. Satellites and 6 meters are also possible. QSL to Martin A Schuette, N9EAT, PO Box 29, Fulton, IL 61252.

Ole Virginia Hams Amateur Radio Club ([OVHARC](#)) will sponsor W4E from Lexington, South Carolina, on August 21, 1500-2015 UTC, on or about 3.810, 7.230, and 14.263 MHz and 146.52 MHz FM simplex. QSL to [Terry Erlacher](#), KC4DV, 10855 Felicia Ct, Manassas, VA 20110.

N4C will be on the air from Franklin, North Carolina, August 13-26, 0401-0359 UTC, with members of the Franklin Amateur Radio Club ([K2BHQ](#)) operating on or about 7.076, 7.180, 14.076, and 14.230 MHz. A certificate and QSL is available. Franklin ARC, 505 North Sugar Creek Dr, Franklin, NC 28734. The special eclipse US postage stamp will be included.

The AA0RC Solar Eclipse Party will take place August 20-21, 1200-1600 UTC, from Mexico, Missouri, sponsored by Audrain Emergency Communications Inc ([AECIMO](#)). Operation will be on 3.970, 3.980, 7.265, and 14.240 MHz. A certificate is available. Mike Wood, WB0IXS, 22374 Audrain Rd 320, Mexico, MO 65265.

The W9J "Historic Route 66 and Solar Eclipse Special Event" will take place from August 20 until August 24, sponsored by Jim Georgias, W9JUG, and Marie Getty Stan, KD9CAE. The event will operate from a state park on US Route 66 near Eureka, Missouri, on the day of the eclipse. Operation will be on or about 7.240 and 14.250 MHz. Operation will be portable and mobile. QSL via eqsl.cc and LoTW. [Contact](#) W9JUG to request a certificate.

This is not a comprehensive list. Search the [ARRL Special Events Calendar](#) for additional total eclipse special event operations. --ARRL Letter

ARRL Board Explores Entry-Level License Options

Meeting July 21-22 in Farmington, Connecticut, the ARRL Board of Directors took steps to chart a firmer future for Amateur Radio by enhancing the value of the entry-level license and by providing ongoing support for new licensees. The Board also conferred several annual awards, including the prestigious Hiram Percy Maxim Memorial Award, the League's top honor for a young radio amateur. ARRL President Rick Roderick, K5UR, chaired the second regular meeting of 2017.

ARRL New England Division Director Tom Frenaye, K1KI, presented the report of the Ad Hoc Entry-Level License Committee. He said the committee's initial, informal survey attracted nearly 7,900 responses. A second random survey drew another 375 responses. "A clear majority favored a revision to the Technician rather than a new entry-level license," the committee's report said, noting that this would require no change to the Technician examination, which already covers more material than necessary for an entry-level examination. "This choice

requires the simplest revision to FCC rules," the committee report said. The committee suggested expanded digital access on 80, 40, and 15 meters, where Technicians already have CW access, as well as the addition of Technician phone privileges on those bands. Frenaye pointed out that while the Amateur Radio population is growing, the annual rate of growth has stagnated at about 1%. "There is a general consensus...that 'something needs to happen,'" the committee's report said, noting a generally favorable attitude toward attracting newcomers.

"The general goal here is to have an entry level license that offers a way for a newcomer to experience multiple facets of Amateur Radio," the committee's report said, "encouraging them to get on the air, meet other licensees, and engage in a lifetime of learning while using Amateur Radio."

Later in the meeting, the Board charged the ARRL Executive Committee with developing a plan to implement the ad hoc committee's recommendation to make the current Technician class license more attractive and useful by expanding its operating privileges on HF to include phone and digital modes. The Board asked the Ad Hoc Entry-Level License Committee to further research and develop the details of a second recommendation to improve successful outreach to prospective radio amateurs and help them through the licensing process.

The committee began with the premise that ARRL must act in order to remain relevant going forward. It proposed instituting a Lifelong Learning Program to focus on developing a clear developmental path for all radio amateurs, from newcomers to established radio amateurs. The committee recommended the creation of new programs and services to increase the knowledge base of newcomers in order to get them active, as well as programs to keep experienced amateurs up to date with changing technology and practice.

Read More <http://www.arrl.org/news/arrl-board-explores-entry-level-license-options-ways-to-face-future-challenges>

FRIEDRICHSHAFEN'S HAM RADIO ATTENDANCE HOLDS STEADY

Despite being held in a different month and at the height of the tourist season, Germany's [Ham Radio 2017](#) -- more popularly known by its location, Friedrichshafen -- remained as popular as ever this year.

This was the 42nd annual Ham Radio, and the Friedrichshafen Fairground reported that Ham Radio and the concurrent Maker Faire Bodensee (Lake Constance) attracted 17,110 visitors this year, compared to 17,230 last year. Heading up the ARRL contingent were President Rick Roderick, K5UR, and International Affairs Vice President Jay Bellows, K0QB. ARRL Marketing Manager Bob Inderbitzen, NQ1R, said the League puts in an appearance at Friedrichshafen each year, greeting international members, which number more than 9,000, and networking with other national radio societies.

"ARRL is held in high regard by the international Amateur Radio community, and there were many, many compliments shared with our team for ARRL's good work," Inderbitzen reported. He said a German radio amateur donated to the ARRL [Spectrum Defense Fund](#), citing the League's spectrum advocacy efforts.

ARRL also supports DXCC card checking, which was supported by Radiosport Manager Norm Fusaro, W3IZ, and volunteer card checkers from a half-dozen countries.

International Amateur Radio Union Region 1 ([IARU R1](#)) President Don Beattie, G3BJ, delivered [an opening address](#) at the convention. IARU President Tim Ellam, VE6SH/G4HUA, Secretary David Sumner, K1ZZ, and Beattie, also discussed IARU's efforts in a [presentation](#), "Working for the Future of Amateur Radio."

Hamvention® General Chair Ron Cramer, KD8ENJ, expressed some envy about the event, sometimes called "Europe's Dayton."

"Ham Radio is a very good event that is extremely well organized," Cramer said. "I wish that we

had exhibition halls in Dayton that are as beautiful as the ones here in Friedrichshafen. A lot of Amateur Radio operators come to Dayton and to Friedrichshafen, and we want to support one another. After all, all events of this kind are important."

Deutscher Amateur Radio Club (DARC) Chair Steffen Schöppe, DL7ATE, said DARC was "very pleased" with Ham Radio 2017. "Visitors showed great interest in the World Radiosport Team Championship (WRTC 2018), got a lot of information about it, and some also want to stop by the competition in Jessen to get a look at the event itself." WRTC 2018 Organizing Committee President Chris Janssen, DL1MGB, spoke at Ham Radio's official opening. In addition to an indoor booth, WRTC 2018 erected a WRTC-style portable station in the courtyard. WRTC 2018 will take place next July in Germany, in conjunction with the IARU HF Championship.

Schöppe said the international youth forum at Ham Radio 2017 was also very successful, and "the participants had a lot of fun." IARU Region 1 Youth Working Group Chair Lisa Leenders, PA2LS, [reported](#) that she welcomed "an enthusiastic group of young people and youth workers" to the Ham Radio youth forum. Ham Camp at Friedrichshafen hosted more than 100 participants, mostly young people.

Just ahead of next month's Youngsters on the Air ([YOTA](#)) "YOTA UK" international summer camp, the official YOTA flag was carried from the booth of 2016 host, Austria's [OeVSV](#) to the booth of 2017 host, the Radio Society of Great Britain ([RSGB](#)), to "loud cheering of a group of youngsters." YOTA UK 2017 is August 5-12 in London.

Ham Radio 2018 and Maker Faire Bodensee will return the first weekend of June 2018 -- much earlier than usual and some 6 weeks in advance of WRTC 2018. --ARRL Letter

NORTHERN CALIFORNIA DX CLUB LAUNCHING INITIATIVE TO GET NEWCOMERS ON HF BANDS

The Northern California DX Club ([NCDXC](#)) has announced an initiative aimed at getting more new Technician and General class radio amateurs active on HF. The NCDXC [Elmering Project](#) will launch in mid-September.

"Looking around the room at local club meetings makes it very clear that we are all aging," NCDXC's John Eisenberg, K6YP, said. "It is critical to the ongoing life of our hobby to recruit new blood into our ranks. We all know this, but it is difficult to organize and take effective action to start programs to introduce new people to the joys of HF operating. We can't generate new DXers until we have new HF operators."

NCDXC said its Elmering Project is aimed squarely at swelling the pool of new HF operators and getting them on HF. After some introductory classes are three curriculum tracks —General License Exam Preparation, HF Operating and Station Building, and Advanced Topics. Students sign up only for the classes that interest them; instruction will be at the participant's skill level. The club said classes will cover such topics as advanced HF phone, CW, and digital mode operating skills, propagation analysis, and antennas. Some classes will be taught using *PowerPoint* presentations delivered to a student's computer via [WebEx](#).

"Participants need no special software, as *WebEx* allows each user to see and hear the presentation and participate in the two-way audio stream," Eisenberg said. "Students may be local or on the other side of the country." Additional instruction by personal Elmers will take place at the Elmer's shack, where students will gain on-the-air experience using the skills they've been learning.

"Our goal is to put new hams on the air on the HF bands and give them the tools to enjoy the many aspects of the HF experience," Eisenberg said. "Some of our instructors are great teachers; others are operators with many years of SSB, CW, and digital mode experience, while others enjoy building state of the art equipment." Classes will be taught at the individual participant's level.

"We will strive to make each class fun. We want each participant to succeed!" Eisenberg said.

[More information](#) about each track and the classes it contains are on the NCDXC website. *PowerPoint* presentations will be available on NCDXC website too. --ARRL Letter

TECHNICAL

The [Red Pitaya](#) is a "Test & Measurement applications running on a credit card sized SoC (FPGA+CPU) based Open SW source DAQ platform" with oscilloscope, signal generator, spectrum analyzer, and more, but most importantly for contesting, it can also be an SDR receiver. It's been getting some recent traction for [CW](#) and RTTY Skimmer applications with it's ability to simultaneously decode six 192 kHz swaths, and now Bob, N6TV, has succeeded in getting it to simultaneously [skim CW and RTTY spots](#). For 6-meter use, some users report improved performance by using an 9:1 or 14:1 impedance matching transformer.

Skimming with the Red Pitaya Hardware continues to improve. According to Bob, N6TV: "Nathaniel, W2NAF, and Bob, N6TV have updated [the document that details everything you need to know](#) to turn a Red Pitaya device into a six-band 14-bit SDR Receiver compatible with VE3NEA's CW Skimmer Server and RTTY Skimmer Server. The document steps through the procedure required to skim CW and RTTY signals *simultaneously*. The Red Pitaya hardware [device is available from Mouser](#) for less than \$400 new. Order the [STEMlab 125-14 Starter Kit](#) with the add-on [plastic enclosure](#). A 30mm 5V DC cooling fan is recommended for continuous skimming."

"[Modeling Bent Dipole \(and Conventional\) 4-Squares, with Feed Systems](#)" has been published by Dan, AC6LA. According to Dan: "The page is intended for anyone thinking about building a 4-square array or anyone who would like to do a more thorough job of analyzing an existing array. Several sample models are available in [AutoEZ](#) format." Dan is the author of [AutoEZ](#), an application that works with [EZ-NEC](#) to ease variational parameter modeling of antennas.

With modern equipment with switching power supplies, we don't think too much about power line frequency compatibility, [seventy years ago, the Los Angeles power grid was 50 Hz!](#)

SHORTS

New 222 MHz and Up Contest Debuts August 5-6 Weekend: ARRL's new [222 MHz and Up Distance Contest](#) will debut on August 5 at 1800 UTC and continue until the next day. This 24-hour contest offers a wide range of entry categories, from FM, CW, and SSB to digital modes. The object is to work as many stations as possible on the 222 MHz through 241 GHz bands, using any allowable mode. A station in a specific grid locator may be contacted from the same location only once on each band, regardless of mode. Contacts on higher frequencies earn more points, so expect plenty of activity from locations that offer a height advantage. Check the rules update for club and team competitions, and requirements to register teams before the contest. The deadline to submit logs is 14 days following the contest -- August 20 at 1800 UTC in the case of this year's event.

AMSAT 2017 Space Symposium Issues First Call for Papers: AMSAT-NA is seeking papers and poster presentation for its 2017 AMSAT [Annual Meeting and Space Symposium](#), set for October 27-29 at the Silver Legacy Resort in Reno, Nevada. Proposals for papers, symposium presentations, and poster presentations are invited on any topic of interest to the Amateur Radio satellite community. AMSAT requests tentative presentation titles as soon as possible.

Papers must be submitted by October 6 for inclusion in the printed proceedings. [Send](#) abstracts and papers to Dan Schultz, N8FGV. -- *Thanks to AMSAT News Service*

Revised FCC Form 605 Will Ask Applicants "The Felony Question" A revised FCC Form 605 -- *Quick-Form Application for Authorization in the Ship, Aircraft, Amateur, Restricted and Commercial Operator, and General Mobile Radio Services* -- going into effect in September will ask all applicants to indicate if they have been convicted of or pled guilty to a felony. The Communications Act obliges the Commission to ask "the felony question," as it did on the old Form 610 and still does on other applications. This action will correct its omission on Form 605, which has existed for years. Applicants' responses and explanations will be used to determine eligibility to be a Commission licensee. The FCC told ARRL that it's still deciding whether to issue a public notice on the change.

Tiny "Sprite" Satellites Deployed, Transmitting on 70 Centimeters -- According to *Scientific American*, six tiny "Sprite" satellites, each consisting of a 4-gram circuit board but packed with electronics, were deployed in late June. The Sprites are the brainchild of Zac Manchester, KD2BHC, whom *Scientific American* interviewed for the [article](#).

The Sprites went into low-Earth orbit as secondary payloads on the Latvian *Venta* and Italian *Max Valier* satellites, launched from India. Signals on 437.325 MHz from at least one of the exterior-mounted Sprites have been received in California and New York.

Manchester launched 104 Sprites into orbit in 2014 aboard KickSat-1, but they failed to deploy.
--ARRL

Canada C3 Expedition WSPR Beacon Reports Continue at High Rate; QSL Available --

The CG3EXP [WSPR](#) beacon on board the [Canada C3](#) Expedition vessel [Polar Prince](#) continues to attract a high volume of reception reports. The vessel has been making its way northward along the Labrador Coast, visiting communities and places of interest. Some stations have requested QSL cards, and *The Canadian Amateur* columnist Robert Mazur, [VA3ROM](#), has volunteered to be the CG3EXP eQSL Manager. He designed an eQSL that is available via the online eQSL service or upon [request](#) via e-mail.

Thousands of Amateur Radio stations and SWLs have reported receiving the CG3EXP *WSPR* signal on 20, 30, and 40 meters. The Canada C3 Expedition, which got under way on June 1 and will continue until October 28, is part of Canada's Sesquicentennial celebration. The *Polar Prince* is sailing from Toronto to Victoria via the Northwest Passage.

The *WSPR* beacon consists of a QRP Labs Kits U3S beacon transmitter. The antenna is a MyAntennas.com 30-meter resonant end-fed dipole, sloping at 62° up to the mid-mast.

Group Leader Barrie Crampton, VE3BSB, explained why the *Polar Prince* is not carrying a full-blown Amateur Radio station. Logistics, space, technical requirements, and many other groups also wanting their research projects on board meant a *WSPR* beacon was far easier to implement, he said. Also, he quipped, it "doesn't eat, sleep, get seasick, or need a bunk."

WWV 25 MHz Signal Swapped to Circular Polarization, Reception Reports Invited - The resurrected 25 MHz signal of time and frequency standard station [WWV](#) is now emanating from a circularly polarized turnstile antenna. WWV had used a vertically polarized antenna on 25 MHz in the 1970s. Silent since 1977, the 25 MHz signal returned to the air on an "experimental basis" in April 2014, and it's been transmitting ever since -- initially on a broadband discone until August 2015, when it switched back to a vertical, which it used until the July 7 switch to circular polarization.

"We are broadcasting with 2 kW from a circularly polarized turnstile antenna," WWV lead electrical engineer Matt Deutch, N0RGT, told ARRL this week. "It is just your standard plain-vanilla turnstile -- two horizontal orthogonal dipoles with a quarter-wave phase-shifting coax linking them."

Deutch said it's hoped that the latest antenna change to circular polarization might be helpful to anyone studying propagation during next month's total solar eclipse, which will be visible across the US. "My effort right now is focused on getting the word out, just to make people aware that [the 25 MHz signal] is available, if it can be useful to them."

Located in Fort Collins, Colorado, WWV is operated by the National Institute of Standards and Technology ([NIST](#)). WWV has [invited](#) listeners' comments and reports on its 25 MHz signal.

New HAARP Research Campaign to Begin in September - Last February, many HF listeners across North America and elsewhere were able to copy signals from Alaska's High Frequency Active Auroral Research Program ([HAARP](#)) during its first scientific research campaign since it was taken over by the University of Alaska Fairbanks (UAF) Geophysical Institute in 2015. UAF Space Physics Group Assistant Research Professor Chris Fallen, KL3WX, told ARRL that the next HAARP research campaign, which will get under way in mid-to-late September, will carry on the experiments begun during the previous campaigns. This time, though, even more listeners may be able to hear HAARP.

"Similar to the February campaign, I plan to inform listeners of selected experiment activities, allowing hams and SWLers to tune in and collectively participate," Fallen said. "One notable difference from the previous campaign is that another column of transmitter shelters at HAARP will be operational, both increasing the HAARP net transmitted power to 80% of its nominal 3.6 MW and increasing its antenna gain."

Fallen's February experimental campaign at HAARP included an audio broadcast, transmitting AM carriers and even some music on or about 2.8 and 3.3 MHz, with the resulting skywave signal consisting of a mix of both frequencies. He followed that with an "artificial aurora" experiment. Fallen is working under a National Science Foundation [grant](#). He has posted additional information on his "Gakona HAARPoon 2017" [blog](#). Follow HAARP on its official [Facebook page](#) or via Twitter ([@UAFHAARP](#))

Mike, W7VO, [published an article on eHam.net detailing the history of Amateur Radio call signs](#). Historical tidbit: Regulation and issuance of official call signs were in part spurred by the sinking of the Titanic in 1912. (Jim, W6YA via Ward, N0AX)

THANKS FOR READING!

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