



RCA AMATEUR RADIO CLUB

INDIANAPOLIS, INDIANA



AUGUST, 2015

MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, AUGUST 11th, 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. The results of the Indy Hamfest were discussed. The Club did very well. Thanks to everyone who helped with the loading/unloading and setting up on Friday afternoon and manning the tables and selling at the hamfest Saturday. We still have some stuff to sell next year. All of the radios from Dave Brown's estate were sold along with some of the smaller items. A check will be sent to Dave's wife and we want to thank her for the donation to the club. The hamfest was a great opportunity to meet with former RCA people. There was a good turnout for the W9JP/W9RCA Field Day event with about 3K QSOs logged. [See the Field Report on the last page of this newsletter.] K9RU and W9ZB reported that the June VHF contest was a dud with poor conditions. Self-driving cars, trucks and ham radio interference were discussed! Clarence, W2PGS, reported on his attempts to resolve a problem with the W9RCA list server sending email to ARRL.net email addresses.

NEXT TEST AMATEUR RADIO LICENSE TEST SESSION

Time: Saturday, Aug. 8th Exams start at noon
Location: Salvation Army EDS Training Facility, 4020 Georgetown Rd
Indianapolis IN 46254-2407
Contact: Jim Rinehart K9RU e-mail: k9ru@arri.net Phone: 317 495-1933

IF YOU WORKED THE INDIANA QSO PARTY – The results are listed on the HDXCC INQP website: <http://www.hdxcc.org/inqp/scores.php>

INDIANA SECTION ARRL AMATEUR OF THE YEAR AWARD - Nominations are being accepted now for the new Indiana Section ARRL Amateur of the Year Award. Section Affiliated Club Coordinator Jimmy Merry KC9RPX, has sent nominating forms to all clubs in Indiana and PIOs are asked to spread the word across the state. Although nominations will close Aug. 31, everyone is encouraged to complete nominations early and return the form to our Section Manger or Affiliated Club Coordinator so there is ample time to recognize a fellow Amateur Radio operator that is especially deserving of recognition of his or her hard work in advancing the art and science of amateur radio, mentoring, volunteering, Elmering, etc. All we ask is that folks nominating the same individual please consolidate your nomination on a single entry form.

2016 INDIANA BICENTENNIAL SPECIAL EVENT STATIONS – Joseph Lawrence, K9RFZ Indiana ARRL Section Manager is promoting an Indiana Bicentennial Special Event Stations operation similar to the ARRL's 2014 Centennial operation, with clubs and individuals setting up a series of Hoosier Special Event Stations around Indiana

throughout 2016. This is not only fun for other hams, but it offers a magnificent opportunity to capture the eye of the public – in public historical venues – to showcase not only Indiana history, but Amateur Radio at the same time. It makes great public relations sense to carefully research, consider, and plan a special event station for your club to operate in your county sometime next year. Consider it during your next club meeting and contact Section Manager Joseph, K9RFZ; Affiliated Club Coordinator Jimmy Merry; or myself at kj9m@arrl.org. The sooner we can start a calendar of events for next year, the quicker we can begin the promotional process to get the word out.

INDIANA REPEATER COUNCIL ELECTS NEW OFFICERS – The July 11, 2015 Indiana Repeater Council meeting was held at the Indianapolis Hamfest. A large number of tasks related to coordinations and administrative items that he's been dealing with. Some of this relates to the passing of Charlie Sears N9MEW earlier this year as Charlie was Coordinator and Vice Chairman.

Dan Dahms N9WNH, the IRCC Chairman has been working with the Indiana Secretary of State and Indiana Department of Revenue to get the IRC reinstated as an Indiana corporation. This is an on-going process. Dan discussed the lack of an accepted copy of the bylaws and is operating from a set of bylaws that Charlie provided before his death.

A committee was formed after the November 2015 meeting to audit the treasurer's records and investigate re-incorporation, but has not met and lost a member. A motion was made and passed to task the Chairman and Secretary/Treasurer with filling out that committee and getting the audit completed before the November 2015 meeting.

Dan is working through the backlog of new coordinations and updates. Charlie was approximately six months behind at the time of his death. Dan obtained the computer that Charlie was using, so Dan believes he started with a current copy of the coordination database. Dan has whittled the backlog down to the point where he is about two months behind.

Elections were held for 2016. Bob Burns W9BU was elected Chairman, Steve Jones N9KYB was elected Vice Chairman, and Mark Musick WB9CIF was elected Secretary/Treasurer. The electees will assume their offices at the November 2015 meeting at the Fort Wayne Hamfest. Chairman Elect Bob Burns thanked Dan, Melanie, and posthumously thanked Charlie for their service to the IRC.

FOR SALE: 50 ft. crank up tower (US Tower) and four element tribander. Indianapolis area. Some photos here:

<https://www.dropbox.com/sh/ywa7chw38tl4djp/AABFbrhCW2S9rpBRNQn2uFuXa?dl=0>
For more information contact af9a@arrl.net.

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

Aug. 16 Lafayette Hamfest, Cary Boy Scout Camp,
<http://www.llarc.org/Hamfest.html>

Sep. 19 Greenfield Hamfest

THE AMATEUR RADIO PARITY ACT OF 2015 GAINS MOMENTUM, COSPONSOR LIST TOPS 90

Keep those letters coming. According to the ARRL Regulatory Affairs Office, more than 4300 letters have been received from League members since the Amateur Radio Parity Act of 2015 grassroots campaign began in March. All urge their members in both branches of Congress to become cosponsors of the bill. More letters are in the queue, and the correspondence seems to be having the desired effect. As of July 29, H.R. 1301 had attracted 94 cosponsors, with 8 signing on since mid-July. The League has a [combined web page](#) to provide a clearinghouse for all information on the identical pieces of legislation now in play in the US House and Senate. The Amateur Radio Parity Act of 2015 would direct the FCC to extend its rules relating to reasonable accommodation of

Amateur Service communications to private land-use restrictions. The FCC has been reluctant to extend those legal protections without direction from Congress.

ARRL Headquarters has forwarded 3433 letters to 402 individual US House members, seeking their cosponsorship of [H.R. 1301](#). The nascent campaign on behalf of the identical US Senate bill, [S. 1685](#), has so far garnered more than 900 letters destined to 77 individual US Senate members. To help maintain the momentum, many ARRL Division Directors have been taking a letter-generating tool to conventions and hamfests.

Sending letters urging members of Congress to sign on as cosponsors of The Amateur Radio Parity Act of 2015 via ARRL allows Headquarters staff to keep track of how many pieces of correspondence are going to which US representatives and senators. These are sorted and then hand-delivered to Capitol Hill. As ARRL President Kay Craigie, N3KN, has pointed out, delivering these letters to Capitol Hill in person offers an opportunity to speak with Congressional staffers.

"The stack of letters is proof that voters care about the bill," she said in June. "We have to convince the staff people, so they'll advise the [Member of Congress] to cosponsor. That's how it works on Capitol Hill."

Congress's August recess provides an ideal opportunity to meet with lawmakers while they are in their home states and districts. Clubs also may want to invite a Member of Congress to visit a meeting. Those interested in following the trajectory of H.R. 1301 can sign up to receive the ARRL's free [Legislative Update Newsletter](#).

All correspondence to representatives and senators *must* be signed and include the constituent's name and address. Send letters to ARRL Headquarters for hand delivery to the appropriate House or Senate member to ARRL, ATTN Amateur Radio Parity Act Grassroots Campaign, 225 Main St, Newington CT 06111.

In the July 29 *Ham Radio Now* news videocast, "[Parity in the Senate](#)," host Gary Pearce, KN4AQ, interviews ARRL Hudson Division Director Mike Lisenco, N2YBB, and ARRL General Counsel Chris Imlay, W3KD. Pearce said Lisenco and Imlay, "fill in some history of PRB-1 that you might not have heard, discuss how our current FCC is far more focused on the Internet...[and] how the deed restrictions and HOA rules prohibiting your antenna are *not* a 'private contract.'" --ARRL Letter

ARRL FILES MORE "GROW LIGHT" BALLAST COMPLAINTS WITH FCC

The ARRL has filed three more complaints with the FCC, urging its Enforcement Bureau to investigate and initiate enforcement proceedings to halt the marketing and retail sale of certain RF lighting devices, typically known as "grow light" ballasts, which, it said, violate FCC Part 18 rules. The largely identical complaints zeroed in on three specific products: The Galaxy Legacy Selective Wattage Ballast, the Quantum Horticulture HPS/MH-600W RF Lighting Ballast, and the Lumatek "Dial-a-Watt Air-Cooled" 1000 W Ballast. The League had [complained](#) to the FCC in March 2014 about another Lumatek product, and noted that "apparently nothing has been done to date" in that case. The ARRL asserted that the three devices targeted in its most recent complaints generate "blatantly excessive conducted emissions." Further, the League alleged, the devices are being marketed and sold illegally -- in both instances in violation of FCC Part 18 rules. Supporting all three complaints were detailed reports from the ARRL Laboratory that quantify the League's emission level concerns.

"The level of conducted emissions from [these devices] is so high that, as a practical matter, one RF ballast operated in a residential environment would create preclusive interference to Amateur radio HF communications throughout entire neighborhoods," ARRL General Counsel Chris Imlay, W3KD, wrote in each complaint. The devices exceeded conducted emission limits under all test conditions, "sometimes by extreme margins, throughout most of the HF range," Imlay said in his letters.

Samples of each RF lighting device cited were purchased by ARRL through retail outlets. All are manufactured overseas and imported into the US.

In a similar vein as its [recent complaint](#) about marketing of certain RF lighting devices by

The Home Depot, the ARRL pointed out that there were no FCC labels on two of the devices mentioned nor any FCC compliance information "anywhere in the documentation, or in or on the box, or on the device itself," in violation of FCC Part 18 rules.

The League asked the FCC to require removal of all such illegal "grow light" devices from retail sale and marketing and the recall of those devices already sold or available for retail sale, and it said the device importers should be subject to a forfeiture proceeding. Read [more](#)

AMSAT-NA, AMSAT-DL, AND VIRGINIA TECH ANNOUNCE POTENTIAL PHASE 3E OPPORTUNITY

[Virginia Tech](#) has approached the US Government to fly the Phase 3E space frame into high Earth orbit (HEO) in order to support scientific payloads as well as serve as an Amateur Radio satellite. During the AMSAT-DL Annual Meeting on July 4, the membership approved the concept, agreeing to allow the Phase 3E space frame currently stored in Germany to be shipped to Virginia Tech for further construction, testing, and preparation for eventual launch into HEO, if the US Government formally agrees to fund such a mission.

Should the project move forward, [AMSAT-NA](#), as the satellite's initial operator, will apply for frequency coordination from the IARU Satellite Advisor and satellite licensing from the FCC.

Further developments and details will be announced as they become known.

This latest satellite project comes on the heels of another, unrelated effort with Virginia Tech ties that was announced earlier this year. AMSAT-NA [said](#) in April that, if all goes according to plan, an Amateur Radio payload will go into space on a geosynchronous satellite planned for launch in 2017. AMSAT said it had accepted the opportunity to be a "hosted payload" on a spacecraft that Millennium Space Systems ([MSS](#)) of El Segundo, California, is under contract to design, launch, and operate for the US Government. Virginia Tech's Hume Center for National Security and Technology is a partner in the geosynchronous Amateur Radio satellite project. -- *Thanks to AMSAT News Service*

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FCC SUSTAINS \$22,000 FINE FOR EGREGIOUS ON-AIR BEHAVIOR

In the case of Michael Guernsey, KZ8O (ex-ND8V), of Parchment, Michigan, the FCC imposed the full \$22,000 fine it had proposed in 2014 for intentionally interfering with other Amateur Radio communications and for failing to identify. In a July 22 [Forfeiture Order](#) -- issued exactly 1 year from its *Notice of Apparent Liability* ([NAL](#)) proposing the hefty fine -- the FCC cited Guernsey's "long history of causing interference to other Amateur Radio operators" and noted that he had been "warned repeatedly in writing." Guernsey's interactions with the FCC Enforcement Bureau date back well over a decade, and, at one point he agreed to a 9-month license suspension.

"Despite repeated warnings from the [Enforcement] Bureau regarding his on-air behavior, Mr Guernsey's violations included the deliberate playing of music on top of the transmissions of other amateur operators in order to obstruct their ability to communicate on the frequency," the FCC recounted in the July 22 *Forfeiture Order*. "Mr Guernsey further used various animal noises to prevent the communications of other stations with whom he had a longstanding and well-documented dispute."

In responding to the 2014 *NAL*, Guernsey denied responsibility for the interference and sought cancellation or reduction of the fine based on inability to pay. The FCC was having none of it. The Commission said its agents "positively confirmed the source" of the interfering transmissions as Guernsey's residence and monitored them for 40 minutes.

"Considering the entire record, we find no reason to cancel, withdraw, or reduce the proposed penalty," the FCC said in the *Forfeiture Order* to Guernsey. He was given 30 days to pay the fine or arrange an installment plan. Read [more](#).

FCC PROPOSES FINING GEORGIA HAM \$1000 FOR FAILING TO IDENTIFY

The FCC has proposed fining a Georgia ham \$1000 for alleged failure to properly identify. David J. Tolassi, W4BHV, had been warned last August about not following the Commission's Part 97 ID rules. The FCC said his "deliberate disregard" of that warning warranted the proposed penalty.

"Mr Tolassi...has a history of failing to comply with the rules governing the Amateur Radio Service," the FCC said in a July 22 *Notice of Apparent Liability for Forfeiture* ([NAL](#)). As the *NAL* recounted, agents from the FCC's Atlanta Office used direction-finding techniques to track the source of a signal on 14.313 MHz to Tolassi's residence in Ringgold, Georgia.

"The agents monitored and recorded transmissions during which Mr Tolassi failed to transmit his assigned call sign," the FCC said. "The agents interviewed Mr Tolassi later that evening, and, while he admitted operating that evening, he denied making the unidentified transmissions."

Nonetheless, the FCC determined that Tolassi "apparently repeatedly violated Section 97.119(a)" of the rules. The Commission pointed out that it could have assessed a forfeiture of \$16,000 a day for a continuing violation, but it settled on a \$1000 fine. Read [more](#).

AMATEUR RADIO VANITY CALL SIGN FEE TO DISAPPEAR IN SEPTEMBER

The Amateur Radio vanity call sign regulatory fee is set to disappear in the next few weeks. According to the best-available information from FCC sources, the first day that applicants will be able to file a vanity application without having to pay a fee is Thursday, September 3. In [deciding](#) earlier this year to drop the regulatory fee for Amateur Radio vanity call signs and General Mobile Radio Service (GMRS) applications, the FCC said it was doing so to save money and personnel resources. The Commission asserted that it costs more of both to process the regulatory fees and issue refunds than the amount of the regulatory fee payment.

"Our costs have increased over time, and now that the costs exceed the amount of the regulatory fee, the increased relative administrative cost supports eliminating this regulatory fee category," the FCC said in its [Report and Order](#), which appeared on July 21 in *The Federal Register*. "Once [it's] eliminated, these licensees will no longer be financially burdened with such payments, and the Commission will no longer incur these administrative costs that exceed the fee payments."

In 2014 the FCC raised the Amateur Service vanity call sign regulatory fee from \$16.10 to its current \$21.40 for the 10-year license term. The \$5.30 increase was the largest such fee hike in many years. In a typical fiscal year, the FCC collected on the order of \$250,000 in vanity call sign regulatory fees.

The FCC said the revenue it would otherwise have collected from such regulatory fees "will be proportionally assessed on other wireless fee categories." Congress has mandated that the FCC collect nearly \$340 million in regulatory fees from all services in fiscal year 2015.

HAARP FACILITY WILL BE TRANSFERRED TO THE UNIVERSITY OF ALASKA-FAIRBANKS ON AUGUST 11

HAARP -- the High Frequency Active Auroral Research Program -- will transfer from military into academic hands next month. After a swell of support last year from the scientific community and intervention by Alaska US Sen Lisa Murkowski -- plus a lot of uncertainty before that -- the US Air Force delayed its plans to shutter the ultra-high power HAARP and demolish it. Now the University of Alaska-Fairbanks ([UAF](#)) has won a bid to assume ownership of the facility near Gakona. That will happen on August 11.

"[N]ext month the facilities and equipment will formally transfer from the military to the university," UAF spokesperson Marmian Grimes [told](#) Alaska Public Media's KSKA in Anchorage. Grimes said the agreement is not open ended, but it will allow UAF access to HAARP for 2 years, during which time, the university and the Air Force can reach an agreement regarding the transfer of land.

In January, ARRL CEO David Sumner, K1ZZ, wrote the US Secretary of Defense to urge that HAARP be maintained in its current condition while UAF attempted to acquire the facility.

"Most of our 164,000 members employ ionospheric propagation of HF radio signals for their communications and technical investigations," Sumner told then-Defense Secretary Chuck Hagel. "Ionospheric research therefore has great significance and importance to us."

As UAF's Grimes explained to KSKA, "Scientists would pay to use the facility for their research projects, and that would support operations, and is a common model for the university and research community."

Those who pushed for HAARP to remain open as a scientific research facility included several radio amateurs. UAF researcher and faculty member Chris Fallen, KL3WX, told ARRL this week that he had no information yet on the timing of the next experiment campaign or future operations, beyond what's already been reported in the news media. Fallen has conducted research at HAARP, and he was among those who had expressed concern last summer that HAARP's equipment was being carted off site for sale or disposal. He said little has been going on at HAARP since June 2014, and even with the transfer to UAF, it appears unlikely that any research would resume until the spring.

"I have not visited the facility in more than a year," he said, "but my understanding is that most, if not all, of the important equipment has been returned, while 'junk' and other antiquated equipment from initial development and construction has been permanently removed."

Fallen told ARRL that he believes HAARP has "unique relevance to hams" and could become the sort of self-sustaining facility that UAF envisions. "Sustainable long-term success of the facility will depend on UAF's ability to secure funding from multiple sources for research operations, preferably including a large 'anchor tenant,'" he said this week.

HAARP was constructed in 1990 at a cost of some \$300 million.

NEW HORIZONS PHONES HOME

NASA's [New Horizons](#) spacecraft made its historic rendezvous with Pluto this week. While there is no direct Amateur Radio involvement in the Pluto flyby, many amateurs are curious about how NASA communicates with New Horizons at a distance of nearly 3 billion miles.

At that vast distance, New Horizons' radio signal is extremely weak -- so weak that only the Deep Space Network's largest 70 meter parabolic dish antennas and receivers are capable of detecting it. New Horizons downlink transmissions take place in X-Band. The uplink frequency is 7.2 GHz and the downlink 8.44 GHz. The traveling wave tube amplifiers (TWTAs) aboard the spacecraft supply only 12 W to its 2.1-meter high-gain antenna.

There are two TWTAs aboard New Horizons. Each is connected to a separate radiating element at the antenna. One element is configured for left-hand circular polarization and the other for right-hand circular polarization. The original intent for using two TWTA was for redundancy.

As the spacecraft was on its way to Pluto, however, engineers discovered that they could use this cross-polarized configuration to transmit two signals simultaneously. At the Deep Space Network they designed a system to detect the separately polarized signals and combine them for substantially greater gain.

A stronger signal means New Horizons can transmit at a higher data rate -- about 1.9

times the rate than with a single TWTA. Unfortunately, New Horizon's nuclear-powered generator has decayed during its 10-year flight, and there is no longer enough power to run two TWTAs at the same time, unless the team shuts down another onboard system.

This is why it will take considerable time to download the treasure trove of images and other information that New Horizons carries in its memory. At present, New Horizons is transmitting data at just 1000 to 2000 bits/second. A typical image produced by [LORRI](#), the Long Range Reconnaissance Imager, is about 2.5 *Mbits*, even when compressed. At such a low transmitting data rate, it takes about 42 minutes for New Horizons to transmit a single image to Earth -- and then there is the 4.5-hour trip at the speed of light! This is why mission scientists are warning an impatient public that it will be well into 2016 before all of the data arrives at Earth.

A footnote: In 2005, NASA invited individuals to sign on to the "first mission to the last planet." Their names -- and sometimes Amateur Radio call signs -- burned onto a compact disc went into deep space on the New Horizons spacecraft. Participants, such as ARRL member Angel Santana, WP3GW, received a certificate of appreciation from NASA. He wondered how many other hams were among the more than 430,000 who took NASA up on its invitation to, "Come with us as we complete the reconnaissance of the solar system and unlock the secrets of Pluto, its moon Charon, and the Kuiper Belt."

Another footnote: Dave Hershberger, W9GR, senior scientist with Continental Electronics, told ARRL that his firm is constructing 80 kW uplink transmitters for JPL to reach the probe, which has a 12 W transmitter to cover the same distance back (JPL has had 20 kW uplink transmitters but wanted more power, Hershberger said).

For more details about the New Horizons RF communication system, see "[The RF Telecommunications System for the New Horizons Mission to Pluto](#)" from the Johns Hopkins University Applied Physics Laboratory. -- *Thanks to Steve Ford, WB8IMY; Angel Santana, WP4GW --ARRL Letter*

ARRL BOARD APPROVES HF BAND PLAN, AWARD WINNERS

Meeting July 17-18 in Windsor, Connecticut, the ARRL Board of Directors adopted amendments to the ARRL HF Band Plan -- with some tweaks; authorized the filing of a rule making petition with the FCC seeking changes on 80 and 75 meters; initiated the search for a successor to ARRL CEO David Sumner, K1ZZ, who will retire next May, and named several ARRL award recipients.

ARRL HF Band Plan -- The Board adopted amendments to the ARRL HF Band Plan that were recommended by the HF Band Planning Committee, with one major change from the proposals as outlined in the April 2015 issue of *QST* and [summarized](#) on the ARRL website. That change was to set the upper RTTY/data limit for 20 meters at 14.125 MHz, consistent with the IARU Region 1 band plan.

Rule Making Petition to FCC -- The Board authorized the preparation of a rule making petition to the FCC, seeking changes in the 80 and 75 meter bands that are consistent with majority opinion among more than 1000 responses to an online membership survey. The petition would seek to shift the boundary between the 80 meter RTTY/data subband and the 75 meter phone/image subband from 3600 to 3650 kHz. It also would restore privileges in the 3600-3650 kHz segment to Advanced, General, Technician, and Novice licensees.

In addition, the League will ask the FCC to shift the automatically controlled digital station (ACDS) band segment from 3585-3600 kHz to 3600-3615 kHz, consistent with the IARU Region 1 and Region 2 band plans, and authorize Technician and Novice licensees to use RTTY/data emissions in their 15 and 80 meter band segments, the latter change contingent on expansion of the 80 meter band.

CEO Successor Search -- Additional details are forthcoming, but the Board set into motion its search for a successor to ARRL CEO David Sumner, K1ZZ, who has set a target retirement date of May 1, 2016. By then, Sumner will be 67 and will have been on the Headquarters full-time staff for 44 years. He was named Secretary and General

Manager in 1982, with a change in title to Executive Vice President in 1985, and the additional title of Chief Executive Officer in 2001 (the title of Executive Vice President was phased out in 2011).

ARRL Award Recipients – The Board named several recipients of ARRL awards:

Anna Veal, W0ANT, is the recipient of the prestigious 2014 Hiram Percy Maxim Memorial Award for youth, in recognition of her involvement, service, and leadership throughout the Amateur Radio community.

David L. Hershberger, W9GR, was named to receive the 2014 Doug DeMaw, W1FB, Technical Excellence Award for his work in reducing audio distortion in SSB transmission, as described in his article "Controlled Envelope Single Sideband" in the November/December 2014 issue of *QEX*.

The Board recognized the principals and developers of Broadband-Hamnet™ for their contributions to microwave mesh networking with the 2014 ARRL Microwave Development Award.

Randy Thompson, K5ZD, was named the winner of the 2014 Philip J. McGan Silver Antenna Award for outstanding volunteer public relations success over many years -- and especially for achieving national media coverage of the 2014 World Radiosport Team Championship.

Dues to Rise in 2016 – The Board approved a \$10 increase in the League's annual dues rate, effective January 1, 2016. In so doing, the Board adopted a recommendation of the Administration & Finance Committee. ARRL basic dues have been held at \$39 a year since 2001. ARRL CEO David Sumner, K1ZZ, said the League has done as much as it can to hold off a dues increase for more than a decade, but now it's a necessity, not an option.

Details of ARRL's revenues and expenditures are available in its [Annual Report](#) archive for the years 2002 to 2014. The cost of a basic ARRL membership will rise to \$49 on January 1, 2016. An ARRL Life Membership, now \$975, will increase to \$1225. --ARRL Letter

SHORTS

Dayton Hamvention Reports 2015 Attendance Up Slightly Over 2014 – The official attendance at the 2015 Dayton [Hamvention®](#) was 25,621. That's an increase from the official count of 24,873 visitors last year -- or an additional 748 attendees. The 2013 attendance was 24,542. Hamvention attendance peaked in 1993 at 33,669, before the 1996 change in date from April to May. While attendance has fluctuated over the years, Dayton Hamvention has grown to international proportions, attracting members of the worldwide Amateur Radio community each spring. The sponsoring Dayton Amateur Radio Association ([DARA](#)) already has begun counting down the days to the next Hamvention, which will take place May 20-22, 2016. -- *Thanks to Henry Ruminski, W8HJR*

Speaking of Dayton – You've probably seen the guy in the flea market who always has Enigma machines on display. If you've ever wondered how they worked, here is a link to a couple of videos which explain the operation in considerable detail. Be sure and watch the second one also: https://www.youtube.com/watch?v=G2_Q9FoD-oQ

Remotely Controlled VY1AAA Puts Northern Territories on the Air for Field Day, Canada Day – If you worked VY1AAA in Yukon Territory (Northern Territories or NT Section) during Field Day 2015 or Canada Day, the operator was actually in the US. VY1AAA is a Canadian club station call sign for the station of J Allen, VY1JA, near Whitehorse, Yukon Territory. Gerry Hull, W1VE, was among those operating VY1AAA remotely from the K1B Field Day site of the Contoocook Valley Radio Club ([CVRC](#)) in New Hampshire. The operation was part of a [project](#) to provide remote control capability for VY1JA.

We are up and running with the Ten-Tec Omni VII," Hull told ARRL. "The antennas are still something in the works. He currently has two ground planes mounted on power poles. We

use the 40 meter antenna on 40, 15, and 10 and the 80 meter vertical on 20 via a high-power tuner. This gives us 80-10 meter coverage." The project is looking into additional equipment.

"We are working out kinks, but, so far, so good," Hull concluded. A [video](#) of the CVRC Field Day operation includes some VY1AAA contacts. Read [more](#).

The Far Side of the Sun – Here is an interesting Space.com [article](#) about how far side views of the Sun from the STEREO mission are disrupted, because the satellite's transmissions back to Earth are blocked by the Sun. But the *Curiosity* rover on Mars fills in.

FCC Announces Enforcement Bureau Field Office Reorganization Plans – Forced under political pressure to take a few steps back from its initial proposal to eliminate two-thirds of its Enforcement Bureau field offices, the FCC has announced its final, scaled-down plan to reorganize its field resources. In an [Order](#) released July 16, the Commission said it would close 11 of its 24 field offices and relocate three others to nearby FCC-owned sites. In slimming down its field resources and upgrading those that remain, the FCC said it was acting in the name of efficiency and economy as well as to modernize a system model adopted 2 decades ago.

Amateur Radio Satellite Pioneer's Estate Will Boost ARRL Endowment Fund – The ARRL will benefit from the largesse of the late Amateur Radio satellite pioneer Cliff Buttschardt, K7RR (ex-W6HDO), and his late wife Mable Vierthaler. The League this month received the first major installment of its portion of the couple's estate. Buttschardt also designated AMSAT to receive a similar share. Buttschardt died in 2006, and his wife in 2013. The funds will go into the ARRL Endowment Fund. ARRL Development Manager Lauren Clarke, KB1YDD, has estimated that the ultimate gift will be in the vicinity of \$280,000.

Party Balloon Carrying Ham Radio Payload Circles Southern Hemisphere a Second Time – After traveling for more than 110,800 km (68,696 mi) aloft, the record-setting pico balloon PS-46, carrying an Amateur Radio payload, completed its second circumnavigation of the Southern Hemisphere, before descending into the Indian Ocean on July 18 due to bad weather. The helium balloon and its solar-powered 25 mW payload were launched on May 23 by Andy Nguyen, VK3YT.

"It was an exciting but also an exhausting eight weeks for many hard-core trackers," Nguyen said. "Their perseverance ensured the balloon was tracked almost around the clock. It was hard work, and the little party balloon was becoming part of the daily routine for many of us."

More than 20 "regulars" were among those who tracked the high-altitude flight, monitoring the payload's 20 meter signals in *WSPR* and *JT9* modes. Stations in Virginia and Florida, as well as in Peru and Argentina were among those hearing the balloon's beacon.

The last station to hear the balloon was Vince, ZS6BTY, in Pretoria, South Africa. The balloon had been at an altitude of about 9000 meters (29,530 feet), but quickly descended into the ocean.

PS-46 had circumnavigated the Southern Hemisphere the first time in 12 days, and it was starting its third trip around when it went down. Read [more](#). -- *Thanks to Jim Linton, VK3PC*

Beyond the Visible: The Story of the Very Large Array – Narrated by actor Jodie Foster, it describes the technology and the science being done with it. At about 9:25,

there's a discussion of RFI, and comparative signal levels of the desired signals and cell phone interference. There's even some telescope climbing! (ARRL Contest Newsletter - thanks N6KI)

https://www.youtube.com/watch?v=RqX9vLj3_7w&feature=youtu.be

Here's another array of antennas for observing the universe, this time down-under, forming the "[most powerful telescope in history](#)."

FIELD DAY REPORT

We had 39 participants during the weekend. Location was BSA Camp Belzer. The team effort was a collection of Indianapolis Radio Club, The RCA ARC, The Hoosier Contester and DX Club and the W9IMS ARC.

Call Used:**W9JP** GOTA Station Call:**W9RCA** ARRL/RAC Section:**IN**
Class:**3A**

Participants:**39** Club/Group Name: **Indianapolis Radio Club**

Power Source(s): **Generator, Battery, Solar**

Power Multiplier: **2X**

Bonus Points:

Description	Points
100% Emergency power	300
Media Publicity	100
Set-up in Public Place	100
Information Booth	100
NTS message to ARRL SM/SEC	100
W1AW Field Day Message	100
Formal NTS messages handled - No.= 10	100
Natural power QSOs completed	100
Site Visit by invited served agency official	100
Youth participation	40
Youth operators= 2	
Youth participants= 2	
GOTA Bonus	0
Submitted via the Web	50
Educational activity	100
Total Bonus Points	1,290

Score Summary:

	CW	Digital	Phone	Total	
Total QSOs	1150	0	1757		
Total Points	2300	0	1757	4057	Claimed Score = 8,114

Band/Mode QSO Breakdown:

	CW		Digital		Phone	
	QSOs	Pwr(W)	QSOs	Pwr(W)	QSOs	Pwr(W)
160m						
80m	104	100			266	100
40m	670	100			776	100
20m	207	100			395	100

15m	95	100			199	100
10m	47	100			16	100
6m	27	100			70	100
2m						
1.25						
Other						
Satellite						
GOTA					35	100
Total	1150		0		1757	

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