



Legacy Amateur Radio Club

RCA AMATEUR RADIO CLUB



AFFILIATED CLUB

INDIANAPOLIS, INDIANA

MAY, 2016

MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, MAY 10th, 6:30 PM AT [G.T. SOUTH'S](#),
5711 E. 71st STREET, INDIANAPOLIS, IN

INDY HAMFEST \$6 ADVANCE TICKETS WILL BE AVAILABLE AT THE MEETING

RCA ARC NEWS

SUMMARY OF THE APRIL MEETING – Jim, K9RU, reported that the 6M beacon would be installed this coming weekend. The frequency is 50.069 MHz. The '88 repeater has been operating normally with no known problems. The plans for Field Day (June 25-26) at Camp Belzer are underway. Again, the plan for the RCA ARC at the Dayton Hamvention is the same as last year. We plan to have the Friday night dinner at the Barnsider Restaurant, the same place as last year. We will need to make reservation so members can sign up at the May meeting or by e-mail to K9RU. The Indy Radio Club sponsored bus will run on Saturday, May 21. The Indiana QSO Party is on May 7th, same day as the Mini Marathon. Dick, W9ZB, reported on the recent ARRL sponsored Frequency Measuring Test. The remainder of the meeting developed into a discussion concerning the TV frequency auction and the new ATSC 3 standard. It was pointed out that 2016 is the 60th anniversary of the RCA ARC founded in 1956.

NEXT RCA / IRC AMATEUR RADIO LICENSE TEST SESSION

Time: Saturday, June 11 Exams start at noon. Walk ins allowed.

Location: Salvation Army EDS Training Facility
4020 Georgetown Rd.
Indianapolis IN 46254-2407

Contact: Rhonda S. Curtis, (317) 363-7457, e-mail: ws9h@arrl.net

RCA ARC PLANS FOR THE DAYTON HAMVENTION -- Here are the plans for this year at the Hamvention... We will use 144.430 MHz simplex. Meet as usual in the northwest corner of the arena with the permanent seats at noon on Friday and again Saturday. Grab something to eat for lunch and join us there. We plan to meet for dinner after the hamfest Friday evening about 5:00 PM. Same restaurant as last year. The **Barnsider Restaurant**, 5202 North Main St. (Rte 48) in Dayton (937 277-1332). <http://barnsider-restaurant.com/home.htm> Directions: If you are leaving the Arena and heading east on Shilo Springs Rd., turn right on Main St. (south) about ½ mile. The restaurant will be on your left. If you exit the parking areas and go south on Wolf Rd. and then east on Turner, turn left at Main St. (north) the restaurant is about two blocks on your right. ***If you're planning to attend, please RSVP to k9ru.indy@gmail.com by Wednesday, May 18.***

THE W9RCA 6 METER BEACON ON THE AIR – The W9RCA/B beacon is on the air on 50.069 MHz. The antenna is a dipole, east/west pattern at 100 feet and the power is 14 watts. We have received a number of signal reports from stations receiving it around the Midwest.

This beacon replaced the W9VW beacon operated by Mike Koss, W9SU. – K9RU

DAYTON HAMVENTION BUS --The Indianapolis Club has chartered a bus to the Dayton Hamvention again this year. The day trip to Dayton will be on Saturday, May 21. The bus will have two pick up points: 6:30 AM at Southern Plaza, and pick up around 7:00 AM at Peddler's Mall on the east side. It will leave from Dayton around 4:00 pm.

As in the past, there will be a short stop at McDonald's in Richmond on the way to Dayton for breakfast, and a dinner stop at MCL in Richmond on the way back. The cost for the round trip is \$30 per person (same as last year), and does not include admission to the Hamvention or either of the meals mentioned above.

The bus will drop off at the front door of Hara Arena, and be parked in close proximity of the facility so items can be stored on the bus for your convenience.

Tickets for the bus trip will be available at the IRC meetings, or by contacting club treasurer Rhonda Curtis, WS9H, Phone: (317) 363-7457 Email: ws9h@arri.net

You don't need to be a IRC member and it's a great way to go to the Dayton Hamvention.

Tickets for admission to the Hamvention are available on their website: <http://hamvention.org/purchase-tickets/>

DXER, DXPEDITIONER MIKE GOODE, N9NS, SK: Well-known DXer and DXpeditioner Michael C. "Mike" Goode, N9NS (ex-WN9RJI), of Carmel, Indiana, died on April 11. An ARRL Life Member, he was 68 and had been undergoing post-surgical treatment for cancer. Goode had retired in 2015 as transmitter supervisor from WFYI Public Media in Indianapolis after 40 years of service. Licensed in 1966, DXing and DXpeditions were his primary Amateur Radio interests. He attended Indiana University, majoring in geology and engineering. As a geologist and mineralogist, he attended many gem shows across the country. He also enjoyed hunting gems, rocks, and minerals and had visited volcano eruption sites to collect geological samples. His DXpedition travels included stops as N9NS/KH5K, E30GA, T31A, T33A, FO0CI, and FO0AAA (Clipperton), 3A/N9NS, KH8Q, VP2MNS, K7K (Kure), and W1AW/KH8, to name a few. He served as secretary/treasurer of the Hoosier DX and Contest Club and was a member of the South West Ohio DX Association. Goode had 336/356 confirmed in the ARRL DXCC Mixed standings. He also was a DXCC card checker. A service is set for April 16. -- *Thanks to Brian Smith, W9IND, and [The Daily DX](#)*

BICENTENNIAL INDIANA QSO PARTY IS SATURDAY, MAY 7th, 11AM TO 11PM EDT – The Indiana QSO party is a 12 hour operating event with the objective of activating all 92 Indiana counties and getting as many Indiana hams on the air as possible during the QSO Party on the 160, 80, 40, 20, 15, and 10 meter amateur bands, CW and Phone.

The goal for hams operating from Indiana is to work all 92 counties and as many hams in Indiana and worldwide as possible on the 160, 80, 40, 20, 15, and 10 meter amateur bands.

As part of the Indiana Bicentennial Celebration the HDXCC will offer a special certificate for working the following 15 counties: Clark, Dearborn, Franklin, Gibson, Harrison, Jackson, Knox, Orange, Perry, Posey, Switzerland, Warrick, Washington and Wayne, representing the 15 counties that made up Indiana on December 11, 1816 when Indiana was admitted to the union. See rules for detail on receiving the certificate.

A certificate will be awarded for any station activating one or more of the 15 Bicentennial Counties and submitting an entry. This applies to fixed, portable, rover and mobile stations making 25 QSO minimum is an aggregate from one or more of the 15 qualifying counties.

INQP allows a number of operating categories including: QRP, low and high power single operator, all-out club efforts, multi-operator high power and



Indiana Bicentennial County Award

The Hoosier DX and Contest Club Confirms
In the Indiana Bicentennial Year of 2016
Amateur Radio Operator

conducted two-way communications with amateur radio stations located in the 15 current Indiana counties of Clark, Dearborn, Franklin, Gibson, Harrison, Jackson, Jefferson, Knox, Orange, Perry, Posey, Switzerland, Warrick, Washington and Wayne. These counties with altered borders comprised the counties in the State of Indiana on December 11, 1816 - the date Indiana was admitted as the 19th state of the United States of America.

HDXCC Awards Manager

multi-multi (multi operator and multi transmitters) operation. Also included are mobile units and rovers moving from county to county and portable setups similar to Field Day. Plaques are awarded for best in Indiana, out of state efforts, and best individual county efforts!

The Indiana exchange is RS(T) plus the county, for all others States it is RS(T) plus state, for Canada RS(T) plus province or territory and all others it is RS(T) plus DX.

The INQP Club Competition offers Indiana Amateur Radio Clubs a great opportunity as a club operating event. This could be a membership operating activity, a club multi-operation or a portable operation from a rare county or straddling a county line.

The club's aggregate score is the total score of the club members submitting contact-logs. At the end of the QSO party club members will submit their contact-logs electronically listing their club affiliation.

The club must be a legitimate Indiana Club. At least three members must participate, either as three individual single operator entries or a multi-operation entry listing three members or a combination of these entries. All contacts made by club members submitting logs, must be made from a station located in Indiana during the INQP.

Digital logs are preferred for INQP entry submissions. Handwritten logs are accepted, but they have to be manually entered, so please use logging software if at all possible. The Cabrillo log format is preferred for log submission.

Top Club Competition Plaque will be awarded to the club with highest aggregate score and awards certificates for second and third place. We would like to encourage all Indiana clubs to consider putting together a club effort and get their members on the air for the INQP.

There are four big QSO Parties are this weekend, representing sixteen states located in [New England](#), the [seventh call area](#), [Delaware](#), or [Indiana](#). So, during the INQP many other stations seek contacts from Indiana to fill their logs. The more Indiana stations on the air that day, the more action for everyone! The N1MM logging program can handle the multiple QSO parties and sort them out at the end.

N1MM Logger+ has [a whole section on QSO Party](#) operation. N3FJP provides [different logging programs for different QSO Parties](#).

Typically 80, 40 and 20 meters are the most common bands used during the INQP, with 40 meters being the best band to work Indiana stations. Check 80/75 meters after dark for activity.

See INQP WEB site for details: <http://www.hdxcc.org/inqp/>

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

May 7	MiniMarathon www.IndyHams.org
May 7	Indiana QSO Party
May 20-22	Dayton Hamvention http://hamvention.org
June 25-26	ARRL Field Day
July 8-9	Indianapolis Hamfest http://www.indyhamfest.com
Opportunities for public service: http://indyhams.org/events	

FCC INVITES COMMENTS ON PETITION TO ELIMINATE 15 DB GAIN LIMIT ON AMATEUR AMPLIFIERS

The FCC has put on public notice and invited comments on a *Petition for Rule Making (RM-11767)*, filed on behalf of an amateur amplifier distributor, which seeks to revise the Amateur Service rules regarding maximum permissible amplifier gain. [Expert Linears America LLC](#) of Magnolia, Texas, which distributes linears manufactured by SPE in Italy, wants the FCC to eliminate the 15 dB gain limitation on amateur amplifiers that's spelled out in §97.317(a)(2). Expert asserts that there should be no gain limitation at all on amplifiers sold or used in the Amateur Service.

"There is no technical or regulatory reason [that] an amplifier capable of being driven to full legal output by even a fraction of a watt should not be available to Amateur Radio operators in the United States," Expert said in its *Petition*.

Expert maintains that the 15 dB gain limitation is an unneeded holdover from the days when amplifiers were less efficient and the FCC was attempting to rein in the use of Amateur Service amplifiers by Citizens Band operators. While the FCC proposed in its 2004 *Notice of Proposed Rulemaking and Order* in WT Docket 04-140 to delete the requirement that amplifiers be designed to use a *minimum* of 50 W of drive power and did so, it did not further discuss the 15 dB amplification limit in the subsequent [Report and Order](#) in the docket.

"Although no party advocated retention of the 15 dB limit, it remains in place today," Expert pointed out in its filing. "In the intervening years, advancements in Amateur Radio transmitter technology have led to the availability of highly compact, sophisticated, low-power transmitters that require more than 15 dB of amplification to achieve maximum legal power output. Therefore, Expert seeks to remove the 15 dB limit from §97.317 so that Amateur Radio manufacturers and distributors will not be forced to needlessly cripple their amplifiers for sale in the United States." Read [more](#). --ARRL Letter

ARMED FORCES DAY CROSS-BAND COMMUNICATIONS TEST SET FOR MAY 14

The Armed Forces Day Military/Amateur Radio Cross-Band Communications Test, sponsored by the US Army, Air Force, Navy and Coast Guard, will take place on Saturday, May 14. The event gets under way at 1200 UTC, with activity continuing throughout the day. Some military stations may not operate for the entire period.

"New for Armed Forces Day this year, military stations and Amateur Radio operators are authorized to directly communicate on the 60 meter interoperability channels," US Army MARS Program Manager Paul English, WD8DBY, pointed out.

This year marks the 66th Armed Forces Day ([AFD](#)), observed on May 21. The Military/Amateur Radio Cross-Band Communications Test is held earlier, in order to avoid conflicting with Dayton [Hamvention](#)®.

The annual exercise is an opportunity to test two-way communication between amateur and military communicators. It features traditional military-to-amateur cross-band SSB and CW communication and offers an opportunity for radio amateurs to utilize modern military communication modes such as MIL-STD serial PSK and automatic link establishment (ALE). These tests challenge Amateur Radio operators and shortwave listeners (SWLs) to demonstrate individual technical skills and to receive recognition from military radio stations. The [complete announcement](#) -- subject to change -- is available on the US Army MARS website.

Participating military stations will transmit on selected military frequencies and listen for Amateur Radio stations on selected amateur frequencies, which the military station operator will announce. Read [more](#). --ARRL Letter

ARRL VHF CONTEST REVITALIZATION COMMITTEE CALLS FOR COMMENTS ON PROPOSED UHF AND UP EVENT

The ARRL VHF Contest Revitalization (VCR) Committee has drafted rules for a [proposed new UHF and Up Contest](#) and now is seeking input from the contesting community. The invitation follows the Committee's review of "considerable input from the amateur community."

"In proposing the new rules, the Committee sought to respond to some of the most frequently received comments and to provide a 'test bed' for changes that might be considered for other non-HF contests in the future," ARRL Central Division Vice Director and VCR Chair Kermit Carlson, W9XA, explained. "At this time, everything is a proposal -- open for comment, and definitely in flux."

Carlson said several common themes stood out among the comments and suggestions the Committee has already received. These included:

- Use distance-based scoring rather than a geographic multiplier system.
- The August timing is too close to other VHF+ contests, and/or it's too hot for roving.
- More incentive is needed to invest time and effort in making higher-band contacts.
- Existing rover rules are too complicated and too restrictive.
- Current VHF+ contests have too many entry categories.
- Scoring potential varies widely from one geographic region to another.

The draft contest proposal uses distance scoring, with point multipliers for contacts made on higher bands. To encourage roving, it simplifies rover rules to include those who do not travel great distances, and mobile stations. It includes just three entry categories and features regional, rather than national, competition. It adds team competition for small groups of operators who may not be part of a contest club.

The event would be held in the spring, between the January and June VHF contests.

Nothing is final yet -- not even the name of the contest, Carlson stressed. The Committee would like to hear from veteran and prospective VHF+ contest participants before it moves ahead with any additional changes. [Submit](#) comments by e-mail by June 15.

The Committee also encourages more local outreach -- articles, announcements, seminars, and mentoring -- to draw new participants into this and all radiosporting activities. Expanding the pool of potential contacts will make these contests more enjoyable for everyone, and Carlson said he hopes that commenters will share their outreach ideas with the Committee too.

ARRL, ARISS REPRESENTATIVES ATTEND 2016 USA SCIENCE AND ENGINEERING FESTIVAL IN DC

The ARRL and Amateur Radio were well represented April 15-17 at the 4th Biennial 2016 [USA Science and Engineering Festival](#) in Washington, DC. Scientists, engineers, educators, and students attended the premier science, technology, engineering, and mathematics (STEM) event, where major academic learning centers and research institutes joined forces with corporate partners and government agencies to bring the excitement of leading-edge learning, fun, and discovery to communities.

"Amateur Radio volunteers from the ARRL [Maryland-DC Section](#) assisting at the ARRL booth -- graciously funded by Lee Ciereszko, N4TCW -- were joined by ARRL Headquarters staff, and Atlantic Division leadership," said Maryland-DC (MDC) Section Manager Marty Pittinger, KB3MXM. "We had the pleasure of meeting numerous visiting hams from across the country and around the world. It was a privilege to share in this opportunity to network with many educators, corporate executives, military, and local civic groups -- and to share with them the multifaceted role that ARRL plays in STEM."

Pittinger said the spacious DC Convention Center was completely filled with STEM-related organizations from across the US, many offering hands-on demonstrations. Estimates put the number of visitors at more than 365,000, and the ARRL MDC Section booth staff greeted approximately 4000 eager and enthusiastic visitors during the 3-day event, Pittinger said. "We demonstrated Lenz's Law with copper-pipe and neodymium magnets; MESH networks; Morse code, and emergency communications," he recounted. "We also offered information about the [ARRL Teachers Institute on Wireless Technology](#), part of the educational STEM outreach by the ARRL to schools through its Education & Technology Program ([ETP](#))." ARRL Education Services Manager Debra Johnson, K1DMJ, was on hand to talk about the Teachers Institute and answer questions.

Elsewhere at the Festival, Amateur Radio was also represented at the Amateur Radio on the International Space Station ([ARISS](#)) exhibit, located in the Center for the Advancement of Science in Space's "Space Station Explorers" display, part of NASA's presence. ARISS team members, including Johnson, and Rosalie White, K1STO, of ARRL; ARISS International Chair

Frank Bauer, KA3HDO, and AMSAT's ARISS representative Dave Taylor, W8AAS, were on hand to tell the ARISS story. They also served as hosts for a Saturday afternoon ARISS contact with ISS crew member Tim Peake, KG5BVI, and members of the Boys and Girls Clubs of Greater Washington, DC. Read [more](#). -- *Thanks to MDC SM Marty Pittinger, KB3MXM*

FIRST-EVER D-STAR SATELLITE TO LAUNCH

The first-ever satellite to carry a D-STAR (Digital Smart Technologies for Amateur Radio) Amateur Radio payload into space is expected to launch on April 22 from Guiana. The [OUFTI-1](#) (Orbital Utility For Telecommunication Innovations) CubeSat is one of three CubeSats developed by student teams under the European Space Agency ([ESA](#)) Education Office "[Fly Your Satellite!](#)" program, which is aimed at training the next generation of aerospace professionals. The satellites arrived in South America on March 25, followed by the student teams a few days later.

On March 30 the students pulled the "Remove Before Flight" pins and successfully verified that their CubeSats were ready for launch before replacing the access ports on the P-POD, which will secure the CubeSats prior to and during launch and then will release them into orbit. The next time the students will have contact with their respective CubeSats will be through their spacecraft's communication link, after the CubeSats have been deployed into orbit. Once thermal-optical tape has been applied to the P-POD to shield the CubeSats from extreme thermal radiation during the launch phase, the P-POD will be integrated with the *Soyuz* launch vehicle.

Constructed by students at the University of Liege in Belgium (ULg), OUFTI-1 will be the first satellite to carry an Amateur Radio D-STAR transponder. Developed by the Japan Amateur Radio League, D-STAR enables the simultaneous transmission of voice and digital data as well as call sign-based roaming via the Internet.

"The OUFTI-1 D-STAR repeater will be available either as a direct communication repeater between two users, and as an extension of the ULg D-STAR repeater," explains the [article](#) "D-STAR digital amateur communications in space with OUFTI-1 CubeSat" by Jonathan Pisane, ON7JPD; Amandine Denis, ON4EYA, and Jacques Verly, ON9CWD, all of ULg. The CubeSat's frequencies are 145.950 MHz (FSK AX.25), and D-STAR down, with an uplink at 435.045 MHz. OUFTI-1 will carry a CW beacon transmitting on 145.980 MHz.

The other two CubeSats are from Italy and Denmark. The CubeSat e-st@r-II from the Polytechnic University of Turin, Italy, will demonstrate an attitude control system using measurements of Earth's magnetic field. It will transmit CW and 1.2 k AFSK on 437.485 MHz. AAUSAT4 from the University of Aalborg, Denmark, will operate an automated ocean vessel identification system. It will transmit on 437.425 MHz. --ARRL Letter

SHORTS

Amateur Radio Pleased Following Participation in Washington Interoperability Exercise – Amateur Radio came in for high praise following its role in a March 30 to April 3 Washington National Guard interoperability communication exercise, sponsored by the US Northern Command. The so-called "Vital Connection-Cascadia 2016" exercise was aimed at improving interoperability among Department of Defense entities, federal, state, and local first responders, and Amateur Radio operators. Interoperability was tested on 5 MHz frequencies. The spring drill was a run-up to June's "Cascadia Rising/Vigilant Guard/Ardent Sentry" exercise. It included voice and data radio and satellite communication plus video integration from airborne assets.

"The largest success of this exercise by far was the use of the 60 meter HF interoperability bands to successfully pass voice and data traffic between military and civilian entities," the *After Action Report* said. "There was great integration among military units from Washington and other states, Army and Air Force MARS, Washington State Guard, state and county EOCs, and the ARES and RACES Amateur Radio communities." --ARRL Letter

Three ESA "Fly Your Satellite!" Program CubeSats Now in Orbit and Transmitting: Three student-built CubeSats -- including the first to carry a D-STAR (Digital Smart Technologies for Amateur Radio) Amateur Radio payload into space -- now are successfully in orbit following an April 25 launch from Guiana. Signals from all three have been received on Earth. [OUFTI-1](#) (Orbital Utility For Telecommunication Innovations), constructed by students at the University of Liege in Belgium (ULg), carries the D-STAR payload. The other two CubeSats -- [e-st@r-II](#) and [AAUSAT4](#) -- are from Italy and Denmark, respectively. The three CubeSats were developed by student teams under the European Space Agency (ESA) Education Office "[Fly Your Satellite!](#)" program, which is aimed at training the next generation of aerospace professionals. The first three radio amateurs to send a recorded signal from OUFTI-1, AAUSAT4, or e-st@r-II will receive a prize from ESA's Education Office. Visit the ESA website for [details](#). --ARRL Letter

TAPR Dayton Hamvention Digital Forum to Include SatNOGS, HamWAN, SDR Talks: [TAPR](#) has announced the presentations for its Dayton [Hamvention](#)® Digital Forum, moderated by Scotty Cowling, WA2DFI, on Friday, May 20, at 9:15 AM. Among the presentations will be "SatNOGS -- a network of open source satellite ground stations," by Corey Shields, KB9JHU. The SatNOGS Project focuses on Low Earth Orbit (LEO) satellites. Shields will introduce SatNOGS as a way to increase the amount of CubeSat data that are collected and reported. Bryan Fields, W9CR, will present "HamWAN High-Speed IP Radio Network," an Amateur Radio high-speed IP backbone concept that uses the same techniques enabling the Internet. "SDR Disrupt" will be the topic of Chris Testa, KD2BMH, who will review the landscape and advancements in SDR technologies over the past year. Latest developments in digital voice will also be discussed. "Spectrum Monitoring with Software Defined Radio," by Mike Ossmann, AD0NR, will follow. [More information](#) about TAPR activities at Dayton is on the TAPR website. --ARRL Letter

Collegiate Ham Radio Dinner Set for Dayton Hamvention Weekend: The Collegiate Ham Radio Dinner will be held on Friday, May 20, the first day of Dayton [Hamvention](#)®, at Little York Tavern and Pizza, 4120 Little York Road, Vandalia, Ohio. It gets under way at 6:30 PM. Magda Moses, KM4EGE, is organizing the event on behalf of the Virginia Tech Amateur Radio Association ([VTARA](#)). The Collegiate Ham Radio Dinner is a get-together of current and past collegiate ham radio operators, and anyone who shares an interest in college ham radio clubs and activities. High school students exploring college choices are encouraged to attend. For more information, contact [Moses](#), (571) 355-8582. RSVPs, either by [e-mail](#) or at our Facebook [event page](#), are appreciated, but not required. --ARRL Letter

Brazil Eases Authorization for Radio Amateurs Attending the 2016 Summer Olympics: IARU Region 2 News Editor Joaquín Solana, XE1R, reports that radio amateurs hoping to operate in Brazil during the [2016 Olympic Games](#) in Rio this summer are in luck and will be able to be on air without bureaucracy. During August and September any foreign radio amateur will be able to operate in Brazil, whether or not a reciprocal agreement between the respective countries exists. No IARP or CEPT license is necessary, and there are no fees. The Brazilian Amateur Radio League [LABRE](#) has obtained permission from Brazilian telecommunications regulator ANATEL to handle authorizations. Amateurs who want to operate in Brazil should send LABRE these documents: Copy of a valid passport (identification pages); copy of Amateur Radio license; list of cities in which the radio amateur plans to operate and the respective dates, and an e-mail address. [Send](#) scanned documents to LABRE via e-mail.

New AO-85 Distance Record Claimed: A new distance record of 5751 kilometers (3565.6 miles) has been claimed for an [AO-85](#) (Fox-1A) satellite contact. Bertrand Demarcq, FG8OJ, in Saint-Francois, Guadeloupe (FK96ig) worked Jose Elias Diaz Rodriguez, EB1FVQ, in Vigo,

Spain (IN52pe) at 19:15 UTC on April 14, 2016. A [recording](#) of the contact is available. AMSAT posts [records](#) on its AMSAT Satellite Distance Records page. [Send](#) new claims to Paul Stoetzer, N8HM. The AO-85 CubeSat was launched last October. It carries a U/V FM transponder. -- *Thanks to AMSAT News Service via Paul Stoetzer, N8HM*

N3FJP has released a new version of his AC Log program. In addition, all of his contest logging programs have been released with improvements including API support. See the [N3FJP website](#) for more details.

Many amateur radio projects are incorporating Arduino-compatible computing elements, and these gems are available in many different variations and sizes. A new [AA-battery sized Arduino board](#) has just been developed. This could be a nice way to add additional functionality into an existing piece of equipment.

THANKS FOR READING!

THE RCA ARC MONTHLY NEWSLETTER IS COMPILED AND EDITED BY JIM RINEHART, AND JIM KEETH. 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/>