

# RCA AMATEUR RADIO CLUB

FEBRUARY, 2007    MONTHLY NEWSLETTER    INDIANAPOLIS, IN

THE NEXT MEETING OF THE **RCA AMATEUR RADIO CLUB** WILL BE  
TUESDAY, FEBRUARY 6th, AT 6:30 PM AT DOOKZ SPORTS GRILL,  
3800 E. 96<sup>th</sup> STREET, INDIANAPOLIS, IN

## RCA ARC NEWS

**SUMMARY OF THE JANUARY MEETING** – At the January meeting those who had ordered shirts picked them up. The repeater and Echolink were discussed. Bud, W9EEJ, has indicated he is ready to do the installation. The cable is in and ready. The router in Mike Koss' comm. center needs to be configured to pass Echolink. This will be done by Trevor, K9YM or Dave, N9KT both of whom are familiar with routers and networks. The Club has two FM transceivers which were in the Club station at Thomson. One 2 M and one 70 cm. There was a discussion on whether or not we should sell these radios.



**RCA ARC SHIRTS FOR SALE!** We have several of the RCA ARC shirts in L and XLT (extra large-tall) sizes. The shirt color is tan. Your first shirt is \$15. Additional shirts are \$20 each. Contact Jim Keeth at [af9a@arrl.net](mailto:af9a@arrl.net).

**ECHO LINK OPERATIONAL ON THE W9RCA 146.28/88 REPEATER** -- W9EEJ had been operating an Echo Link node on the W9RCA repeater up until last spring when a lighting strike took out most of his station.

To compound the problem we were asked to relocate the club station and repeater from Thomson to another location.

It took longer than we expected with several months for the move and getting the repeater operational, then installing CAT5e cable between the buildings, plus Bud's work putting

together and testing of the computer for Echo Link, but now we have it back on the air.

Bud wanted us to wait for the cold weather as he knew it would not work if we did it while it was unseasonably warm. Once the temperature got down to 10 degrees, Bud W9EEJ made the decision that it was the time to install the computer at the repeater site.

All joking aside, this has been a big effort to get EchoLink operational again on the repeater. We are still working through bugs and running on a borrowed computer. W9KVK has arranged for a replacement computer and that should be installed once the software is installed and checked out.

I would like to thank all those who have helped: W9EEJ, AF9A, N9KT, W9KVK, N9KZJ and W9SU.

The Node is: 326486 and it is listed as "W9RCA-R". – K9RU

**GEEK HUMOR** – You may want to check this out but it may hit too close to home. A 2.4 meg file. <http://support.flex-radio.com/Downloads.aspx?fn=TheKnack.mpg>

## HAMFESTS; EVENTS

24 Feb	"Cabin Fever Hamfest" LaPorte, IN
10 Mar	Wabash Valley, Terre Haute, IN
15 Apr	Peru, IN
18-20 May	Dayton Hamvention
14 July	Indy Hamfest

## IT'S OFFICIAL! MORSE CODE REQUIREMENT ENDS FRIDAY, FEBRUARY 23

Circle Friday, February 23, on your calendar. That's when the current 5 WPM Morse code requirement will officially disappear from the Amateur Radio Amateur Extra class Amateur Radio license no longer will have to demonstrate proficiency in Morse code. They'll just have to pass the applicable written examination. Federal Register publication January 24 of the FCC's Report and Order (R&O) in the "Morse code proceeding," WT Docket 05-235, started a 30-day countdown for the new rules to become effective.

"The overall effect of this action is to further the public interest by encouraging individuals who are interested in communications technology or who are able to contribute to the advancement of the radio art, to become Amateur Radio operators; and eliminating a requirement that is now unnecessary and may discourage Amateur Service licensees from advancing their skills in the communications and technical phases of Amateur Radio," the FCC remarked in the Federal Register version of the "Morse code" R&O. The League had asked the FCC to retain the 5 WPM for Amateur Extra class applicants, but the Commission held to its decision to eliminate the requirement across the board. The rules that appeared in the Federal Register constitute their official version <http://a257.g.akamaitech.net/7/257/2422/01jan20071800/edocket.access.gpo.gov/2007/pdf/E7-729.pdf>.

The new rules also mean that starting February 23 all Technician licensees, whether or not they've passed a Morse code examination, will have CW privileges on 80, 40 and 15 meters and CW, RTTY, data and SSB privileges on 10 meters. Once the new rules go into effect Technicians may begin using their new privileges without any further action.

An applicant holding a valid Certificate of Successful Completion of Examination (CSCE) for Element 3 (General) or Element 4 (Amateur Extra) credit may redeem it for an upgrade at a Volunteer Examiner Coordinator (VEC) exam session. A CSCE is good for 365 days from the date of issuance, no exceptions.

For example, a Technician licensee holding a valid CSCE for Element 3 credit would have to apply at a VEC test session and pay the application fee, which most VECs charge, in order to receive an instant upgrade to General.

ARRL Regulatory Information Specialist Dan Henderson, N1ND, cautions that a license upgrade is *\*not\** automatic for those holding valid CSCEs for element credit. "You must apply for the upgrade at a VEC test session, and you may not operate as /AG or /AE until you have upgraded and have been issued a CSCE marked for upgrade," he stresses. "A valid CSCE for element credit only does not confer any operating privileges."

Henderson also advises all radio amateurs to know and fully understand their operating privileges before taking to the airwaves. Some Technician licensees reportedly started showing up on 75 meters December 15 in the mistaken belief that they had gained phone privileges there.

The FCC R&O includes an Order on Reconsideration in WT Docket 04-140 -- the so-called "omnibus" proceeding. It will modify Part 97 in response to ARRL's request to accommodate automatically controlled narrowband digital stations on 80 meters in the wake of other rule changes that became effective last December 15. The Commission designated 3585 to 3600 kHz for such operations, although that segment will remain available for CW, RTTY and data. The ARRL had requested that the upper limit of the CW/RTTY/data subband be set at 3635 kHz so there would be no change in the existing 3620 to 3635 kHz subband.

The ARRL has posted all relevant information on these important Part 97 rule revisions on its "FCC's Morse Code Report and Order WT Docket 05-235" Web page <http://www.arrl.org/fcc/morse/>. --ARRL Letter

## **NEW VANITY CALL SIGN PROCESSING HIATUS CONTINUES**

The hold on processing new Amateur Radio vanity call sign applications remained in effect at week's end, although FCC Wireless Telecommunications Bureau staff members have indicated informally that it would end very soon. The Commission stopped processing new vanity call sign applications while it modifies the software that handles vanity applications. The suspension, which does not affect vanity call sign renewals, resulted from a new Amateur Radio Service rule that went into effect December 15 to discourage the filing of multiple applications by one individual for the same call sign on the same receipt day.

"The Commission continues to accept vanity call sign applications," a brief announcement on the FCC's Universal Licensing System (ULS) Web page says. "However, these applications will not be processed until software changes in accordance with the recent rule making have been fully implemented."

The FCC granted the last Amateur Radio vanity call signs on January 4 for applications received December 15. The current suspension affects new vanity call sign applications submitted on December 18 or later. Once processing of new vanity applications resumes, the FCC says, it will process all applications in the queue in the order in which they were received. Typically, it takes 18 days from the time the FCC receives a vanity application until the call sign is issued -- or the application is denied.

The FCC's "omnibus" Report and Order (R&O) in WT Docket 04-140 stipulates that if the FCC receives more than one application requesting a vanity call sign from a single

applicant on the same receipt day, it will process only the first application entered into the ULS. The FCC will dismiss any subsequent vanity call sign applications from the same applicant on the same receipt date. The FCC put new vanity call sign processing on hold after an applicant unwittingly submitted 30 applications for the same call sign three days after the new rule became effective.

The current vanity call sign fee, payable for new applications as well as renewals, is \$20.80 for the 10-year license term. --ARRL Letter

## **FCC PRESSES TWO UTILITIES TO RESOLVE POWER LINE NOISE COMPLAINTS**

The FCC has asked utilities in Oklahoma and Illinois to try harder to resolve longstanding power line noise complaints from Amateur Radio licensees. Special Counsel in the FCC Spectrum Enforcement Division Riley Hollingsworth recently contacted Oklahoma Gas & Electric (OG&E) Company and Exelon Corporation (ComEd) in Chicago to follow up on the unrelated cases.

"In your response on behalf of Oklahoma Gas and Electric, dated January 30, 2006, you indicated that you were responding to [the radio amateur's] complaints," Hollingsworth wrote Oklahoma Gas and Electric's Senior Attorney Patrick D. Shore. "However, [the complainant] states that the power line hardware noise continues."

Hollingsworth customarily does not identify RFI complainants in public correspondence, but the Oklahoma radio amateur involved -- ARRL Member Hal Dietz, W5GHZ, of Bethany -- agreed to let the League make his name public. Dietz has sought the ARRL's assistance in resolving the problem. The League has been working with the FCC for several years to address power line noise complaints from Amateur Radio licensees.

Dietz says the power line noise he's experiencing on occasion has approached 20 dB over S9 on some bands, but it's typically between S5 to S9. "I experience line noise interference on frequencies as high as 444.100 MHz -- a local repeater that I monitor -- and on all TV channels through 14," he reports. "The interference is not present on all bands at all times, but it is present on one or more bands all of the time, except when it's raining."

An OG&E representative visited Dietz but was unable to pin down the interference source. "I have also offered to go with them when they are trying to locate the interference, but they have declined my help," Dietz added.

On December 8, Hollingsworth wrote John W. Rowe, chairman and CEO of Exelon Corporation, the parent company of utility ComEd.

"We have reviewed your letter dated July 10, 2006, in which you state that you have not been able to locate the source of radio interference because the noise as reported by [the complainant] is intermittent. [The complainant] disputes that claim, however, stating that the noise is constant and that the only time that it is not present is during a heavy rain."

The Amateur Radio licensee experiencing the interference has told the ARRL that the noise from ComEd's equipment is nearly always present and 60 dB over S9 on 160 meters, wet weather excepted. Adding to the mix, the ham recounted last fall, is new noise from a neighbor's Part 15 electronic device. ARRL Electromagnetic Compatibility Engineer Mike Gruber, W1MG, says the complainant for several months has been reporting persistent noise from 160 to 6 meters from ComEd's system and can even hear it on his car's broadcast radio.

Hollingsworth advised both utilities to review the radio amateurs' complaints and advise his office regarding steps being taken to locate and remediate the RFI. --ARRL Letter

## **ANTIQUE WIRELESS TECHNOLOGY SPINS FOR FESSENDEN TRANSMISSION CENTENNIAL**

A Christmas Eve CW transmission from the SAQ Alexanderson alternator site in Grimeton, Sweden, drew a raft of reports, 166 in all, most from Europe. SAQ's 200 kW signal on 17.2 kHz was barely readable in North America, however. The holiday transmission from the historic site on Sweden's west coast marked the 100th anniversary of Reginald Fessenden's landmark voice broadcast from Brant Rock, Massachusetts, on Christmas Eve 1906.

"The conditions this time were not the best," Lars Kålland, SM6NM, said of the December 24, 2006, transmission. "It was much better in the last winter transmission, 19th Feb 2006. The transmission was received in the USA, but very weak."

Six listeners in the US were able to copy all or part of SAQ's transmission, including Jay Rusgrove, W1VD, in Connecticut, who gave SAQ a 349 to 449 report. Alan Douglas on Cape Cod reported a weak signal, while Bill Ashlock in Andover, Massachusetts, said he had "fairly good copy" of SAQ's very-low-frequency signal. Far better reports showed up from various points in Europe. Lubomir Bobalik, OK2BVG, reported that SAQ was 15 dB over S9 in the Czech Republic.

Swedish-American engineer Ernst Alexanderson developed the radio transmitter that bears his name while working for RCA. The device is essentially a large high-frequency alternator (ie, an ac "generator") with a high-speed rotor connected directly to an antenna system. A similar station once operated on Long Island, New York. The circuit was used to transmit telegrams and messages between Europe and the US. Such systems were in use through World War II to provide international telecommunication.

The SAQ site houses the last working Alexanderson alternator and is home to Amateur Radio station SK6SAQ.

Kålland said SAQ would announce its next scheduled transmission. SAQ is a member of the Swedish Amateur Association (SSA), and listeners may QSL via the bureau. --ARRL Letter

## **BILL SEEKS BPL INTERFERENCE STUDY, REPORT TO CONGRESS**

US Rep Mike Ross, WD5DVR (D-AR), has introduced a bill in the 110th Congress calling on the FCC to study the interference potential of broadband over power line (BPL) technology and report its findings back to Congress. One of two radio amateurs in the House, Ross submitted the "Emergency Amateur Radio Interference Protection Act of 2007" (HR 462) on January 12. The bill's official text became available this week.

The bill calls for the FCC to conduct "a comprehensive BPL service study leading to improved rules to prevent interference." If the measure is adopted by both houses of

Congress and signed by the president, the FCC would have to undertake a study of BPL's interference potential within 90 days of enactment and report to the House Committee on Energy and Commerce and the Senate Committee on Commerce, Science, and Transportation.

In 2005, Ross introduced a non-binding House resolution, HRes 230, in the 109th Congress that would have had the FCC conduct "a full and complete analysis" of radio interference from BPL with an eye toward revising the FCC rules that govern BPL to minimize the potential of harmful interference. It was unsuccessful.

Last year, the US House passed a telecommunications bill containing language that Ross proposed requiring the FCC to study the interference potential of BPL systems. The study requirement did not make its way into the final version of the bill, however.

HR 462 would require the Commission to address several technical facets, including variations in BPL emission field strength with distance from power lines and a technical justification for using a particular distance extrapolation factor when making measurements.

The FCC also would have to investigate the degree of notching necessary "to protect the reliability of mobile radio communications," and provide a technical justification for permitted BPL radiated emission levels relative to ambient noise levels. Finally, the study would have to outline options for new or improved BPL rules aimed at preventing harmful interference to public safety and other radio communication systems.

Ross's bill zeroes in on some of the same issues the ARRL cited last October when it asked the US Court of Appeals -- DC Circuit to review certain aspects of the Part 15 BPL rules. The ARRL specifically has taken issue with §15.611(c)(1)(iii), which sets a lower standard of protection for licensed mobile stations in any radio service, including public safety, that may receive BPL interference.

The League's lawsuit also faults the FCC's decision not to adjust the 40 dB per decade "extrapolation factor" applied to BPL emission measurements taken at distances from power lines other than those specified in Part 15. The ARRL contends that BPL measurements made according to existing BPL rules underestimate actual field strengths and that an extrapolation factor closer to 20 dB per decade would be more appropriate.

The League's Petition for Review asserts that the BPL rules "exceed the Commission's jurisdiction and authority; are contrary to the Communications Act of 1934; and are arbitrary, capricious, an abuse of discretion and otherwise not in accordance with law."

The Association of Maximum Service Television and the National Association of Broadcasters are supporting the ARRL lawsuit as interveners.

HR 462 has been referred to the House Committee on Energy and Commerce. The text of the bill is available on the Library of Congress' Thomas Web site <http://thomas.loc.gov/cgi-bin/query/z?c110:H.R.462>:. --ARRL Letter

## **FOUNDATION FOR AMATEUR RADIO INVITES SCHOLARSHIP APPLICATIONS**

The non-profit Foundation for Amateur Radio (FAR) now is accepting applications for 56 academic year 2007-2008 scholarships to assist radio amateurs pursuing higher education. The deadline to apply is April 30, 2007.

FAR fully funds three of scholarships and administers 42 others without cost on behalf of various club and individual donors; grant income funds the remaining 11 awards. Amateur Radio licensees pursuing a full-time course of study beyond high school and accepted by or enrolled in an accredited university, college or technical school are eligible to apply.

Scholarship grants range from \$500 to \$3000, and preference in some cases goes to applicants living in particular geographical areas or pursuing certain studies. Non-US residents are eligible to apply for some of the scholarships.

Request more information and an application form via e-mail <scholarships@farweb.org> or by sending a QSL card by April 30 to FAR Scholarships, PO Box 831, Riverdale, MD 20738. --ARRL Letter

## SHORTS

**THREE GIANT RADIO TOWERS WOR (CBS) LYNDHURST, NEW JERSEY** that had been a fixture alongside the New Jersey Turnpike in Lyndhurst came crumbling down Thursday morning. The 700-foot tall towers have been a landmark on the turnpike for more than 40 years. WOR has erected new towers and transmitter a half-mile north in Rutherford.

Lyndhurst police approved the demolition after halting a New York radio station from taking them down in September. Police cited safety concerns and the possibility some people might confuse the demolition with a terrorist attack.

Each of the three towers came down after one of the wires that anchor each structure was loosened. Check out the news coverage video:

[http://keyetv.com/topstories/local\\_story\\_011124211.html](http://keyetv.com/topstories/local_story_011124211.html)

**BILLED PASSED ALLOWING CONSTRUCTION OF DTV TOWERS SERVING DENVER (12/10/2006).** Convinced local officials were deadlocked and time was running out, Colorado Republican Sen. Wayne Allard decided to discreetly present a bill that would allow a digital TV tower to be built on Lookout Mountain in Jefferson County. The bill, co-sponsored by Sen. Ken Salazar, D-Colo., was introduced Wednesday in the U.S. Senate and approved later that night by unanimous consent. It was bundled with more than 30 bills deemed noncontroversial.

The proposal was forwarded to the House, where it passed on Saturday and was later signed by President Bush.

If the new tower is not in place by Feb. 17, 2009 - the Federal Communications Commission's deadline for digital transmissions - more than 600,000 Denver metro-area residents who rely on free broadcast - if the federal deadline is not met the current frequencies for the analog TV channels could be reassigned by the FCC.

The legislation, which would essentially push aside local jurisdiction on the matter, stunned Golden officials and activists who opposed the tower's location.

Jefferson County officials had "no idea" the bill was coming. If this can be done to us, no community is safe from having their local rights taken away from them.

The county board has been considering a rezoning request from a local TV station consortium that has been seeking to build a 730-foot-high digital tower on Lookout Mountain since 1999. Seven years of rezoning hearings and court cases followed with the debate yet to be settled. The debate's tenor shifted in April when Golden began a condemnation action for the 65-acre proposed tower site on Lookout Mountain. Negotiations had broken down with the city of Golden.

The TV station consortium contends that Lookout Mountain is the best site to broadcast the widest coverage. Opponents have raised concerns about health effects, electronic interference and tower failure.

Allard had been waiting to introduce the bill because he was holding out hope that some accommodation could be agreed to on the local level.



Still citizen concerns were considered when drafting the bill, as it does require the height to be lower than the highest existing tower, which is 834 feet.

Allard, as bill sponsor, handled the timing. All of the members of the Colorado delegation in the U.S. House were told about the bill early in the week and none objected, Conway said.

**ALL-HAM ISS CREW TO UNDERTAKE "UNPRECEDENTED" SPACEWALK SERIES:** The all-ham crew of the International Space Station will undertake what NASA is calling "an unprecedented series" of four spacewalks during the next few weeks. Expedition 14 Commander Mike Lopez-Alegria, KE5GTK, and Flight Engineer Suni Williams, KD5PLB, will kick off the spacewalk string January 31 with a six-and-a-half-hour excursion. Subsequent spacewalks are set for February 4 and 8 using US spacesuits. Lopez-Alegria and Flight Engineer Mikhail Tyurin, RZ3FT, will conduct the fourth spacewalk later in February using Russian spacesuits. NASA says the US spacewalks will bring on line new portions of the station's cooling system, expanded with components activated during the December space shuttle mission. Among other tasks, Lopez-Alegria and Williams also will assist in the retraction of heat-rejecting radiators on the station's P6 truss, install some external devices to stow cargo and install cabling for a new power transfer system for future shuttle flights. On the fourth spacewalk, Lopez-Alegria and Tyurin will remove a stuck antenna from the Russian Progress 23 cargo spacecraft to ensure it can safely undock in April. NASA TV <http://www.nasa.gov/ntv> will cover these events. – NASA

**MORSE CODE IN THE STRANGEST PLACES** -- Mark, KJ7BS, got a new Western Digital 500 GB external USB hard drive a few weeks ago. While contemplating a difficult programming design he discovered the ventilation openings on the drive enclosure looked like Morse code. Sure enough, it was. Here is the text of the Morse code:

"PERSONAL RELIABLE  
INNOVATIVE SIMPLE  
INNOVATIVE PERSONAL  
DESIGN RELIABLE  
INNOVATIVE DESIGN  
PERSONAL DESIGN SIMPLE  
INNOVATIVE SIMPLE RELIABLE  
DESIG"



There was no room for the final "N" in "DESIGN".

He sent Western Digital a letter describing what he found on their product and thanked them, wondering who designed the Morse message into the enclosure. -- QRP-l mail list 1-11-2007, courtesy Joe Everhart, N2CX

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