RCA AMATEUR RADIO CLUB

JUNE, 2014 MONTHLY NEWSLETTER INDIANAPOLIS, IN

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

RCA ARC NEWS

SUMMARY OF THE MAY MEETING – Thanks to all who attended the 12-May meeting. We had a good turnout. The Indy Hamfest (July 12) was discussed. Our Club has purchased eight tables, four of which will be used by Jon Powell, KC9GUM. Members who have personal stuff to sell are welcome to use some of the Club space. All items should be clearly marked with prices. **Help will be needed** to move stuff from K9RU's home to the hamfest Friday afternoon (July 11) and to man the booth on Saturday. Several advance sale tickets ($6) were sold and more will be available at the June meeting. Field Day will again be at Camp Belzer, similar to last year's event but with some changes to the GOTA station. The '88 repeater operation has been normal except for Echolink which has been the experiencing outages because of some problems with the local area network to which we are connected. Plans for the Dayton Hamvention were discussed, including a new restruant for the Friday night dinner.. Word was received from Leroy, WA4OTD, that a club station at his church is not going to be possible. Several on the air operating events were noted including the Indiana QSO Party, IRC Hiltop Contest, IMS Special Event station, W1AW/9, and Ships on the Air.

NEXT TEST AMATEUR RADIO LICENSE TEST SESSION – June 14, Saturday

Time: 12:00 PM (Walk-ins allowed)
Contact: James K. Rinehart, (317) 495-1933
Email: k9ru@arrl.net
Location: Salvation Army EDS Training Facility
4020 Georgetown Rd, Indianapolis, IN 46254

DAYTON HAMVENTION – The weather is always a topic of discussion for the Dayton Hamvention and this year was no exception with a mix of sun and a little rain Friday and Saturday. The sun came out enough to check out everything in the flea market and the rain gave you a chance to check out the manufacturers in the buildings.

We have been used to using Bob and Les's tent in flea market to take a break and some refreshments. They could not make it this and were missed.

The ARRL had a great display covering all ham radio and they were giving away the 100th anniversary coin. Kenwood, Icom, TenTec and Elcraft had their normal display and Yaesu was giving away their hat. The big news was the merger of TenTec and Alpha.

New products seen at Hamvention included the TEN-TEC Patriot, Model 507, a dual-band (20 and 40 meters) SSB/CW QRP transceiver that modifies easily for custom applications. It runs on an Uno32 microprocessor, and uses Arduino-compatible software. Yaesu's new offering, the DR-1X repeater, a follow-up to the DR-1 that was beta-tested last year. FlexRadio debuted its Flex-6300, a software-defined radio for 160 through 6 meters.

We had the traditional Friday RCA noon gathering in the stands and the group dinner Friday evening at the Barnsiders. This was the first time at this restaurant and everyone gave it a thumbs up for food and service. It is definitely the first choice for next year. We had 17 join us for dinner and had a great time.

ARRL FIELD DAY JULY 28-29th - The RCA ARC will be joining with the Indianapolis Radio Club operating from Camp Belzer Boy Scout Camp in Indianapolis.

Setup will begin at 11 AM, Saturday, June 28th. The Field Day contest (although they say it's not really a contest) starts at 2 PM EDT and runs for 24 hours. We will be operating in the 2A class, with 2 HF stations on the air, one SSB and one CW. In addition there will be a VHF station and a GOTA (Get on The Air) station. The GOTA station gives new hams, or anyone interested in ham radio, a chance to try their hand at operating and they are worth bonus points.

Even if you are not interested in operating stop by and visit the Field Day site, everyone is welcome. There is room to pitch a tent and camp. For more information contact: k9ru@arrl.net

QRP ARCI - 'FOUR DAYS IN MAY' -- 'Four Days In May' happens every year in Dayton. It is the annual convention of the QRP ARCI ham radio club and runs concurrently with the Dayton Hamvention. It is an event for ham radio operators and, in particular, those interested in QRP, home brewing, antennas and portable operating.

Harold Smith, KE6TI, has been a frequent presenter at these gatherings over the years. Harold's presentation this year on "home brewing" can be seen at http://www.ustream.tv/recorded/47587627 (immediately following the commercial!).

INDIANA ELECTS A NEW ARRL SECTION MANAGER – Ballots for the election of the Indiana ARRL Section Managers were counted May 20 at ARRL Headquarters and Joseph Lawrence, K9RFZ, of Fort Wayne, received 652 votes to top incumbent Section Manager Lou Everett Sr, WA5LOU, of Cumberland, who polled 482 votes. Everett has been SM for the past 2 years. Joseph Lawrence, K9RFZ will take office on July 1st.

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

June 14-16	ARRL June VHF QSO Party http://www.arrl.org/june-vhf
June 21	ADA Tour de Cure contact Mike Karmer n9feb@comcast.net
June 28-29	ARRL Field Day http://www.arrl.org/field-day
June 29	N.I.T.E. Ride, contact Elaine Carter KC9KZH@hotmail.com
July 12	Indianapolis Hamfest, Marion Co. Fairgrounds, www.indyhamfest.com

All dates, unless otherwise stated, are UTC.
http://www.arrl.org/contest-update-issues Contests updates
http://www.hornucopia.com/contestcal/ WA7BNM Contest Calendar
http://www.arrl.org/special-event-stations ARRL Special Event Stations page
http://www.arrl.org/exam_sessions/search ARRL training page for test sessions
http://indyhams.org/events/ Indiana events and public service opportunities.

CQ ANNOUNCES 2014 HALL OF FAME INDUCTEES

CQ Magazine has announced its 2014 Hall of Fame inductees. The Class of 2014 adds two members each to the CQ DX Hall of Fame and the CQ Contest Hall of Fame, as well as eight members to the CQ Amateur Radio Hall of Fame.

They 2014 inductees included **Mike Koss, W9SU,** for his work on the special event stations: W87PAX for the 1987 PAN-AM games held in Indianapolis, IN and W9IMS started in 2004 promoting amateur radio and Indianapolis. Both of these were high profile operations setting the standard for special event operations. Mike was also known for his support of various DXpeditions with RF filters and other products made by Industrial Communications Engineers.

The 2014 CQ Amateur Radio Hall of Fame inductees are Clifford Berry, W9TIJ (SK); Warren Bruene, W5OLY (SK); John Huntoon, W1RW (SK); Mike Koss, W9SU (SK); Nancy Kott, WZ8C (SK); Paul Laughton, AC6B (ex-N6BVH); Ralph Showers, ex-W3GEU (SK), and Steve Wozniak, ex-WV6VLY and ex-WA6BND.

The 2014 inductees to the CQ DX Hall of Fame are Joe Reisert, W1JR, and David Collingham, K3LP.
The 2014 inductees to the CQ Contest Hall of Fame are J. Scott Redd, K0DQ, and Ed Muns, W0YK.
Formal inductions to the CQ Contest and DX Halls of Fame took place at Dayton Hamvention®. Read more.

ALPHA AND TEN-TEC TO MERGE UNDER RF CONCEPTS BANNER

Two major American Amateur Radio manufacturers are joining forces. Alpha Amplifiers and TEN-TEC have announced that they will merge under the RF Concepts brand. The announcement came May 9 in Longmont, Colorado, where RF Concepts and Alpha are headquartered. TEN-TEC, the older of the two concerns, is located in Sevierville, Tennessee. The merger creates a multi-million-dollar company with a product line that extends from QRP transceivers to legal-limit amplifiers. RF Concepts/Alp Amplifiers has been in business since the early 1970s and has produced more than 13,000 amps. TEN-TEC, founded in 1968 as a maker of transceivers for the QRP community, has expanded its line over the years to include a range of transceivers -- from basic to top-tier -- receivers, tuners, amplifiers, and accessories. While there is a small overlap in the companies' respective product lines, RF Concepts Chairman Michael Seedman, AA6DY, called the union "the perfect combination of Amateur Radio brands."

"For more than 40 years, Alpha Amplifiers and TEN-TEC have shared a reputation in the Amateur Radio market for offering exceptionally well-engineered, American-made products backed by extraordinary customer service," said Seedman. "Alpha Amplifiers is known for 'key-down performance,' and TEN-TEC is known for pushing the boundaries of transceiver performance and capabilities." Such a merger "makes perfect sense," he added, pointing out that the merger will more than double the size of RF Concepts, allowing it "to invest more capital in innovative engineering and customer-driven product development."

Plans call for RF Concepts to share operations between its Colorado and Tennessee locations, and the company is looking for a new operations facility in the Sevierville area that would house manufacturing as well as some engineering resources as well as technical and customer support services. TEN-TEN had announced that it would not be holding its annual hamfest in Tennessee this year, due to plans to relocate its headquarters this fall. TEN-TEC announced "a massive moving sale" during September. The Colorado facility will house engineering resources, technical and customer support services, and much of the front-office operation.

Announcement of the merger came a week before Dayton Hamvention®, where both Alpha and TEN-TEC will continue to operate separate booths. Alpha will be demonstrating its not-yet-released DreamTuner 4040 Automatic Antenna Tuner, while TEN-TEC will unveil the Patriot, an open-source, Arduino-based SSB transceiver.

The two companies are privately held, and terms of the merger were not disclosed. Read more. --ARRL Letter

PETITION TO EXPAND RFID USE ON 70 CENTIMETERS WITHDRAWN

The FCC has dismissed without prejudice a *Petition for Rule Making* (RM-11651) by Lockheed Martin that would have amended the Commission's Part 15 rules to expand deployment of the company's radio frequency identification (RFID) system in the 433 MHz band (433.5-434.5 MHz). Lockheed Martin sold its RFID business 2 years ago, but the company only this month requested that the *Petition* be withdrawn and the proceeding terminated. The ARRL had staunchly opposed the Lockheed Martin petition, which the firm filed on behalf of its subsidiary, Savi Technology. The League locked horns with Savi years ago, when the company successfully petitioned the FCC to amend, in 2004, its Part 15 rules governing periodic radiators to permit high-power, near-continuous duty RFID tags in the 433 MHz band. As a concession to opponents, the FCC limited deployment of the devices to "commercial and industrial areas" and allowed their use only for tracking "commercial shipping containers." Lockheed Martin acquired Savi Techologies in 2006.

The now-dismissed petition would have expanded the frequency range of the RFID tags to 433.05-434.79 MHz, required listen-before-transmit protocols to avoid interference to Amateur Radio, eliminated a manufacturer registration requirement, and dropped rules that prohibited deploying the devices outside "commercial or industrial areas" and limited their application to "commercial shipping containers."

The ARRL filed vigorous opposition to the Lockheed Martin *Petition* in January 2012, saying that

Lockheed's petition "seeks to undo virtually all of the few interference protections" the FCC had adopted in 2004, "solely on the basis of vaguely stated advances in RFID technology." Other Part 15 device manufacturers also opposed any expansion of the high-power application.

A May 14 Commission letter from FCC Office of Engineering and Technology Chief Julius P. Knapp said that on the basis of Lockheed Martin's *Petition* and the comments filed on it, "we do not find sufficient basis to propose rules," and determined that the original petition "does not warrant" FCC consideration. Knapp added, however, "Any party interested in pursuing changes to the rules for RFID operations in the 433 MHz band may file a new petition." --ARRL Letter

FUNCUBE-2 LAUNCH SET FOR JUNE 19

Sponsors of the FUNcube Project -- a joint initiative of AMSAT-UK and AMSAT-NL (Netherlands) -- have announced that FUNcube 2 will launch from Russia on June 19. The initial plan of the now 4-year-old project was to design, build, and launch a single spacecraft. As further flight opportunities have become available over the past months, however, the FUNcube Project has expanded. UKube-1 will "host" FUNcube-2 -- actually a set of FUNcube boards that will fly as a sub-system of the 3U UKube-1 CubeSat. Its goals are identical to those of FUNcube-1 -- to support science, technology, engineering, and mathematics (STEM) initiatives now underway in the US, the UK, and elsewhere. The target audience is primary and secondary school students.

"It is believed that, immediately after deployment and activation, UKube-1 will commence transmitting a CW beacon, and that this will be later followed by an AX25, 1k2 BPSK beacon," AMSAT-UK announced on May 7. "Both beacons will be on 145.840 MHz. The FUNcube-2 payload, with its telemetry downlink for educational outreach, is expected to be tested later."

FUNcube-2 will include a 400 mW inverting SSB/CW transponder (435.080-435.060 MHz up/145.930-145.950 MHz down), with a beacon on 145.915 MHz. The UKube-1 satellite, being built by Clyde Space in Glasgow, Scotland, would be the UK Space Agency's first CubeSat, as well as the first satellite built in Scotland.

Believed to be not too far down the road, a FUNcube-3 400 mW transponder-only payload on the pre-cursor QB50P1 CubeSat host is planned for launch "no earlier than the second half of June" on a Dnepr LV vehicle from Russia. Initial beacon signals from the main transceiver are expected to be AX25, 1k2 BPSK packets on 145.815 MHz. Read more. --ARRL Letter

KICKSAT RE-ENTERS ATMOSPHERE WITHOUT DEPLOYING "SPRITE" SATELLITES

KickSat Project Manager Zac Manchester, KD2BHC, has announced that the KickSat CubeSat reentered the atmosphere on May 14 (UTC) and burned without deploying its cargo of tiny "Sprite" satellites.

"Unfortunately, we were not able to command the Sprite deployment in time," said Manchester, a Cornell University aerospace engineering graduate student. "While we are certainly disappointed that things did not go as planned, I think we still have a lot to be proud of."

Manchester said that more than 300 people from around the world cooperated to make KickSat a reality. "We built a spacecraft, tested it, and launched it," he said. "Hundreds of people had their names flown in space, more than a dozen radio amateurs were able to receive signals from KickSat's beacon radio, and volunteers collected and processed telemetry data and predicted KickSat's orbit and reentry. This kind of participation is exactly what KickSat is all about and I'm glad we all got to share in this experience."

Manchester said he plans to take the lessons learned to build an even better KickSat-2. "This is only the beginning!" he said.

The Sprites, PC boards each about an inch or so square, would have been the smallest satellites ever to orbit Earth. Manchester said an unexpected reset of KickSat's master clock caused the failure,

preventing the CubeSat from releasing its cargo of some 100 Sprite satellites before it deorbited.

The satellite launched successfully April 18, and the ground control team at Cornell as well as several Amateur Radio operators around the world made contact with the spacecraft. --ARRL Letter

FOX-1 LAUNCH DATE SLIPPING INTO SUMMER OF 2015

AMSAT-NA has announced that its Fox-1 CubeSat likely will not launch until the summer of 2015, "due to governmental priorities." The satellite was set to head into orbit in December of this year. Fox-1 is on the flight manifest for NASA's Educational Launch of Nanosatellites Mission 12 (ELaNa-12) group of satellites. The first phase of Fox satellites are 1-Unit CubeSats that will include an analog FM voice repeater to allow simple ground stations using a hand-held transceiver and a simple dual-band antenna to make contacts via the satellite. The Phase 1 CubeSats also can handle high-speed digital communication. Two Phase 1 Fox satellites have been accepted into the ELaNa program.

"This delay is mixed news for AMSAT," AMSAT-NA President Barry Baines, WD4ASW, said in his latest *AMSAT Journal* "Apogee View" column. "While we are disappointed that this will mean that Fox-1 will not fly in 2014, it also means that we have more time to complete and test the spacecraft prior to delivery to SRI [Cal Poly]. In the overall scheme of things, it allows AMSAT to have greater confidence in the delivery of a thoroughly tested spacecraft by taking more time to allow for unforeseen contingencies and to do the ground testing."

The ELaNA-11 mission also has slipped, Baines said, and now is set to fly in the March/April 2015 time frame, instead of next February. Because both launches are being delayed, he said, the National Reconnaissance Office-Office of Space Launch (NRO OSL) has asked that CubeSats currently scheduled for ELaNa-11 or ELaNa-12 be delivered to Cal Poly by this October 1 -- 4 months later than the original Fox-1 delivery date but "with the potential for being flown on the earlier flight," Baines pointed out.

The downside is that the ELaNa-11 orbit is slightly different, with a lower apogee and inclination and with a shorter orbital life -- 6.5 years as opposed to 11 years for the ELaNa-12 mission. "Consequently, we're looking at the impacts of flying earlier, with the tradeoff of shorter mission duration," Baines said.

Baines pointed out that, as a secondary payload, AMSAT "is at the mercy of decisions by those who are 'paying the freight.'" As he put it, "We're benefiting from a launch paid for by the US Air Force; their mission priorities drive the launch opportunities."

He asked that AMSAT members also understand that such a free ride "comes with the expectation that launch schedules may indeed be altered to satisfy other requirements. Stay tuned."

AMSAT's Phase 2 *Fox* satellites will include software-defined-transponders (SDX) such as the one tested on ARISSat-1. The Phase 2 satellites will operate on a variety of analog and digital communication modes, including linear transponders. Because of power requirements, the Fox-2 satellites likely all will be 3-Unit CubeSats, AMSAT has said. -- *AMSAT News Service, ARRL Letter*

CUBA NOW ISSUING LICENSE ENDORSEMENTS FOR LIMITED, DOMESTIC 60 METER OPERATION

Cuba's Ministry of Communications has begun issuing license endorsements for experimental operation on 60 meters, but US stations that stick to the five allocated channels won't hear them. Pavel Milanes Costa, CO7WT, in Camagüey, reported earlier this year that the Ministry had authorized use of the band on a secondary basis, but its principal use will be during emergencies. Cuban hams who are granted an endorsement will be allowed to transmit between 5418 and 5430 kHz, on CW, SSB, and PSK-31, but they may only contact other Cuban stations; no international contacts are allowed. Since the 12 kHz Cuban allocation does not coincide with the five channels that US hams are permitted to use, no inadvertent encounters between US and Cuban hams should occur. Maximum allowed power output is 50 W (or 10 W for Novice operators), and up to 100 W may be authorized in emergencies. Milanes Costa said that Cuban hams would appreciate listener reports.

"I had my license update on May 21, and I'm testing on the band, mainly around 0000 UTC on 5422.0 kHz LSB and encouraging other Cuban hams to get their license upgrades for this band," he said.

At World Radiocommunication Conference (WRC) 2007 it was Cuba that suggested establishing a secondary Amateur Service allocation within the band 5250 to 5450 kHz. The item failed at WRC-2012 but will be on the agenda of WRC-2015 as Agenda Item 1.4.

The band 5250 to 5450 kHz is allocated to the fixed and mobile services, except aeronautical mobile, on a primary basis. The FCC authorized five channels for US radio amateurs after consulting with the National Telecommunications & Information Administration (NTIA) regarding ongoing government use of that region of the spectrum. The US channels were specifically chosen to avoid Amateur Radio interference to government operations. -- Southgate Amateur Radio News, ARRL Letter

ISEE-3 SPACECRAFT REBOOT PROJECT UPDATE

Dennis Wingo KD4ETA has released an update on the attempts by volunteers, including radio amateurs, to gain control of the NASA ISEE-3 spacecraft The International Sun-Earth Explorer (ISEE-3), a spacecraft that was launched in 1978 to study Earth's magnetosphere and repurposed in 1983 to study two comets.

Renamed the International Cometary Explorer (ICE), it has been in a heliocentric orbit since then, traveling just slightly faster than Earth. It's finally catching up to us from behind, and will be closest to Earth in August, 2014. In his report Dennis says that the spacecraft was successfully commanded into engineering telemetry mode and he mentions the work of radio amateurs **Achim Vollhardt DH2VA** (AMSAT-DL Bochum) and Phil Karn KA9Q.

Regarding the possibility of Lunar impact Dennis says *"If we can maneuver the spacecraft by June 17th we get the very small delta V number for the maneuver above. However, this starts to climb rapidly as the spacecraft gets closer to the moon. Also we cannot at this time rule out a lunar impact.*

It is imperative that we get a ranging pass as soon as possible. We also need time to not only evaluate the health of the spacecraft, but to test the systems, the catalyst bed heaters for the propulsion system, the valve heaters, analyze the rest of the propulsion, power, and attitude control system as rapidly as possible.

This will be a lot of commanding so we have to move into high gear next week. This is a very fluid situation and we have made amazing progress, thanks to the support of those who believed in us in our crowd funding and the support of our NASA sponsors at NASA Ames and NASA headquarters.

Read the report at http://spacecollege.org/isee3/isee-3-reboot-project-update-bullseye-and-more.html --Southgate Amateur Radio News

OHIO ANTENNA LAW CHALLENGE MAY BE OVER

In a surprise move, the Ohio Sixth District Court of Appeals has dismissed an appeal from the Village of Swanton, Ohio, in an Amateur Radio antenna zoning case. The ARRL had announced plans to file a "friend of the court" or *amicus curiae* brief on behalf of ARRL Life Member Gary Wodtke, WW8N, who has been trying since 2009 to erect a 60 foot antenna support structure on his 0.2 acre residential lot. It now appears that he will be able to do so. The Village of Swanton, Ohio, has established a fixed antenna height of 20 feet above the residential roofline, and it turned down Wodtke's antenna variance application for the taller structure. On appeal, Wodtke in January won a final judgment in his favor in the Fulton County Common Pleas Court. The court ruled that federal and state law preempted Swanton's antenna ordinance.

The Appeals Court ruling on April 3 was based on the fact that the trial court decision the Village could have appealed was issued on August 20, 2013, while the judgment that the Village attempted to appeal was issued on January 21, 2014. Since the August 20 trial court decision was a final order, the Village was required to file its appeal within 30 days, and it never did so, thus losing its right to appeal.

The ruling means that the August 20 trial court decision stands, and Wodtke wins the right to erect the tower for which he applied.

The award of attorney fees appears to be at the center of confusion on both sides of the case. The trial court's decision last August 20 decision awarded attorney fees to Wodtke. Because attorney fees had not yet been determined, both sides considered the decision as not yet final. But, while Wodtke's attorney had sought attorney fees in his original complaint, the amended complaint that the trial court ruled upon last summer included no such request.

The Court of Appeals said that, ordinarily, when attorney fees are requested in a complaint but not yet ruled upon, the order disposing of the rest of the case is not final and appealable, but the court pointed out that a claim for attorney fees was not pending once court entered its August 20 judgment. "Therefore, the order was final and appealable on August 20, 2013," the court said.

The Court of Appeals also noted that, although both sides had filed for reconsideration of the August 20 decision, neither of those motions nor the trial court's January 21 decision had the effect of extending the appeal deadline. In the words of the Court of Appeals, "It is well settled that a motion to reconsider does not stay the time to file a notice of appeal."

The Court of Appeals' April 3 decision could yet be reviewed by the Ohio Supreme Court, but only if the Village had filed a timely *Memorandum in Support of Jurisdiction* to convince the high court to hear the appeal.

Ohio Section State Government Liaison Nick Pittner, K8NAP, believes the Appeals Court decision in *Wodtke v. Village of Swanton* could set legal precedent for similar antenna-related cases down the road. An attorney, Pittner was instrumental in getting Ohio's PRB-1 law enacted. "The Ohio Municipal League seems intent on challenging [the PRB-1 law] in court, and will likely try to do so in some other case if the challenge is not available in this one," Pittner said. "We're keeping the research files open." -- Delara News, *Delaware (Ohio) Amateur Radio Association*, ARRL Letter

SHORTS

THE ARRL PRESENTED THE 2013 BILL ORR, W6SAI, TECHNICAL WRITING AWARD TO CARL LUETZELSCHWAB, K9LA --TheARRL Foundation selected Luetzelschwab for his article "The Sun and the Ionosphere," which appeared in the March 2013 issue of *QST.* Carl is from Ft Wayne, Indiana and has given talks at the Indianapolis Radio Club and the HDXCC meetings on HF propagation. The presentation was made at the Dayton Hamvention.

INDIANA QSO PARTY IS A BIG SUCCESS - Tom Chance, K9XV, announced that W9JP/100, the Indiana Radio Club 100 year anniversary station, operating as a bonus station for the Indiana QSO party and we logged 1000 Qs. Bob Burns, W9BU one the operators at W9JP/100 stated he believes we worked 80 to 85 counties. The Hoosier DX and Contest Club, HDXCC who sponsors the INQP stated logs were coming in at near record levels.

IEEE INTERNATIONAL FREQUENCY CONTROL SYMPOSIUM HONORS ULRICH ROHDE, N1UL – Ulrich Rohde, N1UL (ex-KA2WEU), is the recipient of the C.B. Sawyer Memorial Award. Rohde, the chairman of Synergy Microwave Corporation and President of Communications Consulting Corporation, was honored at the 2014 IEEE International Frequency Control Symposium May 19-24 in Taiwan. The award recognizes "entrepreneurship or leadership in the frequency control community; or outstanding contributions in the development, production or characterization of resonator materials or structures."

Rohde is the author of some 200 scientific papers and books, and numerous *QEX* and *QST* articles.

QRZ.COM NOW SUPPORTS "SECONDARY" CALL SIGNS – The popular QRZ.com website has announced some new features. The site's call sign database now fully supports "secondary" call signs. "A secondary call sign is one which includes a slash plus a modifier as either a prefix or a suffix to the primary call sign," QRZ.com Publisher Fred Lloyd, AA7BQ, explained. In other words, users can create separate pages for their DXpedition, QRP, or mobile operations, for example, or for a repeater, by editing their account options from the main QRZ menu, located below their call sign at the top right of the

page. Any combination will work, Lloyd said, and the server can find an appended call sign, whether users apply a prefix or a suffix to their primary call signs.

These call sign options are grafted onto your primary call sign, so that your subscriber status follows. The Detail tab of each page will include a "See Also" listing that displays other call signs related to the primary call sign. Secondary call signs may be deleted at any time, and it's possible to provide a direct link to the secondary page. --ARRL Letter

ARRL ANNOUNCES FREE EXAM REVIEW WEBSITE -- that allows users to take randomly generated practice exams using questions from the actual examination question pool.ARRL Exam Review for Ham Radio™ is *free*, and users do *not* need to be ARRL members. The only requirement is that users must first set up a site login (this is a different and separate login from your ARRL website user registration).

"The ARRL's online Exam Review is designed to help license examination candidates review their progress as they study. As you complete a chapter or section of a license manual, you can turn to the online program to review all of the related questions taken directly from the examination question pool. After answering each question -- right or wrong -- the correct answer is shown, and a page reference to the license manual is displayed for further review.

When you're close to completing your study, you can take as many practice exams as you like. "The practice exams can be taken on-screen or printed. You won't have any surprises on exam day!" he added.

While ARRL Exam Review is being introduced with the new, third edition of the popular Technician study guide, *The ARRL Ham Radio License Manual*, the site also supports practice examinations for General and Amateur Extra. An updated Technician class examination question pool becomes effective July 1, and Exam Review will automatically transition to the new question pool on that date. ARRL Letter

AMATEUR RADIO "DRY SPELL" ABOARD ISS ENDS -- Amateur Radio on the International Space Station (ARISS) school contacts and any incidental, casual operation from the station have been on hold because no licensed crew members have been aboard the ISS since May 12. That situation ended this week, when Flight Engineer Alexander Gerst, KF5ONO, of the European Space Agency, Flight Engineer Reid Wiseman of NASA, and *Soyuz* Commander Max Suraev arrived at the ISS after a May 28 launch from the Baikonur Cosmodrome in Kazakhstan. Russia has threatened to exclude US astronauts from *Soyuz* flights because of US sanctions in the wake of Russia's annexation of Crimea. Scheduled ARISS contacts are expected to resume in July. Wiseman, Suraev, and Gerst will remain aboard the station until mid-November. -- *NASA*

SPAIN'S HAM RADIO KING TO ABDICATE – King Juan Carlos of Spain, who holds the amateur radio callsign EA0JC, has announced his intention to abdicate, after nearly 40 years on the throne.

"A new generation must be at the forefront... younger people with new energies," the 76-year-old king said in a televised address. His son, Crown Prince Felipe, 45, will take over the throne. – SouthGate Amateur Radio News

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