

RCA AMATEUR RADIO CLUB

JUNE, 2010 MONTHLY NEWSLETTER INDIANAPOLIS, IN

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

RCA ARC NEWS

\$6 ADVANCE SALE TICKETS FOR THE INDY HAMFEST, JULY 10TH, WILL BE AVAILABLE AT OUR JUNE 8TH MEETING

SUMMARY OF THE MAY MEETING – Thanks to all who attended the May meeting. The turnout was good! K9RU reported that there was no new information on the Field Day activities. There will have to be some additional planning this year as the FD operation this year will be from the Sheriff's building at the Marion County Fair Grounds. Support structures for the antenna's will have to be different. K9RU has a few headsets with mic which the Club can sell at the Indy Hamfest. He will modify them to connect to the Icom 756Pro series radios. The W9IMS special event station and the USS Indianapolis / Museum Ships events were discussed. (See details below.) Our Club will again sponsor prizes for the Homebrew Contest at the Indy Hamfest. Fifty dollars was approved for prizes.

WW2IND USS INDIANAPOLIS MEMORIAL STATION OPERATIONS -- There are up coming operating events from the WW2IND USS Indianapolis Memorial station. The first was Memorial Day. The second is the Museum Ships Event, starting at 6PM on Friday, June 4th through 8 PM on Sunday June 6th. Check out the WW2IND site for information on parking and operating schedule: <http://www.ussindyradio.org/splevnts-2010.htm>

W9JP / W9RCA FIELD DAY PLANS – Planning is under way for joint W9JP and W9RCA ARRL Field Day Operation. It will be at the Marion County Fair Grounds like last year, but we will be operating out of the Sheriff's building. This should get the operation further away from the power lines where noise has been a problem for the pasts two years. Plans are for either a 2A or 3A operation. The third station can be used for more CW operating.

INDIANAPOLIS HAMFEST – We are going to set up in the flea market tent as we have done in the past. We will need help moving the stuff Mike's to the hamfest. We only have 2 or 3 three pickup truck loads of stuff and the plan is to use members vehicles to transport it to the hamfest.

ARRL VE TESTING SCHEDULE --

Sponsor: W9IMS

Where: W9IMS Comm Center, 3321 N Gale Street, Indianapolis, IN

Contact: Jim Rinehart, K9RU (317-218-7394) email: k9ru@arrl.net

When: July 12, 2010

Time: All testing starts at 6:30 PM; Walk-ins allowed

Note: *The new July 1, 2010 VEC Technician Question pool will be used.*

NEW 220 NET STARTED – Tom Chance, K9XV, has started a new 220 net on Tuesday evenings at 8:00 pm Indianapolis Time. This net meets on the 224.8 (88.5 PL) repeater, located in downtown Indianapolis. If you don't have 220 capability, you can also check in on the 146.67 repeater, which is linked to the 224.8 machine.

LOCAL HAM GETS A LONG-AWAITED AWARD – Read about local ham Brian Smith's (W9IND) 40 year pursuit of the "Chief Big Thunder" Award. It was published on the ARRL web site at <http://www.arrl.org/yesterday-once-more>. Quite an interesting story!

FCC UPHOLDS DECISION TO REVOKE AMATEUR LICENSE OF CONVICTED INDIANA HAM – Lonnie L. Keeney, KB9RFO, of Greencastle, Indiana, filed a [Petition for Reconsideration](#) in March 2010, asking that the FCC re-evaluate the [revocation of his Amateur Radio license](#). Keeney -- who in 2002 was convicted of child molestation, a Class C felony -- was found by the FCC in February 2010 to be "lack[ing] the requisite character qualifications to be and remain a Commission licensee." Keeney appealed the decision, and on May 24, the FCC denied his [Petition via an Order on Reconsideration](#), affirming the revocation of his Amateur Radio license. Read more <http://www.arrl.org/news/fcc-upholds-decision-to-revoke-amateur-license-of-convicted-in-diana-ham>

ON THE AIR - CHECKOUT 6M and 10M – June is the peak for 6 meters band openings. 6 meters has been open into Caribbean and the western US. 10 meters has been open as late as midnight into Texas and California. Keep an eye on 2 meters also the summer weather can provide good DX conditions. –K9RU

HAMFESTS, OPERATING EVENTS & TESTING

June 5	License Testing , Sponsor: IRC, 9 AM, Indianapolis Training Center, 2820 N Meridian Street, Walk-ins allowed, Contact: Gale A. Wuollet, indy33windy@comcast.net or (317) 849-8449
June 5-6	Museum Ships Weekend. http://www.nj2bb.org/museum/
June 12-14	ARRL June VHF QSO Party, 1800Z through 300Z
June 19-20	SMIRK QSO Party , 0000Z June 19 through 2400Z June 20
June 26-27	ARRL Field Day
July 10	Indianapolis Hamfest , Camp Sertoma, Indianapolis
July 12	License Testing , Sponsor W9IMS, 6:30 PM, W9IMS Comm Center, 3321 N. Gale St. Walk-ins accepted. Contact: Jim Rinehart, K9RU, k9ru@arrl.net , 317 218-7394.

See the [ARRL Contest Branch page](#), the [ARRL Contest Update](#) and the [WA7BNM Contest Calendar](#) and the [ARRL Special Event Station Web page](#) for more info.

NCVEC QUESTION POOL COMMITTEE WITHDRAWS FOUR QUESTIONS

The Question Pool Committee (QPC) of the National Conference of Volunteer Examiner Coordinators (NCVEC) announced the withdrawal of two questions from the Technician class pool and two questions from the Extra class pool. Volunteer Examiner Coordinators (VECs) and Volunteer Examiners (VEs) must take action to remove these questions from use by July 1, 2010. Due to a rules change and pending action by the FCC, questions T2C02 and T2C03

from the July 2010 Technician Pool and questions E1C04 and E1C05 from the July 2008 Extra Pool may not be used in examinations after June 30.

The two Technician questions dealt with emergency communications and Section 97.113 of the FCC's rules governing Amateur Radio. In March, [the Commission released a Notice of Proposed Rule Making \(NPRM\)](#), [WP Docket No. 10-72](#), that proposes to amend the rules to provide that, under certain limited conditions, Amateur Radio operators may transmit messages during emergency and disaster preparedness drills, regardless of whether the operators are employees of entities participating in the drill.

“Adoption of the *NPRM* appears more likely than not, abolishing the temporary waiver [needed for government-sponsored emergency communication drills] (T2C02) and making T2C03 an invalid question,” the QPC said in a statement appearing on the NCVETC Web site. “Therefore, we feel it is best to withdraw these two questions now to avoid the possible inclusion of invalid information in training material now being prepared.”

The two Extra questions dealt with third party restrictions as defined in 97.109(e); the FCC has since deleted this rule, so the information is no longer applicable to the Amateur Service.
–ARRL Letter

CANADIAN HAMS MAKE USE OF NEW PRIVILEGES

At the first of the year, Canadian amateurs received privileges on 2200 meters (135.7-137.8 kHz). Just a few months later, Scott Tilley, VE7TIL, of Roberts Creek, British Columbia, and John Gibbs, VE7BDQ, of Delta, British Columbia, completed the first official Canadian two-way 2200 meter QSO on April 24. Using CW, the Canadian amateurs reported strong signals during daylight QSO on 137.100 kHz. Roberts Creek and Delta are about 41 miles (66 km) apart. Gibbs used a homebrew tube transverter at 100 W output into a short top-loaded backyard wire vertical, while Tilley was running 400 W from a homebrew FET transmitter into a 60 foot top-loaded wire antenna. As well as heralding the arrival of a new ‘top band,’ the QSO demonstrates that even amateurs located in typically small city-sized lots can enjoy the challenges that 2200 meters has to offer.

FCC NPRM TO REPLACE 5368 TO 5358.5 MHZ IN THE 60M BAND

Acting on a [2006 Petition for Rulemaking filed by the ARRL](#), the FCC has issued a *Notice of Proposed Rule Making (NPRM)*, [ET Docket No. 10-98](#) to modify the rules that govern amateurs' secondary use of five channels in the 5 MHz frequency range known as 60 meters. The proposed changes would substitute a new channel for one that is seldom available because of occupancy by the fixed service, which is primary in this range. Also proposed is an increase in power from 50 to 100 W effective radiated power (ERP) and the addition of CW, PSK31 and PACTOR-III modes with provisions to ensure that such operations would be compatible with the primary service. The proposed changes can be found beginning on page 8 of the *NPRM*.

The ARRL *Petition* argued that a successful history of sharing with Federal users -- together with its amateurs' strong desire to improve Amateur Service use of the band -- merited a grant of greater flexibility in the use of these frequencies: “Because of strong admonitions provided by ARRL to Amateur Radio operators relative to their obligations vis-à-vis Federal agency primary use of and access to these few channels, the access provided for the Amateur Service

with the assistance of NTIA in the past three years has been successful without qualification. Neither ARRL, nor, apparently NTIA, is aware of a single reported instance of interference to a Federal user by a radio amateur operating at 5 MHz to date.” The proposals contained in the ARRL *Petition* were based on these discussions and a May 12, 2006 letter from the NTIA, indicating that it would “look favorably” on the above-described modifications should ARRL choose to pursue rule changes with the Commission.

On March 11, 2010, the FCC adopted a [Notice of Proposed Rule Making and Order](#) that made certain amendments to correct the Amateur Service rules and to conform the rules to prior Commission decisions. The FCC’s proposals are based on the current rules, as modified by that action. –ARRL Letter

FCC AGAIN DENIES AMATEUR’S PETITION REGARDING STATION IDENTIFICATION

On May 18, the FCC denied a [Petition for Reconsideration](#) filed by Glen Zook, K9STH, that asked for changes in Part 97 regarding how often amateurs must identify themselves on the air. This action follows the Commission’s denial of Zook’s [April 2009 Petition for Rulemaking](#) requesting that the Commission amend [Section 97.119\(a\)](#) to change how often amateur stations must identify themselves, specifically “to require that an amateur station transmit its call sign during the first transmission of any communication or series of transmissions, and to allow an amateur station to not transmit its call sign at the end of a communication when the communication or series of transmissions lasts less than three minutes.”

In denying Zook’s 2009 *Petition*, the FCC noted that in May 2006, Zook had filed another *Petition* requesting that the Commission amend Section 97.119(a) to require that call signs be transmitted at the beginning of each transmission or series of transmissions. The FCC said that Zook’s 2009 request “does not assert or demonstrate that circumstances have changed since 2007 with respect to the adequacy of the current station identification rule,” and the FCC concluded that it does not present grounds for the Commission to propose amending Section 97.119(a).

The FCC Denied Zook’s *Petition for Reconsideration*, concluding that it, “like your previous petitions, does not demonstrate that the current station identification rule is inadequate. We also note that, in response to your 2006 petition, commenters believed that the current station identification rule properly balances the burden of requiring the station to transmit its call sign with the convenience of those receiving the transmissions to determine the identity of the station making the transmissions.” –ARRL Letter

THE 2010 ARRL EXPO AT THE DAYTON HAMVENTION®: LOVING EVERY MINUTE OF IT!

It just wouldn’t be a “real” Hamvention if the weather didn’t cooperate, and on Friday -- the first day of the 2010 Dayton Hamvention -- the humidity was brutal (?). But be it too much rain, too much sun (or not enough!) or maybe even a snowstorm, thousands of radio amateurs flock to Hara Arena. But late on Friday afternoon, the sweltering atmosphere gave way to clear skies and frisky breezes, a harbinger of the rest of the weekend.

Inside Hara, aisles were packed with hams from all over the world seeking the latest in Amateur Radio technology, products, gadgets, gizmos and more. It’s said that if you can’t

find it at Dayton, it just doesn't exist. If you want the latest in top-of-the-line transceivers, there are more than a few to choose from. If you need a 45 tube for your 1920s-era TNT oscillator, take your pick from the more than 200 exhibitors and vendors – not to mention the multitudes of flea market booths -- attending Hamvention.

The largest exhibit at Dayton is the ARRL EXPO. Almost 150 ARRL staff members, officers, Board members and volunteers made their way to Dayton, bringing with them the best that Amateur Radio has to offer. With 25 exhibits and activities located in the EXPO area -- ranging from youth activities, kit building, QSL card checking and an expanded ARRL bookstore -- throngs of amateurs wound their way through to check everything out.

One of the most-visited areas in the EXPO is the QSL card checking area. As doors opened at 9 AM Friday morning, a dozen ARRL card checkers were at the ready for the multitude of DXers that were sure to come. And they did not disappoint: By 9:10, more than 100 hams were in line. By 2:30 PM on Saturday, the card checkers had checked more than 8000 QSL cards and accepted more than 100 award applications, some for DXCC and some for Worked All States.

The ARRL offered amateurs the opportunity to drop off their outgoing QSL cards for the ARRL Outgoing QSL Bureau, were hand delivered by ARRL staff to the Bureau at ARRL Headquarters. They still had to pay for the nominal charges associated with the Bureau, they did not have to pay the postage to send the cards to Newington. By late Saturday, hams had dropped off more than 45 pounds -- approximately 7000 -- of QSL cards.

The ARRL Education Services area was quite popular with many hams. ARRL Education Services Manager Debra Johnson, K1DAJ said "We've seen many educators who are interested in our Teachers Institute, as well as representatives from local ham clubs who want to reach out and bring the fun of Amateur Radio to schools in their area."

Hoads of hams clustered around the ARRL Bookstore -- sometimes five deep -- to pick up the latest in League publications. Many popular titles sell out early and quite a few people couldn't wait to have that Field day experience, as we saw many wearing their new Field Day shirts on Saturday here at Hamvention!" --ARRL Letter

NEW PRODUCTS MAKE THEIR DEBUT AT DAYTON

Hamvention is the time when many Amateur Radio vendors introduce new products, and 2010 is no exception. The chatter on various e-mail reflectors about anticipated rigs and peripherals spilled over into the aisles at Hara as visitors gawked and gazed as new treats were laid before their eyes. QST Technical Editor Joel Hallas, W1ZR, followed the buzz and sniffed out some new HF transceivers from FlexRadio, Kenwood and Yaesu.

FlexRadio showed off a number of new products this year. The FLEX-1500 is an all mode 5 W software defined radio (SDR) designed to provide an opportunity for amateurs to experience the capabilities of SDR at an entry level price. The FLEX-1500 uses the same PowerSDR™ software that runs its larger brethren and provides more than 80 dB of dynamic range on 160 through 6 meters. It can be used as a standalone (using a PC) low power HF transceiver, or can serve as an IF strip for V/UHF transceivers.

FlexRadio also demonstrated a new version of PowerSDR, the software that runs their SDRs. Version 2.0 is said to include a new user interface, automated wide band image rejection,

enhanced noise reduction and notch filter capability, completely revamped CW timing and faster transmit-receive turnaround time, as well as other features.

FlexRadio also introduced the FLEX-VU5K, a 60 W 2 meter and 70 cm transverter module that fits into and operates with their FLEX-5000 software defined transceiver. There is also a low power version with 50 mW output, designed to drive microwave transverters.

Kenwood introduced an engineering model of their new HF and 6 meter transceiver, the TS-590. This compact transceiver features a down converting design with multiple HF roofing filters included to provide good near in dynamic range. The '590 features 32 bit IF DSP filtering for operating selectivity and other filtering. It is expected that the '590 will be available in the fall at a price below \$2000.

Yaesu showed off their new FTdx-5000 series of HF and 6 meter transceivers. These 200 W transceivers all feature dual receivers and many features and options of the other FTdx series radios at a lower price point. The primary receiver features a 9 MHz first IF and selectable roofing filters as narrow as 300 Hz (optional in some models) that result in top notch close spaced dynamic range.

To experience what was happening day-by-day at the 2010 Dayton Hamvention, check out the ["Ham Zero Dayton blog"](#) by QST Contributing Editor H. Ward Silver, N0AX. –ARRL Letter

FCC SEEKS COMMENTS ON NEWLY PROPOSED RULES FOR AMATEUR RADIO OPERATORS USING SPREAD SPECTRUM COMMUNICATIONS

In March, the [FCC released](#) a *Notice of Proposed Rulemaking (NPRM)* that proposed to amend Part 97 to facilitate the use of spread spectrum communications technologies by eliminating the requirement that amateur stations use automatic power control (APC) to reduce transmitter power when the station transmits a spread spectrum (SS) emission, and reducing the maximum transmitter power output when transmitting a SS emission (WT Docket No 10-62). On May 14, a summary of the *NPRM* and the *Order* was published in the *Federal Register*; the FCC is seeking comments on the *NPRM*. Comments must be filed on or before June 14, 2010 (30 days after publication in the *Federal Register*); reply comments must be filed on or before June 28, 2010 (45 days after publication in the *Federal Register*). Instructions on how to file comments are listed [beginning on page 5 of the NPRM](#).

The Commission also attached an [Order](#) to the *NPRM* that makes certain non-substantive revisions to Part 97. According to the FCC, the rules are necessary to amend the Amateur Service rules or conform them to prior Commission decisions, enhancing the usefulness of the Amateur Service rules by making them conform with other Commission rules, thereby eliminating licensee confusion when applying the rules to Amateur Service operations. According to the *Federal Register*, the new rules take effect July 13, 2010. –ARRL Letter

DOWNLINK SIGNAL SUCCESSFULLY RECEIVED FROM VENUS-BOUND UNITEC-1

JAXA successfully launched the seventeenth H-IIA mission on May 21 (JST) carrying the Planet-C Venus Climate Orbiter a Venus probe, the experimental "Ikaros" space sail, a

Venus-bound University satellite called UNITEC-1 and 3 small satellites also developed by Japanese universities and other institutions delivered to low earth orbit.

The Venus probe, UNITEC-1, will be inserted into a Venus encounter trajectory and will become the world first university satellite which goes beyond Lunar orbit. The main mission of UNITEC-1 is to perform technological experiments of on-board computers and test long-range, inter-planetary communication using amateur radio frequencies:

Downlink Frequency:	5840.000MHz, band width 20MHz
Transmission Power:	4.8W/antenna, 9.6W total
Antenna:	2 Microstrip patch antennas
Modulation:	AFSK/FM 1200bps during LEO flight CW 1bps during Interplanetary flight
Call sign:	JQ1ZUN

News posted on the UNITEC-1 Operations Center web page reports that its CW and FSK signal have been received from a distance of approximately 300,000 km by Japanese ground stations on its first pass over Japan kept from 16:15 (JST) to 25:15 (JST) at 21st May. Their signal report indicated the measured downlink frequency of 5839.91 MHz which is down slightly from the design frequency of 5840.00 MHz. The UNITEC team will continue to work on refining receiving and recording techniques as well as tracking and orbital determination.

You can find the latest UNITEC-1 mission news on the team's operation center website: <http://sites.google.com/site/unitec1ops/> This also includes a link to their software page where a telemetry data decoder program is available.

Several universities with access to big dishes have expressed interest in creating a network of ground stations to track UNITEC-1 on its flight to Venus and continuing once the satellite is in orbit around the planet. This is still under development at press time and progress will be reported in future ANS bulletins. A radio link budget is under study to help amateur radio stations develop their capability to receive this interplanetary signal.

Pat Barthelow, AA6EG has developed a Facebook Event Page which he calls "UNITEC-1 VENUS PROBE COMMUNICATIONS" at: <http://www.facebook.com/event.php?eid=124468414245469&index=1> --AMSAT News Service

SHORTS

TAIWAN SPECIAL EVENT STATIONS - On the air, keep an ear open for special event stations 3H100TW, 3T100TW and 3T0TW. All are operational from the capital city of Taipei, Taiwan, through December 31st. QSL's for all three stations should be sent via the BV bureau.

70CM IN JEOPARDY DOWN-UNDER - Radio Amateurs in Australia are worried that they may soon lose access to some or all of the 420 to 450 MHz band. This after the Australian Communications and Media Authority issues a statement on future use of the spectrum from 403 to 520 MHz. Attachment 1 of the statement shows proposals for 420-430 MHz, there is no mention of the Amateur Service. With regard to 440-450 MHz the section on Proposed Transition Arrangements says that users in 452.5 to 453 MHz and 462 and 462.5 MHz spectrum will need to relocate either elsewhere in the 450 to 470 MHz band, or into another part of the 400 MHz band. Spectrum in 440 to 450 MHz will also be made available in consultation with the Department of Defense on a temporary basis. The Australian

Communications and Media Authority also propose to increase the number of UHF Citizen Band Radio Service channels from 40 to 80 by the use of 12.5 kHz channel spacing.

FREE IPHONE APP FOR ECHO LINK - There is an iPhone app for EchoLink available http://www.echolink.org/faq_iphone.htm It does allow you to use Echo Link from your iPhone provided you are a registered with Echo Link.

ORDER YOUR IRCS ONLINE AT USPS WEB SITE - Many hams have long complained about difficulties they have encountered when purchasing International Reply Coupons (IRCs) from their local post offices. Now the US Postal Service (USPS) has made it easier to get those IRCS to send with your direct QSL cards -- [order them online from the USPS Web site](#). The USPS ships all in-stock domestic orders for stamps and retail items within 1 business day via Priority Mail with Delivery Confirmation or First Class Mail. Shipments should arrive within 3-5 business days. All stamp orders are charged a \$1 handling fee, regardless of the order amount. IRCS purchased from the USPS, whether online or in person at a post office, cost \$2.10 each. Read more <http://www.arrl.org/news/order-your-ircs-online-at-usps-web-site>

FLYVENUSCOM - An informal network of ham radio experimenters, scientists and CW enthusiasts -- a nonprofit, cross-cultural effort -- has been created to support communication efforts by Japanese scientists with its CubeSat Venus probe, UNITEC-1. This CubeSat was developed by 20 universities of the University Space Engineering Consortium (UNISEC), the Japanese community developing nano-satellites. The Japanese UNITEC-1 team has called for ham radio assistance worldwide in improving and testing two areas of the CubeSat's mission. What makes this mission of particular interest to amateurs is the fact that the UNITEC engineers have added a 5 GHz Amateur Radio beacon to the spacecraft and they are encouraging hams to attempt to receive it. On May 21, Japanese ground stations reported receiving the CW and FSK beacons (call sign JQ1ZUN) at a distance of about 30,000 km. They measured the beacon frequency at 5839.91 MHz. Even though the latest reports say that the signal has been lost, the UNITEC team is trying to re-establish contact with the satellite. Read more <http://www.arrl.org/news/amateur-community-needed-to-assist-japanese-amateur-interplanetary-satellite>.

VIEW SATELLITES USING GOOGLE EARTH -- Using Google Earth you can see the real-time position of 13,000 satellites around the Earth. The positions of the satellites are automatically updated every 30 seconds and if you click on a satellite, additional information is displayed.

To view this you need to download and install Google Earth from <http://earth.google.co.uk/download-earth.html>

Next download the Satellite Database and open with Google Earth <http://adn.agi.com/SatelliteDatabase...teDatabase.kmz>

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/>