

RCA AMATEUR RADIO CLUB

AUGUST, 2007 **MONTHLY NEWSLETTER** INDIANAPOLIS, IN

THE NEXT MEETING OF THE **RCA AMATEUR RADIO CLUB** WILL BE
TUESDAY, AUGUST 7th, AT 6:30 PM AT DOOKZ SPORTS GRILL,
3800 E. 96th STREET, INDIANAPOLIS, IN

RCA ARC NEWS

SUMMARY OF THE JULY MEETING – At the July 3rd meeting, plans for the Indy Hamfest were discussed. Various improvements to the repeater shack were discussed including the newly installed ventilation fan, looking into ways to make the building more secure, and adding to a monitoring TV camera. Bob, W9HZD talked about the computer reset controller he is building for Echo Link and the repeater. Dave, N9KZJ, reported on the W9IND-USS Indianapolis event and the W9IMS US Grand Prix F1 special event operation. Field Day operation and results were discussed. Remember the Broad Ripple Hamfest on Aug. 4th.

RCA ARC AT THE INDIANAPOLIS HAMFEST – I would like to thank everyone who came out and helped load, unload and man the booth. The weather and the Hamfest were both great and we got a chance to see a lot of old friends. The Club did quite well selling the junk and I think the RCA ARC was the last table in the tent to tear down and leave. –K9RU

ON THE AIR – We have had good openings on 6 and 10 meters even with the low sunspot numbers. While operating the Brickyard 400 at W9IMS, I took a break by the 10 meter station, tuned around and did not hear anyone on so I called CQ anyway to kill some time and had a three hour run of contacts all over the US. I was talking to a station in Florida on 6 meters and he suggested we try 2 meter SSB and his was S9. –K9RU

IRCC OUTSTANDING AMATEUR OF THE YEAR 2007 - The Indiana Radio Club Council is now taking nominations for the 2007 Outstanding Amateur of the Year award. Each year one Hoosier Amateur Radio operator is selected to receive the award for outstanding service and dedication to Amateur Radio. The award will be presented during the Ft. Wayne Hamfest in November.

Nominees will be judged on years in Amateur Radio, years in a service role, active in public service and active as a mentor to new hams. Also considered is participation as a ham radio instructor, volunteer examiner and whether this person actively recruits new hams, especially young people.

This is a basic criteria and your application should not be limited to just these areas. The more information the better.

Please include your nominees email address or telephone number for follow up notification. *Nominations are due by midnight September 31, 2007.* E-mail your nomination to: **w8ish@arrl.net** -- Jack Parker, W8ISH, IRCC Chairman

INDIANAPOLIS VE TESTING SCHEDULE MODIFIED -- The Indianapolis Radio Club's VE testing schedule for Indianapolis has been changed.

Below is the schedule of testing sessions for the remainder of 2007.

SPONSOR: Indianapolis Radio Club (W9JP)
LOCATION: Indianapolis Training Center, 2820 N. Meridian Street.
CONTACTS: Gale Wuollet, AA9WU (home) 317-849-8449
COORDINATING VEC: American Radio Relay League (ARRL) VEC, Inc.
DATES: Aug 18th Sept 1st Oct 6th Nov 3rd Dec 1st

All testing at the Indianapolis Training Center starts at 9:00 am and the last test will be administered no later than 11:00 am. Calling in advance to ensure testing availability is suggested but not mandatory.

HAMFESTS; EVENTS

4 Aug	Broadripple Hamfest, Indy	http://www.indyradioclub.org/hfinsite2007.htm
19 Aug	Tippecanoe, Lafayette, IN	http://www.w9reg.org/hamfest
25 Aug	Owen Co./Bloomington, Spencer IN	http://www.bloomingtonradio.org/hamfest
16 Aug	East Central Illinois, Oakwood, IL	http://www.vcara.org/
8 Sep	Greater Louisville Hamfest, Shepherdsville, KY	http://critterbob.com/glha
15-16 Sep	Peoria Superfest, Peoria, IL	http://www.peoriasuperfest.com/
16 Sep	Greater Cincinnati, Cincinnati, OH	http://gcara.org/
23 Sep	Hancock ARC, Greenfield, IN	http://w9atg.org/
29-30 Sep	Chicago FM Club, Belvidere, IL	http://www.chicagofmclub.org/
17-18 Nov	Fort Wayne Hamfest, Ft. Wayne, IN	http://www.fortwaynehamfest.com/
24 Nov	EARS & The Ham Station, Evansville, IN	http://w9ear.org/hamfest.htm

FCC RELEASES POST-KATRINA ORDER, "FINAL RULE"

On July 11, the FCC released their Order regarding the recommendations of the independent panel reviewing the impact of Hurricane Katrina on communications networks (the Katrina Panel). It contained their conclusions following a review of the comments filed in response to the FCC's Notice of Proposed Rulemaking (NPRM). The Commission asked for comments a week after the release of the report and recommendations of the Katrina Panel and directed the Public Safety & Homeland Security Bureau (PSHSB) to implement several of the recommendations. The FCC also adopted rules requiring some communications providers to have emergency/back-up power and to conduct analyses and submit reports on the redundancy and resiliency of their 911 and E911 networks. The FCC's actions are to go into effect August 10.

The Commission noted that "the amateur radio community played an important role in the aftermath of Hurricane Katrina and other disasters," and instructed the PSHSB to "include the amateur radio community in its outreach efforts."

The FCC invited comments on the Katrina Panel's recommendation that the FCC "act to enhance the public safety community's awareness of non-traditional emergency alternative technologies that might be of value as back-up communications systems in a crisis." Several commenters suggested that the public safety community be educated about the applicability of Amateur Radio in a crisis. The FCC agreed with these comments, saying that improving the public safety community's knowledge of, and training in, alternative technologies would

improve preparedness for future crises. They directed the PSHSB to "develop and implement an awareness program to educate public safety agencies about alternative technologies and to encourage agencies to provide regular training on any alternative technologies to be used," including educating public safety agencies about alternative technologies.

The recommendations said that several Amateur Radio operators recommended changes to Part 97 of the FCC's rules; Part 97 is the section that covers Amateur Radio. Many of the suggestions, the report said, have already been implemented, and as such, require no further action. For example, "the Commission recently eliminated Morse Code proficiency as a license qualification requirement, an action supported by several commenters in this proceeding."

The FCC once again made clear that Part 97 "does not prohibit Amateur Radio operators who are emergency personnel engaged in disaster relief from using their amateur radio bands while in a paid duty status." This changed this past December in WT Docket 04-140, the "Omnibus" Amateur Radio Report and Order (R&O).

The Commission also previously decided to phase out RACES station licenses, "making proposed changes to rules relevant to these licenses moot." ARRL Regulatory Information Specialist Dan Henderson, N1ND, notes that the FCC "is not phasing out the RACES program, just the RACES station licenses."

In his comments to the Katrina Panel, W. Lee McVey requested that the FCC initiate a rulemaking to create a new radio service in the 148-150 MHz band "to facilitate interoperability between different first responders during and following a national emergency." The FCC noted that the 148-149.9 MHz band is allocated on a primary basis for the federal mixed, mobile and mobile satellite (Earth-to-space) service, and the 149-150.05 MHz segment is allocated on a co-primary basis for federal and non-federal mobile satellite (Earth-to-space) and radio navigation.

The FCC's report said "[This] petition does not address this use nor does it explain what rules would be necessary to govern access to this spectrum. Given the potential impact of McVey's proposal to spectrum allocated for federal use, we direct PSHSB, together with the Office of Engineering and Technology (OET), to seek feedback from the National Telecommunications and Information Administration (NTIA) on this petition."

The FCC said that when it receives the feedback, they will direct PSHSB and OET to make a determination on the appropriate action to be taken on McVey's petition. --ARRL Letter

ARRL ACTS ON BACKGROUND CHECKS, DIGITAL ISSUES

The ARRL Board of Directors took action on two pressing matters, background checks and emerging digital technologies, at its second meeting of 2007, held July 20-21 in Windsor, Connecticut. Invited guests included IARU Vice President Tim Ellam, VE6SH, and Radio Amateurs of Canada President Earle Smith, VE6NM.

A major concern at this Board meeting was the topic of served agencies and background investigations. The Ad Hoc Background Investigation Committee agreed that pursuing federally recognized credentialing for Amateur Radio volunteers was critical for the Amateur Radio Emergency Service (ARES) to function. The Committee chairman, ARRL Atlantic Division Director Bill Edgar, N3LLR, proposed that the Board adopt a policy with regard to Memoranda of Understanding with the various served agencies.

The Board adopted a policy that "communications volunteers participating in ARRL-sponsored programs should not be required by served agencies to undergo background investigations of any kind," but notes that criminal background checks--performed by law enforcement agencies--are "generally acceptable." The policy continues, "It is not reasonable for a served agency to require these volunteers to consent to credit checks, mode of living investigations or investigative consumer reports. In negotiating or renegotiating Memoranda of Understanding that commit the ARRL to provide volunteer emergency communications support, the League must be assured that these volunteers will not be required by the partner organization to consent to credit checks, mode of living investigations or investigative consumer reports."

Digital communication was another topic up for discussion at the Board meeting. One question was the extent to which D-STAR systems fall within the FCC definition of "repeater." Some repeater coordinators do not consider D-STAR to be a repeater.

The Board also thanked existing VHF/UHF frequency coordination groups for their efforts "to promote orderly use of amateur frequencies." The Board requested that such groups "extend their efforts to coordinate digital systems such as D-STAR" and consider the bandwidths actually required for successful operation.

In a related action, the Board thanked those involved in digital networks that serve ARES, specifically radio e-mail systems, for creating a system that facilitates Amateur Radio's ability to provide emergency communications. The League affirmed its desire to work with developers of digital systems to improve efficiency, address control issues and enhance compatibility with other users of the Amateur Radio bands. --ARRL Letter

FCC COMMISSIONER LAUDS BPL IN HOUSE TESTIMONY; ARRL RESPONDS

On July 24, FCC Commissioner Jonathan S. Adelstein testified at a House Subcommittee on Telecommunications and the Internet hearing that "three of the many urgent priorities we face" include the need for "a national broadband strategy to ensure the ubiquitous deployment of affordable, high speed broadband infrastructure to this country." FCC Chairman Kevin Martin and Commissioners Tate, McDowell and Copps testified as well at the "Oversight of the Federal Communications Commission" hearing.

ARRL Chief Executive Officer David Sumner, K1ZZ, responded via fax on July 25 to Commissioner Adelstein's remarks. "I cheered silently when I came to your reference to the 'current anemic definition of high-speed' that includes service that is too slow to meet citizens' reasonable expectations," he wrote. "I was even more impressed with your statement in the next paragraph, 'We must take a hard look at our successes and failures.'"

Sumner, however, expressed "great disappointment" over Adelstein's reference to "broadband over power line" (BPL) as "a technology deserving of 'increasing incentives for investment.' None of your colleagues' testimonies contain a similar reference," he pointed out.

Sumner reiterated the ARRL's position with regard to BPL technology and "its propensity to interfere with radio communication, a flaw that is not shared by other broadband delivery platforms. As long as interference is avoided," Sumner said, "it is of no concern to us whether private investment is devoted to BPL. However, we must object to your identification of BPL as a technology that is particularly deserving of favorable public policy treatment."

Calling the FCC's "inexplicable favoritism of BPL in the face of contrary evidence" one of the

Commission's "failures," Sumner noted that according to the Commission's own latest figures, "of 64,600,000 'high-speed' lines, only about 5000 are BPL. This is a share of 0.008 percent, a share that actually declined in the six-month period between reports--and if an 'anemic' definition were not used, none of the 5000 or so BPL lines would qualify."

ARRL's concern, Sumner said, at the "prospect of an even greater encouragement of BPL, as your testimony suggests, is that--even at the very low level of deployment that exists to date--the FCC's enforcement efforts have proved to be woefully inadequate to address ongoing cases of harmful interference from BPL systems."

Sumner concluded his comments: "We respectfully submit that BPL has not earned a place in the much-needed national broadband strategy to benefit all Americans. Resources are better devoted elsewhere, to more promising technologies that do not pose a threat to the Commission's radio service licensees." --ARRL Letter

FCC DISMISSES THREE AMATEUR STATION IDENTIFICATION CHANGE REQUESTS

On July 10, the FCC dismissed three separate petitions to Section 97.119 of the Commission's Rules. These petitions requested changes to the way amateur stations are identified. Two of the petitions requested that the time interval between required identification announcements be changed, while the third petition requested that certain combinations of letters be reserved for use by current or former members of the armed forces when identifying their amateur service stations.

The FCC said that "[b]ecause the petitioners seek to amend the rules to permit activity that the current rules already permit, or do not present sufficient evidence to justify altering the current rules, we are dismissing all three petitions." Section 97.119(a) of the Commission's Rules provides that an amateur station "must transmit its assigned call sign on its transmitting channel at the end of each communication, and at least every 10 minutes during a communication, for the purpose of clearly making the source of the transmissions from the station known to those receiving the transmissions."

Murray Green, K3BEQ, of Cheverly, Maryland, filed a Petition for Rulemaking (PRM) asking the FCC to amend Section 97.119(a), requesting the FCC to reduce the required frequency of station identification to every 30 minutes, rather than once every 10 minutes.

Green's petition received approximately 100 comments, with the majority of those commenting in opposition to the petition.

The FCC, on finding that the present rule has not been shown to be burdensome or unreasonable, said they were not persuaded by comments that support expanding the interval between required identification to 15 or 20 minutes.

The Commission noted that "a hallmark of enforcement in the amateur service is 'self-policing,' which depends on an amateur station hearing a message being able to determine the call sign of the transmitting station." The FCC concluded that "proposing to increase the time between required station identification transmissions would not improve or enhance the operation of amateur service stations or otherwise be in the public interest," and dismissed Green's petition.

Glen Zook, K9STH, of Richardson, Texas, filed a separate PRM, requesting that the

Commission amend Section 97.119(a) to require that the call sign be transmitted at the beginning and end of each single transmission, as well as at the beginning and end of a series of transmissions between stations having established communications when each transmission is less than three minutes in duration. He also requested that the FCC amend the rule to require that the call sign be preceded by the words "this is" or "from" when voice communication is being transmitted, and require that the call sign be preceded by the prosign "de" when telegraphy is being transmitted.

The FCC agreed with the majority of commenters in the Zook petition, calling the proposed rules change "unnecessary and...burdensome." Saying that identifying before every transmission could "lead to congestion, such as during a contest when many amateur operators are trying to contact a distant station," the petition "does not demonstrate that so revising the station identification requirement would address the primary concern expressed by the petitioner -- that many Amateur Radio operators do not identify their station timely or at all."

The Quarter Century Wireless Association (QCWA) filed a PRM requesting that Section 97.119(c) be amended to permit an Amateur Radio operator who is a "current or honorably discharged member of the United States military to include a unique indicator with the station's call sign identification announcement." Section 97.119(c) of the Commission's Rules permits the inclusion of indicators with the call sign during station identification, provided that no self-assigned indicator conflicts with any indicator specified by the Commission's rules or with any prefix assigned to another country.

Specifically, QCWA requested that the indicators AF, AA, NA, NM and ACG be reserved for use by current or honorably discharged members of the United States Air Force, Army, Navy, Marine Corps and Coast Guard, respectively.

The FCC dismissed this petition, saying that "Amateur Radio operators who are current or honorably discharged members of the United States military already are permitted to identify their stations in the way QCWA suggests." The Commission went on to say that the QCWA "seeks to regularize the use of its proposed indicators to increase their recognition, the amateur community may do so without any change to the amateur service rules." As such, the FCC deemed such a rule change unnecessary and dismissed the QCWA's petition. --ARRL Letter

NEW HIGH EFFICIENCY RF LINEAR AMPLIFIER DESIGN

Allen Katz, K2UYH and Marc Franco, N2UO have designed a VHF, high-efficiency, class-E, RF power amplifier with a DC to RF efficiency of 86.8%. Their innovative design is based on silicon carbide (SiC) metal-semiconductor field effect transistors, or MESFETs.

The design was presented in a paper at the IEEE International Microwave Symposium in Hawaii. It is now available on-line: http://www.cree.com/products/wireless_docs.htm titled "Class-E Silicon Carbide VHF Power Amplifier" (June 5, 2007)

The final amplifier efficiency was measured at around 86 to 88% with this number holding quite well at almost any drain voltage or output power. This type of amplifier is under consideration for the envelope elimination and restoration linear amplifier planned for the AMSAT Eagle satellite. –AMSAT News Service

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