

RCA AMATEUR RADIO CLUB

JULY, 2010 MONTHLY NEWSLETTER INDIANAPOLIS, IN

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, JULY 13th, 6:30 PM AT [G.T. SOUTH'S](#),
5711 E. 71st STREET, INDIANAPOLIS, IN

THE INDIANAPOLIS HAMFEST, SATURDAY, JULY 10 AT CAMP SERTOMA
[HTTP://WWW.INDYHAMFEST.COM](http://www.indyhamfest.com)

RCA ARC NEWS

SUMMARY OF THE JUNE MEETING – Field Day was discussed at the June meeting. Not too much is yet known about the details of the operation with the Indianapolis Radio Club except the setup from last year will be adapted with the addition of an additional transmitter position. Also, the operation will take place from the Sheriff's building at the Marion County Fair Grounds this year. N9KZJ has been in on some of the planning meeting. K9RU will be doing FD in New Mexico operating W9UFO. W9ZB will be doing a family FD with his ham brothers in Wisconsin. N9KZJ reported on the recent Museum Ships event. K9RU reported the W9IMS special event station made 6470 QSOs leading up to the Indy 500. There will not be another meeting before the Indy Hamfest, July 10. We need some help loading our junk on Friday afternoon July 9th starting about 3PM. We also need one more pickup truck if anyone can help with that, contact Jim K9RU at k9ru@arrl.net or 317 218-7304 during the day.

INDIANAPOLIS HAMFEST, SATURDAY JULY 10 -- 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 Koss' to the hamfest. We only have about three pickup truck loads of stuff and the plan is to use members' vehicles to transport it to the hamfest. **We could use one more pickup truck** on Friday afternoon. If you can help us out, please contact Jim, K9RU at K9RU@arrl.net.

As usual we need some help loading beginning about 3PM Friday (July 9) and unloading at the Hamfest, finishing about 6PM. Please give us a hand if possible.

ARRL VE TESTING --

Sponsor: W9IMS

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

Contact: Jim Rinehart, K9RU (317-218-7304) email: k9ru@arrl.net

When: July 12, 2010

Time: All testing starts at 6:30 PM; Walk-ins are welcome.

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

BROAD RIPPLE HAMFEST -- The Broad Ripple 'Tail Gate' Hamfest will be held August 7th, 2010, from 7AM to 1PM. Located on the north side of Indianapolis at 7373 Westfield Blvd., it is about 1.4 miles north of 62nd St. (Broad Ripple) and 1.8 miles south of 86th St. (Nora) on Westfield Blvd. – can't miss it! There are no fees for visiting or selling of equipment. Bring your own tables & chairs.

There is plenty of parking available on the lot. K9OOA (Joe) and K9OOB (Betty) will supply coffee & donuts at 7 AM and the Indianapolis radio Club will supply hot dogs, buns,

condiments, and soft drinks. Participants are requested to bring one pitch-in dish.

JUNE ARRL VHF CONTEST -- This was a great contest with 6 meters open for the whole contest and E openings on 2 meters. It seemed like you could point your beam in any direction on 6 meters and work different grids. We had real good openings into the Caribbean and South America. VQ5M was heard during all most of the contest. 2 meters did have an E opening, but most of the stations were concentrating on 6 meters. –K9RU

HAMFESTS, OPERATING EVENTS & TESTING

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, 317 218-7304.

Aug 07 Broad Ripple Hamfest, 7373 Westfield Blvd., Indy. Free!

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.

ARRL FILES COMMENTS WITH FCC REGARDING SPREAD SPECTRUM ISSUES

In response to a 2006 ARRL [Petition](#) regarding spread spectrum issues, the FCC released a *Notice of Proposed Rule Making (NPRM)* on March 16 ([WT Docket No 10-62](#)), proposing 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. The [ARRL filed comments on this matter](#) on June 14, 2010.

In its comments, the ARRL requests that the FCC proceed with the following proposals in the *NPRM*:

- To delete the APC requirement of [Section 97.311\(d\)](#) of the Commission's rules.
- To move the power limit for SS communications from Section 97.311 to [97.313\(j\)](#) of the rules.
- If the record developed in comments in response to the *NPRM* supports the proposed power reduction from 100 W PEP output power to 10 W, as proposed, then to implement that power reduction, subject to revisiting the matter at a later date if the reduction proves a substantial disincentive to expanded SS experimentation in the Amateur Service.

The ARRL's 2006 *Petition* proposed the deletion of Section 97.311(d) of the Commission's rules, save for the first sentence thereof. "The effect of this would be to eliminate an automatic power control provision for Amateur Radio SS communications," the ARRL stated in its comments. "The *NPRM* proposes that relief, but at the same time, as something of a tradeoff, proposes to reduce the maximum transmitter power output when an amateur station is transmitting an SS emission, from a maximum of 100 W to a maximum of 10 W PEP transmitter output power."

The ARRL maintains that proposed deletion of the APC requirement for amateur SS communications is timely and necessary, stating that the ARRL's *Petition* showed that the APC requirement has, since it was first imposed in 1997, "been impractical of compliance; unnecessary in order to protect other Amateur Radio operations or the operation of any licensed radio service sharing certain Amateur Radio allocations; and it has served as an unintended, but effective deterrent to Spread Spectrum experimentation in the Amateur Service."

Pointing out that the FCC has revisited the rules governing amateur SS communications several times, the ARRL notes that to its knowledge since the first SS operation was authorized by the Commission, "has anyone provided documentation of harmful interference from Amateur SS communications to narrowband amateur operation, nor to any authorized radio service operating in the same spectrum. Neither, as far as ARRL is aware, has there ever been an allegation of actual interference to any Part 15 device or system operating at 902-928 MHz or 2400-2450 MHz from an Amateur SS system."

In 1995, the ARRL proposed changes to the SS rules, including was a suggestion to incorporate APC for SS communications. Previously, the SS rules [then Section 97.311(g)] simply limited stations using SS emissions to 100 W. "It was believed at the time that APC would be a technical implementation of the fundamental, overarching requirement in the Amateur Rules that at all times an amateur station must use the minimum transmitter power necessary to carry out the desired communication," the League stated in its comments. "The ARRL believed at the time that APC for SS could be accomplished technically. It was not, however, ever suggested by ARRL or the Commission that APC was necessary to avoid interference. Quite the contrary; the Commission concluded that SS communications were entirely compatible with other operations on the same frequencies."

The ARRL maintains that the Commission should avoid the imposition of an effectively arbitrary power limit while eliminating the APC requirement, saying that doing so "is arguably substituting one disincentive to SS experimentation with a different one. Such would be antithetical to the goal enunciated by the Commission in the *Notice*, which is to 'encourage individuals who can contribute to the advancement of the radio art to more fully utilize SS technologies in experimentation.' Nor is a power reduction necessarily the 'balance' of interests of users in mixed-mode and mixed-service frequency bands 'until sharing protocols are sufficiently developed to avoid interference' as the Commission describes the power restriction. No balancing has been shown in 25 years of SS operation to be necessary."

That said, ARRL told the FCC that it is not presently prepared to argue that a power limit of 10 W PEP output is a substantial handicap to SS experimentation: "While the proposed 90 percent decrease in maximum power output is not viewed as necessary, ARRL is willing to accept the restriction presently, subject to revisiting the matter after some reasonable experience is gained with it. The Amateur Service can, in the meantime, ascertain (1) whether or not the reduced power limit is or is not a substantial disincentive to expanded SS experimentation, and (2) whether or not increased power can be implemented without a risk of additional interference to other amateur stations and other radio services in the bands in which SS is and will be deployed."

FCC SEEKS COMMENTS ON AMATEUR 5 MHZ (60 METERS) ALLOCATION

In May, the FCC released a Notice of Proposed Rulemaking (NPRM) -- ET Docket No 10-98 -- proposing to amend the Part 97 rules governing the Amateur Radio Service. Specifically,

the Commission looks to modify the rules pertaining to the use of five channels in the 5330.6-5406.4 kHz band (60 meters) to replace one designated channel with one that is less encumbered, to authorize three additional emission designators and to increase the maximum authorized power in this band. On June 15, a summary of the NPRM was published in the Federal Register, which started the clock on the deadline for comments. Comments must be filed on or before July 15, 2010 (30 days after publication in the Federal Register); reply comments must be filed on or before July 30, 2010 (45 days after publication in the Federal Register). Instructions on how to file comments are listed beginning on page 6 of the NPRM.

VK HAM DEVELOPING ALTERNATIVE TO AMBE ENCODER

While the D-Star protocol developed by the Japanese Amateur Radio League is open and freely available for use by anyone. However, the AMBEvoice encoding scheme currently used by the D-Star protocol is not. Rather it is patented by DVSI, Inc. and its licensing fee is one of the factors in the higher cost of a D-Star radio over a similar analog FM unit. But that could change if one Australian ham has his way.

Development on an open source, freely available alternative to AMBE is being spearheaded by David Rowe, VK5DGR. This open voice protocol is called Codec 2. Right now, it is in a highly experimental stage but has several advocates in open source software circles.

Rowe says that a D-Star protocol implementing Codec 2 Digital Voice would significantly drop the entrance level cost to the mode and appeal to a much wider audience. He says that once Codec2 is stable and competitive, it would offer a real, developed-by-a-ham alternative to the patented AMBE voice encoder.

You can find out more about Codec 2 at David Rowe's development site <http://www.tinyurl.com/2362n3t> (KE7HQY)

FCC ISSUES PUBLIC NOTICE TO SEEK INFORMATION, COMMENTS ON CURRENT USE OF 1675-1710 MHZ

The National Broadband Plan ([NBP](#)) recommends that the FCC should make 500 MHz of spectrum available for broadband use within the next 10 years, including 300 MHz between 225 MHz-3.7 GHz for mobile use in the next five years. The FCC's Office of Engineering and Technology ([OET](#)) has engaged in discussions with the National Telecommunications and Information Administration's ([NTIA](#)) Office of Spectrum Management to begin examining various frequency bands that may be suitable for mobile broadband use. NTIA has preliminarily identified the 1675-1710 MHz band for such use and is examining the impact on its incumbent federal users. As such, the FCC issued a *Public Notice* ([ET Docket No 10-123](#)) on June 4, 2010, seeking information to help better comprehend the current use of the 1675-1710 MHz band by non-federal entities and better understand its potential utility for broadband.

The 1675-1710 MHz band is allocated on a co-primary basis for federal and non-federal use for the Meteorological Aids Service and the Meteorological Satellite Service (Space-to-Earth); this band is used for downlinks from certain weather satellites and radiosondes (weather balloons) that are administered by the National Oceanographic and Atmospheric Administration ([NOAA](#)). NOAA provides these services for weather forecasting, tracking of

hurricanes and other storms, prediction of flooding and drought conditions and warning against other hazards to life and property.

Many Amateur Radio operators -- such as members of ARES®, RACES and SKYWARN -- as well as emergency management agencies use frequencies in this range via the National Weather Service's Emergency Managers Weather Information Network ([EMWIN](#)) system. EMWIN is a suite of data access methods which make available a live [stream](#) of weather and other critical emergency information. EMWIN was developed as the NWS recognized the need to provide the emergency management community with access to a set of NWS warnings, watches, forecasts and other products at no recurring cost. In partnership with the National Environmental Satellite, Data and Information Service ([NESDIS](#)) and other public and private organizations, EMWIN has evolved into a fully operational and supported NWS service.

Although the 1675-1710 MHz band is co-allocated for non-federal use, the Commission states in the *Public Notice* that its database shows no active licensees in the spectrum: "Non-federal entities such as universities, private sector weather forecasters and others are thought to employ receive-only stations for reception of Meteorological Satellite Service space station downlink transmissions, and in this case an FCC authorization for receive only Earth stations is not required. Therefore, the Commission has no information on the extent of such non-federal use in the band."

The FCC said that it expects to find that "this band is relatively lightly used, both geographically and temporally, and thus could be shared by others." As such, the Commission seeks comment on the utility of the 1675-1710 MHz band of spectrum for wireless broadband services, and approaches to making the band available for such uses: "It may be possible that reception of the weather satellite downlink transmissions could occur at a relatively small number of sites and be distributed via terrestrial services, such as over the Internet or other managed services. Thus, with regard to incumbent satellite receive-only stations, we seek comment on the extent to which and manner in which non-federal users directly access federally authorized Meteorological Satellite Service space station downlink transmissions. We also seek comment on the extent to which non-federal users directly access transmissions from radiosondes. Also, it may be feasible for radiosondes to operate using substantially less bandwidth than they currently do, freeing spectrum for other uses, or for them to use an alternative technology or relocate to other spectrum."

FCC PITCHES NATIONAL BROADBAND PLAN

The Federal Communications Commission Tuesday released technical papers supporting and expanding on its national broadband plan spectrum proposals, including making its pitch for reclaiming broadcast spectrum.

The FCC wrote: "Consumers in these markets tend to have a relatively large number of alternatives to view television content—a median of 16 OTA full-power television stations, OTA low-power stations and digital multicast channels, at least three to four multichannel video programming distributors (MVPDs), and a growing amount of broadband Internet video content, increasingly delivered to the TV."

The commission also talked about compensating over-the-air viewers who lose access to signals with free cable service for life, or a coupon program for equipment upgrades for those who lose service due to coverage area reductions -- the FCC will have to repack stations after

the reclamation, just as it did after it moved to DTV and simultaneously reclaimed the 700 MHz spectrum.

"Since a significant portion of the TV bands is not directly used for broadcasting, a limited number of stations in a limited number of markets choosing to participate voluntarily could recover a significant amount of spectrum," the FCC said in ["Spectrum Analysis: Options for Broadcast Spectrum."](#) "The FCC would, of course, seek to ensure that such auctions and other actions to enable reallocation do not significantly adversely affect particular communities of American TV viewers."

According to the FCC's calculations, the vast majority (93%) of stations in markets 100-plus are using fewer than 10 channels out of a possible 49. "Since the TV bands in markets 100+ are not constrained with large numbers of full-power broadcasters, very few stations (and perhaps none at all) in these markets are likely to be included in an incentive auction." The FCC must still get congressional approval to share auction proceeds with broadcasters, which is the "incentive" part of the auction proposal.

As to compensating viewers for lost or reduced service, which could be subject to some kind of means test, the FCC said it would be "reasonable-i.e., lower than the cost for the DTV coupon program and much lower than the proceeds from an auction of the reallocated spectrum."

The Consumer Electronics Association was quick to praise the commission's report. CEA, which has been pushing for the reclamation said the report made a "compelling factual case for all stakeholders to embrace the voluntary auction of underused broadcast television spectrum to address our nation's looming mobile broadband crisis." CEA also pointed to the paper's conclusion that broadcasters could share channels and still do HD.

The FCC said that while broadcasters talk about mobile DTV as their future, the business model is still in its infancy and its success against competitors for mobile video has yet to be determined. It also points out that stations cannot deliver HD and mobile DTV at the same time, though they may be able to do so with technological advances in the "not-to-distant" future.

The FCC said it welcomes input on the report on its blogs, in an engineering forum announced at the National Association of Broadcasters convention in April, and after it proposes its spectrum rulemaking, now planned for the third quarter.

NAB has been lobbying against the reclamation proposal, concerned that it might wind up being less voluntary than advertised, including the mandatory repacking--and subsequent dislocation--of channels that would be the result of even a voluntary effort. --ARRL Letter

FCC ISSUES DOCKET ON REWRITE OF PART 95 RULES

The FCC is proposing a massive rewrite of its Part 95 rules. These are the regulations that govern such public available two way radio as the General Mobile Radio Service, the Family Radio Service, and 11 meter CB to mention only a few.

WT Docket No. 10-119 was released on June 7th and is a catch all of proposed rules changes that would affect the General Mobile Radio Service the most. This, by ending its current licensing requirements and replacing these with what the FCC calls License by Rule. That's

an FCC term that kind of means doing to GMRS what it essentially did on 11 meter CB a few decades ago. It would additionally mean relaxing GMRS eligibility requirements and at the same time implementing mandatory 12 point 5 kilohertz channel spacing to the service. It also would also allow the transmission of Global Positioning System location information and user-generated text messages on certain GMRS channels.

As to the Family Radio Service, the FCC proposes to prohibit the authorization of radios that combine FRS with other safety-related services. In other words, an FRS radio would have to be a Family Radio Service only transceiver and it would become illegal to manufacture an FRS radio that could work with or in any service other than channels where FRS is allocated to operate. This would mean an end to a whole slew of transceivers that have multiple service capability especially those that cover both FRS and GMRS or some with FRS, GMRS and Marine channel capability.

Regarding 11 Meter CB, the FCC says it plans to evaluate various requirements regarding the Citizens Band Radio Service in order to determine whether they all are still needed. Of significance the FCC will be looking into CB'ers who work skip during band openings. It notes that amplifiers for CB stations are already illegal, but WT Docket No. 10-119 asks if the regulatory agency should consider prohibiting directional antennas for C-B operations in order to promote the services intended use for short range only communications. It also wants to know if it should consider power reductions for the CB Service and whether or not to permit the use of "hands-free" microphones.

FCC WT Docket No. 10-119 is 96 pages long including various appendices. It also carries a rather short commentary cutoff date of 30 days after publication in the Federal Register. Reply Comments will be due 45 days after publication in the Federal Register. You can download and read it yourself at http://hraunfoss.fcc.gov/edocs_public/C-10-106A1.doc -- FCC

WX4NHC AND AMATEUR RADIO FEATURED ON NHC'S NEW HURRICANE PREPAREDNESS WEB SITE

In April, the National Hurricane Center (NHC) debuted a new Web site dedicate to hurricane preparedness. The site explains that a lack of hurricane awareness and preparation are common threads among all major hurricane disasters, and that by knowing your vulnerability and what actions you should take, you can reduce the effects of a hurricane disaster. One of the tools that the NHC mentions on its Web site is WX4NHC, the Amateur Radio station located at NHC Headquarters in Miami, Florida.

In speaking about the WX4NHC volunteer ham radio operators, the NHC notes that "formal Amateur Radio activity at the National Hurricane Center was initiated in 1980 and has been an important source of real-time weather observations before, during and after hurricane landfalls. Dedicated ham radio volunteers work at NHC during storm events to help provide NHC meteorologists with very important data that is used in the hurricane warning process. Please visit www.wx4nhc.org for a more detailed history of the WX4NHC ham radio service."

WX4NHC Assistant Coordinator Julio Ripoll, WD4R, said that he hopes that this updated NHC Web page "will help promote public awareness about Amateur Radio and more activity from the Amateur Radio community during this hurricane season." --ARRL Lette

E-MAILS ASKING FOR PERSONAL INFORMATION ARE NOT FROM ARRL

The ARRL has received several reports from ARRL members with arrl.net e-mail accounts who have recently been contacted via e-mail asking for personal information, such as user names and passwords. Please be assured that these e-mails are fraudulent attempts at phishing and did not originate from ARRL. "This is a very crude attempt at phishing, using an easily determined spoof of the originating/return address," said ARRL Chief Financial Officer Barry Shelley, N1VXY. "There is never a time when we would ask via mass e-mail for user names and passwords of arrl.net users. There is simply no need to ever do so." If you receive an e-mail asking for personal information and it looks like it originated from ARRL, please do not respond, just delete it. –ARRL Letter

SHORTS

DAYTON HAMVENTION ATTENDANCE CONTINUES AN UPWARD GROWTH TREND -- According to its Public Relations Director Henry Ruminski, W8HJR, the official attendance for Hamvention 2010 was 19,750. This continues the upward trend begun last year when 18,877 were counted going through the gate at the Hara Arena following the 2008 record ten year low figure of 17,253.

While this is a good positive direction it's also still a long ways from the 10 year record headcount of 28,804 set back in 2000. The all time record Hamvention attendance was in set in 1993 when 33,669 radio amateurs from around the world made their way to Dayton, Ohio for this annual ham radio right of Spring. (Hamvention Remailer, W8HJR)

NASA Warns of Potential "Huge Space Storm" In 2013 -- "Senior space agency scientists believe the Earth will be hit with unprecedented levels of magnetic energy from solar flares after the Sun wakes 'from a deep slumber' sometime around 2013. In a new warning, NASA said the super storm could hit like 'a bolt of lightning' and could cause catastrophic consequences for the world's health, emergency services, and national security — unless precautions are taken. Scientists believe damage could extend to everyday items such as home computers, iPods, and sat navs. 'We know it is coming but we don't know how bad it is going to be,' said Dr. Richard Fisher, the director of NASA's Heliophysics division. 'I believe we're on the threshold of a new era in which space weather can be as influential in our daily lives as ordinary terrestrial weather.' Fisher concludes. "We take this very seriously indeed."

SPECIAL EVENT STATION K4C -- The Puerto Rico Amateur Radio League will operate special event station K4C from 4 July to 1 August 2010 to celebrate the XXI Central American and Caribbean Games that will take place in Mayaguez, Puerto Rico (NA-099, USi PR006S, WLOTA LH-2802). QSL direct to KP4ES.

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