

# RCA AMATEUR RADIO CLUB

AUGUST, 2009      MONTHLY NEWSLETTER      INDIANAPOLIS, IN

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE  
TUESDAY, AUGUST 11, 6:30 PM AT THE [G.T. SOUTH'S](#),  
5711 E. 71<sup>st</sup> STREET, INDIANAPOLIS, IN

**RCA ARC NEWS** -- The July meeting followed a month with several club and operating events; WW2IND USS Indianapolis, ARRL VHF Contest, Field Day, and the Indianapolis Hamfest. All were discussed at the meeting. We did well in Field Day with the Indianapolis Radio Club. Total points scored was over 5628. Down from the 6200 we had last year. The RCA ARC tables at the Indy Hamfest did quite well and we stayed dry in the tent when the rains came. We still have a little stuff to sell next year. RCA ARC did sponsor and judge the homebrew contest again this year at the Indy Hamfest and there were quite a few good projects entered. K9RU went over the changes to the repeater antenna system. N9KZJ reported on the WW2IND USS Indianapolis operation and the progress on the museum USS Indianapolis Radio station. The Indianapolis Radio Club will have their September at the museum offering one of the first chances to view the finished display. The Broad Ripple Hamfest the next local event and several members plan to set up in the tailgate area.

**INDIANAPOLIS VE TESTING SCHEDULE** -- Calling in advance to ensure testing availability is suggested but not mandatory. Walk-ins are accepted.

**SPONSOR:** Indianapolis Radio Club (W9JP)

**LOCATION:** Indianapolis Training Center (ITC), 2820 N. Meridian Street.

**TIME:** All testing starts at 9:00 AM

**CONTACTS:** Gale Wuollet (317-849-8449), <mailto:indy33windy@comcast.net> or Dovid Ofstein (317-908-5125) [doctoro57@yahoo.com](mailto:doctoro57@yahoo.com)

August 8, 2009,	liaison is Dovid Ofstein (N9APE)
September 5, 2009	liaison is Gale Wuollet (AA9WU)
October 3, 2009	liaison is Gale Wuollet (AA9WU)
November 7, 2009	liaison is Dovid Ofstein (N9APE)
December 5, 2009	liaison is Gale Wuollet (AA9WU)

## HAMFESTS & EVENTS

Aug 16	Lafayette Hamfest, Lafayette, IN
Aug 22	Owen-Monroe Amateur Radio Hamfest, Spencer, IN
Aug 28-30	W9IMS MotoGP Special Event Station Operation
Sept 11	Indianapolis Radio Club 3 <sup>rd</sup> Hill Top OTA (On The Air) Event
Sept 12-13	Worked All Europe Contest Phone
Sept 12-15	ARRL September VHF Contest
Sept 26	Greenfield Hamfest No fees, no prizes, just a free flea market!
Sept 26-27	CQ World Wide RTTY Contest
Oct 4	Hoosier Hills Ham Club Hamfest, Bedford, IN
Oct 24-25	CQ World Wide Phone Contest
Nov 14-15	Fort Wayne Hamfest & Computer Expo, Fort Wayne, IN

## **WALTER CRONKITE, KB2GSD (SK)**

As we all know my now, legendary CBS newsman Walter Cronkite, KB2GSD, passed away Friday, July 17 after a long illness. He was 92. The avuncular Cronkite anchored the CBS Evening News for 19 years until 1981 when he retired.

Walter Cronkite became a ham for a slightly different reason than most of us. He loved a sailing and was also very safety conscious. When some of his colleagues at CBS suggested that he get a amateur radio license and put some ham radio gear on board his vessel, he thought it would be a good idea. Cronkite was rarely on the air, but he was keenly aware of the hobby and its importance. And on two occasion he gladly lent his voice and image to a pair of ham radio video's. The second of these was made in 2005 and was called "The ARRL Goes To Washington." It was inspired by then ARRL President Jim Haynie, W5JBP, who wanted something to rally ham radio to the danger of Broadband Over Powerline or BPL internet access and the devastating effect it would have on ham radio High Frequency operations. --ARRL

## **500 KHZ EXPERIMENTERS IN NORTH AMERICA, EUROPE GET ACTIVE**

In the 500 kHz Experiment quarterly report for the period ending May 2009, Experiment Coordinator Fritz Raab, W1FR, reported that 21 stations are currently active. The FCC's Office of Engineering and Technology granted the WD2XSH experimental license to the ARRL in September 2006. In this quarter, the FCC only issued one new experimental license for 500 kHz, WF2XAU to Roy Croston, AB4OM. The FCC renewed WD2XGI to Mike Reid, WE0H.

In the spring of 2009, hams in the WD2XSH experimental group made one contact, bringing the total number of contacts to 336. Almost 500 reports were made to the 500 kHz Experiment's Web site, documenting 1051 hours of activity. Raab said more than 34,000 hours of activity has been logged on the Web site since the experiment's inception. Stations do not have to be members of the experimental team to post reception reports.

Individuals in nine other countries hold licenses to experiment in the 500 kHz band: Sweden, Germany, Czech Republic, United Kingdom, Belgium, Canada, Norway, Romania and Denmark.

To celebrate International Marconi Day on April 25, a Marconi official station using Marconi equipment completed a radio contact that was Perch Rock Marine Radio Museum near Liverpool. The operators used Marconi marine equipment and CW, receiving a 539 report from VO1MRC in St John's, Newfoundland. GB4FPR was transmitting 1 W ERP on 502 kHz and receiving the Canadian station on 3566 kHz in this transatlantic crossband QSO.

On June 18, Norwegian coastal station LGQ in Rogaland and LM500LGN in Bergen made a QSO on 500 kHz. LM500LGN is a special heritage license arranged by the NRRL, Norway's IARU Member-Society, and Norkram. According to Raab, this is the first issuance of a license specifically for heritage operations. --ARRL

## **W1AW TO ADD NEW DIGITAL MODES TO TRANSMISSION SCHEDULE**

Effective August 17, W1AW, the Hiram Percy Maxim Memorial Station, will replace its AMTOR and ASCII transmissions with PSK31 and MFSK16, respectively. RTTY (Baudot) will continue to be the first digital mode used in the transmission schedule. The frequencies used by W1AW for all its digital transmissions will remain the same. "All regular 6 PM and 9 PM (Eastern Time) digital transmissions

will begin with RTTY," said W1AW Station Manager Joe Carcia, NJ1Q. "PSK31 and MFSK16 will be sent as time allows. The Tuesday and Friday Keplerian data bulletins will be sent using RTTY and PSK31." The W1AW operating schedule -- complete with times and frequencies -- can be found on the ARRL Web site <http://www.arrl.org/w1aw.html> - [w1awsked](#).

## COMPANION BILL TO SENATE RADIO SPECTRUM INVENTORY ACT INTRODUCED IN HOUSE

In March, Senator John Kerry (D-MA) introduced the Radio Spectrum Inventory Act (S 649). Earlier this month, that bill passed the Senate Commerce, Science and Transportation Committee. Last week, Representative Henry Waxman (CA-30) introduced a companion bill -- HR 3125 -- in the House of Representatives the bill has been referred to the House Committee on Energy and Commerce. The bills, if passed, would mandate an inventory of radio spectrum bands managed by the National Telecommunications and Information Administration (NTIA) and the Federal Communications Commission. The Senate version calls for an inventory of frequencies between 300 MHz-3.5 GHz managed by the two agencies, while the House bill would mandate an inventory of 225 MHz-10 GHz.

**S 649** - Senate Bill 649 states that the NTIA and the FCC would be required to inventory the spectrum no later than 180 days after the bill becomes law; after the initial survey, follow-ups would be required every two years. Both agencies would need to prepare a report listing the licenses or government user assigned in the band, the total spectrum allocation, by band, of each licensee or government user (in percentage terms and in sum) and the number of intentional radiators and end-user intentional radiators that have been deployed in the band with each license or government user.

The bill also mandates that both agencies create a centralized portal or Web site that lists each agency's band inventories. This information would then be made available to the public via an Internet-accessible Web site. Both agencies would also be required to make all necessary efforts to maintain and update the inventory information "in near real-time fashion and whenever there is a transfer or auction of licenses or change in allocation or assignment."

**HR 3125** - Like S 649, HR 3125 calls for the NTIA and the FCC to issue a report on the inventory of spectrum no later than 180 days after the bill becomes law; after the initial survey, follow-ups would be required every two years. The House bill goes a bit further than S 634, however, calling for the two agencies to work with the Office of Science and Technology Policy (OSTP) <http://www.ostp.gov>; this office advises the President on the effects of science and technology on domestic and international affairs.

The agency reports called for in HR 3125 would include the same information called for in the Senate version. Like the Senate bill, the House bill calls for the reports to be made available on the Internet and update the reports as needed. Both bills include an exemption for licensees or users if they can demonstrate that disclosure would be harmful to national security. --ARRL

## MOBILE DIGITAL TV TRIALS BEGINS IN JULY WITH THE FINAL STANDARD LIKELY BY SEPTEMBER

Two years' worth of work by broadcasters and technology vendors to develop a way for stations to transmit video to cell phones, laptops and other portable devices is starting to come together with the multi-station trial of the new mobile digital TV (DTV) technology kicks off in Washington, D.C., in late July. Individual stations in markets such as New York and Raleigh, N.C., are already broadcasting mobile DTV full-time, and a total of 70 stations across 28 markets have pledged to offer mobile DTV streams by year-end. A final standard could be in place by September, paving the way for consumer receiver devices to hit retail shelves in 2010.

Much of the standards work, including technology evaluations and field trials, has been spearheaded by the Open Mobile Video Coalition, a group of some 800 stations that have come together to promote mobile DTV. OMVC members helped broker a deal in May 2008 between consumer electronics giants LG and Samsung to avoid a prolonged standards battle between the two companies' competing mobile DTV systems.

The latest mobile DTV trials in Washington includes seven stations, expected to go live in July. Participating stations include Ion's WPXW; Gannett's WUSA, a CBS affiliate; Fox's WDCA; NBC's WRC; WHUT, a PBS station owned and operated by Howard University; WNVT, the home of multicasting service MHz Networks; and WNUV, the CW affiliate in Baltimore run by Sinclair. The initial plan is for each station to broadcast a minimum of two mobile channels apiece, along with some electronic service-guide and alert data.

Obviously, cellphone manufacturers aren't going to rush to mass-produce ATSC-M/H-capable handsets until a final standard is in place and, more important, broadcasters have reached some agreement with wireless carriers on making their mobile DTV programming available to subscribers. However, there is a range of devices besides cellphones that could offer mobile DTV reception capability, such as accessory USB dongles, netbooks, portable DVD players and in-car displays.

## **HR 2160 GAINS MORE SUPPORT IN CONGRESS**

With four more Congressmen -- John Boozman (R-AR-3), Bob Filner (D-CA-51), Dennis Moore (D-KS-3) and David Wu (D-OR-1) pledging their support for HR 2160, The Amateur Radio Emergency Communications Enhancement Act of 2009. This brings the total number of cosponsors to 18.

If enacted into law, HR 2160, would instruct the Secretary of Homeland Security to undertake a study and report its findings to Congress within 180 days. The study would spell out uses and capabilities of Amateur Radio communications in emergencies and disaster relief. The study shall:

- \* Include recommendations for enhancements in the voluntary deployment of Amateur Radio licensees in disaster and emergency communications and disaster relief efforts

- \* Include recommendations for improved integration of Amateur Radio operators in planning and in furtherance of the Department of Homeland Security initiatives.

- \* Identify unreasonable or unnecessary impediments to enhanced Amateur Radio communications -- such as the effects of private land use regulations on residential antenna installations -- and make recommendations regarding such impediments.

- \* Include an evaluation of Section 207 of the Telecommunications Act of 1996 (Public Law 104-104, 110 Stat 56 [1996]).

- \* Recommend whether Section 207 should be modified to prevent unreasonable private land use restrictions that impair the ability of amateurs to conduct, or prepare to conduct, emergency communications by means of effective outdoor antennas and support structures at reasonable heights and dimensions for the purpose in residential areas.

The Secretary of Homeland Security shall utilize the expertise of the ARRL and shall seek information from private and public sectors for the study.

"HR 2160 presents the Amateur Radio Service with a unique opportunity -- but also carries with it the important responsibility of making your voice heard," said ARRL Regulatory Information Manager Dan Henderson, N1ND. "HR 2160 stands as the first step in trying to address the long standing problem of extending the protections afforded Amateur Radio operators under PRB-1 to deed restrictions and covenants. To be clear, passing HR 2160 is not going to achieve that goal right away.

But it will help lay the ground work by assessing the impact such restrictions have on our ability to train for and respond to disasters and other emergencies."

Check the ARRL Web site <http://www.arrl.org/news/stories/2009/05/12/10818> for information on how to encourage your Congressional representative to sponsor HR 2160.

Several other items were also acted upon. These include the creation of the George Hart Distinguished Service Award to be given for exemplary service in the ARRL Field Organization, and updating the terms of reference for the Bill Leonard, W2SKE, Professional Media Award. The Board also conferred several awards on deserving nominees. (ARRL)

The complete Minutes of the 2009 Second Meeting of the ARRL Board of Directors will be available soon on the ARRLWeb. –ARRL

## **FCC CONTINUES BPL DEBATE**

On July 17, the FCC issued a "Request for Further Comment and Further Notice of Proposed Rulemaking" ("FNPRM"), addressing the issues remanded to them by the US Court of Appeals. In October 2007, the ARRL took the Commission to court concerning the Commission's Orders adopting rules governing broadband over power line (BPL) systems. In April 2008, the Court agreed with the ARRL on two major points and remanded the rules to the Commission. Writing for the three-judge panel of Circuit Judges Rogers, Tatel and Kavanaugh, Judge Rogers summarized: "The Commission failed to satisfy the notice and comment requirements of the Administrative Procedure Act ('APA') by redacting studies on which it relied in promulgating the rule and failed to provide a reasoned explanation for its choice of the extrapolation factor for measuring Access BPL emissions."

\* New Information? The Court found, among other things, that the FCC not only withheld the internal studies until it was too late to comment, but had yet to release portions of studies that may not support its own conclusions regarding BPL. The FCC claimed that the studies were "internal communications" that it did not rely upon in reaching its decision to adopt the BPL rules. In its April 2008 ruling, the Court ordered the FCC to release the studies. In March 2009, when the FCC still had not released the redacted portions of the studies as ordered by the court, the ARRL filed a Freedom of Information Act request for the studies. Six weeks later, the FCC released the redacted portions of the studies.

To contend with the Court's ruling, the Commission is now requesting comment on the information in those studies as it pertains the FCC's BPL decisions. The Commission is "also placing into the record certain additional materials that contain preliminary staff research and educational information" that was not previously made available. It is these records that concern ARRL Laboratory Manager and BPL expert Ed Hare, W1RFI.

"At the same time the FCC released the new 'FNPRM,' it also released 800 MB of previously unseen FCC internal staff reports and video on BPL," Hare said. "Although the FCC tries to downplay the work of their own staff by saying that these reports are only the opinion of one FCC staffer, these conclusions about BPL from the FCC Lab were made by FCC technical people with strong experience in measurement techniques and interference assessment. This is generally good engineering, with a clear objective of providing the Commission with accurate technical information about BPL."

According to Hare's preliminary review of the "FNPRM," the FCC's own technical findings clearly spell out that BPL operating at the FCC limits has a very strong potential to cause interference to licensed radio users: "These reports show that BPL causes interference to a number of licensed services for significant distances from BPL noise sources and that the noise from BPL at antennas that are about 100 feet from wires carrying BPL operating at the FCC limits will represent an increase in noise of about 30 dB in most cases."

Hare said that other slides show that radiated noise from overhead power lines increases significantly above the noise at ground level. "Based on these internal FCC technical analyses, the present rules and test methods -- when coupled with inappropriate distance extrapolation -- simply do not protect licensed users from interference," he said. "The Commission was well aware of the content of these presentations when it issued a BPL "Report and Order" that discounted ARRL when the League made many of the same technical points in its filings."

\* Extrapolation Factor: FCC Looking for Compromise? One of the major points of difference between ARRL and the FCC has been the measurement extrapolation factor below 30 MHz that is applied to measurements made at distances from power lines or other radiating sources to determine what the value of that measurement would be at a distance of 30 meters. This is the distance in the FCC rules for which maximum permitted emission are specified. The FCC believes that this factor should be 40 dB/distance decade.

Hare explained why this is incorrect: "The FCC's test method measures BPL emissions at ground level, using a loop antenna located 1 meter off the ground. Amateurs know that a low horizontal antenna radiates more energy upward than it does toward the horizon, and that a measurement made of a radiating power line at 1 meter off the ground is not a good indicator of the noise levels that will be present at angles upward from that same power line, where HF antennas are most apt to be located. The 40 dB extrapolation factor and the lack of any correction for height result in a BPL system that will significantly exceed the FCC emission limits at the very point where most Amateur HF antennas are located."

In response to its remand of a portion of BPL measurement procedure, the FCC is "also providing an explanation of our reasons for selecting 40 dB per decade as the extrapolation factor for frequencies below 30 MHz. We further explain why we believe the studies and technical proposal submitted earlier by the ARRL do not provide convincing information that we should use an extrapolation factor that is different from that which we adopted," noting the existence of "more recent studies" that prove their point.

In the "FNPRM," the FCC states that they are "re-examining the current extrapolation factor in light of the recently issued technical studies addressing the attenuation of BPL emissions with distance and efforts by the IEEE to develop BPL measurement standards." Using these studies and older ones, the FCC said that "there can be considerable variability in the attenuation of emissions from BPL systems across individual measurement sites that is not captured in the fixed 40 dB per decade standard."

Based upon this "considerable variability," the FCC has opened a 30 day comment period, asking if they should change their rules to "adjust the extrapolation factor downward to 30 dB or some other fixed value and, as an alternative, also allow use of a special procedure for determining site-specific BPL extrapolation values using in situ measurements."

Hare notes that the "FNPRM" is creating a complex way to look for a simple solution to a complex problem. "It's ironic that the FNPRM discusses the 'considerable variability' in attenuation at BPL sites, then proposes that a measurement of a mere four points within that variability can determine the supposedly actual extrapolation. The NTIA Phase II study that is the 'newer study' that the FCC is relying on for part of its justification for 40 dB/decade shows an environment extremely more complicated than that. Trying to apply any measurement of extrapolation to this complex environment is a recipe for failure -- and possible 'cherry-picking' of results that will allow those making measurements of BPL systems to provide any value of extrapolation they want, in either direction. I serve on the IEEE committee that developed the draft for this extrapolation-measurement method and I did not stand alone in not supporting the approach that the P1775 Working Group has sent to ballot. At this point, the working group is in the process of resolving and rebutting the numerous comments received in the still-unresolved IEEE ballot."

Even though the FCC is inviting comments, they state that they "do not believe that the studies and technical proposal submitted earlier by the ARRL provide convincing information that we should use

an extrapolation factor that is different from (and, specifically, less than) 40 dB. We, believe that [other] studies [we have relied on] further validate the use of 40 dB as the extrapolation factor. In addition, the sufficiency of our rules for ensuring compliance is further validated by the fact that we have not had any new complaints of interference for more than two years."

Hare has worked extensively with the BPL industry to help it address interference. "If the FCC thinks that the falling off in BPL complaints is due to the sufficiency of its rules, it is mistaken," he said. "In response to ARRL's input and offers of help, the industry has essentially stopped using the amateur bands in US deployments. The FCC's own video documentation of interference from BPL that is operating under the rules the FCC put forward should be more than sufficient to show that the rules as written are not good ones. The industry has reduced the interference from BPL by doing more than the rules require. By not using the amateur bands and by improving the filtering of BPL systems well beyond the inadequate requirements of the present rules, the industry and ARRL have shown that it is possible to operate BPL systems without widespread interference problems to Amateur Radio."

Hare said that what is needed now "are good rules and industry standards that reflect this successful model. That is not seen in this FNPRM. Rules that reflect the industry practice of not using the amateur bands and that specify state-of-the-art filtering could protect the Amateur Radio Service and support this still-nascent BPL industry." –ARRL Letter

## **WRC-11 IS NOW WRC-12**

WRC-11 Is Now WRC-12. This, as the 46-nation ITU Council which is the administrative oversight body of the International Telecommunication Union agrees to move the next World Radiocommunication Conference to 2012.

Originally scheduled for October 24th to November 18th, 2011 in Geneva, Switzerland, the Council has proposed January 23rd to February 17th as the new dates. According to ARRL Technical Relations Manager Brennan Price, N4QX, the full ITU membership is now being consulted on the change and responses are due by August 3.

According to Price, the ITU Council had previously proposed dates for fall 2011, but various scheduling conflicts and the lack of available facilities during some weeks made this schedule impractical.

The agenda for WRC-12, developed by the delegates at the last WRC in Geneva in 2007 (WRC-07), was formally adopted by the ITU Council in 2008. There are 25 agenda items addressing potential new or revised spectrum allocations to existing services. Of most interest to amateurs is agenda item 1.23, "to consider an allocation of about 15 kHz in parts of the band 415-526.5 kHz to the amateur service on a secondary basis, taking into account the need to protect existing services."

"This agenda item is the highest item on my long term priority list," said Price. "We are fortunate that this upcoming WRC presents an opportunity for a new secondary allocation in the medium waves. While the outcome is far from certain, our experience in other bands -- most notably 30 meters -- indicates Amateur Radio's compatibility with certain other services as a secondary user."

Price said that some WRCs have posed great challenges for Amateur Radio, with blocks of spectrum potentially at risk. "This was the case at WRC-03 and WRC-07, which posed a very real potential reallocation of portions of the 40 meter band in Region 2 to HF broadcasting," he said. "The agenda for WRC-12 does not pose any threats to Amateur Radio as clear or as overt as those faced in prior years." Price and ARRL Technical Relations Specialist Jon Siverling, WB3ERA, are monitoring developments on a number of other agenda items that could affect Amateur Radio if they take unanticipated turns. –ARRL Letter

## SHORTS

**JULY SUNSPOTS BEGAN WITH BANG BUT ENDED WITH A FLAT LINE** -- We saw a nice run of eight days with a large the sunspot (group 1024) that emerged on July 3 with a daily sunspot number of 17 and the magnetic signature of a new Solar Cycle 24 spot. Over the next few days, it grew more rapidly and became larger than any sunspot group in the past two years, but none have emerged since. The average sunspot number for July will be 5.1; this is down from June's average of 6.6. The monthly average of the daily sunspot number, January-July 2009, is 2.8, 2.5, 0.8, 1.3, 4, 6.6 and 5.1. The three-month averages for October 2008-June 2009 were 4.5, 4.4, 3.6, 2.2, 2, 1.5, 2, 4.2 and 5.2.

**STRANGE NEW AIR FORCE FACILITY ENERGIZES IONOSPHERE, FANS CONSPIRACY FLAMES - AN UPDATE ON HAARP** -- 200 miles northeast of Anchorage, there's a massive military facility tucked deep in the black pine. What goes on at the High Frequency Active Auroral Research Program ([Haarp](#)) depends on who you ask. Self-directed "researchers" like Nick Begich say the collection of transmitters and receivers is conducting secret tests of monstrous weapons for the Defense Department: mind control, weather manipulation, long-distance spying. The military scientists in charge of this military installation insist that Haarp has absolutely no direct military applications whatsoever. It "is and always was and was planned to be a research facility," says Dr. Paul Kossey, the Air Force's program manager. Haarp's antennas are being used to study the ionosphere, the electrically charged layer of Earth's atmosphere, by pumping it full of energy. That's why Haarp's scientists are creating artificial Northern Lights, beaming radio waves into the crevasses of nearby Mt. Wrangell, and bouncing signals off of the Moon. Naturally.

Here are links to the recent Wired News article on Haarp plus pictures:

[http://www.wired.com/politics/security/magazine/17-08/mf\\_haarp](http://www.wired.com/politics/security/magazine/17-08/mf_haarp)

<http://www.wired.com/dangerroom/2009/08/haarp-2/> --Wired.com

**ICQ AMATEUR / HAM RADIO PODCAST - CELEBRATING 1 YEAR OF GREAT INFORMATION AND LEARNING** -- July 2009 marks the first anniversary for ICQ Amateur / Ham Radio Podcast —We have really enjoyed producing our fortnightly Amateur / Ham radio podcast—ICQ Podcast. Over the last year, we have covered training topics, new products, award schemes, roundtable discussions and technical features. Our audience is growing, encouraging us to explore new features and to be able to gain interviews with some of the leading people within our hobby and the best part is all the information the ICQ Podcast produces is free for you to download. Either visit the ICQ Podcast website at <http://www.icqpodcast.com> and download an episode or two, or subscribe using iTunes or any other MP3 client. For more information of supported services, visit <http://www.icqpodcast.com/podcast> -- M1MRB

**FCC EXPANDS ARRL'S 500 KHZ EXPERIMENTAL LICENSE** -- On July 28, the FCC approved a modification that expands the ARRL's 500 kHz experimental license WD2XSH. The expansion allows for more frequencies, more stations and portable operations. The stations can now operate between 495-510 kHz, but were previously limited to 505-510 kHz. 500 kHz will not be used to ensure that there is no conflict with the heritage stations on that frequency. The expansion allows the opportunity to expand the number of participating stations to 42 stations, up from the current 23. The expansion will now let participants operate within 50 km of their designated stations. This was not allowed under the previous terms of the experimental license. Some stations have reduced operating bands to ensure that they do not interfere with nearby non-directional beacons (NDB). The FCC's Office of Engineering and Technology granted the WD2XSH experimental license to the ARRL in September 2006.

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