

K7EAR

December 2006

EAARS open repeaters. PL is 141.3 unless noted otherwise

Helio 146.860 and 440.700 EAARS Network, 146.900/ autopatch NOT working, 447.825 w/ closed remote PL 100.0 or 141.3. Packet 145.010 **MT. Lemmon** 147.160 EAARS Network

Pinal Peak 145.41 EAARS Network **Jacks Peak, NM** 145.21 EAARS Network

GMRS Repeater on Helio 462.625 PL 123.0

Website [HTTP://WWW.EAARS.COM](http://www.eaars.com)

Merry Christmas

Field Day Results

<http://www.arrl.org/contests/results/2006/fd.pdf>

Class 3A

CorTek RA W9CA (+ N9GY) 4946 2 22 18,142 IL

Rochester (NY) DX Assn W2RDX (+ W2AN) 3261 2 19 12,546 WNY

Kennebec County ARES Team NT1N (+ K1XI) 3929 2 67 12,082 ME

Eastern AZ ARS Inc K7EAR (+ N7GP) 2703 2 15 10,372 AZ

Dues Time

Remember your dues expire the end of December. Check your label to see what year. I talked to Larry, W7MCO and we are going to have a drawing again this year.

Not sure what kind of radio. But one radio will be given away to a member who's dues are paid through 2007 or later. Dues must be paid before December 15th to be in the drawing. The drawing will be held at the January meeting.

From ARRL Newsletter

AMATEUR RADIO "OMNIBUS" RULES CHANGES TO GO INTO EFFECT DECEMBER 15

2006 Officers

President Lon Whitmer K7LON
Vice President Quentin Kavanaugh N7QK
Secretary/ Treasurer Larry Griggs W7MCO
Net Control Operator Dave Green KB7WI
Helio Site Trustee Joe Montierth K7JEM
Technical Adviser Milt Jensen N5IA
Newsletter Editor Dave Wells WB7ONJ

Email Addresses

Email all Officers at once
Newsletter Editor

Club Address

EAARS
P.O. Box 398
Solomon, AZ 85551

Nets

EAARS Net; Sunday Night 7 PM general check ins
Smart Net; Monday evening 7:30 to 8:30 Technical discussion
Weather; Net Daily 5:30 AM collect local weather information
To get your own email at EAARS.com contact Larry, W7MCO

OFFICERS@EAARS.COM

NEWSLETTER@EAARS.COM

A little over a month after the Federal Communications Commission released the Report and Order (R&O) in the so-called "Omnibus" Amateur Radio proceeding, WT Docket 04-140 (FCC 06-149) to the public, a revised version appeared November 15 in the Federal Register
<http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/E6-19189.pdf>

. The changes in the R&O will take effect Friday, December 15, at 12:01 AM EST, 30 days after its publication.

As expected, the Report & Order clarified two items that had raised some concerns when it was first released last month: That the 80/75 meter band split applies to all three IARU Regions, and that FCC licensees in Region 2, which includes North America, can continue to use RTTY/data emissions in the 7.075-7.100 MHz band.

Still to be resolved are three controversial aspects of the Proceeding:

* Expansion of the 75 meter phone band all the way down to 3600 kHz (thus reducing the privileges of General, Advanced and Amateur Extra class licensees, who had RTTY/data privileges in the 80 meter band, and CW privileges of General and Advanced class licensees)

* The elimination of J2D emissions, data sent by modulating an SSB transmitter, of more than 500 Hz bandwidth. This will make PACTOR III at full capability illegal. Other digital modes effectively rendered illegal below 30 MHz include Olivia and MT63 (when operated at bandwidths greater than 500 Hz), 1200-baud packet, Q15X25 and Clover 2000.

* The elimination of access to the automatic control RTTY/data subband at 3620-3635 kHz.

The ARRL Board is discussing the possibility of a petition to reconsider several items in the R&O.

ARRL Regulatory Information Specialist Dan Henderson, N1ND, commented: "The release of the R&O in the Federal Register has started the countdown clock. We are all looking forward to being able to use the refarmed frequencies starting on December 15. We are still anxiously awaiting the release of the Report and Order for 05-235, the Morse Code Proceeding. We are hopeful that the Commission will be able to move on that petition and address the outstanding issues in the Omnibus R&O soon."

For more information, see the band chart

http://www2.arrl.org/announce/regulatory/wt04-140/Hambands3_color.pdf and the Frequently Asked Questions on WT Docket No. 04-140

<http://www2.arrl.org/announce/regulatory/wt04-140/faq.html> Both have been updated to reflect the R&O as it was published in the Federal Register.

ARRL 500 kHz EXPERIMENT KICKING INTO HIGH GEAR

The group of Amateur Radio operators researching the radio spectrum in the vicinity of 500 kHz already have recorded a few successes. The 500 KC Experimental Group for Amateur Radio <http://www.500kc.com/> is operating under Part 5 experimental license WD2XSH, which the FCC Office of Engineering and Technology granted September 13 to the ARRL. Project manager Fritz Raab, W1FR, says WD2XSH participants have been heard across both the Atlantic and the Pacific as well as all around the US.

"Things took off much faster than I had ever imagined," Raab told ARRL early this month. "Eleven stations are on the air now." Others in the 21-station group included on the Experimental license continue efforts to cobble together the transmitting and antenna systems necessary to put out a signal on what group members call "the 600 meter band."

Raab says the 600-meter signal of well-known low-frequency enthusiast "Dex" McIntyre, W4DEX, in North Carolina -- operating as WD2XSH/10 -- was copied October 10 in Germany using very slow-speed CW (QRSS). Other stations have since duplicated that feat. Rudy Severns, N6LF, operating as WD2XSH/20 from Oregon, not only is heard regularly throughout the western half of the US but has been copied in Hawaii and, possibly, in New Zealand, Raab says, noting that the New Zealand reception was "not sufficiently clear" to make a claim.

While not a part of the experimental group, Ralph Wallio, W0RPK, has assumed the role of official record keeper and has noted more than two dozen one-way reception reports of more than 1000 miles. The list included "by ear" CW reception from Colorado to Massachusetts, nearly 1800 miles. The best distance as of earlier this week: 4515 miles from Conard Murray, WS4S, operating as WD2XSH/11 in Tennessee to Germany using QRSS (reception using computer software).

Operating as WD2XSH/14 from Vermont, Raab says he's managed three QSOs with his "meager 42-foot vertical" -- New Hampshire, Massachusetts and North Carolina -- plus reception in Ohio. He envisions at least a secondary 600-meter Amateur Radio allocation from 495 to 510 kHz that would support Amateur Radio emergency communication via groundwave.

The two-year WD2XSH authorization permits experimentation and research between 505 and 510 kHz using narrowband modes at power levels of up to 20 W effective radiated power (ERP). The Midwest stations are limited to 505 to 508 kHz for the time being, Raab notes. The first QSO took place September 21 between the stations in Tennessee and North Carolina - a distance of some 300 miles.

To get on the air, WD2XSH participants have repurposed some older gear and even some test equipment. Paul Signorelli, W0RW, operating as WD2XSH/21 from Colorado, has modified a vintage Heath DX-100 transmitter for LF CW operation. "I match the DX-100 output to a 5-turn link of #10 wire," he reported in a detailed description of how he was able to get the old rig to transmit just below the AM broadcast band. Getting "down there" points up the need to increase physical component size by several orders of magnitude.

"The link is on a 13-inch diameter cardboard hoop," Signorelli continues. "It slips up and down over the antenna loading coil and is adjusted for lowest SWR." That antenna loading coil itself is a foot in diameter, wound with #10 solid, insulated wire. A 30-gallon trash can provides the weatherproofing for the coil. The DX-100 generates 100 W of RF on 500 kHz. Signorelli advises against using conventional-sized coax. "This transmitter will smoke your coax if you have high SWR," he said. He's using hardline instead.

While Raab notes that while the current license cannot accommodate more participants, he plans to re-evaluate the situation in a year. "At that time, we may request a revision to the license that makes substitutions for stations that have not gotten on the air and possibly add some new stations," he says on the group's Web site. "Substitutes and additions will be selected based upon their potential to contribute to the experiment." He cautions, "This is an experimental license, not just ham radio on a new frequency!"

The experimental group does invite reception reports <http://w5jgv.com/500kcreportform.htm> of transmissions made by group members. You do not have to be a member of the experimental team to send areception report.

HAMS HEADED FOR SPACE

NASA and the Russian Federal Space Agency have named two astronauts and two cosmonauts to make up the next International Space Station crew, Expedition 15. While their duty tours will not coincide, if the current schedule holds, there will always be at least one US and one Russian radio amateur aboard the ISS for the next year.

Astronauts Clayton Anderson, KD5PLA, and Daniel Tani, KD5TXE, will travel to the station next year as flight engineers. Anderson will ride to the ISS aboard shuttle Endeavour on mission STS-118, targeted for next June, and he'll return to Earth on shuttle Atlantis on mission STS-120, which will carry his replacement, Tani, to the station. Tani will return via the shuttle in October 2007. Cosmonauts Fyodor Yurchikhin, RN3FI, and Oleg Kotov will fly to the ISS next March on a Russian Soyuz spacecraft and will spend six months aboard the orbiting laboratory.

Yurchikhin will command Expedition 15, and Kotov will serve as station flight engineer and Soyuz commander.

Until Anderson arrives, astronaut Sunita Williams, KD5PLB, will serve as Expedition 15's third crew member and flight engineer. She's scheduled to fly to the ISS on shuttle Mission STS-116 in December. Williams is reported to be eager to do ARISS school group contacts from NA1SS.

The same shuttle flight will carry European Space Agency astronaut Christer Fuglesang, KE5CGR/SA0AFS, Sweden's first astronaut. He will serve as a mission specialist on his first journey into space, an 11-day ISS construction mission.

Plans are under way to arrange for Fuglesang to carry out an ARISS school contact with students in Thunmanskolan located in Knivsta, Sweden. The contact would be the first ARISS school QSO with Scandinavia.