



Di-Dah-Dit

Official Newsletter of the Parkersburg Radio Klub
1733 Gihon Rd. Parkersburg, WV 26101

AMATEUR COMMUNITY TRANSITIONS SMOOTHLY TO NEW ALLOCATIONS

With some confusion but little commotion, the amateur community took occupancy of more commodious HF phone subbands as the so-called "omnibus" Report and Order (R&O) in WT Docket 04-140 <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-149A1.pdf> kicked in December 15 at one minute past midnight Eastern Time. Among other things, the wide-ranging R&O inflated the overall phone allocations on 75 and 40 meters and provided Generals with a little additional phone spectrum on 15 meters. On 75 meters, where the phone band expansion came at the expense of spectrum that had been allocated to CW, RTTY and data modes, some operators camped out above the new 3.600 MHz Extra class phone band edge to count down the switch.

"Anyone on that wants last CW es [and] first SSB?" pleaded one operator as the minutes ticked away. He'd been working a string of stations on CW, and when the appointed time arrived, he simply switched to SSB and carried on in that mode. There was no massive onslaught of phone stations, however, and several CW contacts continued largely unhindered, interspersed among a slowly growing number of SSB signals.

By week's end, the FCC had not acted on the League's Petition for Partial Reconsideration <<http://www.arrl.org/announce/regulatory/wt04-140/ARRL-04-140-ReconPetition.pdf>> in the proceeding, filed December 11, so the changes went into effect as scheduled. The ARRL had called on the Commission to postpone the allocation change for 3600 to 3635 kHz while considering a request to maintain the status quo in that small segment. In its petition, the League emphasized that it was not seeking reconsideration of the entire 75-meter phone band expansion.

"Rather, we ask only that the Commission restore the privileges unintentionally withdrawn from those who operate and who utilize automatically controlled narrowband digital stations between 3620 and 3635 kHz," the League said. The ARRL pointed out that while the R&O left unchanged rules permitting automatically controlled narrowband digital in that segment, it eliminated RTTY and data as permitted emissions above 3600 kHz.

The League wants the Commission to make a "simple and equitable fix" by moving the dividing line between the narrowband and wideband segments of 80/75 meters to 3635 kHz. This would keep 3600 to

3635 kHz available to General and higher licensees for RTTY, data and CW and open to Novice and Tech Plus licensees for CW. It also would maintain access to the automatically controlled digital subband, 3620-3635 kHz.

"This is neither a minor matter nor an academic exercise in future band planning," the ARRL concluded. "It is an urgent problem which, unless corrected, affects a substantial number of existing Amateur Radio fixed facilities and an even more substantial number of mobile facilities."

Meanwhile, unconfirmed reports indicated that some stations -- perhaps out of confusion regarding the effective time or a lack of concern -- fired up on the new phone segments well in advance of the effective time. Judging from those heard in the eastern US, everyone was enjoying -- and even wisecracking about -- the additional elbow room.

"It's just like up the band," quipped one operator attempting a QSO in the newly expanded 40-meter phone band. Retorted another operator: "It's no good down here. It's too crowded!"

The Amateur Radio frequency allocation chart <<http://www.arrl.org/FandES/field/regulations/bands.html>> and the

ARRL Band Plans

<<http://www.arrl.org/FandES/field/regulations/bandplan.html>> on the ARRL Web site have been updated to reflect the band changes. Revised FCC Part 97 Amateur Service rules reflecting all changes detailed in the FCC Report and Order in WT Docket 04-140, also are available <<http://www.arrl.org/FandES/field/regulations/news/part97/>>.

ARRL EXECUTIVE COMMITTEE OKAYS REVISED BAND PLANS FOR 80/75, 40 AND 15

The ARRL Executive Committee this week approved revised band plans for 80/75, 40, and 15 meters developed and recommended by the League's Band Planning Committee. ARRL Chief Executive Officer David Sumner, K1ZZ, says the Band Planning Committee "did a commendable job" stepping into the breach caused by the FCC's unexpected 80/75 meter decision in the so-called "omnibus" Report and Order (R&O) in WT Docket 04-140.

"In the case of 80/75 meters, it is an interim plan, subject to change if the FCC acts favorably on our Petition for Reconsideration," Sumner said (see <<http://www.arrl.org/news/stories/2006/12/11/100/>>). The lower edge of the Amateur Extra 75-meter phone band shifted to 3600 kHz as of December 15.

The League wants the FCC to rectify an "unintended consequence" of that expansion by moving the narrowband/wideband boundary on 80/75 meters to 3635 kHz.

ARRL Vice President and Band Planning Committee chair Rick Roderick, K5UR, says his panel considered members' input in developing the changes the committee recommended. He notes that the Committee received nearly 900 comments.

The charts below reflect the old band plan as well as the changes that went into effect December 15.

Codeless Canadian "Basic Plus" amateurs may operate HF in the US:

Canadian licensees holding "Basic Plus" tickets may operate HF in the US, whether or not they've passed a Morse code test, according to the Radio Amateurs of Canada (RAC). Since Canada removed its mandatory Morse requirement in 2005, the impression has persisted that the US still required visiting ops to have Morse credit for HF operation under the reciprocal operating agreement between the two countries. The issue came to a head when a Canadian Winlink mailbox reportedly denied access to Canadian Basic Plus licensees operating from US territory. Basic Plus licensees have scored at least 80 percent on the written examination, obviating the need to pass a Morse examination. According to §97.107 of the FCC rules, operator privileges in the US are those authorized by the alien licensee's government, not to exceed Amateur Extra class privileges, but visitors must operate according to US frequency allocations. The situation may not be the same for Canadians operating in other countries. "Many countries have still retained the Morse requirement for HF, and some countries continue to require a Morse qualification for HF operation by amateurs visiting from other countries," RAC advised in a recent bulletin. Radio amateurs from countries with which the US has reciprocal operating agreements also may be HF station control operators when transmitting from territory where the FCC regulates Amateur Radio.

75/80 METERS	OLD BAND PLAN	NEW BAND PLAN
3.590	RTTY DX	RTTY/Data DX
3.580-3.620	RTTY	3.570-3.600: RTTY/Data
3.620-3.635	Packet	Delete
3.790-3.800	DX Window	No change
3.845	SSTV	No change
3.885	AM calling frequency	No change
40 METERS	OLD BAND PLAN	NEW BAND PLAN
7.040	RTTY DX	RTTY/Data DX
7.080-7.100	RTTY	7.080-7.125: RTTY/Data
7.171	SSTV	No change
7.290	AM calling frequency	No change
15 METERS	OLD BAND PLAN	NEW BAND PLAN
21.070-21.100	RTTY	21.070-21.110: RTTY/Data
21.100-21.110	Packet	21.070-21.110: RTTY/Data
21.340	SSTV	No change

AMATEUR RADIO SATELLITES AWAITING LAUNCH, DEPLOYMENT

The GeneSat-1 satellite <http://www.crestnrp.org/genesat1/>, which carries an Amateur Radio payload, now is set to launch Saturday, December 16, at 1200 UTC from Wallops Island, Virginia. The launch window extends to 1530 UTC. Problems with testing of TacSat-2, the primary Minotaur launch vehicle payload, forced NASA to postpone the launch from December 11. A collaboration of NASA Ames Research Center, industry and local universities, the GeneSat-1 CubeSat will transmit AX.25 1200 bps FM/AFSK telemetry on 437.075 MHz.

Additional information on GeneSat-1 and other CubeSats is on the Amateur Radio Information and Support for CubeSats Web site Wallio, W0RPK <http://showcase.netins.net/web/wallio/CubeSat.htm>. Rocket launches from the Wallops Flight Facility are available live via the Web <http://www.wff.nasa.gov/webcast/>, starting approximately 30 minutes before launch.

The space shuttle Discovery carried four other ham radio payloads to the International Space Station for deployment later this month. Discovery launched December 9 and now docked with the ISS. The spacecraft

<http://www.ew.usna.edu/~bruninga/ande-raft-ops.html> will be released into space from the ISS on December 20.

The ANDE (Atmospheric Neutral Density Experiment), RAFT (Radar Fence Transponder) and MARScom satellites all contain systems involving student projects. Midshipmen at the US Naval Academy's Satellite Laboratory designed and built RAFT and MARScom plus the ANDE communication package under the tutelage of Bob Bruninga, WB4APR. The fourth satellite, FCal (Fence Calibration satellite), was built at the Naval Research Laboratory (NRL) It contains an Amateur Radio CubeSat for communications and telemetry.

The Amateur Radio payload within the ANDE satellite will contain two independent AX.25 packet command and telemetry systems. The primary system will operate like PCsat and PCSAT2, providing telemetry and supporting 1200 bps packet communication (ie, digipeater operation) on 145.825 MHz.

The secondary will operate on unpublished frequencies.

Bruninga says midshipmen had to rebuild the ANDE communication package from scratch after the finished modules "burned to a crisp" the day be-

fore it was due for delivery when a heat-chamber thermostat failed. "This project has taken multiple years to complete and the current team has taken the work of past students and moved forward with it," he explained.

RAFT-1 will have a PSK31 uplink passband of 28.117 to 28.120 MHz as well as a UHF telecommand uplink. The 145.825 Mhz uplink/downlink frequency will support 1200 bps packet.

RAFT also will provide a 217 MHz transmitter/receiver for the NSSS radar fence experiments. Radio amateurs will be able to listen to the signal as the satellite crosses the National Space Surveillance Satellite Network (NSSS) radar-tracking system.

MARScom will operate on Navy-Marine Corps Military Affiliate Radio System (MARS) frequencies. It will feature UHF AM and 148.975 MHz FM uplinks and a 27.965 MHz SSB downlink.

FCal's downlink frequency will be 437.385 MHz (AX.25 AFSK 1200 bps packet). It will identify as KD4HBO.

TOOTHACHES, EXTRATERRESTRIALS TOPICS IN HAM RADIO CHATS WITH ISS CREW

Toothaches in space and the possibility of intelligent life on other planets were among the topics piquing the curiosity of students in Germany and Canada when they spoke via ham radio with the ISS. The Amateur Radio on the International Space Station (ARISS) program arranged the back-to-back contacts on November 20. During what may have been the first-ever ARISS school contact in German, youngsters gathered at the Museum for Industry in Mannheim, Germany, to speak with European Space Agency astronaut Thomas Reiter, DF4TR. One wanted to know what would happen if he or one of the other ISS crew members developed a toothache.

"Thank goodness, not yet," Reiter said. "Of course, in preparation for flight, we get an extensive medical examination and that includes a close look at the teeth, precisely for the purpose of making sure that [a toothache] doesn't happen. If it happens anyway, there are painkillers and medical support onboard to treat the tooth and bring relief."

The museum, home to the "Adventure Space Travel" exhibit, played host to some 200 participants, ranging from 12 to 20. Southwest Germany Radio's daily youth-oriented program "Das Ding" (The Thing) conducted the event and selected the 16 questions asked from among those listeners proposed. Since there were no ISS passes over Europe, Tony Hutchison, VK5ZAI, served as the ARISS ground station for the event, and Verizon Conferencing provided

two-way audio to the participants. ARISS Europe Chairman Gaston Bertels, ON4WF, assisted on site.

Reiter also explained that the crew has little free time. "Leisure time is a foreign concept up here," he quipped. He described the effects of weightlessness on the muscles as "the biggest problem that we have to fight here" through vigorous exercise. He said he exercises an hour in the morning and an hour in the afternoon to stay fit, "and when we come back to Earth it will be easier to re-accommodate to gravity." Reiter will return to Earth this month.

A short time later, ISS Expedition 14 Commander Mike Lopez-Alegria, KE5GTK, fired up NA1SS to speak directly on VHF with high schoolers at Centre Hastings Secondary School in Madoc, Ontario, Canada, via ground station VE3UR. Responding to one student's question, Lopez-Alegria described commercialized space travel as "the wave of the future."

"I'm not sure that I'd call it 'routine' just yet, but I think that probably in the not-too-distant future we will start to see it develop like the airline industry did about 100 years ago or so."

Lopez-Alegria said that while he doesn't believe there's intelligent life on Mars, he's convinced it exists elsewhere. "The universe is too large for us to be the only one with intelligent life," he suggested.

The 10 high schoolers managed to fit in nearly two dozen questions before the contact concluded. "I wish you all the best," Lopez-

Alegria said as he signed off. The Ottawa ARISS team provided radio equipment for the contact and gave a presentation to the students before the QSO. Radio and newspaper reporters covered the event as an audience of 800 looked on.

ARISS <<http://www.rac.ca/ariss>> is an international educational outreach with US participation by ARRL, AMSAT and NASA.

ARRL Outgoing QSL Service revises rates:

The ARRL Outgoing QSL Service <<http://www.arrl.org/qs/qsout.html>> has announced has announced a new rate structure, effective January 1, 2007. The new basic rate will be \$5 per half-pound (8 ounces -- or approximately 75 cards) or any portion of a half-pound. That's a change from the current rate of \$4 per half-pound or any portion. One pound will cost \$10, and larger packages will be assessed \$5 for each additional half-pound (or portion thereof). For example, a package containing 1.5 pounds of cards will cost \$15, while a package containing 1.75 pounds of cards will cost \$20. For smaller packages, the new fee is only \$1.50 for 10 or fewer cards, \$2.50 for 11 to 20 cards and \$3.75 for 21 to 30 cards. The new rate structure will help to cover basic handling costs for smaller packages while continuing to offer a price break to moderate-volume users submitting less than one-half pound of cards. The new rate schedule is in response to the recent postal rate increase and price restructuring, which doubled the bureau's postal costs. The ARRL Outgoing QSL Service is available only to ARRL members. The last rate revision went into effect in March 2001.

ARRL MEMBERS' DONATIONS VITAL TO SUCCESS OF BPL COURT APPEAL

ARRL CEO David Sumner, K1ZZ, is urging League members to turn their outrage at the FCC's unreasonably favorable treatment of unlicensed BPL systems into generous donations to the 2007 ARRL Spectrum Defense Campaign. The ARRL is suing the Commission in the US District Court of Appeals -- DC Circuit on the ground the FCC concocted rules to -- in Sumner's words -- "accommodate a polluter of the radio spectrum" at the expense of the licensed users it's supposed to protect.

"The BPL rules adopted in 2004 were bad enough," Sumner stressed in an appeal for member contributions to the Spectrum Defense Campaign to help cover the considerable expense of the court appeal. "The rules adopted in 2006 are intolerable. Never before has an unintentional emitter been given a free pass to interfere with licensed radio services."

The ARRL's suit will focus in part on a new FCC rule aimed directly at mobile stations in all radio services, including public safety systems, that the Commission slipped into its August 2006 Memorandum Opinion and Order (MO&O) that dealt with various petitions, including one from ARRL, to reconsider portions of the October 2004 BPL Report and Order (R&O) establishing rules governing BPL systems. The new rule, §15.611(c)(1)(iii), provides that BPL operators only have to reduce emission levels below established FCC permissible limits by 20 dB below 30 MHz and by 10 dB above 30 MHz -- even if that's insufficient to resolve harmful interference complaints.

"This isn't just a proposal. It's a rule that is now in effect," Sumner points out in his letter. "With one stroke, the rights of FCC licensees have been subordinated to those of spectrum polluters!"

The League further maintains that the FCC erred in declining to adjust the 40 dB per decade "extrapolation factor" applied to emission measurements performed at distances from power lines other than those specified in Part 15. The existing Part 15 rule causes test results to underestimate actual field strength, the ARRL has asserted, arguing that a figure closer to 20 dB per decade is appropriate. Sumner says the FCC simply didn't listen, however.

"Without even attempting to address this evidence, the FCC simply concluded: 'No new information has been submitted that would provide a convincing argument for modifying this requirement at this time,'" he said. "Information was submitted; the FCC ignored it."

Sumner says that determining the outcome you want and adjusting the facts accordingly doesn't constitute reasoned decision-making, as the League will demonstrate in court. "We will show that the FCC did not come to a reasoned decision in developing its BPL rules," he said.

Highlighting the extreme importance of the League's BPL lawsuit, Sumner warns that even if BPL should disappear tomorrow, "the FCC's preference for unlicensed, unintentional emitters over the interests of its licensees will remain on the books."

"Bad rules left unchallenged will lead to even worse rules later," he said.

Sumner reviews the League's history of BPL dealing with the FCC in his "It Seems to Us . . ." editorial, "Pretending to Sleep" on page 9 of October QST
<<http://www.arrl.org/news/features/2006/10/01/1/>>.

ARRL Chief Development Officer Mary Hobart, K1MMH, says that while ARRL 2007 Spectrum Defense Fund donors have been quite generous, there's still some distance to go before the campaign reaches its goal of \$250,000 by year's end.

"The League has your back," Hobart tells ARRL members. "This lawsuit is an important and very expensive proposition, undertaken only after careful consideration by the ARRL Board of Directors. We try to make every dollar count, and in this instance, they will count."

While the spotlight this fall is focusing on the BPL court appeal, the League still needs to be in a position to support its ongoing spectrum defense efforts, she added. "The best thing members can do is contribute. This is a case where the ARRL is putting its money where its mouth is, and member support is critical."

Hobart stressed that reaching the campaign's goal by December 31 is paramount. "It's been a good financial year for many people," she said, "and we hope those who have benefited from the economic upswing will opt to be as generous as they can."

The Parkersburg Radio Klub had it's annual Christmas Party/Dinner on December 9th at the Washington Bottom Community Building. The food and Fun were great and as you can see from the photos all had fun. KA8NJW Jerry



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