

Carl Huie

"Amendment B"

From: Ryan N. Terry [rterry@G2W2.com]
Sent: Tuesday, December 16, 2003 4:37 PM
To: Carl Huie
Subject: FW: 0083-EX-PL-2001 -- Radio Propagation

-----Original Message-----

From: Ryan N. Terry
Sent: Thursday, December 04, 2003 14:24
To: 'chule@fcc.gov'
Subject: 0083-EX-PL-2001 -- Radio Propagation Services

Carl:

I have finally been able to work through things with the licensee on the matter of this pending experimental authorization and figured, since we sometimes wind up playing phone tag, it might be easier to get things rolling again in an email with some details. I have spoken with the licensee and done some research in the history of the rule that governs the use of these frequencies and think we may have a better understanding now.

In the text below that I pulled from the Order that established rule 80.229, it seems that the entire 2-30 MHz band is permitted for ALE operations -- "chirping" -- for public coast stations in the maritime service. RPSI, in a former incarnation, had developmental licenses issued to it, permitted under Part 80, for use of the 2-30 MHz band for this purpose until the rule was implemented after discussions with Navy and NTIA and everyone else who had a say. (You will note that the frequencies that are specifically listed in 80.229(d)(1) are not the only ones permitted for use, but instead have special peak ERP limits set on them.)

We filed for the subject experimental request to cover these operations because RPSI is seeking to use its facility to explore chirping feasibility for non-maritime services. Specifically, the experiment is intended to investigate the potential for integrating chirping technology into the systems of land mobile HF operators. We believed that, to the extent that chirping was permitted in rule 80.229 on the entire band, we could apply that use to the specific aims of this experiment since the technology being employed is precisely the same.

I am including the relevant text from the Order below. Please let me know what you think once you have had a chance to look at this again. And thanks, as always, for your continued help on this.

Ryan Terry

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12/16/2003

41. Decision. We conclude that increasing technical flexibility to allow brief ALE transmissions on a secondary, non-interference basis, for the purposes of measuring the quality of high seas radio channels and establishing long range communications for stations in the maritime and aviation services is in the public interest. ALE technologies can benefit maritime and aviation service licensees by simplifying the use of radio equipment, reducing operating costs, and increasing the overall reliability of the medium. n117 This fundamental change in the operation of high seas radio equipment provides vessels and aircraft with yet another viable **[**57]** option for long distance communications and promotes direct competition between public coast and satellite communications service providers. Based on the information provided by BR stressing the successful performance of ALE systems for military and governmental communications, as well as BR's own experience under developmental licenses, we conclude that the technical limitations set forth in the final rules will be sufficient to minimize the potential for harmful interference to both voice and data communications in the 2-30 MHz band.

n117 BR Comments at 3.

42. We also conclude that it serves the public interest to permit ALE transmissions over the entire 2-30 MHz band. This approach will permit the rapid delivery of innovative ALE technologies to the maritime and aviation communities by allowing service providers to utilize existing equipment that has been used successfully for the past 30 years. Further, by authorizing brief ALE transmissions on frequencies above the actual communications channels (27.5-30 MHz), **[**58]** service providers will be able to make more accurate real-time assessments of the use of **[*16973]** maritime and aviation communications channels. These brief, low-energy transmissions, however, must not cause harmful interference to stations in the maritime, aviation, international broadcast, or amateur radio services which are authorized on a primary basis in certain portions of the 2-30 MHz band.

43. In order to minimize the potential for harmful interference to other radio services, we are setting forth licensing requirements and equipment authorization procedures. The licensee of each public coast station providing high seas communications service will be authorized by rule to also use 2-30 MHz only for ALE service. Entities other than public coast station licensees may apply for authorization to provide ALE service using FCC Form 503. Each transmitter must be type accepted by the Commission based on the technical specifications provided in our rules. This approach will minimize administrative burdens for service providers while ensuring the integrity of high seas voice and data communications for the maritime and aviation communities.

44. In order to implement this decision, **[**59]** we are adding a new United States footnote, US340, to the Table of Frequency Allocations, 47 CFR § 2.106. Footnote US340 reads as follows:

The 2-30 MHz band is available on a secondary noninterference basis to Government and non-Government maritime and aeronautical stations for the purposes of measuring the quality of reception on radio channels. See 47 CFR § 87.149 for the list of **[*17069]** protected frequencies and bands within this frequency range. Actual communications shall be limited to those frequencies specifically allocated to the maritime mobile and aeronautical mobile services.

In addition, we take this opportunity to update the international table to reflect the decisions of the 1995 World Radiocommunication Conference for these frequency bands. n118 See Appendix E.

n118 See Final Acts of the World Radiocommunication Conference (WRC-95), Geneva, 1995. The ITU is transitioning to new Simplified Radio Regulations, which use the "S" numbering scheme for international footnotes. In anticipation of the ITU's ultimate conversion to the Simplified Radio Regulations, we are employing the new "S" numbering scheme for international footnotes adopted in this proceeding. The Commission lists the international footnotes immediately following the Table of Frequency Allocations in Section 2.106 of the Rules. See 47 CFR § 2.106. Until such time as this list is entirely revised to comport with the new "S" numbering scheme, those international footnotes that are amended to the new scheme in individual proceedings will be listed in Section 2.106 immediately prior to the list of unamended footnotes employing the old numbering scheme.