

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Promoting Expanded Opportunities for)	ET Docket No. 10-236
Radio Experimentation and Market Trials)	
under Part 5 of the Commission's Rules and)	
Streamlining Other Related Rules)	
)	
2006 Biennial Review of)	ET Docket No. 06-155
Telecommunications Regulations – Part 2)	
Administered by the)	
Office of Engineering and Technology (OET))	

**REPLY COMMENTS
OF
BATTELLE MEMORIAL INSTITUTE**

SUMMARY

Battelle Memorial Institute (“Battelle”) provides these comments in support of the Petition for Reconsideration (“MSS Petition”) filed by Marcus Spectrum Solutions, LLC 1) regarding the Commission’s Report and Order (“Order”) 2) adopting revisions to the Experimental Radio Service (“ERS”) rules and The Boeing Company comments (“Boeing comments”) that supported the MSS Petition. The adoption of the modified rules in this proceeding is generally a positive step in encouraging wireless innovation. However as the MSS petition and the Boeing comments point out an unexplained change of the longstanding frequency availability provisions of §5.85(a)¹ is likely to be an impediment to some valid experimental uses of radio spectrum, could endanger U.S. competitiveness in wireless technology, addresses an issue that has not been a substantive problem, and does not clearly identify any tangible benefit to the passive spectrum use community that it appears to protect. Furthermore one can conclude that the text of the Order is inconsistent with the rules adopted therein which leads one to conclude that the clause in question was placed in the wrong location. This could simply be a result of a drafting error. Battelle urges the Commission to correct this drafting error and move the sentence in question to the apparent intended context.

BACKGROUND

Battelle is a global science and technology enterprise that explores emerging areas of science, develops and commercializes technology, and manages laboratories for customers. Battelle is a charitable trust organized as a non-profit corporation under the

¹ 47 C.F.R. 5.85(a)

laws of the State of Ohio and has been granted 501(c)(3) status by the Internal Revenue Service because it is organized for charitable, scientific and educational purposes.²

While Battelle has not been a recent participant in FCC rulemakings, it has been active as an applicant and licensee in the Experimental Radio Service under Part 5 of the Commission's Rules. In particular Battelle is now exploring wireless technology in the "spectrum frontier" beyond the Commission's service rules that presently end at 95 GHz.³

THE REVISED §5.85(a) ISSUE

In the Order the Commission amended §5.85(a) provisions that deal with frequencies that experimental licenses can use by adding the clause: "... except that experimental stations may not use any frequency or frequency band exclusively allocated to the passive services (including the radio astronomy service)." The only place this is ever mentioned in the text of the Order is in the context of the new "program licenses" implemented in the Order. In particular the Order states in the discussion of program licenses⁴:

"Thus, as proposed, the rules we adopt herein will not provide authority for program licensees to operate on specific public safety and passive frequency bands. Parties interested in conducting experiments on these restricted frequency bands must apply for a traditional conventional experimental license and provide the required showing."

Thus it appears that the new clause was intended for inclusion in the new §5.303⁵ as an alternative for the less precise language now included in that section.

² http://www.battelle.org/docs/default-document-library/battelle_background_information_115.pdf?sfvrsn=0

³ 47 C.F.R. § 101.101

⁴ Order at ¶56

⁵ 47 C.F.R. § 5.303

ISSUES WITH THE NEW §5.85(a) PROVISIONS

Boeing has stated⁶

“Limited experimental operations in passive bands demonstrably serve the public interest, and a prohibition on such operations could prevent this important research without providing any significant additional interference protection to passive service users.”

Battelle fully agrees. For true cutting edge technologies it is sometimes difficult to develop an initial physical implementation that totally avoids emissions in passive bands or for which it is possible to find a practical testing locale that raises no interference issues with other FCC licensee or federal users authorized by NTIA. Thus while Battelle does not routinely seek access to passive spectrum, there are times where such access is sought for timely testing of new technology in order to advance it towards practical implementation. Thus use of passive spectrum is only sought under very limited circumstances, a fact which was also raised by Boeing in their submission.⁷

It is noted that OET staff could, until the May 2013 effectiveness date of the new rules, issue experimental licenses on delegated authority in bands with only passive allocations. However, these licenses were rarely requested and were approved only in justifiable circumstances. It is of further interest that there is no documented evidence that use of devices in these bands ever caused a problem for passive spectrum users with valid spectrum allocations.

As Boeing points out, military contractors have special spectrum needs. There are recurring cases where military contractors must use passive bands to fulfill the terms of their contractual obligations. This is driven either by the fact that the systems are

⁶ Boeing comments at p. 3

⁷ *ibid.*

intended for combat areas or because spectrum availability in U.S. territory is very different than locations where military equipment is intended for operations.

All passive spectrum has federal allocations. Under existing and longstanding procedures⁸ any experimental license application impacting such federal allocations managed by NTIA must be coordinated with NTIA. As a result, for decades NTIA has coordinated with FCC on Part 5 applications impacting passive bands and has had near *de facto* veto power over experimental use of passive bands. The Order does not explain why this has not been adequate. NITA's involvement provides a solid checks and balances approach to the licensing process.

Assuming the new §5.85(a) provision is retained without modification, the procedure created is rather awkward: Many military contractors use Part 5 licenses although their government sponsor might make alternative arrangements under NTIA's procedures. For a Part 5 license to be granted under the new rules for an experiment requiring access to passive spectrum to fulfill valid military requirements, *both* NTIA coordination and a waiver by the Commission of §5.85(a) would be necessary – a procedural complication with no apparent benefit. In essence, a redundancy is created.

CONCLUSIONS

Battelle has respected and protected passive spectrum users and supports their continued protection due to the importance of their scientific missions. But the new §5.85(a) provisions on passive bands do not add any new real protection to passive users.

⁸ MEMORANDUM OF UNDERSTANDING BETWEEN THE FEDERAL COMMUNICATIONS COMMISSION AND THE NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION, January 31, 2003 (http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-230835A2.pdf)

Rather they raise burdens and uncertainty for legitimate experiments with cutting edge wireless technology and could impact U.S. competitiveness in this area.

The new provisions apparently were intended for the program license case and we fully support their applicability for program licenses as discussed in paragraph 56 of the Order. Battelle respectfully requests moving the new clause from §5.85(a) to §5.303 where it would only apply to program licenses. This modification would address the concerns raised in this submission, the MSS Petition and the Boeing Comments.

We thank you in advance for your consideration of our submission.

Respectfully submitted,



Russell P. Austin (0037191)
Senior Vice President, General
Counsel & Secretary
Battelle Memorial Institute
505 King Avenue
Columbus, Ohio 43201
Telephone: (614) 424-5456
austinr@battelle.org