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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of the	)	
	)	
Revision of Part 15 of the	)	ET Docket No. 98-153
Commission's Rules Regarding	)	
Ultra-Wideband Transmission Systems	)	

REPLY COMMENTS OF XM RADIO INC.

XM Radio Inc. ("XM Radio") hereby files these reply comments in response to comments filed on February 23, 2001 regarding the National Telecommunications and Information Administration's ("NTIA") test data[1] on potential interference from the operation of Ultra-Wideband ("UWB") transmission technology.[2]

Background

In 1995, the Commission allocated spectrum in the 2.3 GHz band ("S-band") to the satellite Digital Audio Radio Service ("DARS"). XM Radio and Sirius Satellite Radio Inc. ("Sirius") were the winning bidders in the DARS licensing auction in April 1997, together committing nearly $170 million to the U.S. Treasury. In October 1997, the Commission licensed XM Radio and Sirius to provide DARS in the United States.[3] DARS will provide high-quality, continuous, nationwide multichannel audio service. The availability of DARS will increase the

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[1]The Temporal and Spectral Characteristics of Ultrawideband Signals, NTIA Report 01-383, William A. Kissick, Editor (January 2001) ("*NTIA Report 01-383*"); Assessment of Compatibility Between Ultrawideband Devices and Selected Federal Systems, NTIA Special Publication 01-43 (January 2001) ("*NTIA Report 01-43*").

[2]Comments Requested on Test Data Submitted by the National Telecommunications and Information Administration Regarding Potential Interference from Ultra-Wideband Transmission Systems, Public Notice, *Public Notice*, DA 01-171 (January 24, 2001).

[3]American Mobile Radio Corporation, 13 FCC Rcd 8829 (Int'l Bur., 1997); Satellite CD Radio, 13 FCC Rcd 7971 (Int'l Bur., 1997).

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variety of programming available to the listening public, offering an unprecedented variety of music and information, including in areas of the country that have traditionally been underserved by terrestrial radio stations.[4]

In its comments on the Commission's Notice of Proposed Rulemaking ("NPRM")[5] in this proceeding, XM Radio urged the Commission to prohibit UWB operations below 3 GHz. If the Commission does allow UWB operations below 3 GHz, then XM Radio urged the Commission to limit emissions from such devices into the DARS band to a field strength level of 18 uV per meter at 3 meters in order to ensure that UWB transmissions do not cause harmful interference to DARS receivers.[6] While the Commission proposed that its rules for UWB operations be more restrictive below 2 GHz than above 2 GHz,[7] XM Radio urged the Commission to modify this proposal to protect consumers of DARS in the 2.3 GHz band in the same manner as the Commission proposed to protect consumers of broadcast TV and radio and other pervasive communications services that operate below 2 GHz.

In January 2001, the Commission asked for comment on two NTIA reports containing analyses of the potential for harmful interference caused by the operation of UWB transmission technology to U.S. Government operations between 400 MHz and 6000 MHz.

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[4]Report and Order, Memorandum Opinion and Order, Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band, 12 FCC Rcd 5754, ¶ 1 (1997) ("*DARS Order*").

[5]Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems, Notice of Proposed Rulemaking, ET Docket No. 98-153 (May 11, 2000) ("*UWB NPRM*").

[6]Comments of XM Radio Inc., ET Docket No. 98-153 (September 12, 2000).

[7]*UWB NPRM* ¶¶ 27-30, 39.

Discussion

In its report, the NTIA concludes that "[o]perations of UWB devices below 3.1 GHz will be quite challenging."[8] XM Radio concurs in the comments of Sirius and others arguing that the NTIA's report demonstrates that UWB operations should not be permitted below 3.1 GHz.[9]

XM Radio also notes that the NTIA testing focused only on interference from UWB devices to governmental communications and not to commercial operations. XM Radio supports the comments of those calling for more testing of the effects of UWB technology on commercial radio technology.[10] Before the Commission can permit any use of UWB, it must develop a complete technical record, which includes not only the effect of UWB on governmental operations.

The NTIA also notes that "aggregate UWB interference can be a significant factor to receiving systems."[11] XM supports the comments of those who argue that further consideration is needed of the cumulative impact of many UWB devices operating simultaneously on licensed devices.[12]

The NTIA demonstrates that there are simply too many unanswered questions regarding UWB technology and its effects on other services at this time to allow operation of UWB devices, particularly below 3 GHz. Further testing and analysis is required before the Commission can even consider authorizing ubiquitously deployed UWB devices.

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[8] *NTIA Report 01-43* at x.

[9] Comments of Sirius Satellite Radio at 3 ("Sirius supports NTIA's position that the cut-off frequency should be 3.1 GHz."); Comments of the U.S. GPS Industry Council at 3 (stating that the NTIA tests results "reveal the existence of an interference problem of sufficient magnitude to preclude all UWB transmissions below 3.1 GHz").

[10] Comments of AT&T Wireless Services at 2; Comments of Sirius Satellite Radio at 2.

[11] *NTIA Report 01-43* at x.

[12] Comments of AT&T Wireless Services at 5; Comments of Sirius Satellite Radio at 4.

Conclusion

Based on the foregoing, XM Radio urges the Commission to act consistently with the views expressed herein.

Respectfully submitted,

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March 12, 2001

CERTIFICATE OF SERVICE

I, Cindi Smith Rush, a secretary to the law firm of ShawPittman, hereby certify that on this 12th day of March 2001, served a true copy of the foregoing **"REPLY COMMENTS OF XM RADIO INC."** by first class United States Mail, postage prepaid, upon the following:

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