

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C. 20554

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

To: The Commission

MOTION TO ACCEPT LATE FILED REPLY COMMENTS

This motion is to request the Commission accept the attached Reply Comments by the Satellite Industry Association ("SIA") in the above cited proceeding. A delay was encountered in meeting the stipulated deadline because of previous travel commitments by several of SIA's member company representatives with an interest in this proceeding.

Granting this Motion will provide additional information on the record for consideration by the Commission. The public interest will be served thereby

Respectfully submitted,

By: _____
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October 30, 2000

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REPLY COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION

The Satellite Industry Association (“SIA”), pursuant to Section 1.415 of the Commission’s rules (47 C.F.R. § 1.415), submits these reply comments regarding the Commission’s Notice of Proposed Rule Making (“NPRM”) in the above-captioned docket.¹ In response to the Commission’s effort to seek public input with respect to its proposal to modify Part 15 of its Rules in order to facilitate deployment of ultra-wideband (“UWB”) technology, SIA and over 100 other parties have filed comments. Many of these commenters strongly urge the Commission to consider its approach more carefully, so as to ensure that any implementation of UWB applications does not disrupt existing telecommunications and other radio services. At the same time, SIA recognizes that UWB technology offers interesting applications that may serve the public interest; thus the question is not whether to facilitate the licensing of UWB applications, but rather in which frequencies.

¹ *In the Matter of Part 15 of the Commission’s Rules Regarding Ultra-Wideband Transmission Systems*, ET Docket No. 98-153, Notice of Proposed Rulemaking, 65 Fed. Reg. 37332 (June 14, 2000).

In its initial comments, SIA urged that the Commission proceed cautiously and ensure that comprehensive testing of UWB applications occur prior to licensing in order to prevent any interference to existing radio spectrum users. Notably, a wide range of interested parties from all areas of the telecommunications industry have joined SIA in urging such thorough testing before any further UWB applications are authorized. The services represented by these comments include the Global Positioning System (“GPS”),² broadcast radio and television services and associated electronic news gathering frequency bands at 1.990-2.110 GHz,³ the Satellite Digital Audio Radio Service in the 2320-2345 MHz bands,⁴ Personal Communications Services and cellular radio services in the 1-2.6 GHz bands,⁵ high speed Internet services utilizing the Multichannel Multipoint Distribution Service (“MMDS”) and Instructional Television Fixed Service (“ITFS”) frequency bands at 2150-2162 MHz and 2500-2690 MHz,⁶ the Mobile Satellite Service in the 2483.5-2500 MHz and 2 GHz bands,⁷ manufacturers of aeronautical telemetry equipment above 4 GHz,⁸ and wireless communications service providers in the 2.3 GHz band.⁹

² See Comments of U.S. GPS Industry Council (“GPS Council”); Comments of GARMIN International, Inc.; Comments of Rockwell Collins, Inc. (“Rockwell Collins”); Comments of SiRF Technology, Inc.; and Comments of Lockheed Martin Corporation (“Lockheed Martin”).

³ See Comments of The National Association of Broadcasters.

⁴ See Comments of XM Radio, Inc. (“XM Radio”) and Sirius Satellite Radio, Inc (“Sirius”).

⁵ See Comments of AT&T Wireless Services, Inc. and Nortel Networks, Inc.

⁶ See Comments of Cisco Systems, Inc. (“Cisco”).

⁷ See Comments of Mobile Communications Holdings, Inc. (“MCHI”) and Qualcomm Inc.

⁸ See Comments of Rockwell Collins, Inc.

⁹ See Comments of Metricom, Inc. (“Metricom”).

It is hard to disregard concerns common to such a broad cross-section of the communications industry. SIA firmly believes that the Commission will not be able to make sound determinations regarding the substantial technical issues that it faces based solely on the limited data that the agency is expected to receive beginning next week. As the Commission is well aware, there are many types of UWB applications under consideration and there lacks a single waveform that is valid for all, thus requiring that multiple testing trials be undertaken and completed. Accordingly, the submission of initial data will not be adequate to consider the large number of variables associated with introduction of UWB transmissions into the current “frequency domain” environment.

Other parties have agreed with SIA that the Commission must allow more time to obtain research data, to analyze it thoroughly, and to conduct any necessary follow-up tests that may be suggested by the initial data.¹⁰ One critical issue advanced in the comments is the substantial differences in the interference potential of UWB devices that employ continuous waves, as opposed to those that use intermittent pulses,¹¹ as well as the issue of cumulative interference from large numbers of UWB devices,¹² which is not even an element of the major testing programs now in progress.

¹⁰ See Comments of Aircraft Owners and Pilots Association (“AOPA”) at 1-4; Comments of Metricom at 6-7; Comments of Rockwell Collins at 3-5; Comments of Stanford University at 1-2; Comments of the U.S. GPS Industry Council at 35-37; Comments of XM Radio, Inc. at 12-13.

¹¹ See Comments of Cisco Systems, Inc. at 4, and Comments of the U.S. GPS Industry Council at 47.

¹² See, e.g., Comments of Rockwell Collins, Inc. at 6; Comments of the U.S. GPS Industry Council at 33-35.

A significant number of commenters have emphasized the sensitive nature of operations in frequency bands used for military and public safety applications (*e.g.*, GPS), as well as other operations requiring sensitive signal discrimination for omnidirectional antennas; thus justifying special measures to ensure that these services are protected from harm. The comments to date raise significant doubt as to whether the Commission's proposal to restrict UWB operations below 2 GHz would adequately protect all of these services. In fact, it may be more appropriate for the Commission to establish a higher point of demarcation around 3 GHz in order to encompass more of the vulnerable bands,¹³ including frequencies that are restricted from unlicensed Part 15 use,¹⁴ absent substantiated technical evidence of compatibility. The final point will need to be established based on the results of the experimental trials. It appears, however, that there is a strong case in the record to date for moving up the cut-off to at least 3 GHz. Such an approach will still allow the Commission to meet its objective of protecting existing services without unduly constraining the development of new forms of UWB technology.

Finally, SIA shares the view of many of the other commenters¹⁵ that the Commission's full evaluation of the technical data will lead it to conclude that the interference characteristics of UWB make many of its potential applications ill-suited for unlicensed operation under Part 15 of the rules. Given the potential consequences of interference into frequency bands used for public safety applications, for terrestrial and

¹³ See, *e.g.*, MCHI Comments at 4; Sirius Comments at 11; XM Radio Comments at 10

¹⁴ See 47 C.F.R. § 15.205(a).

¹⁵ See, *e.g.*, Comments of Sirius Satellite Radio, Inc., at 20-21; Comments of the U.S. GPS Industry Council at 23, 49-51.

satellite communications services, and for wireless IT backbone, the Commission must seek to establish a regulatory regime that allows it to limit the number of devices that can be operated at one time in the same area. Thus, while application of Part 15 would be inappropriate, it appears that some form of a blanket licensing approach should be explored as it would allow the Commission to maintain the control needed in this area.

* * * * *

In sum, the Commission is obligated as the government entity entrusted with management of the spectrum to require thorough testing of any commercial technology before it is deployed. Commenters representing a wide range of interests, including some UWB proponents, agree that UWB poses a significant potential threat to the operation of existing services, and that such a careful approach is required. For this reason, the Commission should proceed with caution, awaiting full analysis of the test results that are forthcoming before allowing any further introduction of UWB technology. The Commission may need to preclude UWB devices from operation in bands below 3 GHz in order to protect GPS and other sensitive services operating in bands currently restricted under Part 15. Moreover, in order to ensure the protection of existing services, the Commission should not employ Part 15 as a vehicle for regulating UWB devices, which should instead be regulated as services under some type of blanket licensing regime.

Respectfully submitted,

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