

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

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Amendment of Part 90 of the) PR Docket No. 93-61
Commission's Rules to Adopt)
Regulations for Automatic)
Vehicle Monitoring Systems)

To: The Commission

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REPLY OF THE
CONNECTIVITY FOR LEARNING COALITION
TO OPPOSITIONS TO PETITION FOR RECONSIDERATION

1. The Connectivity for Learning Coalition^{1/} (the "Coalition"), pursuant to Section 1.429 of the Commission's rules, hereby files this reply to several oppositions to the Coalition's Petition for Reconsideration ("PFR") in this proceeding.

I. THE COMMISSION SHOULD AMEND THE NEW RULES TO EITHER (i) DELETE ANTENNA HEIGHT FROM BEING A CONSIDERATION FOR DETERMINING WHETHER A PART 15 DEVICE IS CAUSING HARMFUL INTERFERENCE TO A LMS SYSTEM OR (ii) MANDATE THAT A PART 15 DEVICE OPERATING FROM AN ANTENNA HEIGHT OF 15 METERS OR LESS AT FULLY AUTHORIZED PART 15 POWER WILL BE DEEMED NOT TO BE CAUSING HARMFUL INTERFERENCE TO A LMS SYSTEM.

2. In its PFR, the Coalition explained the importance of allowing Part 15 devices to operate at fully authorized Part 15 power at heights of at least 15 meters without losing the benefit of the presumption of non-interference. The Coalition requested that the Commission amend new rule section 90.361 accordingly.^{2/}

^{1/} The Connectivity for Learning Coalition is made up of the organizations listed on the signature page.

^{2/} Coalition PFR at ¶¶ 2-9.

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Southwestern Bell Mobile Systems, Inc., ("SWBMS") opposes the Coalition's request because, it contends, to allow such operation would "elevate Part 15 above LMS by subjecting LMS to even greater interference and degradation of its signal."^{3/} This is simply not true, and SWBMS offers no evidence to support its contention.

3. What is clear and in the record is that many Part 15 devices presently (and potentially to be) used by the nation's schools and libraries are located above the 5 and 15 meter thresholds specified in new rule section 90.361.^{4/} Most of the devices, in fact, are located on street light poles and on buildings up to 15 meters or more above the ground.^{5/} The power reduction mandated by new rule section 90.361 for devices operating at 15 meters above the ground will not allow such pole- and building-top radios to function adequately. This will necessitate more radios or eliminate their use altogether. More radios will equal more cost to an already financially strapped public school community. More radios will also cause more interference to other systems in the band. How can this be in anyone's best interests?

^{3/} SWBMS Opposition at pp. 13-14. Texas Instruments Incorporated also opposes this request but offers no explanation, arguments or other reasoning to support its opposition. TI Opposition at p. 13.

^{4/} Coalition PFR at ¶ 6.

^{5/} For example, Tetherless Access, Ltd., has begun to use equipment from CYLINK Corporation mounted on building-tops on a trial basis. Also, wireless LANs by Proxim, Inc., and other companies will be utilized by schools with interbuilding links using radios mounted on building-tops.

4. The Coalition is mindful of the secondary status of Part 15 devices in the 902-928 MHz band.^{6/} However, the presumption of non-interference in general, and the proposed 15 meter threshold in particular, do not alter the status of Part 15 devices but instead represent important components of an attempt to balance the interests of the public, which owns and operates a large amount of Part 15 devices, with the interests of the LMS industry. The presumption is contained within Part 90 of the rules -- not Part 15 -- and makes no fundamental alteration of the Part 15 rules.

II. IF THE COMMISSION DOES NOT AMEND THE NEW RULES TO PERMIT FULL PART 15 POWER WITH ANTENNA HEIGHTS UP TO 15 METERS, THEN THE COMMISSION SHOULD ALLOW "EDUCATIONAL USERS" OF THE 902-928 MHZ BAND TO UTILIZE FULL PART 15 POWER ALONG WITH PUBLIC SAFETY AND SPECIAL EMERGENCY USERS.

5. In its PFR, the Coalition asked the Commission to amend new rule section 90.361(c)(2)(ii)(B) to also exempt "educational uses" from the sliding scale power reduction mandated for Part 15 antennas. In opposing this request, SWBMS curiously maintains that: (i) the public interest benefit of LMS services is equal to that of our nation's public schools and libraries; and (ii)

^{6/} However, the presumption is the only operational mechanism in the rules which protects Part 15 users from being forced to shut down. In determining whether to reconsider the presumption, the Commission must consider its obligation to both the manufacturers of Part 15 devices (to whom the Commission gave every indication that it wished to see Part 15 devices developed and deployed) and to the users of Part 15 devices (many of whom have invested significant resources in Part 15 devices and systems) that Part 15 devices would not someday be made useless as a result of including an interference-prone service like LMS in the band. The Commission made clear early on that the only services which Part 15 users and manufacturers need to be concerned about causing interference to were those already "established" in the 902-928 MHz band. See, Report and Order, Gen. Docket 89-354, 5 FCC Rcd. 4123, 4124 (1990).

"educational users cannot claim to be more important than emergency service users."^{7/}

6. Whatever the public benefits may be of LMS, it is hard to take SWBMS seriously when it alleges that the public interest benefit of LMS is equal to the benefit conferred on the public by our nation's public schools and libraries. As demonstrated in the Coalition's PFR, it is the expressed desire of the Clinton Administration and of the U.S. Congress to have the nation's schools and libraries connect as quickly and efficiently as possible to the emerging National Information Infrastructure ("NII").^{8/} Indeed, ensuring a quality education through first-class primary and secondary schools is historically a matter afforded top priority by all levels of government.

7. Whether educational uses of Part 15 devices are "more important" than emergency service uses is irrelevant in this instance because the Coalition is not seeking any treatment not afforded emergency service users. The Coalition seeks to be accorded the same height related exemption that is presently afforded public safety and emergency radio uses. The costs of connecting the nation's schools and libraries to the NII through traditional wired service is staggering. The cost of wireless connection will be substantially less.^{9/} If the Commission agrees that making access to the NII affordable to our nation's schools

^{7/} SWBMS Opposition at p. 15.

^{8/} Coalition PFR at ¶¶ 11-12.

^{9/} Coalition PFR at ¶ 16.

and libraries is at least equal in priority to the public safety and emergency uses specified in Subparts B and C of Part 90, then it should include educational uses in new rule section 90.361(c)(2)(ii)(B).

III. THE COMMISSION SHOULD NOT ALLOW, AT ANY LEVEL, VOICE COMMUNICATIONS THAT INTERCONNECT WITH THE PUBLIC SWITCHED TELEPHONE NETWORK.

8. In its PFR, the Coalition requested that the Commission revise new rule Section 90.353 to prohibit voice communications that interconnect with the public switched telephone network ("PSTN").^{10/} SWBMS disagrees with the Coalition's contention and maintains that interconnected voice communications are appropriate as long as they are restricted to certain very limited situations.^{11/}

9. While such a regulatory scheme may, theoretically, benefit LMS systems without severely harming operations of Part 15 devices, as a practical matter, it is simply not workable. Neither the Commission in the Report and Order, nor the LMS operators who seek interconnection with the PSTN, have suggested a method for the Commission to enforce specified, limited voice interconnection to the PSTN. The Coalition submits that no such method exists. The unfortunate yet undeniable fact is that once the ability to interconnect is embedded in the rules, it will likely be abused. If the band were occupied only by LMS, then this is a scenario that the Commission could possibly tolerate. However, the band is a

^{10/} Coalition PFR at ¶¶ 19-21.

^{11/} SWBMS Opposition at p. 16.

congested, shared band; the Commission must prohibit voice uses of the band and, particularly, voice uses that interconnect with the PSTN.

IV. MULTILATERATION LMS SHOULD BE RELOCATED TO A MORE SUITABLE BAND.

10. In its PFR, the Coalition notes the undisputed fact that Multilateration LMS systems are poor band sharers and suggests that such systems be relocated to a more agreeable location on the spectrum.^{12/} SWBMS opposes this suggestion, and relies on the Commission's assertion that the 902-928 MHz band is ideally suited for AVM to support its opposition.^{13/}

11. However, an assumption that the band is a proper home for AVM is quite different from making the same statement for LMS. As the Commission acknowledged early in this proceeding, LMS is a far more expansive service than AVM in that it includes voice communication, and is used to locate animate and inanimate objects other than vehicles.^{14/} The potential for band congestion caused by the proliferation of such systems was also evident to the Commission early in the proceeding as is demonstrated by its assertion that the then-contemplated LMS systems "could lead to rapid congestion of available spectrum."^{15/}

^{12/} Coalition PFR at ¶ 8.

^{13/} SWBMS Opposition at pp. 14-15.

^{14/} Notice of Proposed Rulemaking, at ¶ 5.

^{15/} NPRM, at ¶ 9.

12. Many alternatives remain for the relocation of LMS on the spectrum.^{16/} The Commission has determined that the myriad Part 15 devices in use and on the drawing board serve the public interest and has encouraged their evolution.^{17/} As noted above, following the Commission's expressed desire for continued development and deployment of Part 15 devices, educational users and other users and manufacturers of Part 15 devices have invested significant resources in Part 15 based systems. As the Commission is plainly aware of the dangers inherent in forcing Part 15 users to share a band with LMS, the Commission should relocate LMS to another band where it will pose less of a threat to established services.

CONCLUSION

13. The Coalition is grateful for the opportunity to participate in this important FCC proceeding, the outcome of which will have significant ramifications on the abilities of our nation's schools and libraries to connect with and benefit from the emerging NII. In this regard, the Coalition wishes to thank the Commission in advance for its consideration of the millions of students and other potential learners who stand to benefit from the delivery of enhanced services that wireless connection has already begun to make possible.

^{16/} Several commenters in this proceeding have posited strong arguments for locating LMS in various more suitable locations including the 5.8 GHz band, the 2 GHz band, the 2450-2470 MHz band and the PCS spectrum. Coalition PFR at ¶ 8, n. 7.

^{17/} See supra note 6.

Respectfully Submitted,

CONNECTIVITY FOR LEARNING COALITION

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June 5, 1995

CERTIFICATE OF SERVICE

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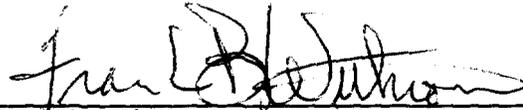
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