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April 12, 2013

BY ELECTRONIC DELIVERY

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: Progeny LMS, LLC
Permitted Written *Ex Parte* Presentation
WT Docket No. 11-49

Dear Ms. Dortch:

In a recent filing in this docket, the Part 15 Parties argued that a decision regarding whether Progeny has satisfied its obligations under Section 90.353(d) of the rules “require[s] resolution by the full Commission” and “it would not be appropriate” for the decision to be made pursuant to delegated authority either by the Wireless Telecommunications Bureau (“WTB”) or the Office of Engineering and Technology (“OET”).¹

Throughout this proceeding, Progeny has remained confident that the 18 months of comprehensive testing that has been conducted both by an independent third party and jointly with the Part 15 Parties clearly demonstrates that Progeny’s critically-needed indoor location service will not cause unacceptable levels of interference to unlicensed devices operating in the 902-928 MHz band. Progeny has therefore never before addressed the arguments of the Part 15 Parties that a decision on the issue can be made only by the full Commission and not by its Bureaus.

Progeny, however, is compelled to respond to the recent filing of the Part 15 Parties in order to correct its mischaracterization regarding the authority of the Bureaus to act on this matter and the substantial guidance that has been provided by the Commission regarding the “unacceptable levels of interference” standard.

¹ See Letter from Henry Goldberg, et al., to Marlene H. Dortch, Secretary, Federal Communications Commission, Notice of *Ex Parte* Presentation, WT Docket No. 11-49, at 1 (April 11, 2013) (“*Part 15 Parties Letter*”).

As indicated in Sections 0.311(a)(3) and 0.331(a)(2) of the Commission's rules, the authority of the Bureaus to act on delegated authority is limited to exclude "new or novel questions of law or policy which cannot be resolved under outstanding Commission precedents or guidelines."² Thus, as the Part 15 Parties acknowledge,³ the relevant question is whether the Commission has provided sufficient guidelines in its various orders on the subject to enable the Bureaus to determine whether Progeny has satisfied the interference standard.

In attempting to argue that the Commission has not provided sufficient guidelines to the Bureaus, the Part 15 Parties disingenuously claims that the Commission has made only one statement regarding its unacceptable levels of interference standard, quoting language in the Commission's *M-LMS Reconsideration Order* in which the Commission observed that M-LMS networks must not be "operated in such a way as to degrade, obstruct or interrupt Part 15 devices to such an extent that Part 15 devices will be negatively affected."⁴ The Part 15 Parties blithely claim that this statement, in the absence of any further instruction, "may not provide WTB and OET with sufficient guidance on the appropriate standard of review of the record and this proceeding and thus a decision on delegated authority would not be appropriate."⁵

In fact, as the Part 15 Parties are well aware, the quoted sentence is but a mere fragment of the extensive record that was adopted by the Commission spanning three different Commission decisions (each involving its own notice and comment process) in which the Commission explained in detail the meaning of, and the process for implementing and assessing, its requirement that M-LMS licensees demonstrate that their networks will not cause unacceptable levels of interference to unlicensed devices.

When the Commission initially established its unacceptable levels of interference standard, it explained at length that

we have decided to balance the equities and value of each use without undermining the established relationship between unlicensed operations and licensed services. Thus, we affirm that unlicensed Part 15 devices in the 902-928 MHz band, as in any other band, may not cause harmful interference to and must accept interference from all other operations in the band; persons operating unlicensed Part 15

² 47 C.F.R. §§ 0.311(a)(3) and 0.331(a)(2).

³ See *Part 15 Parties Letter* at 1 (questioning whether "sufficient guidance" has been provided by the Commission).

⁴ *Id.* (quoting Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Order on Reconsideration*, 11 FCC Rcd 16905, ¶ 15 (1996) ("*M-LMS Reconsideration Order*")).

⁵ *Id.*

devices have no vested or recognizable right to continued use of any given frequency.⁶

The Commission also explained that it was requiring M-LMS licensees to conduct field tests with Part 15 devices because the “additional testing could provide users of the band with data that could contribute to ‘fine-tuning’ system operations.”⁷ For example, as the Commission explained, “multilateration licensees may employ any one of a number of technical refinements, i.e., limiting duty cycle, pulse duration power, etc.”⁸ Progeny obviously employed these and additional interference mitigation techniques when designing its network.

Following the release of the Commission’s *M-LMS Order*, a number of parties filed petitions seeking further detail regarding the Commission’s unacceptable level of interference standard. These petitions were placed on public notice for comment. In response, the Commission released its *M-LMS Reconsideration Order*, which explained that the testing requirement was intended to ensure that M-LMS networks “are not operated in such a manner as to degrade, obstruct or interrupt Part 15 devices to such an extent that Part 15 operations will be negatively affected.”⁹ At the same time, the Commission explained that the testing rules “do not modify our Part 15 rules by elevating the status of Part 15 providers, . . . Part 15 operations remain secondary; the testing requirement is merely an attempt to achieve the most efficient coexistence possible among the various users of the band.”¹⁰

The Commission’s clarification regarding the definition of its unacceptable levels of interference requirement, however, did not end with its *M-LMS Reconsideration Order*. One party filed a petition seeking further clarity on the specific requirements of the demonstration obligation. The party’s petition was, of course, placed on public notice for comment. The Commission then issued a *Memorandum Opinion and Order*, which further explained that the unacceptable levels of interference requirement

does not mean that Part 15 devices are entitled to protection from interference. They are not. Rather, we were explaining our decision to place a testing condition on multilateration LMS licenses. The purpose of the testing condition is to insure that multilateration LMS licensees, when designing and constructing their systems, take into consideration a goal of minimizing interference to existing

⁶ See Amendment of Part 90 of the Commission’s Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Report and Order*, 10 FCC Rcd 4695, ¶ 35 (1995) (“*M-LMS Order*”).

⁷ *Id.*, ¶ 82.

⁸ *Id.*

⁹ See *M-LMS Reconsideration Order*, ¶ 15.

¹⁰ *Id.*, ¶ 17.

deployments or systems of Part 15 devices in their area, and to verify through cooperative testing that this goal has been served.¹¹

Despite this significant guidance, Progeny's opponents have argued that the Commission's unacceptable levels of interference standard is not sufficiently defined, particularly as compared to the more commonly used "harmful interference" standard. What these parties fail to recognize is that the Commission's unacceptable levels of interference requirement is a direct derivative of the harmful interference standard.

Harmful interference is defined in the Commission's rules as interference "which seriously degrades, obstructs or repeatedly interrupts" the functioning of a device.¹² Employing this same language, the Commission explained that its unacceptable levels of interference standard is intended to ensure that M-LMS networks "are not operated in such a manner as to *degrade, obstruct or interrupt* Part 15 devices *to such an extent* that Part 15 operations will be negatively affected."¹³ In other words, unacceptable levels of interference means harmful interference that Part 15 devices are incapable of withstanding or avoiding using the various interference mitigation techniques typically employed by Part 15 devices to withstand or avoid harmful interference from other such devices and from other authorized users of the 902-928 MHz band.

Progeny first highlighted this direct relationship between harmful interference and unacceptable levels of interference in a pleading that Progeny filed in this docket more than a year ago on March 30, 2012.¹⁴ Importantly, in the more than 100 filings that have been submitted to the Commission by Progeny's opponents since that date, no party has seriously challenged Progeny's analysis regarding the proper interpretation of the Commission's unacceptable levels of interference requirement or its appropriate application to M-LMS licensees.

This is because Progeny's analysis is not only supported by the substantial guidelines that have been provided in multiple Commission decisions, but also by the day-to-day realities of spectrum sharing in the 902-928 MHz band. Transmissions from Part 15 devices routinely inject noise into portions of the 902-928 MHz band potentially making it more difficult for other Part 15 devices to operate in the same vicinity on the same channel. In order to address this noise, Part 15 devices use various mitigation techniques to withstand or avoid the signals of other Part 15 devices, such as through the use of automatic channel selection, retransmission, or channel hopping technologies. As Progeny has demonstrated through multiple rounds of independent and joint testing, all of these techniques are equally effective in withstanding or avoiding the beacon transmissions of

¹¹ Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Memorandum Opinion and Order and Further Notice of Proposed Rule Making*, 12 FCC Rcd 13942, ¶ 69 (1997).

¹² 47 C.F.R. § 15.3(m); *see also* 47 C.F.R. § 2.1(c).

¹³ *See M-LMS Reconsideration Order*, ¶ 15 (*emphasis added*).

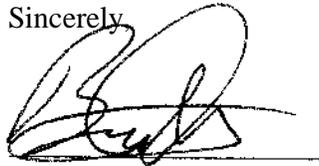
¹⁴ *See Response of Progeny LMS, LLC*, WT Docket No. 11-49 (March 30, 2012).

Progeny's M-LMS network. Therefore, Progeny's service does not cause unacceptable levels of interference to Part 15 devices.

Further, given the detailed guidelines that have been provided by the Commission regarding the proper interpretation of its unacceptable levels of interference standard, no reason exists for the Commission's Bureaus to refrain from issuing a decision on delegated authority concluding that Progeny has satisfied its testing and demonstration requirement. In fact, given the urgent need for Progeny's indoor location service that has been expressed by each of the major representatives of the public safety and emergency first responder services, the Commission's statutory public interest obligations arguably dictate that Progeny be authorized to make its service available to support public safety using the most expeditious and efficient administrative mechanism available. The Commission's delegated authority to its Bureaus has always existed to promote administrative efficiency and expedience,¹⁵ and the pending approval of Progeny's service is exactly the type of proceeding that is appropriately addressed in this manner.

Thank you for your attention to this matter. Please contact the undersigned if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bruce A. Olcott', written over a horizontal line.

Bruce A. Olcott
Counsel to Progeny LMS, LLC

¹⁵ See 47 U.S.C. § 155(c)(1) (authorizing the Commission to delegate certain of its authority to its Bureaus to promote the "prompt and orderly conduct of its business").