

March 22, 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:

Progeny LMS, LLC (“Progeny”), by its attorneys, herein addresses the recent claims of Taggle Systems (“Taggle”) that the position location transmissions from Progeny’s multilateration location and monitoring service (“M-LMS”) were the cause of performance reductions of an unlicensed meter reading device that Taggle is considering for introduction to the U.S. market.¹ Progeny has reviewed Taggle’s claims and notes that the performance of Taggle’s equipment is impacted by the much higher noise floor that exists across the 902-928 MHz band in much of the United States, as compared to Australia, and not because of the presence of Progeny’s M-LMS signals, as represented by Taggle.

As background, Taggle claims that it tested its prototype device in Los Altos Hills, California beginning on February 15, 2013² using an FCC experimental license that was issued on February 18, 2013.³ Taggle also claims that, at the time of its testing, it had received FCC certification for its prototype device, but the FCC’s certification database indicates that Taggle’s certification was not issued until March 7, 2013.

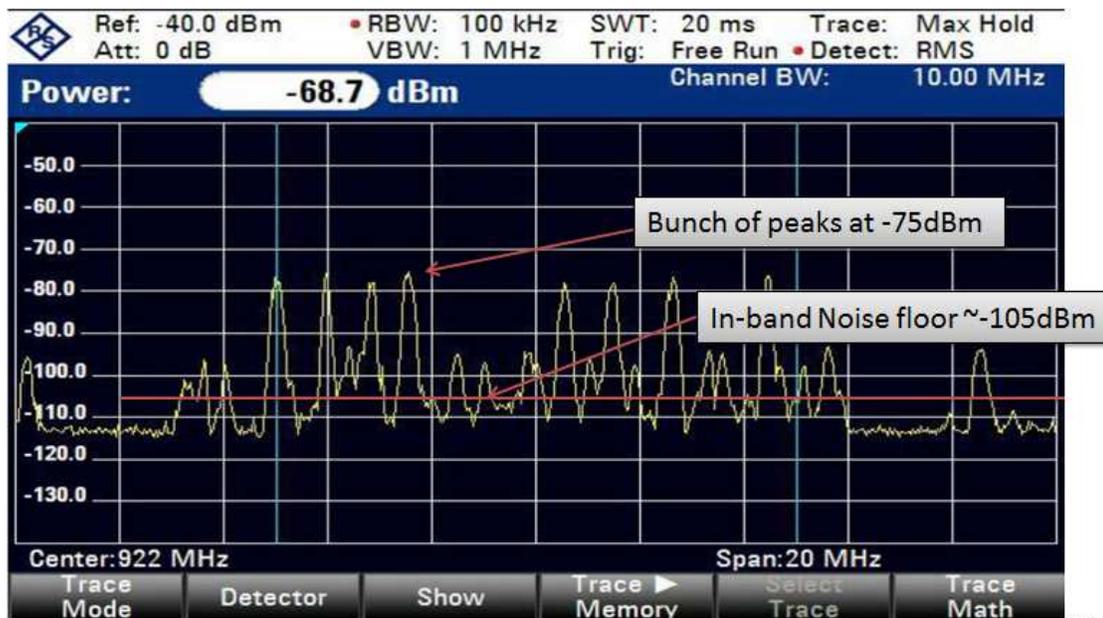
¹ See Letter from Gordon Foyster and Chris Andrews, Taggle Systems, Eveleigh Australia, to Ms. Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 11-49 (filed March 18, 2013) (“*Taggle Letter*”).

² See *id.* at unnumbered page 2.

³ See FCC Experimental Call Sign WG9XFE, file no. 0024-EX-ST-2013 (effective Feb. 18, 2013).

These discrepancies aside, Taggle claims that its test results revealed a receiver sensitivity that was 20 dB worse than expected, which it claims would reduce the coverage area of Taggle's equipment by 96 percent.⁴ Taggle asserts that its poor results were caused by the presence of Progeny's beacon signals in a portion of the spectrum used by Taggle's equipment. An examination of Taggle's filed spectrum plots, however, reveal a significantly greater noise floor across the entire 10 MHz of its signal than the levels Taggle associates with its expected performance levels.

Specifically, Taggle provided two spectrum analyzer plots, the first showing the typical in-band interference that Taggle claims does not impair the operations of its equipment.⁵ As indicated below, it includes a number of peaks from other signals in the band at around -75 dBm and a relatively low in-band noise floor of around -105 dBm.

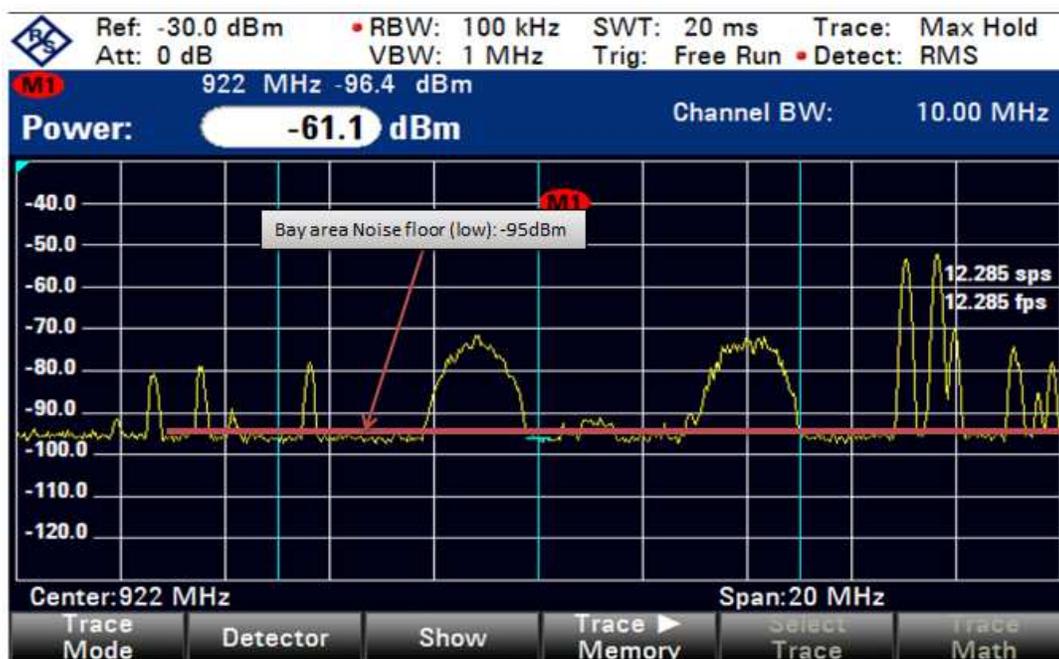


Taggle's Desired Noise Environment

⁴ See *Taggle Letter* at unnumbered pages 1-2.

⁵ See *id.* at unnumbered page 2.

Taggle then provides a second spectrum analyzer plot that reportedly shows the noise environment that it detected during its tests.⁶ As indicated below, it includes two peaks from Progeny's signals again at around -75 dBm and an in-band noise floor of around -95 dBm, a full 10 dB higher than Taggle's desired noise floor level.

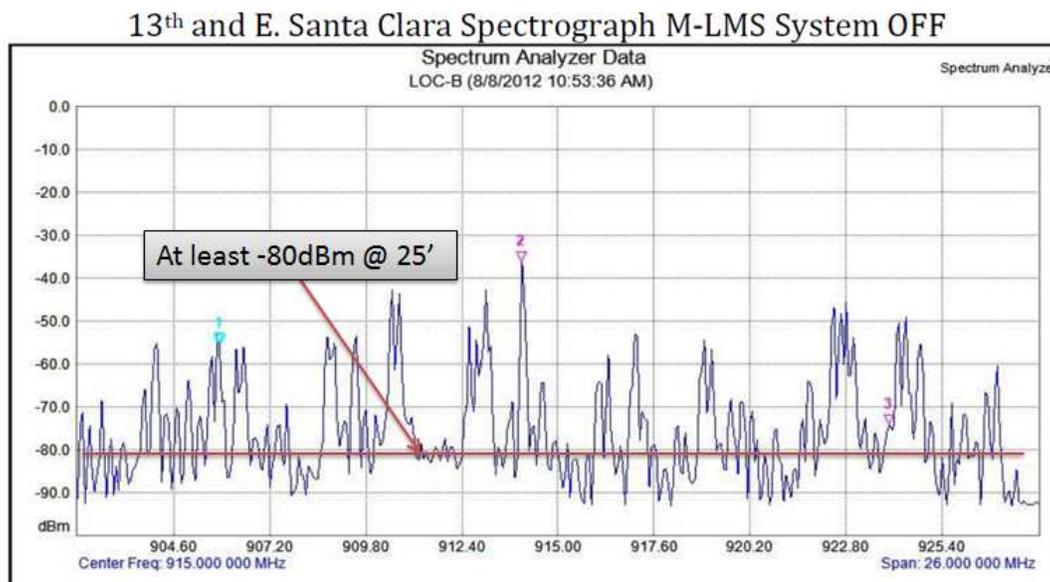


Taggle's Spectrum Analyzer Test Result

Further, Progeny anticipates that the -95 dBm noise floor level that Taggle experienced at its test location is actually lower than Taggle should expect to experience in other suburban and urban areas of the United States, particularly if Taggle employs an elevated receiver. For example, during Progeny's joint test process, Landis+Gyr recorded the following spectrum analyzer plot at a test site in San Jose, California, which shows a noise floor level (with Progeny's network off) of at least -80 dBm.⁷

⁶ See *id.* at unnumbered page 3.

⁷ See Progeny & Landis+Gyr Part 15 Test Report, WT Docket No. 11-49, at 23 (filed Oct. 31, 2012)



Landis+Gyr Spectrum Analyzer Plot of Noise Floor

This delta, from a -105 dBm noise floor noted as Taggle’s Desired Noise Environment to a measured noise floor of 80 dBm yields a 25 dB increase in ambient noise that the Taggle system must overcome. 20 dB is, interestingly, the performance reduction noted by Taggle in its letter. It is quite apparent that the high noise floor in the test area is a primary reason for the less than expected performance of Taggle’s equipment.

The significantly higher noise floor that exists in much of the United States may therefore make it difficult for Taggle to market a meter reading device that it designed for the Australian market without significant modifications to address spectrum usage conditions in the United States. In any event, it is inappropriate for Taggle to attempt to blame the poor performance of its equipment on Progeny’s service. As indicated in all of the spectrum analyzer plots above, the recorded peak power levels of Progeny’s service were no higher than the recorded peak power levels of countless unlicensed devices that are deployed by the millions in the 902-928 MHz band in the United States.

Taggle claims, however, that Progeny’s service employs a 100 percent duty cycle, while the signals of Part 15 devices may be intermittent.⁸ Taggle is obviously incorrect in this claim. Each of Progeny’s transmitters operates with a duty cycle of 10 to 20 percent. According to Taggle’s spectrum analyzer plots, Taggle was operating its spectrum analyzer in “Max Hold” mode, which would have recorded the highest peak for any signal in the band without concurrently indicating whether the signal was constant or intermittent. This is the likely source

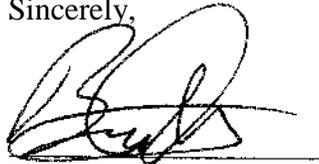
⁸ See *id.* at unnumbered page 3.

of Taggle's misperception regarding the signal characteristics of Progeny's position location service.

Given these facts, the Commission should disregard Taggle's baseless claim that, but for the existence of Progeny's critically-needed E911 position location service, Taggle would be able to introduce a new type of meter reading device into the U.S. market. As indicated in Taggle's own spectrum analyzer plots, the pre-existing noise floor in the 902-928 MHz band is the primary impediment to the operation of Taggle's equipment absent significant modifications to reflect the realities of unlicensed spectrum use in the 902-928 MHz band in the United States.

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