



N A R U C
National Association of Regulatory Utility Commissioners

February 21, 2013

The Honorable Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Notice of Ex Parte Presentation filed in the proceeding captioned:

In the Matter of Request by Progeny LMS, LLC for Waiver of Certain Multilateration Location and Monitoring Service Rules, WT Docket No. 11-49

Dear Chairman Genachowski:

During the recent Winter February Committee Meetings of the National Association of Regulatory Utility Commissioners ("NARUC"), the NARUC Telecommunications Committee hosted a panel entitled "Spectrum Interference: The Achilles Heel for Smart Grids & Other Critical Infrastructure?" The panel was moderated by Honorable Betty Ann Kane, Chairman of the District of Columbia Public Service Commission. Panelists included Gary Parsons, Chief Executive Officer, NextNav & Progeny LMS; Mike Oldak, Vice President & General Counsel of Utilities Telecom Counsel; Laura Stefani, Counsel to Itron & to the Part 15 Coalition, Goldberg, Godles, Wiener & Wright; Stephen E. Coran, Counsel to the Wireless Internet Service Providers Association, Lerman Senter; and Sarah Morris, Policy Counsel, Open Technology Institute, New America Foundation.

One of the major issues discussed was whether the field tests conducted by Progeny resolved the question of whether Progeny high power transmissions in the 902-928 MHz bands would interfere with all of the Part 15 low powered users, including in particular Advanced Metering Infrastructure (AMI) systems whose deployment is typically approved by State Public Service Commissions. AMI systems are used to read meters and coordinate operations with consumers. A more significant issue is the potential impact on the Supervisory Control and Data Acquisition (SCADA) systems that actually operate to control electric utility system operations. While AMI systems are increasingly important in integration of distributed energy resources into the electric grid, SCADA systems crucial to electric, gas and water utility operations. Interference with utility SCADA networks, which often run with 10 millisecond latencies and use the 902-928 MHz bands, could undermine utility reliability. The discussion also strongly suggested that the tests that have been run of the Progeny system to date did not directly involve any other utility, and focused on AMI systems rather than the more critical SCADA networks. What is clear is that Progeny and other Part 15 users disagree on the level of interference caused by Progeny's service. Itron, L+G, WISPA and more than 50 other Part 15 users operating in the 902-928 MHz band filed comments on Progeny's joint M-LMS field test reports that assert that the high transmission power and operation parameters of the Progeny M-LMS system will cause unacceptable levels of interference to Part 15 devices and reduced throughput and reliability which will reduce the availability of usable unlicensed spectrum in the 902-928 MHz band. Progeny disagrees.

Based in part on the panel discussion and questioning from members of NARUC's Committee on Telecommunications, NARUC ultimately adopted the attached resolution which urges the FCC to:

- Require further field tests of Progeny's M-LMS system equipment with AMI, smart grid systems, wireless broadband, and other critical infrastructure equipment manufacturers and network operators conducted by independent and unaffiliated engineers mutually selected by Progeny and the Part 15 users; *and*
- To wait to authorize Progeny to operate its licensed M-LMS system in the 902-928 MHz band until the FCC can ensure that Progeny's M-LMS system will not cause unacceptable levels of interference to communications equipment and devices for AMI, smart grid systems, pipeline monitoring and control systems, wireless broadband networks and other critical infrastructure; *and*
- To forego a decision about whether to approve Progeny's petition for permanent authority to operate its M-LMS system in the 902-928 MHz band or other case-by-case petitions for waivers of the Part 90 M-LMS rules that could exacerbate interference problems until after it has adopted Part 90 rules that establish technical requirements, including an evaluation of whether to adopt stricter transmission power limits, for M-LMS licensees which will guard against unacceptable interference to Part 15 users in the 902 928 MHz band; *and*
- To work with the States to establish consumer education and a process to report interruptions or loss of services.

Please consider this a formal request for the FCC consider and adopt these four NARUC proposals.

This is being filed as a written ex parte request in the above-captioned proceeding. Please do not hesitate to contact the undersigned at gramsay@naruc.org or 202.898.2207 if you have any questions about this filing.

Respectfully submitted,

James Bradford Ramsay
NARUC General Counsel

*cc: Zachary Katz, Chief of Staff, Office of the Chairman
Michael Steffen, Legal Advisor, Office of the Chairman
Christine D. Kurth, Policy Director & Wireline Counsel, Office of Commissioner McDowell
Angela Kronenberg, Wireline Legal Advisor, Office of Commissioner Clyburn
Priscilla Delgado Argeris, Legal Advisor, Office of Commissioner Rosenworcel
Nicholas Degani, Legal Advisor, Wireline, Office of Commissioner Pai
Ruth Milkman, Chief, FCC Wireless Bureau*

Resolution to Promote Co-Existence in the 902-928 MHz Spectrum Band

WHEREAS, Electric, gas and water utilities, public and private transportation systems, including railroads, subways, and light-rail systems, and oil and natural gas pipeline companies rely on robust communications networks that operate in the 902-928 MHz spectrum band for coordination and utilization of intelligent devices and applications which are required to operate advanced metering infrastructure (AMI), smart grid systems, monitoring and control systems and other critical infrastructure; *and*

WHEREAS, Low-powered, unlicensed users operating in the 902-928 MHz band (pursuant to 47 C.F.R. Part 15; "Part 15 users") provide a variety of public safety and other services such as: fixed wireless broadband service; radio frequency identification devices used to track assets and supply chains; EZ Pass equipment for electronic toll roads, tunnels and bridges; traffic control systems; parolee location devices; and wireless consumer products, including: hearing aids, emergency call pendants, home and business alarm systems, cordless telephones and headsets, baby and other medical monitoring equipment, and numerous other important and popular devices; *and*

WHEREAS, Higher-powered Multilateration Location and Monitoring Service ("M-LMS") licensed users operating in a portion of the 902-928 MHz band (pursuant to 47 C.F.R. Part 90, Subpart M; "Part 90 users") also provide a variety of public safety benefits to the modernization of critical infrastructure such as vehicle location services, indoor position location services for wireless service callers to E911 and many industrial, scientific and medical devices; *and*

WHEREAS, On March 23, 1995, the Federal Communications Commission ("FCC") adopted a policy of co-existence within the 902-928 MHz band (see 47 C.F.R. §90.361) where each licensed and unlicensed user's equipment and devices should anticipate and be capable of tolerating a minimal level of interference from other licensed or unlicensed users, while preventing unacceptable interference to Part 15 users devices; *and*

WHEREAS, To balance the public interest between existing and new users operating in the 902-928 MHz band, the FCC requires licensed M-LMS network operators to demonstrate through actual field testing that their networks do not cause unacceptable levels of interference to Part 15 users' devices which also share the 902-928 MHz band; and **WHEREAS**, On March 7, 2006, the FCC released a Notice of Proposed Rulemaking (WT Docket No. 06-49; FCC 06-24) that sought comment on whether changes to the Part 90 rules "by adopting stricter power limits for M-LMS licensees, we can better serve our goal of providing these licensees more flexibility while minimizing interference to these unlicensed devices" (Part 15 users) and which remains pending before the FCC; *and*

WHEREAS, On December 20, 2011, the FCC granted Progeny LMS, LLC ("Progeny"), a Part 90 licensee, waivers of two Part 90 rules (WT Docket No. 11-49, Order No. DA 11-2036) permitting it to construct a M-LMS system in the 902-928 MHz band that would employ a single high-powered transmission path for a broadcast signal from base stations to the mobile devices, instead of using two high-powered transmission paths, one from the base stations to the mobile devices and another from the mobile devices back to the base stations, which the FCC acknowledged "offers the potential for significantly improved location based services that provide for vehicle location services as well as other mobile units, particularly for use in challenging urban canyons or inside buildings" and also noted that "Progeny's proposal takes the goal of minimizing interference to other users into account"; *and*

WHEREAS, The aforementioned FCC Order required, pursuant to 47 C.F.R. §90.353(d), Progeny "to demonstrate through actual field tests that its M-LMS system will not cause unacceptable levels of interference to Part 15 devices in the 902-928 MHz band" (a term as yet undefined by FCC Order or rule); and **WHEREAS**, On January 27, 2012, Progeny filed a report with the FCC detailing field tests on a variety of Part 15 devices which generated negative comments from the users and manufacturers of such Part 15 devices; *and*

WHEREAS, Pursuant to a request from the FCC staff to undertake field tests on a joint basis with Itron, Inc. ("Itron"), Landis+Gyr Company ("L+G"), and the Wireless Internet Service Providers Association ("WISPA"), on October 31, 2012, Progeny filed three additional field test reports; *and*

WHEREAS, Itron, L+G, WISPA and more than 50 other Part 15 users operating in the 902-928 MHz band filed Comments and Reply Comments on Progeny's joint M-LMS field test reports (see FCC Public Notice, WT Docket No. 11-49, Released: November 20, 2012), as well as additional testing results and technical information, that the Part 15 users assert that the high transmission power and operation parameters of the Progeny M-LMS system will cause unacceptable levels of interference to Part 15 devices and reduced throughput and reliability which will reduce the availability of usable unlicensed spectrum in the 902-928 MHz band; *and*

WHEREAS, In January 2013, Progeny filed with the FCC ex parte Sur-Reply Comments and other materials that assert that the joint field test reports actually demonstrate that Progeny's M-LMS system will not cause unacceptable levels of interference to Part 15 devices and that the Part 15 devices will be fully capable of functioning reliably in the 902-928 MHz band as a result of Progeny's interference mitigation techniques; now, therefore be it

RESOLVED, That the Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC), convened in its 2013 Winter Committee Meetings in Washington, D.C., requests the FCC to require further field tests of Progeny's M-LMS system equipment with AMI, smart grid systems, wireless broadband, and other critical infrastructure equipment manufacturers and network operators conducted by independent and unaffiliated engineers mutually selected by Progeny and the Part 15 users; and be it further

RESOLVED, That NARUC requests the FCC to not authorize Progeny to operate its licensed M-LMS system in the 902-928 MHz band until the FCC can ensure that Progeny's M-LMS system will not cause unacceptable levels of interference to communications equipment and devices for AMI, smart grid systems, pipeline monitoring and control systems, wireless broadband networks and other critical infrastructure; and be it further

RESOLVED, That NARUC urges the FCC to forego a decision about whether to approve Progeny's petition for permanent authority to operate its M-LMS system in the 902-928 MHz band or other case-by-case petitions for waivers of the Part 90 M-LMS rules that could exacerbate interference problems until after it has adopted Part 90 rules that establish technical requirements, including an evaluation of whether to adopt stricter transmission power limits, for M-LMS licensees which will guard against unacceptable interference to Part 15 users in the 902-928 MHz band; and be it further

RESOLVED, That the FCC is urged to work with the States to establish consumer education and a process to report interruptions or loss of services.

Sponsored by the Committee on Telecommunications

Adopted by the NARUC Board of Directors, February 6, 2013