**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| In the Matter of | ) | |
| | ) | |
| Request by Progeny LMS, LLC for Waiver of Certain Multilateration Location and Monitoring Service Rules | ) | WT Docket No. 11-49 |
| | ) | |
| Progeny LMS, LLC Demonstration of Compliance with Section 90.353(d) of the Commission's Rules | ) | |

To: The Commission

# PETITION FOR RECONSIDERATION OF THE WIRELESS INTERNET SERVICE PROVIDERS ASSOCIATION


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## SUMMARY

The Commission's *Order* in this proceeding misconstrues the applicable legal standard, misstates key facts and shifts established policy without notice to undermine the rights of unlicensed Part 15 users entitled to protection from "unacceptable levels of interference." As a result of failures to apply an appropriate standard and properly analyze field test results, the Commission reached the wrong conclusion. To remedy these arbitrary and capricious actions that are not supported by reason or the record, the Commission should reconsider the *Order* and find that Progeny LMS, LLC ("Progeny") has not met its legal burden and therefore is not permitted to commence commercial operations of its location monitoring service.

The Wireless Internet Service Providers Association ("WISPA") represents fixed wireless broadband providers that use unlicensed spectrum – including the 902-928 MHz band – to provide service to millions of Americans, many of whom do not otherwise have access to broadband. The record in this proceeding shows that Progeny's operations would cause a 50 percent reduction in throughput of fixed wireless broadband transmissions, with consequences that will essentially render the band useless for fixed wireless broadband services.

The harsh conclusions manifested in the *Order* are founded on a flimsy foundation that cannot withstand legal scrutiny. In adopting Section 90.353(d) of its rules, the Commission imposed on LMS licensees two requirements – *first*, to conduct actual field testing, and *second*, to show through such testing that LMS operations will not cause "unacceptable levels of interference to Part 15 devices." Regarding the second element, the Commission intended that "LMS systems 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." Progeny itself endorsed this standard.

For reasons that cannot be divined from the *Order*, the Commission appears to have changed this standard, without any notice whatsoever. Including the original definition, there are no fewer than *nine* possible definitions stated in the *Order* of what may constitute "unacceptable levels of interference," eight of which appear to have been plucked from thin air to help justify a decision that cannot be supported by the original definition. Yet another potential conclusion is that the Commission applied *no* standard of "unacceptable levels of interference." Whatever the case, the Commission provided no notice and opportunity for comment on any proposed change in its interpretation of the special protections afforded to Part 15 users under Section 90.353(d) and offered no explanation of why it changed its interpretation to the detriment of Part 15 users. These errors constitute arbitrary and capricious action that requires reconsideration.

Under any standard, however, the Commission cannot conclude on the record that fixed wireless broadband network operators would not experience "unacceptable levels of interference." Relying on test parameters to which Progeny and WISPA mutually agreed, the Joint Test Report shows that broadband throughput would be reduced by 50 percent, causing customers to experience a 50-percent reduction in broadband speeds and/or a total loss of service 50 percent of the time. Rather than addressing this point head-on, the Commission attempted to rationalize its conclusion by suggesting that interference was worse when Progeny's beacon transmitters were in close proximity to broadband links and that WISPs can mitigate

interference. This speculation is both wrong and unsupported by the record. There was no testing of individual Progeny beacon transmitters to determine the level of any interference that any one of them may cause, and changing channels or reducing bandwidth prescribe disaster for the remaining Part 15 users that will all need to cram into the remaining "clean" one-third of the 900 MHz band.

When it adopted the LMS rules in 1995, there were already millions of unlicensed Part 15 devices operating in the 902-928 MHz band. In recognition of this fact, the Commission adopted a band plan that "continues to permit secondary operations by unlicensed Part 15 . . . across the band, but affords users in these services a greater degree of protection to their operations." The *Order* upsets this balance by imposing on Progeny reporting and monitoring conditions that seek to address interference *after* it has already occurred and, with respect to WISPs, in places where interference is *less* likely to occur. By nullifying any meaning behind the special "unacceptable levels of interference" condition, the Commission has effectively evicted users and chilled further investment and innovation in a band that is the home of millions of important "life-safety," industrial and everyday consumer devices. The effects of this ill-conceived policy change extend beyond the 900 MHz band and signal that all unlicensed operations, in any band, are at risk.

If the Commission does not reconsider the *Order*, it should, at a minimum, impose stronger conditions on Progeny that will identify and redress potential interference *before* it occurs. The conditions recommended by the Part 15 Coalition would be suitable for this purpose.

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## PETITION FOR RECONSIDERATION

The Wireless Internet Service Providers Association ("WISPA"),[1] pursuant to Section 1.106(b) of the Commission's Rules, hereby respectfully requests reconsideration of the June 6, 2013 *Order* in the above-captioned proceeding.[2] In approving commencement of high-power, licensed commercial operations by Progeny LMS, LLC ("Progeny"), the Commission failed to properly apply Section 90.353(d) and the corresponding condition on Progeny's license that is intended to provide Part 15 devices with protection from "unacceptable levels of interference." Instead, without any notice whatsoever, the Commission unlawfully adopted a new standard that appears to represent *post hoc* reasoning to achieve a desired result, but one that violates the Administrative Procedure Act ("APA"), contravenes the requirements of Section 90.353(d) and is unsupported by the public record. Moreover, under *any* standard of "unacceptable levels" that may be deemed to apply, the record demonstrates that Progeny did not meet its burden of

[1] WISPA is the trade association that represents more than 700 wireless Internet service providers ("WISPs"), equipment manufacturers, vendors and others. WISPs provide fixed wireless broadband services on unlicensed and licensed bands to consumers, businesses and community anchor institutions in urban, rural, underserved and unserved communities. WISPA has been an active participation in this proceeding. *See, e.g.*, Comments of WISPA, WT Docket No. 11-49 (Mar 15, 2013) ("WISPA Comments").

[2] *Order*, WT Docket No. 11-49, FCC 13-78 (rel. June 6, 2013) ("*Order*").

showing the absence of "unacceptable levels of interference" to commonly deployed devices used by hundreds of WISPs to provide fixed broadband services to millions of consumers. The *Order* is also contrary to established Commission policies intended to encourage innovation and development of unlicensed services. Finally, the conditions imposed in the *Order* on Progeny's operations are woefully inadequate to address and prevent interference issues before they occur.

To redress these clear errors of law, reasoning and policy, the Commission should reconsider the *Order* and find that Progeny has not, on the basis of the public record, satisfied the requirements for commercial operating authority. Alternatively, at a minimum, the Commission should impose adequate conditions on Progeny's operations that will restore meaning to its burden to show that its operations will not, in fact, cause "unacceptable levels of interference" to WISP operations and other Part 15 devices.

## Background

In 1985, the Commission authorized the use of the 902-928 MHz band for unlicensed uses under Part 15 of its rules.[3] Since that time, unlicensed services have flourished in the band, which is now shared by millions of consumer and industrial devices, including devices for fixed broadband access, "life-safety" communications, medical applications, smart meters, supervisory control and data acquisition ("SCADA") and everyday consumer devices such as baby monitors, home telephone systems and wireless headsets.[4] Among the other important uses, WISPs use the 902-928 MHz band to provide fixed wireless broadband services to areas that, because of terrain, foliage and other characteristics, cannot receive broadband services using other unlicensed

[3] *See* Authorization of Spread Spectrum and Other Wideband Emissions Not Presently Provided for in the Commission's Rules and Regulations, 101 FCC 2d 419 (1985); Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without an Individual License, 4 FCC Rcd 3493 (1989).

[4] *See, e.g.*, Opposition to Progeny Waiver Request, WT Docket No. 11-49 (Jan. 11, 2013) ("Multi-Party Opposition") (letter signed by 63 organizations and companies providing examples of unlicensed devices operating in the 902-928 MHz band). *See also* Amendment of the Commission's Part 90 Rules in the 904-909.75 and 919.75-928 MHz Bands, 21 FCC Rcd 2809, 2815-16 (2006) ("*LMS NPRM*") (acknowledging a number of Part 15 uses).

bands.[5] Because of deployment costs, many of these areas also cannot receive broadband services using wired infrastructure.

Notwithstanding the presence of "several million Part 15 devices . . . used every day to provide a wide variety of valuable services to the American public," in 1995 the Commission established the Multilateration-Location Monitoring Service ("M-LMS") to operate as a licensed service in portions of the same 902-928 MHz band where unlicensed devices were already prospering.[6] In recognition of the existing services enabled by the unlicensed band and "the enormous benefits to both businesses and consumers that will result from the continued growth in the use of the Part 15 industry,"[7] the Commission adopted Section 90.353(d) to specifically condition M-LMS licensees "upon the licensee's ability to demonstrate through actual field tests that their systems do not cause unacceptable levels of interference to 47 CFR part 15 devices."[8] This decision was not without concern or dissent, for the same reasons that underscore the concerns of Part 15 users today – the "potential bog of interference problems"[9] and the belief "that the record in this proceeding offers little indication regarding the potential implications for all interested parties, including the consumers and manufacturers of many Part 15 devices."[10] The Commission further cited its "expectation that such testing be accomplished through close

[5] *See e.g.*, Comments of Intelliwave, WT Docket No. 11-49 (Dec. 21, 2012) ("Intelliwave Comments") at 1 ("combination of trees and terrain render all other unlicensed band[s] unusable for the point to multipoint capabilities required to provide last mile services to our customers"); Comments of CKS Wireless, Inc., WT Docket No. 11-49 (Dec. 21, 2012) ("CKS Wireless Comments") at 1 ("customers are not able to receive internet using other frequencies because of the trees"); Comments of Net-change.com, WT Docket No. 11-49 (Dec. 20, 2012) at 1 ("Net-change Comments") ("vast majority of our customers can only be served with 900 MHz equipment"); Comments of QWireless, WT Docket No. 11-49 (filed Dec. 19, 2012) ("QWireless Comments") at 1 ("only successful band to propagate will *[sic]* enough to reach our customers through terrain and foliage"); Comments of Shelby Broadband, WT Docket No. 11-49 (Dec. 21, 2012) at 1 (same).
[6] *See* Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicular Monitoring Systems, 10 FCC Rcd 4695, 4699 (1995) ("*LMS Report and Order*").
[7] *Id.* at 4700.
[8] *Id.* at 4737. *See also* Section 90.353(d).
[9] *LMS Report and Order* at 4763 (Concurring Statement of Commissioner James H. Quello).
[10] *Id.* at 4765 (Dissenting Statement of Commissioner Andrew C. Barrett).

cooperation between multilateration systems users and operators of Part 15 systems."[11] As if foretelling its future unwillingness to offer clarity, the Commission did not specifically define what would constitute "unacceptable levels of interference" to Part 15 devices.[12]

On reconsideration, the Commission affirmed its decision and clarified certain aspects of the *LMS Report and Order*.[13] Of relevance, the Commission stated that it "seeks to ensure . . . that *LMS systems are not operated in such a manner as to degrade, obstruct or interrupt Part 15 devices to such an extent that Part 15 devices will be negatively affected*."[14] This explanation provided a definition for the "unacceptable levels of interference" standard adopted the previous year. But the Commission's explanation also is notable for what it does *not* say – it does *not* include any language limiting the words "degrade, obstruct or interrupt" or the phrase "negatively affected." By contrast, in the earlier *LMS Report and Order*, the Commission engaged in a lengthy explanation of what would constitute "harmful interference" from Part 15 devices to LMS systems, defining "harmful interference" as "(a)ny emission, radiation or induction that endangers the function of a radionavigation service or of other safety services or *seriously* degrades, obstructs or *repeatedly* interrupts a radiocommunication service operating in accordance with this chapter."[15] The Commission clearly intended to distinguish between "unacceptable levels of interference" and "harmful interference."

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[11] *Id.* at 4737.
[12] Commissioner Quello further proved prescient in stating that "[t]he sheer number and diversity of the Part 15 devices that already operate in this band virtually guarantee that this standard, however laudable, will be well-nigh impossible to implement and enforce." *Id.* at 4762 (Concurring Statement of Commissioner James H. Quello).
[13] Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicular Monitoring Systems, *Order on Reconsideration*, 11 FCC Rcd 16905 (1996) ("*LMS Recon Order*").
[14] *Id.* at 16912 (emphasis added).
[15] *LMS Report and Order* at 4715, *citing* Sections 15.3(m) and 2.1 (emphases added).

On March 8, 2011, Progeny, a holder of M-LMS authorizations, requested waiver of two technical rules in order to deploy fixed beacons for its proposed M-LMS service.[16] On December 20, 2011, the Wireless Telecommunications Bureau and the Office of Engineering and Technology ("WTB/OET") jointly released an order approving the Waiver Request.[17] The *Waiver Order* made clear that Progeny remained obligated to meet the special field testing and interference protection requirements of Section 90.353(d) before commencing commercial operations.

Ignoring the Commission's statement that field testing "be accomplished through close cooperation" with Part 15 operators, Progeny conducted unilateral testing and submitted the results to the Commission. In response to a public notice,[18] WISPA and others filed Comments sharply criticizing Progeny's flawed test methods and assumptions, which were heavily skewed to falsely show the absence of interference.[19] WTB/OET thereupon asked Progeny to work with WISPA and other commenters to conduct actual cooperative testing.

In September 2012, Progeny and WISPA conducted joint testing in the San Jose area using jointly-developed testing parameters. On October 31, 2012 the parties filed a joint report explaining the test parameters and test results.[20] The one-way (uni-directional) throughput-

[16] *See* Petition for Waiver of the Rules and Request for Expedited Treatment, Progeny LMS, LLC (Mar. 8, 2011 ("Waiver Request"). The Waiver Request sought waiver of Sections 90.155(e) and 90.353(g).
[17] *See Order*, 26 FCC Rcd 16876 (WTB/OET 2011) ("*Waiver Order*").
[18] *See Public Notice*, "The Wireless Telecommunications Bureau and the Office of Engineering and Technology Seek Comment on Progeny's M-LMS Field Testing Report," WT Docket No. 11-49, DA 12-209 (WTB/OET rel. Feb. 14, 2012).
[19] *See* Comments of WISPA, WT Docket No. 11-49 (Mar. 15, 2012) ("WISPA Comments"). *See also* Comments of Itron, Inc. on Progeny's Test Report, WT Docket No. 11-49 (Mar. 15, 2012); Comments of Cellnet Technology, Inc., a Landis + Gyr Company (Mar. 15, 2012); Comments of Kapsch TrafficCom IVHS Inc., WT Docket No. 11-49 (Mar. 15, 2012).
[20] *See* Letter from Bruce A. Olcott, Counsel to Progeny, and Stephen E. Coran, Counsel to WISPA, WT Docket No. 11-49 (Oct. 31, 2012) ("Joint Test Report"). Additional joint test reports between Progeny and each of Itron, Inc. and Cellnet Technology, Inc. were concurrently filed.

reduction test results, which Progeny has not questioned, are summarized in the following table:[21]

**Table 1**
**Results of Joint Testing**

| Equipment | Test Set# | WISP Equipment Frequency (MHz) | Progeny Frequency Block(s) (MHz) | % Throughput Reduction w/ Progeny Network "ON" |
|---|---|---|---|---|
| Cambium Canopy M9000 AP and M9000 SMC (SM on hill; AP on valley floor; both horizontal polarization) | 1 DL<br>1 UL | 902-910<br>(Outside Progeny B and C Blocks) | 919-921 (B-Block)<br>925-927 (C-Block) | AP to SM – 0.5%<br>SM to AP – None<br>**Overall = 0.5%** |
| | 2 DL<br>2 UL | 916-924<br>(Overlaps Progeny B Block) | 919-921 (B-Block)<br>925-927 (C-Block) | AP to SM – **14.9%**<br>SM to AP – **8.3%**<br>**Overall = 23.2%** |
| | 3 DL<br>3 UL | 919-927<br>(Overlaps Progeny B and C Blocks) | 919-921 (B-Block)<br>925-927 (C-Block) | AP to SM – **49%**<br>SM to AP – **13.2%**<br>**Overall = 62.2%** |
| Ubiquiti Rocket M900S AP and CPE (AP on hill; CPE on valley floor; dual horizontal and vertical polarization) | 4 DL<br>4 UL | 902-912<br>(Outside Progeny B and C Blocks) | 919-921 (B-Block)<br>925-927 (C-Block) | AP to CPE – (+) 2%<br>CPE to AP – **2.3%**<br>**Overall = 0.3%** |
| | 5 DL<br>5 UL | 912-922<br>(Overlaps Progeny B Block) | 919-921 (B-Block)<br>925-927 (C-Block) | AP to CPE – **47.9%**<br>CPE to AP – **41.5%**<br>**Overall = 89.4%** |
| | 6 DL<br>6 UL | 917-927<br>(Overlaps Progeny B and C Blocks) | 919-921 (B-Block)<br>925-927 (C-Block) | AP to CPE – **2.5%**<br>CPE to AP – **17.6%**<br>**Overall = 20.1%** |

These test results show that co-frequency operation of Progeny's beacon transmitters (Test Set 3 and Test Set 5) would cause uni-directional throughput reductions of approximately 50 percent on the equipment most commonly deployed by WISPs.[22] WISPA and approximately 35

[21] *See* Joint Test Report, Figures 12-17. WISPA included a version of this table in a number of previous filings with the Commission. *See, e.g.*, Comments of WISPA, WT Docket No. 11-49 (Dec. 21, 2012) at 6; Letter from Stephen E. Coran, Counsel to WISPA, to Marlene H. Dortch, FCC Secretary, WT Docket No. 11-49 (Mar. 22, 2013) (notice of oral ex parte meeting with OET/WTB).

[22] WISPA and Progeny disagree on whether the throughput reductions in a given test set should be aggregated (uni-directional uplink reduction plus uni-directional downlink reduction). WISPA has stated that "end users will experience the *combined effect* of throughput reductions in both directions." *See* Letter from Stephen E. Coran, Counsel to WISPA, to Marlene H. Dortch, FCC Secretary, WT Docket No. 11-49 (Mar. 4, 2013) ("March Ex Parte Letter") at 3 (emphasis in original). WISPA also has shown that averaging the throughput reductions across all test sets is disingenuous and has no bearing on the experience of a broadband customer, who is receiving service on one of the three broadband channels in the 900 MHz band, not all three channels simultaneously. *See id.* at 4.

WISPs[23] commented on the devastating consequences that would result from such a significant loss of throughput – substantially slower download and upload speeds and/or a loss of service for half of a WISP's customers.

On June 6, 2013, the Commission released the *Order* and authorized Progeny to commence commercial operations. Focusing on the fact that Progeny conducted some field testing and that its system was supposedly designed to "minimize[]" interference,[24] the Commission, as if grasping for straws, offered several potential definitions of "unacceptable levels of interference," one of which existed before the Commission adopted the *Order* and others that appear to have been made up on the spot. To make matters worse, in concluding that Progeny met its burden, the Commission (a) failed to discuss the test results and the record showing the adverse consequences that will result, (b) erroneously found that WISPs could modify equipment and operating parameters to mitigate the effects of interference, and (c) relied on conjecture in concluding that the parties could work together to ensure co-existence. The Commission imposed reporting conditions on Progeny and acknowledged other "voluntary commitments" that Progeny had offered in a May 6, 2013 meeting with Commissioner Clyburn.[25] The *Order* made no mention of the objections to these proposed commitments made by the Part 15 Coalition in a May 13, 2013 letter explaining that "Progeny seeks to avoid the testing requirement and instead suggests a series of proposals designed to address potential

[23] *See, e.g.*, Comments of Blaze Broadband, WT Docket No. 11-49 (Dec. 20, 2012) at 1 ("Progeny's vertical polarization is not sufficient to insulate our customers"); Comments of Joink, LLC, WT Docket No. 11-49 (Dec. 21, 2012) at 1 ("If the test was run with Canopy also being vertically polarized, the results would almost certainly be significantly worse"); Comments of Central Coast Internet, WT Docket No. 11-49 (Dec. 21, 2012) ("unacceptable level of interference which is impossible to mitigate with cross-polarization or other techniques"); CKS Comments at 1 ("customers are not able to receive internet using other frequencies because of the trees"); Net-change Comments ("vast majority of our customers can only be served with 900 MHz equipment"); Intelliwave Comments at 1 ("interference will cause reductions in both service reliability and throughput"); Comments of InvisiMax Inc., WT Docket No. 11-49 (Dec. 21, 2012) at 1 ("will reduce throughput (everyone needs more, not less) it will reduce reliability, we will lose the number of channels we can use, affecting customer performance").

[24] *Order* ¶ 19.

[25] *See* Letter from Bruce A. Olcott, Counsel to Progeny, to Marlene H. Dortch, FCC Secretary, WT Docket No. 11-49 (May 6, 2013) ("Progeny Conditions Ex Parte Letter").

interference issues *after* interference arises."[26] The *Order* also failed to acknowledge the Part 15 Coalition's May 28, 2013 request that the Commission impose more substantial conditions on Progeny's operations.[27]

## Discussion

Section 90.353(d) and the condition placed on Progeny's licenses contain two distinct elements – *first*, that Progeny must conduct "actual field tests," and *second*, that those tests must demonstrate a lack of "unacceptable levels of interference to Part 15 devices." The *Order* focused on the testing and Progeny's supposed efforts to minimize interference, but failed to articulate a clear standard for what constitutes "unacceptable levels of interference" to provide a framework for evaluating the *results* of the Joint Test Report and the record. By dancing around the central issue, the Commission has nullified the modest and unique protection requirements of Section 90.353(d) and the license conditions, upsetting the balance of a band plan that "continues to permit secondary operations by unlicensed Part 15 . . . across the band, but affords users in these services a greater degree of protection to their operations."[28] The *Order* warrants reconsideration in light of the Commission's unreasoned failure to comply with established law, regulations and policies.

### I. THE COMMISSION ACTED ARBITRARILY, CAPRICIOUSLY AND CONTRARY TO LAW IN FAILING TO ADEQUATELY DEFINE "UNACCEPTABLE LEVELS OF INTERFERENCE."

In the *Order*, the Commission refused requests to define "unacceptable levels of interference." Instead, the Commission referenced the definition stated in the *LMS Recon Order*,

[26] *See* Letter from Laura Stefani, Counsel to the Part 15 Coalition, WT Docket No. 11-49 (May 13, 2013) at 1 (emphasis in original).
[27] *See* Letter from Laura Stefani and Henry Goldberg, Counsel to the Part 15 Coalition, to Marlene H. Dortch, FCC Secretary, WT Docket No. 11-49 (May 30, 2013) ("Part 15 Coalition Conditions Ex Parte Letter").
[28] *LMS Report and Order* at 4701. *See also LMS NPRM* at 2810 ("we recognize the importance of maintaining the existing accessibility of the band for unlicensed devices, which has led to a proliferation of important public, private and consumer applications, and for amateur operators").

which requires M-LMS licensees to conduct field testing demonstrating that "LMS systems 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."[29] Assuming that the Commission intended Progeny's test results to be governed by this definition, grant of Progeny's request constituted a failure of rational decision making, and is thus arbitrary and capricious agency action and should be reconsidered. In short, and as further discussed in Section II, a 50 percent reduction in throughput and its corresponding consequences cannot be viewed as anything but a "degradation, obstruction or interruption" in operations that has a "negative effect" on the operation of Part 15 devices. Assuming, however, that the Commission intended Progeny's test results to be evaluated under some new definition of "unacceptable levels of interference" – and the *Order* seems to contain *nine* potential such new definitions – then grant of Progeny's request constitutes an impermissible revision of Section 90.353(d), in violation of the APA.

### A. There is No "Rational Connection" Between the Record and the Commission's Decision to Approve Progeny's Request.

Attempting to discern which, if any, definition of "unacceptable levels of interference" the Commission applied, or intended to apply, to the test results is like contemplating an image in a funhouse mirror. Some explanations are contorted, others are compressed, and others randomly materialize without warning. There appear to be *nine* potential definitions of "unacceptable levels of interference" scattered throughout the *Order*. At various junctures of the *Order*, the Commission indicated that:

1. Interference reaches unacceptable levels if it "degrade[s], obstruct[s] or interrupt[s] Part 15 devices to such an extent that Part 15 operations will be negatively affected."[30] This is the definition the Commission established when it adopted the

[29] *LMS Recon Order* at 16912.
[30] *Order* ¶ 11.

LMS rules and is the *only* potential definition that pre-dates adoption of the *Order*.[31]

2. Interference reaches unacceptable levels if unlicensed Part 15 devices cannot "continue to be able to operate in the band when potential interference from M-LMS [is] introduced."[32] Under this definition, apparently only complete cessation of device functionality would qualify as "unacceptable."

3. Interference reaches unacceptable levels if an M-LMS system interferes with Part 15 operations "so that the band can[not] continue to be used for unlicensed operations without significant detrimental impact."[33] This definition apparently introduces a new standard: "significant detrimental impact."

4. Interference reaches unacceptable levels if it "create[s] a significant detrimental effect overall on unlicensed operations in the band, [such that] the band therefore can[not] continue to be used for such unlicensed operations consistent with their Part 15 status."[34] This definition apparently introduces another new standard: "significant detrimental effect *overall*."

5. Interference reaches unacceptable levels if "most unlicensed devices will [not] continue to work as intended."[35] This standard seems to require demonstration of failure by "most" tested devices, but without guidance as to what percentage would constitute "most." It is also unclear if the device failure must be complete, or if demonstration of mere impairment would suffice.

6. Interference reaches unacceptable levels if Part 15 devices no longer "continue to function."[36] This standard seems to require that devices completely fail.

7. Interference reaches unacceptable levels if Part 15 devices will not "continue to function in most cases."[37] This standard seems to require that tested devices fail completely "in most cases," but it is unclear what amount would constitute "most."

8. Interference reaches unacceptable levels if Part 15 devices cannot "generally coexist with"[38] an M-LMS system. This is perhaps the most amorphous of the definitions, leaving so much open as to be effectively meaningless.

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[31] *See LMS Recon Order* at 16912.
[32] *Id.* ¶ 19.
[33] *Id.*
[34] *Id.* ¶ 21.
[35] *Id.* ¶ 24.
[36] *Id.* ¶ 26.
[37] *Id.* ¶ 27.
[38] *Id.* ¶ 28.

In addition to these eight possible definitions, the *Order* seems to contemplate a ninth possibility: that *there is no definition* of "unacceptable levels of interference," and that this is an intentional omission on the part of the Commission. The *Order* very curiously states that:

> [a] number of parties assert that the Commission should open a new rulemaking to specifically define "unacceptable levels of interference," yet *this same argument was made and rejected* by the full Commission in 1996. As the Commission noted, for purposes of determining "unacceptable levels of interference," no uniform *field testing method* is appropriate.[39]

This passage is open to a variety of interpretations. Did the Commission mean to say that it had previously intentionally rejected calls to define "unacceptable levels of interference," and would continue to do so? If so, then apparently there is *no standard* by which to evaluate M-LMS test results, seemingly leaving the Commission left to assess each interference test result on an *ad hoc* and *post hoc* basis, providing the public with no idea of what is required. Moreover, such a complete lack of a standard would make superfluous the statement from the *LMS Recon Order* that LMS systems must not "degrade, obstruct or interrupt Part 15 devices to such an extent that Part 15 operations will be negatively affected." Alternately, the passage could be read to mean that the Commission previously rejected calls to open a new rulemaking on the issue of such a definition, and will continue to do so. Next, the passage (apparently intentionally) conflates the definition of "unacceptable levels of interference" with the "field testing method" used to determine whether such "unacceptable levels" are present. This inappropriately reduces the two-part burden that Progeny must meet – testing *and* results – to a single burden of simply conducting field testing, and skirts any discussion of how the results will be evaluated. While it is true that different devices need to be tested under different methods, a lack of uniform field testing methods does not excuse the lack of a definition of "unacceptable levels of interference."

[39] *Id*. ¶ 18 (emphases added).

The *Order* and the Commission's decision to grant Progeny's request may only be upheld "if the agency's path [in issuing it] may reasonably be discerned."[40] Given the apparent reliance on multiple definitions (or the lack of any definition) of such a critical term – "unacceptable levels of interference" – no such "path" is discernible here. Furthermore, the *Order*'s consistent confusion of testing with results indicates either a failure of reasoned decision making, a "clear error of judgment,"[41] or both. Lastly, in light of the Commission's grant of Progeny's request in the face of overwhelming evidence that, under *any* standard, Progeny's system causes "unacceptable levels of interference" to Part 15 devices, the *Order* "offer[s] . . . explanation[s] . . . that run[ ] counter to the evidence before the agency."[42] For all of these reasons, the *Order* fails to establish a "rational connection between the facts found and the choice made,"[43] and therefore constitutes arbitrary and capricious action that must be reconsidered.

### B. Adoption of the *Order* Constitutes a Violation of Notice and Comment Provisions of APA.

The alternative to the above scenario – that the Commission failed adequately to reason through the issues before it and therefore committed a clear error of judgment – is that the numerous possible definitions of "unacceptable levels of interference" introduced in the *Order* were an intentional attempt to modify – and relax – the standard by which M-LMS/Part 15 interference test results are measured. If that was the objective, the *Order* constitutes a modification or establishment[44] of the interference standard without adequate notice and an opportunity to comment, in violation of the APA.

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[40] *Bowman Transp., Inc. v. Arkansas-Best Freight Sys., Inc.*, 419 U.S. 281, 286 (1974).
[41] *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (internal quotes and citations omitted) ("*State Farm*").
[42] *Id*. *See also* Section II, *infra*.
[43] *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962).
[44] WISPA notes the Commission's curious statement that the action taken in the *Order* was meant to "*implement* the section 90.353(d) standard regarding 'unacceptable levels' of interference that the Commission established when providing for M-LMS operations. . . ." *Order* ¶ 18. This could be read to mean that the Commission considered the

The notice and comment requirements of Section 553 of the APA are well known. Before the Commission sets or modifies a rule or policy of general applicability, it must provide notice and allow interested parties an opportunity to provide input. This is the route that the Commission followed when it established the LMS rules and provided guidance on what would constitute unacceptable levels of interference. Until release of the *Order*, parties understood that "unacceptable levels of interference" consisted of interference which "degrade[d], obstruct[ed] or interrupt[ed] Part 15 devices to such an extent that Part 15 operations [are] negatively affected."[45] Progeny itself believed this to be the applicable standard.[46]

With the release of the *Order*, however, the Commission introduced eight potential standards, all of which are unrelated to the initial definition, and some which are considerably more forgiving of M-LMS interference toward Part 15 devices (such as the suggestion that Part 15 devices must completely fail before interference is considered to have reached "unacceptable levels"). Reliance upon any of these definitions, instead of the definition set forth during establishment of the M-LMS service, would effectively render meaningless the "unacceptable levels" condition attached to Progeny's license grant, and represent a significant loss in the special protection rights afforded to Part 15 devices.

While the Commission is certainly free to change its mind and alter the standard of what constitutes "unacceptable levels of interference," it is obligated to explain its reasons for doing so,[47] and to take into account public comments regarding such a policy change.[48] Here, assuming the Commission was attempting to modify or establish a new standard, the

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*Order* to be the first statement giving practical effect to the now nearly 20-year old "unacceptable levels of interference" requirement. If this is the case, the *Order* was *clearly* adopted in violation of the notice and comment provisions of the APA.

[45] *LMS Recon Order* at 16912.

[46] *See* Response of Progeny, WT Docket No. 11-49 (Jan. 11, 2013) at 9.

[47] *See State Farm* at 57.

[48] *See* APA Section 553. Abrupt regulatory changes, in general, require fair notice of the change. *See, e.g., FCC v. Fox Television Stations*, 132 S. Ct. 2307, 2318 (2012).

Commission provided no notice, no reasoned analysis for changing the standard and no opportunity for Progeny, WISPA or any other interested parties to comment. Such action constitutes a violation of the notice and comment provisions of the APA.

## II. THE *ORDER* WRONGLY FINDS THAT PROGENY DEMONSTRATED THAT IT WILL NOT CAUSE "UNACCEPTABLE LEVELS OF INTERFERENCE."

Under *any* standard that may be deemed to apply, the Commission cannot rightfully conclude on the record that Progeny has demonstrated a lack of "unacceptable levels of interference" to Part 15 devices. In particular, the Joint Test Report shows that operation of Progeny's network causes co-frequency interference to WISP operations, resulting in a 50 percent reduction in throughput on the "two most commonly used" fixed wireless broadband equipment,[49] under test conditions to which Progeny and WISPA mutually agreed.[50] Short line-of-sight paths for fixed wireless broadband links were selected, which "allowed adequate data throughput and stable operation with the Progeny network off."[51] When the Progeny network was turned on and operated using frequencies overlapping the frequencies for the test equipment links, the substantial degradation in throughput was clearly identified and reported.

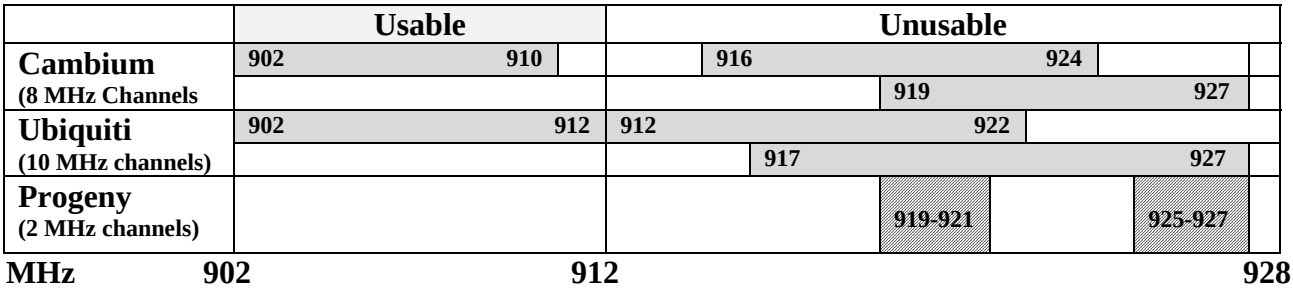
Tellingly, the *Order* neglected any mention of the specific test results or the consequences of a 50 percent throughput reduction. Instead, the Commission improperly shifted the focus of its discussion to a general conclusion that the "tests show that most unlicensed devices will continue to work as intended, even in cases where Progeny's system can interfere to some degree."[52] With specific respect to fixed broadband devices, the Commission found that

[49] Joint Test Report at 2. The test equipment included the Cambium Canopy Model 9000 AP and 9000 SMC and the Ubiquiti Rocket M900S. *See id.*
[50] *See* Table 1, *supra*; Joint Test Report at 2-12. The Commission has declined to adopt specific testing methods in light of the vast number of devices, diverse uses and various configurations for Part 15 devices. *See LMS Recon Order* at 16912.
[51] Joint Test Report at 3.
[52] *Order* ¶ 24.

"the tests show varying results but also continued functionality."[53] *But "continued functionality" is not the standard that applies here.* Progeny was required to show that its operations would not cause "unacceptable levels of interference," a condition that cannot be equated with mere "functionality." Taking the Commission's conclusion to a logical extreme, anything other than complete failure of a fixed broadband network would not constitute "unacceptable levels of interference," because the device continued to function. While the term "unacceptable" implies that WISPs will experience *some* level of interference, it does not follow that they must accept *all* interference until a broadband link is completely unable to function.

The *Order* suggested that WISPs can change their equipment and operating parameters to mitigate the potential for interference.[54] As WISPA clearly explained,[55] and as the *Order* plainly gets wrong,[56] WISPs cannot simply select a different operating frequency or operate on different frequency bands to obtain relief from Progeny's interference. As illustrated in Table 2 below, Progeny's operations would preclude WISP operations on two-thirds of the 902-928 MHz band because Progeny's operations – authorized at *twelve times* (48 Watts vs. 4 Watts) the power level of Part 15 devices – drives a spike through two-thirds of the unlicensed channels.

**Table 2**
**Available 900 MHz Equipment Channels (MHz)**




[53] *Id.* ¶ 26
[54] *Id.*
[55] *See* Letter from Stephen E. Coran, Counsel to WISPA, to Marlene H. Dortch, FCC Secretary, WT Docket No. 11-49 (Mar. 4, 2013) at 5-6.
[56] *See Order* ¶ 26.

The only remaining usable operating frequencies in the 902-928 MHz band would be in the lower one-third of the band (902-912 MHz) where there is space for only one channel, so the Commission is essentially requiring all WISPs and other Part 15 users to reduce their operating bandwidth by two-thirds and share the remaining one-third of the band. Given existing congestion and capacity constraints, this will not work and presages a "tragedy of the commons."

Shrinking the channel size also is not viable because it would reduce the bandwidth-delivery capability, resulting in slower speeds and unacceptable reductions in throughput. Moreover, it is pure speculation for the Commission to surmise that WISPs can "manage[]" interference problems by altering their deployments"[57] or take "reasonable steps consistent with existing practice for unlicensed operations to remedy interference, such as adjusting the operating frequency of the device or adding additional links as necessary to achieve a desired level of performance."[58] The record contains no analysis of the time, efforts and resources that network operators and equipment manufacturers would be required to expend in order to develop replacement equipment that could operate using narrower channels and still provide acceptable throughput delivery. Without such information, and given the importance of the issue, the Commission cannot simply guess that WISPs or the marketplace can mitigate the severe Progeny interference problems. Likewise, "adding additional links," as the *Order* suggests, without the availability of additional clean spectrum is not a solution for wide-area point-to-multipoint broadband networks. Adding links may be appropriate for some point-to-point networks but it is irrelevant to the provision of point-to-multipoint service, especially when interference forces all operations into only one-third of the band.

[57] *Id.*
[58] *Id.* ¶ 31.

The record is replete with letters indicating the consequences of the substantial throughput reduction shown in the Joint Test Report. For example, "[m]any customers would face loss of service"[59] and "[w]ith no other frequency band to use to reach these customers, they will lose service and move from 'served' to 'unserved.'"[60] An Indiana WISP commented that "our likely course of action would be to cease installing customers in the 900 MHz frequency…. The likely outcome would be the loss of many existing customers and the failure to install many customers that would currently be viable 900 MHz customers."[61] An Ohio WISP stated that "[t]his unacceptable interference and loss of channel capacity will cause Intelliwave to be unable to serve our hundreds of customers. This will severely impact the affected customers and will cause significant financial harm to Intelliwave's business."[62] The Comments of Razzo Link sum up the adverse consequences from Progeny's operations: "Finally, and ultimately, the results of Progeny broadcasting in this spectrum could be a loss of broadband service to both residential and commercial customers who rely on this service today."[63] Thus, notwithstanding the Commission's erroneous interpretation of the test results, the fact remains that many WISP networks will not be able to continue to operate in markets where Progeny's system is present. The record also refutes even the "overall" effect the Commission improperly asserts.[64]

The Commission attempted to explain away these consequences to rationalize approval for Progeny's operations. These efforts fail. First, the Commission asserted that "the worst-case

[59] Comments of Fourway Computer Products, Inc., WT Docket No. 11-49 (Dec. 19, 2012) at 1.
[60] Comments of Mercury.net, WT Docket No. 11-49 (Dec. 19, 2012) at 1. *See also* Comments of Radio Communications Service, WT Docket No. 11-49 (Dec. 21, 2012) at 1 ("I will eventually be unable to provide internet service to most of my customers as it will be too expensive or even impossible to convert them to a different system other than 900 Mhz equipment").
[61] Comments of Magnum Wireless, LLC, WT Docket No. 11-49 (Dec. 20, 2012) at 2.
[62] Intelliwave Comments at 2.
[63] Comments of Razzo Link, Inc., WT Docket No. 11-49 (Dec. 21, 2012) at 1.
[64] *Order* ¶ 21. *See also* Section I.A, *supra*.

scenarios occurred when WISP antennas were in close proximity to Progeny's beacons."[65] But the Joint Test Report does not support this conclusion. The joint tests of the Cambium and Ubiquiti equipment examined the *cumulative effect* of 13 or 14 Progeny beacon transmitters to two fixed wireless broadband test links. Some of the Progeny beacon transmitters were 20 miles or more from the test links and, significantly, the tests did *not* examine or calculate interference from any one beacon transmitter location. Rather, the tests compared the level of interference that existed with *all* of the Progeny beacons "on" and *all* of the Progeny beacons "off," with no attempt to determine the impact of any single beacon whether close or far from the broadband test links. Thus, *no* conclusion about the proximity of Progeny's beacon transmitters to WISP antennas can be drawn from the Joint Test Report, and the Commission's interpretation is therefore entirely speculative.

Second, the Commission surmised that "WISP operations in rural and less dense areas are highly unlikely to be affected because Progeny is focusing its deployment in urban areas."[66] Here, the Commission overstated a generality, downplaying Progeny's own admission that it "may also deploy its services in rural areas."[67] For that possibility, the Commission acknowledged Progeny's suggested "spectrum etiquette measure[]" that it "will work directly with" WISPs in rural markets.[68] But when asserting that "WISP deployment in urban areas may or may not be affected depending on the specific circumstances of the WISP communication link(s) and the physical relationship to Progeny's transmitters," the Commission ignored the record and relied on its speculative belief that "possible interference problems should be

[65] *Order* ¶ 26.
[66] *Id.*
[67] Response of Progeny, WT Docket No. 11-49 (Jan. 11, 2013) at 47.
[68] *See* Letter from Bruce A. Olcott, Counsel to Progeny, to Marlene H. Dortch, FCC Secretary, WT Docket No. 11-49 (May 6, 2013) ("Progeny Conditions Ex Parte Letter) at 1-2.

manageable."[69] There is nothing in the record to support this assumption. WISPs are left with an upside-down conclusion: in rural markets where Progeny is perhaps *less* likely to provide service, WISPs have Progeny's commitment that it will work with them; but in urban markets where Progeny intends to build out dense networks with many beacon transmitters and a consequently higher noise level, the Commission essentially walks away and leaves WISPs exposed to the potential for the debilitating interference revealed in the Joint Test Report and the consequent loss of service and business illustrated in the record.

The Commission has totally misinterpreted the Joint Test Report and relied on unsupported speculation to conclude that Progeny's operations would not cause "unacceptable levels of interference to Part 15 devices." In examining the test results through a "functionality" lens, the Commission ignored the extensive record and made itself blind to any reasonable understanding of the consequences of a 50 percent throughput reduction.

## III. THE *ORDER* SHOULD BE RECONSIDERED BECAUSE IT IS CONTRARY TO COMMISSION POLICIES.

In addition to its legal infirmities, the *Order* contravenes established Commission policies, and sends the wrong signal to those innovators and operators that would seek to exploit the benefits of unlicensed spectrum for consumer welfare and economic growth. The Commission acknowledged in the 1995 *LMS Report and Order* that the 902-928 MHz band was used by millions of consumer and industrial devices,[70] and previously explained that "Part 15 devices are used for a variety of important public, private, and consumer applications [such as] 'smart grid' applications . . . , including remote meter reading and utility load management, as well as cordless telephones and wireless local area networks."[71] The extensive record in this

[69] *Order* ¶ 26.
[70] *See LMS Report and Order* at 4699. *See also LMS NPRM* at 2815-16.
[71] *Waiver Order* at 16889 (footnote omitted).

proceeding highlights a number of additional everyday 900 MHz wireless services.[72] None of these uses compete with the M-LMS service Progeny is deploying and all provide significant benefits to the public.

Notwithstanding these Part 15 benefits and the substantial record about the potential for harm that interference from Progeny would cause, the Commission nonetheless proclaimed that Progeny's unproven licensed service is preferred over the existing unlicensed services that have developed in the last 20 years. It downplayed these service benefits, however, by attaching no meaning to the protections afforded Part 15 operations under Section 90.353(d), no meaning to the condition on Progeny's licenses and no meaning to "unacceptable levels of interference." The effects of the Commission's misguided decision will have harmful effects extending well beyond the confines of the 902-928 MHz band, as these misinterpretations could also serve as precedent in other unlicensed bands.

First, the *Order* constitutes an eviction notice for existing users of the band. The Commission offers lip service in the form of reporting and monitoring conditions, but these *post hoc* conditions provide little comfort for operators and users that have already invested substantial sums to deliver important services and applications. WISPs and other Part 15 users cannot reasonably be expected to vacate two-thirds of the band and expect to avoid interfering with each other. That would be like closing two lanes of a three-lane highway and asking all of the cars, trucks, buses, bicycles and pedestrians to share the remaining one lane. The alternative is, simply, to vacate the band and abandon the broadband customers.

Second, by gutting the "unacceptable levels" condition and eliminating the measure of protection that rule and license condition provided to the operation of Part 15 devices, the Commission has dealt a severe blow to the equipment manufacturing sector. The Commission

[72] *See, e.g.*, Multi-Party Opposition.

pointed out that it has approved approximately 6,200 unlicensed devices for operation in the 902-928 MHz band, 2,200 of those in the last five years.[73] This equipment innovation, manufacturing and deployment occurred in reliance on the sustainability of the band for unlicensed operations, due in some measure to the belief that "unacceptable levels of interference" actually had some meaning. By focusing only on the testing methods and Progeny's purported efforts, and ignoring the actual test results, the *Order* makes clear that Part 15 devices gain no benefit from the unique provisions Section 90.353(d) or the license conditions. Just as WISPs and others will be forced to abandon operations in the 900 MHz band, so, too, will manufacturers cease developing and selling innovative unlicensed devices.

Third, the Commission's decision sends a strong and unfortunate signal to WISPs and other users of unlicensed spectrum that they can no longer rely on the Commission's spectrum allocations. While it is true that unlicensed operations are not generally entitled to interference protection from licensed devices, Section 90.353(d) and the license conditions should afford Part 15 users in the 900 MHz band a higher level of protection from licensed users than would otherwise exist in order to give meaning to the "unacceptable levels" phrase. The Commission's repeated statements that interference protection is accorded to unlicensed operations "consistent with their Part 15 status"[74] disregards the intent behind Section 90.353(d) and the unique license condition that the Commission specifically imposed on M-LMS licensees generally and Progeny specifically, and upsets the balance intended by the Commission when it adopted the *LMS Report and Order*.

Fourth, the Commission has unwisely elevated the speculative and unproven nature of Progeny's service over the many established and important benefits of existing Part 15 users.

[73] *Order* ¶ 22, n.66.
[74] *Order* ¶ 19, ¶ 21.

The Commission cited a recent CSRIC Report concluding that Progeny's system represents an improvement over other technologies,[75] but it conveniently ignored the CSRIC Report's conclusion that "even the best location technologies tested have not proven the ability to consistently identify the specific building and floor, which represents the required performance to meet Public Safety's expressed needs."[76] The Progeny system was able to locate a target inside a building only one-third of the time.[77] To make matters even worse, the CSRIC Report suggested that Progeny's "E911 grade indoor location capability, however will require additional beacon deployments over the next 18-24 months."[78] The conclusion is that Progeny's technology and deployment are not fully developed, and improving location accuracy to acceptable public safety standards are likely to cause an even greater increase in the interference environment with the installation of even more beacon transmitters. The Commission has made the wrong policy choice by allowing Progeny's unfinished system to preclude the ability of millions of consumer and industrial devices to continue to perform their vital service functions.

## IV. IF THE COMMISSION DOES NOT OVERTURN THE *ORDER*, IT SHOULD IMPOSE CONDITIONS THAT WILL IDENTIFY POTENTIAL INTERFERENCE BEFORE IT OCCURS.

If, despite the legal errors, factual inaccuracies and poor policy decisions embodied in the *Order*, the Commission nonetheless concludes that Progeny has met its burden of persuasion, the conditions imposed by the Commission will be inadequate to police interference. The *Order* adopted, without variation, certain "spectrum etiquette measures" suggested by Progeny,[79] *and rejected without any recognition or discussion whatsoever of conditions that the Part 15*

[75] *See id.* ¶ 3, *citing* CSRIC Working Group 3 E9-1-1 Location Accuracy, Indoor Location Test Bed Report (Mar. 15, 2013) ("CSRIC Report"). The criticisms of Progeny's system were previously presented to the Commission. *See* Letter from Laura Stefani, Counsel to the Part 15 Coalition, to Marlene H. Dortch, FCC Secretary, WT Docket No. 11-49 (Mar.20, 2013) at 2-3.
[76] CSRIC Report at 54-55.
[77] *See id.* at 28-29, 39-40.
[78] *Id.* at 45.
[79] Progeny Conditions Ex Parte Letter at 1.

*Coalition recommended prior to adoption of the Order*.[80] The conditions proposed by the Part 15 Coalition demonstrate reasonable and appropriate efforts to identify instances of interference before they occur, not afterwards when the damage has been done, so that Progeny and affected Part 15 users can remedy the harm. Moreover, the Commission's failure to specifically require Progeny to work with *every* WISP – not just those operating in rural areas – leaves the door wide open for Progeny to trample on those WISPs in urban and suburban areas that rely on the 900 MHz band to deliver fixed broadband services.

The *Order* imposes obligations on Progeny to provide initial notice of the Economic Areas where it has completed initial buildout, establish a website and help desk where interference can be reported and submit reports regarding any interference reports it receives in the next 18 months.[81] Plainly, these conditions are not intended to identify the potential for interference before it occurs, or provide Progeny with any incentive to proactively design its systems to avoid interference with Part 15 devices. By contrast, the conditions proposed by the Part 15 Coalition would impose processes to ensure that interference does not result in the first place. For instance, Progeny would be required to engage in additional joint field testing if it made "a substantial change in the nature of the service provided or technology used,"[82] a condition that would account for the additional beacon transmitters or other enhancements the CSRIC Report indicated would be necessary for Progeny's system to potentially provide more accurate location information. The only Progeny system that has been tested is the first generation system, and without a formal requirement for testing of future devices, Progeny has carte blanche to do whatever it pleases in the future. The Part 15 Coalition also recommended

[80] *See* Part 15 Coalition Conditions Ex Parte Letter.
[81] *See Order* ¶ 1, ¶ 30. WISPA notes that Progeny timely filed its report listing the EAs where it completed initial construction and commenced operations. *See* Letter from Bruce A. Olcott, Counsel to Progeny, to Marlene H. Dortch, FCC Secretary, WT Docket No. 11-49 (June 21, 2013).
[82] *See* Part 15 Coalition Conditions Ex Parte Letter.

that Progeny provide more detailed information about its deployments on its website. The condition the Commission imposed requires only that Progeny indicate the EA where it initiates service. But EAs are extremely large areas, and reporting on that basis does little to inform the public of the presence or absence of nearby interference threats.

The Commission stated that "WTB and OET staff will closely monitor developments on an ongoing basis,"[83] but this oversight is extremely limited. Though it is not clear what level of monitoring Commission staff will undertake, WISPA does not expect the Commission to be present in the field when Progeny initiates service, but rather anticipates that it will review Progeny's public filings over the next 18 months and respond to any interference issues that may arise. Again, any "monitoring" likely would entail *post hoc* investigation and enforcement, not any actions designed to determine potential interference before it occurs.

Progeny proposed that if it "constructs beacons in rural areas, Progeny will work directly with WISP network operators in order to ensure that any interference that results to WISP networks is minimized and does not preclude the continued provision of wireless broadband services to their customers."[84] Rather than adopting this proposal as a license condition, the Commission instead simply acknowledged Progeny's statement. The Commission also ignored the Part 15 Coalition's request to apply Progeny's commitment to other non-rural areas, meaning that Progeny's pledge – for whatever it may be worth – is limited solely to rural areas.[85] Progeny has no express requirement to minimize interference to suburban and urban areas where WISPs use 900 MHz spectrum.

The conditions proposed by the Part 15 Coalition are reasonable and tailored towards identifying and addressing potential interference before it occurs and disrupts Part 15 users.

[83] *Order* ¶ 31.
[84] Progeny Conditions Ex Parte Letter at 2.
[85] *See* Part 15 Coalition Conditions Ex Parte Letter at 3.

They do not impose substantial burdens on Progeny or the Commission. If the Commission is unwilling to reconsider and grant this Petition, at a minimum it should adopt the proposed conditions recommended by the Part 15 Coalition.

## Conclusion

The Commission should reconsider the *Order* because of numerous legal, factual and policy errors. The Commission did not follow its established definition of "unacceptable levels of interference," or else it changed that definition without providing any notice whatsoever of the burden Progeny would be required to meet. Under any definition, however, the record clearly shows that Progeny did not meet its burden – a 50 percent throughput reduction on WISP equipment would have dire consequences to WISPs and consumers. The *Order* also contravenes Commission policies intended to promote unlicensed spectrum as a vehicle for affordable broadband service and innovation. If the Commission does not overturn the *Order,* it should, at a minimum, impose conditions on Progeny that will identify and address interference before it occurs.

Respectfully submitted,

July 8, 2013

**WIRELESS INTERNET SERVICE PROVIDERS ASSOCIATION**

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## CERTIFICATE OF SERVICE

I, Kenneth Wolin, a paralegal with the law firm of Lerman Senter PLLC, hereby certify that on this 8th day of July, 2013, I served a true copy of the foregoing Petition for Reconsideration by first-class mail, postage prepaid, addressed to the following:

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