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

In the Matter of	)	
	)	
Amendment of the Commission's Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands	))))	GN Docket No. 13-185

OPPOSITION OF CTIA – THE WIRELESS ASSOCIATION® TO PETITION FOR RECONSIDERATION

CTIA – The Wireless Association® ("CTIA") hereby submits this Opposition to the Petition for Reconsideration (the "Petition") filed by Trimble Navigation Limited ("Trimble") and Deere & Company ("Deere" and collectively with Trimble, "Petitioners") in the above-captioned proceeding. CTIA has consistently stressed the importance of facilitating the compatibility of different spectrum uses and continues to believe that the framework proposed and adopted by the Commission is sufficient to protect GPS operations. Trimble and Deere's Petition for Reconsideration of the Commission's March 31, 2014 Report and Order[1] raises GPS interference arguments[2] that were previously raised in this proceeding and rejected by the Commission. They should be rejected again for failing to make a persuasive showing under Section 1.429(b) of the Commission's rules.[3] Indeed, the Commission properly concluded that

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[1] *Amendment of the Commission's Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands,* Report and Order, FCC 14-31 (2014) ("Report and Order").

[2] Petition for Reconsideration of Trimble Navigation Limited and Deere & Company, GN Docket No. 13-185 (July 7, 2014) ("Petition") (arguing that the Commission should alter its out-of-band emissions ("OOBE") limit for AWS-3 spectrum to protect GPS receivers).

[3] 47 C.F.R. § 1.429(b).

this proceeding is not the appropriate forum for consideration of speculative GPS interference issues, and for this reason CTIA opposes the Petition.

I. PETITIONERS' ARGUMENTS REGARDING GPS INTERFERENCE WERE PREVIOUSLY CONSIDERED AND REJECTED BY THE COMMISSION, AND SHOULD BE REJECTED AGAIN.

In their Petition for Reconsideration, Petitioners oppose the OOBE limit adopted by the Commission for the 1695-1710 MHz band on the basis that it would result in handsets causing harmful interference to GPS services.[4] As explained further below, each of the points raised by Petitioners was also included in the comments and/or reply comments of the GPS Innovation Alliance ("GPSIA").[5] The Commission noted these filings and arguments in the Report and Order, and rejected them in turn. To the extent Petitioners rely upon statements made at the recent Commission workshop on GPS issues, these arguments ignore other evidence introduced at the workshop that supports the Commission's finding. Therefore, consistent with Commission precedent, the Petition should be denied.

Petitioners oppose the Commission's adopted OOBE limit on three grounds. First, they argue that the standard is outdated.[6] Second, they state that in other circumstances the Commission has recognized that a more stringent OOBE requirement is necessary to protect GPS receivers, and Petitioners assert that AWS-3 frequency environment qualifies for such treatment.[7] Third, Petitioners assert that the Commission should adjust OOBE limits to conform

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4 Petition at 1.

5 Trimble and Deere are both members of GPSIA. *Id.* at 2.

6 *Id.* at 5.

7 *Id.*

to more stringent international standards.[8] Petitioners argue that statements made at the recent FCC workshop on GPS issues provide new evidence to bolster their claims.[9]

It is the policy of the Commission to dismiss petitions for reconsideration that simply reiterate arguments previously considered and rejected, and it should do so again here. Each of the three points raised by Petitioners also was asserted in comments and/or reply comments filed by GPSIA.[10] The Commission rejected all of them. In particular, the Commission noted that GPSIA provided no technical studies supporting its claim that OOBE limits no longer were sufficient to prevent interference, stating that "GPSIA's arguments that the proposed OOBE limits *may* present some risk of interference do not warrant deferring action on the proposed OOBE limit."[11] And with regard to standards for mobile devices, the Commission observed that the standards in place provide "an additional margin of interference protection" and that standards groups are the appropriate forum to address such issues.[12] Therefore, consistent with past precedent, the Commission should dismiss the Petition as failing to "offer any new arguments beyond those previously considered and rejected."[13]

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8 *Id.*

9 *Id.* at 4.

10 *See, e.g.,* Comments of the GPS Innovation Alliance, GN Docket No. 13-185, at 7 (Sept. 18, 2013) ("GPSIA Comments") ("The spectral environment below 3 GHz has changed dramatically in the intervening 32 years [since the standard OOBE limit was adopted]."); *id.* at 8-9 (outlining other proceedings where "the Commission has recognized the need for more rigorous limits on OOBE with respect to GPS); Reply Comments of the GPS Innovation Alliance, GN Docket No. 13-185 at 2 n. 3 (Oct. 28, 2013) ("GPSIA Reply Comments") (citing a more restrictive ITU recommendation on OOBE limits for 3G terminals).

11 Report and Order ¶ 67 (emphasis in original).

12 *Id.*

13 *Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Third Order on Reconsideration and

To the extent that Petitioners rely upon the recent FCC workshop on GPS as supporting their argument for reconsideration, CTIA notes that other statements made at the workshop explain and affirm the Commission's decision on OOBE limits. FCC panelists throughout the workshop noted that the current technical requirements to protect GPS were effective and that there was no additional need for further tightening of the requirements. Chris Helzer, the Chief Engineer for the Wireless Bureau, commented that stricter OOBE limits are only needed to protect GPS in certain circumstances, such as when there is particular proximity to the GPS band or where a harmonic falls directly in the GPS band.[14] Here, there is sufficient frequency separation between AWS-3 and GPS that proximity is not a concern, nor is there a harmonics issue. Further, Mr. Helzer noted that GPS receivers in wireless devices do not experience interference from the device's transmitter, notwithstanding their extremely close proximity.[15] He also noted that of the very few cases of reported interference to GPS, the majority of such interference cases were the result of intentional jamming.[16] In other words, statements at the

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Sixth Memorandum Opinion and Order and Fourth Memorandum Opinion and Order and Second Further Notice of Proposed Rulemaking and Declaratory Ruling, 23 FCC Rcd 5992, ¶ 55 (2008). *See also Connect America Fund*, Sixth Order on Reconsideration and Memorandum Opinion and Order, 28 FCC Rcd 02572, ¶ 3 (2013) ("We observe that, under Commission rules, if a petition for reconsideration simply repeats arguments that were previously fully considered and rejected in the proceeding, it will not likely warrant reconsideration."); 47 C.F.R. § 1.429(l)(3).

[14] Chris Helzer, *Workshop on GPS Protection and Receiver Performance*, at 4 (June 20, 2014), *available at* http://transition.fcc.gov/oet/prd/GPS-WORKSHOP_6-20-14/PANEL_2/2-1_Helzer_FCC.pdf.

[15] Federal Communications Commission, Workshop on GPS Protection and Receiver Performance, Video Transcript (June 20, 2014), *available at* http://www.fcc.gov/events/workshop-gps-protection-and-receiver-performance ("The most prevalent GPS receivers are the ones in cell phones, and they have transmitters right next to them inside the same device and they seem to be doing okay . . .").

[16] *Id.* (noting that the Commission gets very few complaints of interference to GPS, and that of those complaints most have to do with intentional jamming of signals).

FCC workshop made clear that the current OOBE limits adopted by the Commission to protect GPS are sufficient, and that in most cases there is no need for the Commission to diverge from its usual technical rules to protect GPS.

II. THE COMMISSION PROPERLY CONCLUDED THAT THE AWS-3 PROCEEDING IS NOT THE APPROPRIATE FORUM FOR CONSIDERATION OF SPECULATIVE GPS INTERFERENCE ISSUES.

For the reasons stated by CTIA in its comments and reply comments, the Commission reached the correct conclusion regarding the AWS-3 OOBE limits and their sufficiency to protect GPS. First, the Commission properly affirmed CTIA's observation that the AWS-1 and AWS-3 bands are extremely similar with respect to their technical characteristics and interaction with GPS, and that the lack of documented interference in the AWS-1 band suggests that the Commission's standard technical rules are appropriate. Second, CTIA believes the Commission correctly classified claims of GPS interference as speculative and therefore not warranting action in this proceeding. Third, CTIA agrees with the Commission that the issues raised by GPS stakeholders in this proceeding are properly addressed in open working groups and the industry standards process.

As CTIA observed in its reply comments, the OOBE limits proposed and now adopted by the Commission were the same as those in place for the AWS-1 band, and AWS-1 services have operated for years without any complaints of interference to GPS reception.[17] The Commission agreed, noting that "AWS-1 handsets and GPS receivers coexist satisfactorily, even when they reside on the same device."[18] The Commission further noted that "[t]he technical operation in the AWS-1 band is virtually identical to what was proposed for this AWS-3 band" and that "both

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[17] Reply Comments of CTIA – The Wireless Association®, GN Docket No. 13-185, at 16-17 (Oct. 28, 2013) ("CTIA Reply Comments").

[18] Report and Order ¶ 67.

[AWS-1 and AWS-3] are similarly separated in frequency from the GPS band."[19] Accordingly, the Commission properly found that "the possibility of harmful interference to GPS [from AWS-3] is extremely unlikely."[20]

In the Report and Order, the Commission correctly classified GPS interference concerns raised by commenters as speculative. Petitioners argue that wireless handset performance, not the Commission's rules, has prevented interference to GPS. In other words, they assert, should devices operate at an OOBE level beyond the industry standard but within the limit specified in the rules, there is a potential for interference.[21] GPSIA made the same argument in its filings in this proceeding.[22] The Commission disagreed with GPSIA, properly noting that speculative interference concerns do not warrant deferring action on the proposed rules for AWS-3.[23]

CTIA also agrees with the Commission that these issues are best addressed in open, industry-wide stakeholder groups. In its reply comments, CTIA observed that the Commission had sought comment on receiver performance issues in a related proceeding, and that "[t]he Commission should allow industry and government stakeholders the opportunity to continue

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[19] *Id.*

[20] *Id.*

[21] Petition at 4 ("However, it is precisely because current devices exceed current OOBE limits that this situation exists, not because the OOBE limits are themselves appropriate. While devices satisfy limits more stringent than the rules today, that is no guarantee they will continue to adhere to those standards tomorrow.").

[22] GPSIA Comments at 9 ("While existing devices in the AWS-1 bands, for instance, may in fact be operating pursuant to more rigorous OOBE limits than strictly required under the rules, if appropriate standards are not adopted, manufacturers could begin to produce devices designed with degraded OOBE performance that would raise significant interference risks for GPS receivers.").

[23] Report and Order ¶ 67 (emphasis in original).

working on these issues in that more appropriate forum."[24] The Commission agreed, noting that "industry standards developed for each radio interface meet or exceed the Commission's OOBE limits, often by significant amounts, and thereby provide an additional margin of interference protection. These standards are developed through open working groups, which GPSIA would be free to participate in."[25] CTIA supports the Commission's conclusion, and believes that the Commission was correct to retain the standard OOBE limits for the AWS-3 spectrum in light of the lack of documented interference or interference risk to GPS.

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[24] CTIA Reply Comments at 16.

[25] Report and Order ¶ 67.

III. CONCLUSION

The Commission properly addressed in its Report and Order the GPS interference concern raised by Petitioners, and properly concluded that the adopted OOBE limits would not cause harmful interference to GPS. The Commission further found that the AWS-3 proceeding was not the proper forum for GPS interference concerns. CTIA agrees with the Commission's findings, and therefore respectfully requests that the Commission deny the Petition.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on August 21, 2014, I caused a true and correct copy of the foregoing to be served by first-class mail, unless noted otherwise, on the following:

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