

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Globalstar, Inc. Petition for Notice of Inquiry)	RM-11808
Regarding the Operation of Outdoor U-NII-1)	
Devices in the 5 GHz Band)	

REPLY COMMENTS OF CTIA

CTIA¹ hereby files this reply to the comments submitted in response to the Petition of Globalstar, Inc. (“Globalstar”),² which seeks to reopen and modify the portion of the Commission’s 2014 order enabling outdoor unlicensed operations in the 5150-5250 MHz (“5.1 GHz”) Unlicensed National Information Infrastructure (“U-NII”)-1 band.³ The Commission’s rules protect licensed operations like Globalstar’s from harmful interference caused by unlicensed users. The Petition, however, neither alleges harmful interference nor explains why the *U-NII Order* framework for addressing potential interference to Globalstar in the U-NII-1 band is deficient. The Petition should therefore be denied.

I. INTRODUCTION.

The Commission’s exclusive-use, flexible-rights licensing regime is a vital cornerstone of the nation’s wireless services marketplace, providing licensees with the certainty that billions of

¹ CTIA® (www.ctia.org) represents the U.S. wireless communications industry and the companies throughout the mobile ecosystem that enable Americans to lead a 21st-century connected life. The association’s members include wireless carriers, device manufacturers, suppliers as well as apps and content companies. CTIA vigorously advocates at all levels of government for policies that foster continued wireless innovation and investment. The association also coordinates the industry’s voluntary best practices, hosts educational events that promote the wireless industry, and co-produces the industry’s leading wireless tradeshow. CTIA was founded in 1984 and is based in Washington, DC.

² Globalstar, Inc., Petition for Notice of Inquiry, RM-11808 (filed May 21, 2018) (“Petition”).

³ *Revision of Part 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band, First Report and Order*, 29 FCC Rcd 4127 (2014) (“*U-NII Order*”).

dollars in network investment will not be subjected to harmful interference. CTIA has long maintained that unlicensed spectrum is an important enabler of mobile broadband, and sound spectrum policy requires a mix of both licensed and unlicensed spectrum. Unlicensed devices operate on a secondary basis: they must not cause harmful interference and if they do, they must cease operations. But that is not the case here – there is no evidence of harmful interference.

In the *U-NII Order*, the Commission adopted rules that directly benefited the public by enabling more robust use of the U-NII-1 band by unlicensed operations, including Wi-Fi, LTE-Unlicensed (“LTE-U”), and Licensed Assisted Access (“LAA”) operations. At the same time, the Commission appropriately imposed requirements on unlicensed operations in that band to protect Globalstar’s licensed service from harmful interference, consistent with the Commission’s longstanding policy that licensed users have the right to be protected against harmful interference from unlicensed operations. Specifically, the Commission erected a framework designed to preclude harmful interference to Globalstar’s licensed operations and to immediately address any harmful interference from unlicensed operations should such interference occur.

In its Petition, Globalstar does not assert that harmful interference exists today, and it does not demonstrate why the protective framework the Commission adopted in the *U-NII Order* – which was specifically built to protect Globalstar’s operations – is deficient. There is accordingly no basis for the Commission to reopen the *U-NII Order* as requested in the Petition.

II. GLOBALSTAR’S LICENSED OPERATIONS ARE ENTITLED TO PROTECTION FROM UNLICENSED USERS, AND THE *U-NII ORDER* LAYS OUT A CLEAR PATH TO ADDRESS ANY HARMFUL INTERFERENCE TO GLOBALSTAR’S OPERATIONS, SHOULD IT OCCUR.

The Commission has long held that unlicensed users must not cause harmful interference to licensed services, and if they do, must cease or alter their operations.⁴ The *U-NII Order* applied these rules in adopting detailed procedures to protect Globalstar’s licensed operations. Commenters agree that Globalstar, as a licensee, has the right to be protected against harmful interference caused by unlicensed operations, and that those operations must not cause harmful interference to it.⁵

In adopting the *U-NII Order*, the Commission designed a comprehensive approach to protect Globalstar’s licensed operations, which was based on a voluminous record including numerous technical studies and proposals by multiple parties.⁶ The Commission specifically noted that “Globalstar has expressed strong concerns in this proceeding that proposed unchecked, widespread deployments of outdoor access points may disrupt licensed services in the band.”⁷ The Commission did not dismiss those concerns. In fact, it constructed a two-part regulatory framework designed to prevent harmful interference from occurring and mitigate it should it nonetheless occur.

The first part of the framework incorporated a set of technical rules on outdoor access points, including restricted power levels for operations above a 30-degree vertical elevation

⁴ *Id.* ¶ 3 (citing 47 C.F.R. § 15.5(b), (c)).

⁵ Comments of the Satellite Industry Association, RM-11808, at 3 (filed July 6, 2018) (“SIA Comments”); Opposition of Cisco Systems, Inc., RM-11808, at 8-9 (filed July 6, 2018) (“Cisco Opp.”); Opposition of Wi-Fi Alliance, RM-11808, at 3 (filed July 6, 2018) (“Wi-Fi Alliance Opp.”).

⁶ *U-NII Order* ¶¶ 25-33 (discussing extensive record including studies filed by Globalstar and NCTA).

⁷ *Id.* ¶ 38.

angle. The Commission found that these rules “will sharply reduce the energy that will be received by the satellite from each individual access point, resulting in reduced aggregate noise at the satellite. As a result, it is far less likely that harmful interference will occur.”⁸

Second, to further guard against harmful interference, the Commission imposed a new written notification requirement on large unlicensed operations “to provide a safeguard and require accountability for such large deployments.”⁹ Specifically, unlicensed operators must notify the Office of Engineering and Technology (“OET”) when more than 1,000 access points are deployed outdoors, and they must also acknowledge that, “should harmful interference to licensed services in the band occur,” the unlicensed operator “will be required to take corrective action.”¹⁰ Such actions “may include reducing power, turning off devices, changing frequency bands, and/or further reducing power in the vertical direction.”¹¹ Globalstar supported both elements of this framework.¹²

III. THE RECORD SHOWS THAT A NOTICE OF INQUIRY IS UNWARRANTED, AS GLOBALSTAR DOES NOT DEMONSTRATE THAT THE EXISTING FRAMEWORK IS INADEQUATE.

In the Petition, Globalstar requests that the Commission revisit issues that the agency fully considered and resolved before. Specifically, Globalstar asks the Commission to reverse its decision to permit the operation of outdoor devices in the U-NII-1 band. It also asserts that the Commission should “revisit Globalstar’s previously requested regulatory ‘backstop’” so that,

⁸ *Id.* ¶ 36.

⁹ *Id.* ¶ 38.

¹⁰ *Id.*

¹¹ *Id.*

¹² Letter from Regina M. Keeney, Counsel to Globalstar, Inc., to Marlene H. Dortch, Secretary, FCC, ET Docket No. 13-49 (filed Mar. 6, 2014).

when noise levels rise above a pre-defined threshold, the Commission would institute a freeze on the deployment of outdoor access points by unlicensed users.¹³ And it asks the Commission to alter the reporting requirements of the *U-NII Order* by requesting additional, detailed information about the operation of access points in the U-NII-1 band.¹⁴

Globalstar does not, however, provide any evidence that harmful interference is occurring.¹⁵ Instead, as commenters point out, it merely asserts that harmful interference might occur at some future time.¹⁶ Several commenters challenge Globalstar's noise floor analysis, identifying flaws in the assumptions underlying it.¹⁷ Moreover, commenters note that Globalstar's subscriber base is decreasing, a trend which is likely to reduce any future risk of harmful interference.¹⁸ As such, Globalstar has not demonstrated a significant threat of interference sufficient to warrant a new inquiry. Absent such a showing, the *U-NII Order's* framework remains a bulwark against harmful interference: if Globalstar's claims that the noise

¹³ Petition at 10, 25.

¹⁴ *Id.* at 22-23.

¹⁵ *Id.* at 13-17.

¹⁶ Cisco Opp. at 8; Opposition of NCTA – the Internet & Television Association, RM-11808, at 4-5 (filed July 6, 2018) (“NCTA Opp.”).

¹⁷ NCTA Opp. at 4-12 (stating that Globalstar's measurement methodology is flawed and significantly overstates the potential interference impact of Wi-Fi devices); Opposition of the Wireless Internet Service Providers Association, RM-11808, at 3-4 (filed July 6, 2018) (“WISPA Comments”) (stating that Globalstar's analysis fails to address signals emanating from outside the 5150-5250 MHz band and does not demonstrate its methodology was representative); Cisco Opp. at 6-8 (challenging Globalstar's claim that unlicensed devices are causing the increase and its assertion of a 2 dB rise in the noise floor as “thin gruel” given flaws in Globalstar's methodology). Commenters supporting Globalstar supply no technical analysis or other information justifying a notice of inquiry. Most are one-page letters from Globalstar's resellers and business partners. Two discuss the potential for interference to operations in other bands, which would go well beyond the scope of the notice of inquiry Globalstar requests, and in any event do not explain why the Commission's remedies for preventing harmful interference to Globalstar in the 5.1 GHz band are inadequate.

¹⁸ Cisco Opp. at 9 (“Globalstar's duplex subscriber base has eroded more than 10% in the last 18 months”); NCTA Opp. at 8-10 (noting decrease in Globalstar subscribers).

floor will rise and eventually disrupt its operations prove valid, despite the *U-NII Order*'s prophylactic limits, the Commission has committed to taking corrective action. The Commission stated that if "aggregate noise does cause harmful interference to Globalstar," it "must take action to avoid such a result."¹⁹ Nowhere does Globalstar discuss this framework, let alone demonstrate why it is not sufficient. Commenters correctly note that there is accordingly no valid rationale for the Commission to commence a Notice of Inquiry.²⁰

Commenters also demonstrate that the Petition is inconsistent with the United States' position in the global efforts leading up to the 2019 World Radio Communication Conference ("WRC-19").²¹ The International Telecommunication Union's Working Party 5A ("WP-5A") is studying the potential for allowing outdoor unlicensed operations in the 5.1 GHz band. In May 2018, the U.S. submitted a study to WP-5A demonstrating the compatibility between RLAN and Globalstar's feeder links in the U-NII-1 band.²² Given the U.S. submission to WP-5A, it would be inappropriate for the Commission now to take up Globalstar's Petition, because it effectively argues that the U.S.'s policy for sharing in the U-NII-1 band is deficient.

Commenters validly note that the additional requirements Globalstar seeks would impose unnecessary costs and burdens on Wi-Fi and LTE-U/LAA operations, and that the mere issuance of a Notice of Inquiry to consider such requirements would create regulatory uncertainty that could harm investment.²³ There is in any event no reason to consider such new requirements,

¹⁹ *U-NII Order* ¶ 38.

²⁰ WISPA Comments at 5 (existing safeguards provide sufficient protection to Globalstar's operations); NCTA Opp. at 14-16) (same).

²¹ NCTA Opp. at 13-14; Wi-Fi Alliance Opp. at 3-4.

²² *United States of America, Sharing and compatibility study between WAS/RLAN applications and NGSO systems in the mobile satellite service with FSS feeder links operating in the 5,091-5,250 MHz band*, Number 727 (submitted May 8, 2018), <https://www.itu.int/md/R15-WP5A-C-0727/en>.

²³ NCTA Opp. at 17-18; WISPA Comments at 5-6; Wi-Fi Alliance Opp. at 8-9.

because the Petition supplies no grounds for the Commission to open a new proceeding, given that Globalstar does not demonstrate that the *U-NII Order*'s framework is inadequate to mitigate harmful interference to its operations, even if such interference were to occur.

Finally, the careful balance employed by the Commission in the *U-NII Order* is consistent with, and reinforced by, the Commission's actions in the *Spectrum Frontiers* proceeding. There, the Commission twice declined to impose unnecessary restrictions on terrestrial wireless operations based on claims of the potential for aggregate interference to satellite operations, finding instead that power limits and other restrictions placed on devices were sufficient to protect the nearby licensees.²⁴ The Commission also noted that it retained "the authority to monitor developments and intervene to prevent unacceptable interference to satellites if that becomes necessary."²⁵ Here, too, the Commission clearly declared "corrective action" will be taken if necessary.²⁶ SIA vaguely (and incorrectly) asserts that Globalstar's Petition has "implications" and "ramifications" for other proceedings including *Spectrum Frontiers*.²⁷ To the contrary, the Petition does not involve the bands the Commission addressed in that separate proceeding. As noted, the Commission squarely rejected SIA's request in the *Spectrum Frontiers* proceedings that it adopt restrictions based on its speculative aggregate interference claim. SIA's effort to leverage the Petition to resurrect its unsuccessful arguments in *Spectrum Frontiers* should be ignored.

²⁴ *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Second Report and Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, and Memorandum Opinion and Order, 32 FCC Rcd 10988 (2017); *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Third Report and Order, Memorandum Opinion and Order, and Third Further Notice of Proposed Rulemaking, FCC 18-73 ¶ 23 (rel. June 7, 2018) ("*Spectrum Frontiers Third R&O*").

²⁵ *Spectrum Frontiers Third R&O* ¶ 23, n.79.

²⁶ *U-NII Order* ¶ 38.

²⁷ SIA Comments at 1, 2.

V. CONCLUSION.

For the foregoing reasons, the Commission should deny Globalstar's Petition for a Notice of Inquiry as unjustified and unnecessary, because Globalstar does not allege harmful interference is occurring and because the *U-NII Order* establishes a carefully crafted framework that includes specific actions to prevent and address harmful interference to Globalstar's licensed operations, should such harmful interference occur.

Respectfully submitted,

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