

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

In the Matter of:)	
)	
THE BOEING COMPANY)	IBFS File Nos. SAT-LOA-
)	20160622-00058, SAT-AMD-
Application for Authority to Launch and Operate a)	20170301-00030
Non-Geostationary Low Earth Orbit Satellite System)	
in the Fixed Satellite Service)	

PETITION TO DENY OF CTIA

CTIA¹ respectfully submits this petition to deny in response to the Boeing Company’s (“Boeing”) Amendment to its Application to launch and operate a non-geostationary-satellite orbit (“NGSO”) satellite system providing Fixed-Satellite Service (“FSS”) in the 37.5-42.5 GHz, 47.2-50.2 GHz and 50.4-52.4 GHz bands.²

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, D.C.

² See The Boeing Company, Amendment to Application for Authority to Launch and Operate a Non-Geostationary Low Earth Orbit Satellite System in the Fixed Satellite Service, Attachment Narrative, IBFS File No. SAT-LOA-20160622-00058, at 1 (filed March 1, 2017) (“Amendment”); The Boeing Company, Application for Authority to Launch and Operate a Non-Geostationary Low Earth Orbit Satellite System in the Fixed Satellite Service, IBFS File No. SAT-LOA-20160622-00058 (filed June 22, 2016) (“Application”). Notably, the International Bureau deferred consideration of Boeing’s request to operate in the 42.0-42.5 GHz and 51.4-52.4 GHz frequency bands. See *Satellite Policy Branch Information, Boeing Application Accepted for Filing in Part, IBFS File No. SAT-LOA-20160622-00058, Cut-Off Established for Additional NGSO-Like Satellite Applications or Petitions for Operations in the 37.5-40 GHz, 40-42 GHz, 47.2-50.2 GHz, and 50.4-51.4 GHz Bands*, Public Notice, 31 FCC Rcd 11957, 11957, n.3-4 (IB 2016).

I. INTRODUCTION.

CTIA previously filed an opposition to Boeing's Application,³ and continues to oppose its request here. As CTIA has explained, Boeing's Application undermines the framework envisioned by the Commission for next-generation ("5G") terrestrial mobile broadband networks; Boeing's litany of waiver requests effectively seeks pre-judgment, by the International Bureau acting alone, of issues addressed to the whole Commission in the ongoing *Spectrum Frontiers* proceeding; and the Application fails to make any showing of consumer demand or otherwise justify the ten gigahertz of bandwidth it seeks.⁴ Boeing's Amendment to its Application merely modifies the technical parameters for the satellite and fails to remedy any of the issues raised by CTIA or other parties seeking denial of the Boeing Application. As these infirmities remain unaddressed, the Commission should dismiss Boeing's amended Application.

II. THE BOEING AMENDMENT FAILS TO REMEDY DEFICIENCIES IN THE UNDERLYING APPLICATION.

A. The Boeing Amendment Focuses Solely On Modifying The Technical Parameters For the Proposed Satellite System.

Boeing's Amendment to its Application proposes to lower the nominal altitude of the constellation for the Boeing NGSO system.⁵ Boeing purports that this change will accommodate the OneWeb constellation.⁶ No other technical amendments are provided. Indeed, Boeing reiterates the same showings (opposed by CTIA and many other parties) for waivers of the

³ See CTIA Petition to Deny Boeing's Application, IBFS File No. SAT-LOA20160622-00058 (filed Dec. 1, 2016) ("CTIA Petition to Deny"); Reply of CTIA, IBFS File No. SAT-LOA20160622-00058 (filed Dec. 19, 2016) ("CTIA Reply").

⁴ CTIA Petition to Deny at 2.

⁵ Amendment at 1 ("This amendment is being filed for the primary purpose of lowering the nominal altitude of the constellation for the NGSO System.").

⁶ See *Ex Parte* Presentation of The Boeing Company, FCC Call Sign S2966, IBFS File Nos. SAT-LOA-20160622-00058, SAT-AMD-20170301-00030, at Attachment 3 (filed Mar. 13, 2017) ("Minor change in altitude(s) to accommodate OneWeb and others.").

Commission's rules, including changes to the power limits affecting the proposed Boeing constellation.⁷

B. Boeing Fails To Address The Significant Issues Raised By CTIA And Other Petitioners.

CTIA argued in response to Boeing's underlying Application that Boeing failed to demonstrate that its proposed services cannot be accommodated in existing FSS bands that are not under current consideration for licensed terrestrial mobile services.⁸ Boeing's recent Amendment again neglects to demonstrate any demand projections or requirements for additional satellite spectrum or capabilities. Absent such a showing, and in light of the existing, extensive spectrum allocations for FSS relative to licensed terrestrial mobile services, the Commission should not permit the diversion of potential terrestrial mobile spectrum for FSS use.⁹

⁷ See e.g., Comments of Competitive Carriers Association, IBFS File No. SAT-LOA-20160622-00058, at 5 (filed Dec. 1, 2016) ("Competitive carriers and others on record question whether PDF (sic) limits can be raised in this band without materially impairing mobile 5G services. It would be counterproductive to the Commission's 5G efforts to, as requested by Boeing, waive PDF (sic) limits in the 37.5-42 GHz band without resolving this technical issue in the Spectrum Frontiers proceeding, especially considering reply comments to the Further Notice were due recently in late October."); Opposition of T-Mobile, File No. SAT-LOA-20160622-00058, at 5-9 (filed Dec. 1, 2016) ("Opposition of T-Mobile") ("The results show much higher NGSO FSS interference into UMFUS 5G user equipment than presented by Boeing. These levels of interference degradation are well above 0.5 dB suggested by Straight Path as 'the threshold for a manageable rise in the noise floor due to interference from satellite' in the 37/39 GHz band."); Comments of Straight Path, GN Docket No. 14-177, at 14 (filed Sept. 30, 2016); Comments of Fiber Tower Spectrum Holdings, LLC, GN Docket No. 14-177, at 4-5 (filed Sept. 30, 2016) ("The ultra-low latency requirements and the relative brittleness of digital signals in the mmW bands, combined with the need to densely deploy terrestrial mmW services for both backhaul and broadband access, leave no room for increased satellite power levels or increased satellite earth stations/terminals outside of the existing rule structure").

⁸ See CTIA Petition to Deny at 3-6.

⁹ *Id.* at 3-4.

CTIA, along with several other parties, also questioned the timing of Boeing's Application when the underlying *Spectrum Frontiers*¹⁰ proceeding remains pending. The Amendment does not address this issue either.¹¹ Boeing's Application is directly relevant to sharing between FSS and terrestrial mobile services and the mechanisms to affect such sharing. These are precisely the issues under consideration in the *Spectrum Frontiers* proceeding. As CTIA highlighted in its Petition to Deny the Boeing Application, Boeing is seeking access to bands that have been allocated for, or are proposed to be allocated for, mobile use in the *Spectrum Frontiers* proceeding.¹² Boeing seeks Commission authority to launch and operate a NGSO satellite system providing FSS in the 37.5-42.5 GHz, 47.2-50.2 GHz, and 50.4-52.4 GHz frequency bands. And yet, last year, the Commission provided for shared federal-commercial terrestrial mobile use of 37-37.6 GHz, allocated the 37.6-38.6 GHz band for the Upper Microwave Flexible Use Service ("UMFUS"), and conformed rules for the 38.6-40 GHz band for UMFUS. Moreover, in the *Spectrum Frontier FNPRM*, the Commission proposed to allocate the 42-42.5 GHz, 47.2-50.2 GHz, and 50.4-52.6 GHz bands, and CTIA and a number of parties in the wireless industry suggested in that proceeding that the 40-42 GHz band also be allocated for terrestrial mobile use.¹³ Grant of the Boeing Application and Amendment would impermissibly pre-judge the outcome of this proceeding prior to final Commission action.

¹⁰ *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014 (2016) ("*Spectrum Frontiers Order and FNPRM*").

¹¹ See e.g., CTIA Petition to Deny at 6-10; Opposition of T-Mobile at 9-12; Comments of Fiber Tower Spectrum Holdings, LLC, IBFS File No. SAT-LOA-20160622-00058, at 2 (filed Dec. 1, 2016) ("Fiber Tower Comments"); Opposition of Straight Path Communications, File No. SAT-LOA-20160622-00058, at 3-4 (filed Dec. 1, 2016) ("Opposition of Straight Path").

¹² CTIA Petition to Deny at 6-10.

¹³ *Id.* at 7, n.16; see also CTIA Reply at 9-13.

The Amendment additionally does not address CTIA’s argument that the numerous waiver requests within the Boeing Application do not meet the legal thresholds for a grant.¹⁴ As CTIA stated, a “waiver of the Commission’s rules is appropriate only if both (i) special circumstances warrant a deviation from the general rule, and (ii) such deviation will serve the public interest.”¹⁵ Boeing’s Amendment, however, shows no special circumstances that warrant deviation from the rules.

C. The International Bureau Should Reject the Boeing Application and Amendment.

The proper venue for addressing the myriad waiver requests, as well as the underlying Application, is the ongoing *Spectrum Frontiers* proceeding.¹⁶ As discussed above, the bands that Boeing seeks access to have been or are being directly addressed in the *Spectrum Frontiers Order and FNPRM*. Boeing should not be permitted to engage in an “end run” around an ongoing rulemaking and speculatively reserve extensive amounts of valuable spectrum without justification or without action by the full Commission. Boeing has made no effort to substantiate the use of an extensive amount of high-band spectrum or to show why it cannot use some other combination of the existing allocations for FSS. Its Application and Amendment should therefore be dismissed.

¹⁴ CTIA Petition to Deny at 10-13.

¹⁵ See *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969)).

¹⁶ See CTIA Petition to Deny at 6-10; Opposition of T-Mobile at 9-12; Fiber Tower Comments at 2; Opposition of Straight Path at 3-4.

III. CONCLUSION.

The Boeing Application is an attempt to speculatively gain access to enormous amounts of spectrum while avoiding the rigors of rulemaking in the ongoing *Spectrum Frontiers* proceeding. Boeing's Amendment fails to address deficiencies in the underlying Application that previously have been raised by a number of affected parties. Therefore, the Commission should dismiss Boeing's Application and Amendment.

Respectfully Submitted,

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Dated: June 19, 2017

CERTIFICATE OF SERVICE

I, Sam Ruddy, do hereby certify that on this 19th day of June, 2017, I caused a copy of the foregoing Petition to Deny to be served via electronic courtesy copy and U.S. Mail on the following:

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