555 Eleventh Street, N.W., Suite 1000
Washington, D.C. 20004-1304
Tel: +1.202.637.2200 Fax: +1.202.637.2201
www.lw.com

LATHAM & WATKINS LLP

FIRM / AFFILIATE OFFICES
Barcelona, Beijing, Boston, Brussels, Century City, Chicago, Dubai, Düsseldorf, Frankfurt, Hamburg, Hong Kong, Houston, London, Los Angeles, Madrid, Milan, Moscow, Munich, New Jersey, New York, Orange County, Paris, Riyadh, Rome, San Diego, San Francisco, Shanghai, Silicon Valley, Singapore, Tokyo, Washington, D.C.

July 8, 2016

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: ViaSat, Inc., Response to *Ex Parte* Submission of CTIA; GN Docket No. 14-177; IB Docket Nos 15-256 & 97-95; RM-11664; WT Docket No. 10-112

Dear Ms. Dortch:

ViaSat responds to CTIA's July 7, 2016 *ex parte* submission in this proceeding regarding satellite services in the 28 GHz and 37/39 GHz bands.[1] As to virtually all of CTIA's arguments, the record already provides fulsome answers. In fact, CTIA's silence to the detailed rebuttal that ViaSat provided on July 1, 2016 to these very same CTIA positions[2] speaks volumes.

For the record, ViaSat responds here to the key points in that July 7 CTIA *ex parte* submission.

CTIA Claim 1: Providing satellite operations with equal regulatory status to new mobile wireless operations "would introduce uncertainty about licensee's rights in the band."[3]

ViaSat Response to Claim 1: The Commission expressly precluded mobile operations under existing LMDS licenses.[4] Those licensees have no legitimate expectation that new mobile services would have priority over satellite services.

---

[1] CTIA, *Ex Parte* Presentation, GN Docket No. 14-177, *et al*. (filed July 7, 2016) ("CTIA July 7 *Ex Parte*").

[2] Letter from ViaSat, Inc., to Secretary, FCC, *Ex Parte* Submission, Legal Status of Fixed Satellite Service in the 28 GHz Band; GN Docket No. 14-177; *et al.*, (filed July 1, 2016) ("ViaSat July 1 Letter").

[3] CTIA July 7 *Ex Parte* at 2.

[4] ViaSat July 1 Letter at 8-10.

CTIA Claim 2: Existing satellite services "are entitled to very little protection."[5]

ViaSat Response to Claim 2: The Commission was explicit that licenses issued under the Commission's current satellite designation at 28 GHz "have licensing priority vis-a-vis any third service allocated domestically or internationally in the band,"[6] which includes new services like mobile wireless that were not accommodated under the current 28 GHz band plan.[7]

CTIA Claim 3: "UMFU is an outgrowth of the Commission's original primary fixed/mobile LMDS in the 28 GHz band and thus retains primary rights."[8]

ViaSat Response to Claim 3: Mobile services are not currently part of the Commission's 28 GHz band plan because, as the Commission emphasized multiple times before, "*LMDS cannot be used to provide mobile service.*"[9]

CTIA Claim 4: The Commission authorized LMDS "with the intent of permitting mobile use of the band."[10]

ViaSat Response to Claim 4: The Commission expressly limited LMDS to fixed service and indicated that it could consider terrestrial mobile uses at 28 GHz only if (i) such mobile services were proposed, (ii) it obtained "a record in support *of such an allocation*," and (iii) "developments in the service and related equipment demonstrate a need for changing the

---

[5] CTIA July 7 *Ex Parte* at 2.

[6] *See Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, First Report and Order, 11 FCC Rcd 19005 ¶ 44 (1996) ("*28 GHz First Report and Order*").

[7] CTIA's reference to a recent grant of authority for ViaSat to operate aeronautical mobile earth stations in the 28.1-28.35 GHz bands proves nothing. CTIA July 7 *Ex Parte* at n.6. ViaSat expressly requested authority on a secondary basis because its proposed use was not provided for in the 28 GHz band plan. ViaSat, Inc., IBFS File No. SES-MOD-20160108-00029, Exhibit A at 3-4.

[8] CTIA July 7 *Ex Parte* at 2.

[9] *Rulemaking To Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, Second Report and Order, 12 FCC Rcd 12545 ¶ 183 (1997) ("*28 GHz Second Report and Order*") (emphasis supplied); *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, Third Notice of Proposed Rulemaking and Supplemental Tentative Decision, 11 FCC Rcd 53 ¶ 102 (1995) (emphasis supplied).

[10] CTIA July 7 *Ex Parte* at 3.

rules."[11] To the extent that such developments have occurred, it would be only now in the course of this proceeding, in which twenty years of history—including the grant of dozens of Commission authorizations for satellite networks and the investment of billions of dollars in reliance on those satellite authorizations—must be taken into account.[12]

CTIA Claim 5: "[T]he Commission should reject satellite interests' calls . . . for access to free spectrum to provide broadband Internet access."[13]

ViaSat Response to CTIA Claim 5: Any "free" spectrum grants that occur in in this proceeding would result from fundamentally changing the nature of the remaining LMDS fixed licenses, which cover at least 75% of the U.S. population,[14] and the remaining 39 GHz fixed licenses, which cover the entire continental United States.[15] Many LMDS and 39 GHz licensees simply have failed to implement their licensed systems.[16]

In stark contrast, satellite broadband networks currently are operating at 28 GHz under, and in reliance on, both the 28 GHz band plan and their underlying Commission authorizations to operate in that spectrum.[17] Those networks are providing valuable services to millions of end users across the United States, and advancing important Commission policies.[18] The same cannot be said for the remaining LMDS and 39 GHz licensees. One of the stated objectives of the 28 GHz Band Plan was to "[p]rovid[e] maximum flexibility for system implementation, inter-system sharing, *and future system growth*"[19] under a framework that expressly provided for continued satellite access to 28 GHz on a shared basis for systems intended to provide broadband

---

[11] *See* ViaSat July 1 Letter at 9-10 (citing *28 GHz Second Report and Order* ¶ 207).

[12] *See* ViaSat July 1 Letter at 10-12, 14-15.

[13] CTIA July 7 *Ex Parte* at 2.

[14] ViaSat's estimate is based on Universal Licensing System ("ULS") records for active LMDS licenses covering 28 GHz Band frequencies, and 2000 Census population data for the licensed areas available in ULS.

[15] *See* Comments of Straight Path Communications, Inc. ("Straight Path"), GN Docket No. 14-177, *et al.*, at 2 (filed Jan. 15, 2015) (identifying Straight Path as one of the largest holders of spectrum in the 39 GHz band, with "39 GHz spectrum licenses covering the entire continental United States with an average of 833 megahertz of bandwidth in the top 30 U.S. markets").

[16] *See, e.g., infra* pp. 7-8 & nn. 39, 40.

[17] *See* ViaSat July 1 Letter at 10-12.

[18] *See* Comments of ViaSat, Inc., GN Docket No. 14-177, RM-11664 at 1-8 (filed Jan. 15, 2015); Comments of ViaSat, Inc., GN Docket No. 14-177, *et al.*, 2-7 (filed Jan. 28, 2016) ("ViaSat Comments"); Reply Comments of ViaSat, GN Docket No. 14-177, *et al.*, 4-8 (filed Feb. 26, 2016) ("ViaSat Reply Comments").

[19] *28 GHz First Report and Order* ¶ 41 (emphasis supplied).

service.[20] The goal was to "promote[] spectrum efficiency and facilitate[] the deployment of diverse, interactive, competitive services for consumers."[21] That is precisely what satellite broadband providers are doing with their existing authorizations.

CTIA Claim 6: "There is no basis for the Commission to depart from the path it has taken for 20 years . . . ."[22]

ViaSat Response to Claim 6: This is exactly why the holders of existing 28 GHz satellite network authorizations have strong investment-backed expectations that they will be permitted to operate the facilities they deploy under their authorizations to the full extent of the terms of those authorizations and the Commission's consistent underlying policies. 28 GHz satellite network licensees reasonably expect that (i) the stable operating and regulatory environment that has been in place for over two decades will not be unduly disturbed, (ii) the many individually-licensed earth stations that are vital to the operation of satellite broadband networks can continue to operate in accordance with the 28 GHz band plan, without being unduly constrained by the introduction of new mobile wireless services, and (iii) the additional earth stations that they need to deploy to complete the satellite networks that have been authorized by the Commission will be licensed and allowed to be deployed in accordance with the 28 GHz band plan, without being unduly constrained by the introduction of new mobile wireless services.[23]

And this is why making the changes CTIA proposes would have a deleterious effect on the public interest—and on the satellite broadband services currently provided to households and small businesses across the country, as well as to commercial airlines and government aircraft for all branches, including senior government leadership.[24]

CTIA Claim 7: "The Commission made 28 GHz satellite incumbents' secondary status clear in the *Spectrum Frontiers NPRM*."[25]

ViaSat Response to CTIA Claim 7: To the extent that the NPRM suggests this, it is incorrect. One of the stated objectives of the 28 GHz band plan was to "[p]rovid[e] maximum flexibility for system implementation, inter-system sharing, *and future system growth*," including the satellite uses expressly permitted under that plan.[26] Moreover, satellite expressly was given

---

[20] *Id.* ¶ 42.

[21] *Id.* ¶ 43.

[22] CTIA July 7 *Ex Parte* at 3.

[23] ViaSat July 1 Letter at 15-16.

[24] ViaSat July 1 Letter at 2.

[25] CTIA July 7 *Ex Parte* at 2.

[26] *28 GHz First Report and Order* ¶¶ 41, 42 (emphasis supplied).

licensing priority over any new services allowed by the U.S. Table, and mobile wireless service under LMDS licenses was specifically prohibited.[27]

CTIA Claim 8: Various wireless industry filings refute claims regarding UMFU interference into satellite services.[28]

ViaSat Response to Claim 8: As ViaSat previously detailed,[29] the record supports no such conclusion:

- No testing has been done on the impact of mobile wireless service on satellite receivers.
- No studies been completed at the Commission or the ITU on that interference issue.
- Satellite interests have demonstrated empirically,[30] using data provided by wireless interests, that certain types of mobile wireless deployment could generate levels of interference into satellite receivers against which the Commission has previously provided protection similar contexts.[31]

---

[27] ViaSat July 1 Letter, Sections C & D.

[28] CTIA July 7 *Ex Parte* at 4.

[29] ViaSat July 1 Letter at 18-22 & Ex. 1; Letter from ViaSat, Inc., to Secretary, FCC GN Docket 14-177, *et al.* at 2-6 & Ex. 1 (filed July 7, 2016) ("ViaSat July 7 Letter").

[30] *See* Letter from ViaSat, Inc. to Secretary, FCC, GN Docket No. 14-177, *et al.*, Attachment 1 at 1 (filed Apr. 21, 2016) ("ViaSat April 21 Letter"); Letter from Satellite Operators to Secretary, FCC, GN Docket No. 14-177, *et al.*, Attachment at 9 (filed May 12, 2016); ViaSat July 7 Letter at 2-6.

[31] *See, e.g., Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands*, Report and Order, FCC 03-15, 18 FCC Rcd 1962, ¶ 167 (2003) (imposing limits on the number and power levels of terrestrial stations to constrain aggregate interference into satellite receivers); *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands*, Memorandum Opinion and Order and Second Order on Reconsideration, FCC 05-30, 20 FCC Rcd 4616 ¶ 41-47 (2005) (changing to a simplified, aggregate interference limit from terrestrial transmitters, to protect satellite receivers); *3.5 GHz Second Report and Order* ¶ 240 (establishing parameters for protection of satellite earth station receivers from terrestrial transmitters).

- Wireless advocates do not point to a single instance in which the Commission has resolved interference concerns through a simulation produced by one party, and without any underlying and supporting test data or technical studies.[32]

- The Commission itself has recognized the need for rigorous testing[33]—testing that does not exist in this case.

- The wireless industry's theoretical case is based on wireless uses that are much more limited, and thus much less interfering, than the mobile wireless uses that they admit are likely.

- The wireless industry filings rely on unrealistic and unsubstantiated assumptions about "blockage" of mobile wireless signals in the direction of the orbital arc.

- The wireless industry filings are self-contradictory and undermine any claim that wireless operators have an economic incentive to operate in accordance with the underlying assumptions.

CTIA Claim 9: Any satellite network filings made after the date of the NPRM are "speculative."[34]

ViaSat Response to Claim 9: The timing of gateway-type earth station applications is tied to the launch and deployment of the associated satellite.[35] ViaSat's gateway-type earth station applications for ViaSat-2, which is expected to enter commercial service in 2017, were timely filed earlier this year, and earth station applications for ViaSat-3 cannot be filed until closer to the expected 2019 launch.[36] ViaSat's existing 28 GHz satellite network provides broadband competition to terrestrial services for the benefit of residential and enterprise users, as well as anchor institutions, and extends WiFi access to aircraft. ViaSat-2 and ViaSat-3 will continue to serve these existing customers and many more.

---

[32] *Cf. Am. Radio Relay League v. FCC*, 524 F.3d 227, 240-41 (D.C. Cir. 2008) (reversing a technical finding grounded in theoretical modeling because the Commission had dismissed contrary empirical evidence).

[33] *See Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, First Report and Order and Further Notice of Proposed Rulemaking, 21 FCC Rcd 12266 ¶ 15 (2006) ("We recognize, as do many commenters responding to the *Notice*, the importance of conducting tests to ensure that whatever standards are ultimately adopted for [low power] devices will protect incumbent radio services from harmful interference. Given the complex and novel sharing issues presented here, we intend to conduct several types of testing, and we also encourage interested parties to conduct tests and submit their results into the record of this proceeding.").

[34] CTIA July 7 *Ex Parte* at 7.

[35] ViaSat July 7 Letter at 7-8.

[36] *Id.*

Finally, as to CTIA's scurrilous attacks on a handful of companies who were not able to bring certain projects to the market,[37] the response is simple: Deploying new telecommunications networks is challenging and risky. Terrestrial wireless is no different. The roadside is cluttered with the remnants of failed terrestrial wireless ventures and their unfulfilled promises to the Commission, including failed terrestrial wireless ventures in many of the frequency bands at issue in this proceeding—24 GHz,[38] 28 GHz,[39] and 39 GHz[40] to name a few.

---

[37] *See id.* at 7-8.

[38] *See, e.g., FiberTower Spectrum Holdings LLC,* Memorandum Opinion and Order, 27 FCC Rcd 13562 (WTB 2012) (terminating 94 of licensee's 24 GHz DEMS licenses and 595 of its 39 GHz licenses for failure to demonstrate compliance with substantial service requirements), *application for review denied FiberTower Spectrum Holdings LLC*, Memorandum Opinion and Order, 28 FCC Rcd 6822 (2013), *petition for reconsideration denied FiberTower Spectrum Holdings, LLC*, Order on Reconsideration, 29 FCC Rcd 2493, (2014), *affirmed in part and remanded in part FiberTower Spectrum Holdings, LLC v. FCC*, 782 F.3d 692 (D.C. Cir. 2015) (affirming Commission action with respect to all but 42 licenses); *FiberTower Spectrum Holdings, LLC, Debtor-in-Possession Notifications of Completion of Construction for 24 GHz Digital Electronic Message Service (DEMS) Licenses*, Memorandum Opinion and Order, 29 FCC Rcd 4955 (2014) (terminating three 24 GHz DEMS licenses for failure to demonstrate substantial service).

[39] *See, e.g., Spectrum Holdings Technologies, LLC*, Memorandum Opinion and Order, 29 FCC Rcd 5949 (2014) (2015) (finding 73 LMDS licenses automatically terminated for failure to meet substantial service requirements); *T-Mobile License, LLC*, Memorandum Opinion and Order, 27 FCC Rcd 12287 (WTB 2012); *SpeedUsNY.com, L.P.*, Memorandum Opinion and Order, 27 FCC Rcd 15321 (WTB BD 2012); *Windstream Lakedale Link, Inc.*, Memorandum Opinion and Order, 27 FCC Rcd 15091 (WTB BD 2012); *TWG LMDS, LLC*, Memorandum Opinion and Order, 27 FCC Rcd 15023 (WTB BD 2012); *Swayzee Telephone Company*, Memorandum Opinion and Order, 27 FCC Rcd 14281 (WTB BD 2012); *Highland Holdings, LLC*, Memorandum Opinion and Order, 27 FCC Rcd 14184 (WTB BD 2012); *West Carolina Rural Telephone Cooperative Inc*., Memorandum Opinion and Order, 27 FCC Rcd 13973 (WTB BD 2012); *BTA Associates, LLC*, Memorandum Opinion and Order, 27 FCC Rcd 13966 (WTB BD 2012); *Advantage Cellular Systems, Inc*., Memorandum Opinion and Order, 27 FCC Rcd 13959 (WTB BD 2012); *E.N.M.R. Telephone Cooperative*, Memorandum Opinion and Order, 27 FCC Rcd 13240 (WTB BD 2012); *Mark Twain Communications Company, Inc.*, Memorandum Opinion and Order, 27 FCC Rcd 13159 (WTB BD 2012); LMDS, L.P., Memorandum Opinion and Order, 27 FCC Rcd 13153 (WTB BD 2012); *Pioneer LMDS, LLC*, Memorandum Opinion and Order, 27 FCC Rcd 12932 (WTB BD 2012); *Loralen Corp LLC*, Memorandum Opinion and Order, 27 FCC Rcd 12924 (WTB BD 2012); *American Telecasting Inc. and People's Choice TV Corp*., Memorandum Opinion and Order, 27 FCC Rcd 12916 (WTB BD 2012).

[40] *See, e.g.,* supra n.38; *Biztel, Inc. (c/o AT&T Corp.),* Memorandum Opinion and Order, 27 FCC Rcd 15804 (WTB 2012) (terminating five 39 GHz licenses for failure to demonstrate substantial service); *Nextlink Wireless, LLC*, Memorandum Opinion and Order, 29 FCC Rcd 309 (WTB 2014) (terminating 39 GHz license for failure to demonstrate substantial service); *FiberTower Spectrum Holdings, LLC*, Order on Reconsideration, 29 FCC Rcd 2493, 2499 ¶ 16 n.52 (2014) (directing the Wireless Telecommunications Bureau to investigate whether any licenses held by

That is why the Commission clawed back so many terrestrial licenses in these bands and is now looking to create a new terrestrial service in some of these bands.[41]

Fortunately, the Commission need not try to pick winner and losers in this case, as CTIA urges. Instead, the Commission should adopt a framework for truly meaningful shared access to the 28 GHz and 37/39 GHz bands, as ViaSat has recommended.[42]

Respectfully submitted,

/s/

John P. Janka
Elizabeth R. Park

cc: Chairman Tom Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O'Rielly
Diane Cornell
Edward Smith
Daudeline Meme
Johanna Thomas
Marc Paul
Brendan Carr
Robin Colwell
Erin McGrath

IDT, Straight Path's predecessor in interest, are subject to cancellation for permanent discontinuance of operations).

[41] *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, GN Docket No. 14-177, *et al.*, Notice of Proposed Rulemaking, FCC 15-138 ¶ 93 (rel. Oct. 23, 2015) (proposing "to create a new service for the 28 GHz and 39 GHz bands").

[42] *See, e.g.*, ViaSat Comments; ViaSat Reply Comments; ViaSat April 21 Letter; ViaSat July 7 Letter.