



March 5, 2020

By Electronic Filing

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th St., SW
Washington, D.C. 20554

Re: HNS Licensee Sub, LLC
IBFS File Nos. SES-LIC-20170807-00877, SES-LIC-20170807-00882, SES-LIC-20170807-00888, SES-LIC-20170807-00891, SES-LIC-20170807-00893, SES-LIC-20170807-00894, SES-AMD-20190221-00283, SES-AMD-20190221-00299, SES-AMD-20190221-00302, SES-AMD-20190221-00305, SES-AMD-20190221-00307 & SES-AMD-20190221-00309
Call Signs E170152, E170157, E170163, E170166, E170168 & E170169

Dear Ms. Dortch:

Pursuant to Section 25.154(c) of the Commission's rules,¹ HNS License Sub, LLC ("Hughes") responds to Verizon's informal objection against the above-referenced applications ("Applications") for a total of six Jupiter 3 gateway earth stations in Missoula, MT; Bismarck, ND; Santa Clara, CA; Rapid City, SD; Rifle, CO; and Simi Valley, CA.² Contrary to Verizon's claims, the record demonstrates good cause for granting a limited waiver of Section 25.136(a)(4)'s earth station siting requirements and criteria for sharing with Upper Microwave Flexible Use Service ("UMFUS") operations.

I. Despite Verizon's Late Filing, Hughes Has Shown Good Cause for Granting the Requested Waiver

Contrary to Verizon's mischaracterization of the record,³ Hughes requested a limited waiver of Section 25.136(a)(4)(iii), based upon power flux density ("PFD") contours submitted with its filings for the proposed gateway sites more than a year ago.⁴ Despite numerous opportunities to raise timely objections against the proposed gateways (including opportunities to

¹ See 47 C.F.R. § 25.154(c).

² See Letter from Gregory M. Romano, Verizon, to Marlene H. Dortch, Secretary, FCC, IBFS File Nos. SES-LIC-20170807-00877 *et al.* (Feb. 21, 2020) ("Verizon Informal Objection").

³ See Verizon Informal Objection at 5.

⁴ See Hughes, Application Amendment, IBFS File Nos. SES-AMD-20190221-00299 *et al.*, Attachment B (UMFUS Compatibility Showing) at 2-4 (Feb. 21, 2019) ("UMFUS Compatibility Showing"). Hughes specifically requested a limited waiver of Section 25.136(a)(4)(iii) for its four proposed gateways in Missoula, Bismarck, Santa Clara, and Rifle, where the PFD contours overlap a protected road. *See id.*



respond to an August 21, 2019 public notice of the amended applications⁵ and to multiple Comsearch coordination notices⁶), Verizon failed to voice any concerns until now. In addition, Verizon has made no statements about operating existing (or even planned) UMFUS facilities at the proposed remote locations.⁷

In response to Commission staff requests for additional information, Hughes submitted additional PFD contours, including: (i) aggregate PFD contours for those Jupiter 3 gateways that will be collocated with an existing, grandfathered gateway operating with the Jupiter 2 Ka-band satellite;⁸ and (ii) revised PFD contours drawn using more conservative assumptions (*e.g.*, assuming a p value of 85%, rather than 50%, for calculating clutter loss using Recommendation ITU-R P.2108).⁹ Contrary to Verizon’s suggestion,¹⁰ these additional PFD submissions are fully consistent with Hughes’ proposed amendments and do not change the basic technical parameters of the earth stations or basis for the waiver request.¹¹ Indeed, in submitting revised PFD contours using more conservative assumptions, Hughes merely reiterated and clarified its waiver request, as applied to the six gateways where the revised PFD contours overlap a protected road or railway.¹²

⁵ See FCC, *Satellite Communications Services, re: Satellite Radio Applications Accepted for Filing*, Public Notice, Report No. SES-02192 (Aug. 21, 2019).

⁶ See Letter from Kimberly M. Baum, Hughes, to Jose P. Albuquerque, FCC, IBFS File Nos. SES-AMD-20190221-00282 *et al.*, at 1 (July 11, 2019).

⁷ See 47 C.F.R. § 25.136(a)(4)(iv) (requiring coordination with “*existing* facilities constructed and in operation by the UMFUS licensee”); 47 C.F.R. § 101.103(d)(2)(iv) (“Any response to notification indicating potential interference must specify the technical details If no response to notification is received within 30 days, the applicant will be deemed to have made reasonable efforts to coordinate and may file its application without a response.”); *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, ¶ 54 (2016) (“We expect that UMFUS licensees will cooperate in good faith in the coordination process and only raise objections if there is a legitimate concern”) (“*Spectrum Frontiers Order*”).

⁸ See Letter from Jennifer A. Manner & Brennan T. Price, Hughes, to Jose P. Albuquerque, FCC, IBFS File Nos. SES-LIC-20170807-00876 *et al.*, at 1-2 (May 21, 2019) (“Hughes May 2019 Letter”).

⁹ Letter from Jennifer A. Manner & Kimberly M. Baum, Hughes, to Marlene H. Dortch, FCC, IBFS File Nos. SES-LIC-20170807-00876 *et al.*, at 1 (Jan. 31, 2020) (“Hughes January 2020 Letter”).

¹⁰ See Verizon Informal Objection at 2 n.3.

¹¹ For example, for grandfathered sites with collocated Jupiter 2 and Jupiter 3 gateways, the revised PFD contours submitted on January 31, 2020 are smaller and differently shaped than those submitted on May 21, 2019 because the latter are aggregate PFD contours for the collocated gateways, as noted in the accompanying letter. See Hughes May 2019 Letter at 2. As further noted in the filing, the population coverage estimates provided with the May 2019 PFD contours are for the portions of the aggregate PFD contours outside the PFD contours for the grandfathered Jupiter 2 gateways. See *id.*

¹² Hughes January 2020 Letter at 1-2.



In any event, Verizon’s late filing offers no basis for strictly applying the Commission’s UMFUS sharing criteria without regard to the special circumstances and good cause warranting a waiver for the six proposed gateways.¹³ As the record demonstrates, grant of the requested waiver serves the public interest by facilitating provision of an innovative, advanced broadband system with the potential to provide high-capacity broadband to underserved consumers across the continental United States.¹⁴ Grant of the requested waiver also is consistent with the Commission’s policy objective to ensure compatibility with UMFUS operations, as any potential impact on UMFUS operations at a limited number of remote, scarcely populated sites is *de minimis*.¹⁵

II. Waiver for the Three Collocated Gateways Is Warranted As the Proposed Operations Pose No Significantly Greater Interference Risk to UMFUS Operations

Notably, Verizon does not dispute that any potential impact on UMFUS operations is *de minimis*, particularly at three of the sites (*i.e.*, Missoula, Bismarck, and Santa Clara) where a Jupiter 3 gateway will be collocated with an existing, grandfathered Jupiter 2 gateway.¹⁶ As shown in the attached maps, at each of these three sites, the PFD contours for the grandfathered Jupiter 2 gateway and the proposed Jupiter 3 gateway are virtually identical, each overlapping nearly the same protected road segments.¹⁷ Thus, Jupiter 3 gateway operations at these grandfathered sites will have no significant impact on existing interference risks to UMFUS operations.

Contrary to Verizon’s claim,¹⁸ in grandfathering existing earth station operations, the Commission neither strictly limited grandfathered status to the terms of an existing earth station authorization nor prohibited collocation of additional earth stations at grandfathered sites.¹⁹ Indeed, just last year, O3b Limited (“O3b”) sought a waiver of Section 25.136(a)’s earth station siting requirements to modify its existing grandfathered gateway operations at 27.6-28.35 GHz to add use of the 27.5-27.6 GHz band.²⁰ Rather than strictly limiting O3b’s grandfathered operations to the terms of its existing earth station authorization, the International Bureau (the

¹³ The Commission may waive its rules for “good cause” if (1) special circumstances warrant a deviation from the general rule; and (2) such deviation will not undermine the policy objective of the rule and will otherwise serve the public interest. *See* 47 C.F.R. § 1.3; *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

¹⁴ *See* Hughes January 2020 Letter at 1; UMFUS Compatibility Showing at 3.

¹⁵ *See* Hughes January 2020 Letter at 2; UMFUS Compatibility Showing at 3.

¹⁶ In addition, as noted in Section I above, Verizon fails to claim any of its existing or planned facilities will be negatively impacted.

¹⁷ *See* Attachment A (PFD Contour Maps for Grandfathered Sites) (attached hereto).

¹⁸ *See* Verizon Informal Objection at 4-5.

¹⁹ *See* *Spectrum Frontiers Order* ¶ 59.

²⁰ *See* O3b, Application for Modification, IBFS File No. SES-MOD-20190207-00084, Exh. 1 at 5-7 (Feb. 7, 2019).



“Bureau”) effectively granted the waiver by authorizing the “addition of operations in the 27.5-27.6 GHz (Earth-to-space) frequency band [as] a permissible modification of this grandfathered FSS earth station licensed under ... 47 CFR § 25.136(a)(2).”²¹ Similarly, Hughes’ authorized Jupiter 2 gateway operations in the 27.85-28.35 GHz band may be modified to extend grandfathered status to use of additional spectrum at 27.50-27.85 GHz. Consequently, Hughes’ proposed Jupiter 3 gateway operations in the entire 27.50-28.35 GHz band at existing grandfathered sites pose no significantly greater interference risk to UMFUS operations.

Furthermore, the Commission clarified that its *Spectrum Frontiers* decision allows “each location [to] accommodate multiple earth stations that are either collocated with each other or at locations contiguous to each other.”²² The *Spectrum Frontiers* decision also “does not preclude the expansion of such [PFD] contours [resulting from additional, collocated earth stations], nor does it apply any numeric limit to the number of earth stations to be deployed at a location.”²³ Although the Commission contemplated that multiple earth stations may be collocated in compliance with its earth station siting requirements, it did not preclude granting a waiver on a case-by-case basis to allow such collocation.²⁴ The Commission also declined to clarify the extent to which multiple earth stations may be collocated at grandfathered sites or to adopt a blanket exemption for those earth stations from Section 25.136’s population limits, but certainly did not foreclose allowing multiple, collocated earth stations under its rules or by waiver.²⁵

Consistent with these Commission determinations, Hughes did not rely on grandfathering under Section 25.136(a)(2) or (3) to confirm compliance of its additional earth station antennas with Section 25.136. Rather, Hughes provided a full analysis of the impact of the additional earth station antenna under Section 25.136(a)(4), including coordinating the additional earth station antennas with terrestrial licensees and determining the populations and protected roads potentially affected by the additional antennas.²⁶

²¹ See O3b, Radio Station Authorization, IBFS File No. SES-MOD-20190207-00084, at 5 (Nov. 6, 2019).

²² See *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Second Report and Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, Memorandum Opinion and Order, 32 FCC Rcd 10988, ¶ 139 (2017) (“*Spectrum Frontiers Reconsideration Order*”).

²³ See *id.*

²⁴ See *id.*

²⁵ See *id.* ¶¶ 140-41.

²⁶ See Hughes January 2020 Letter at 1-2; Hughes May 2019 Letter at 1-2; UMFUS Compatibility Showing at 1-4.



III. Waiver for the Remaining Three Non-located Gateways Is Warranted in View of the De Minimis Potential Impact on UMFUS Operations

As the record further demonstrates, any potential impact on UMFUS operations at the remaining three non-located gateway sites (*i.e.*, Rapid City, Rifle, and Simi Valley) is *de minimis*, given that the PFD contour areas are very lightly populated (*i.e.*, approximately 29.5 to 143.9 people) and overlap approximately 64 to 473 meters of a protected road or railway.²⁷ One of the key prongs of Section 25.136(a)(4) is to limit the population covered by the PFD contours around FSS earth stations in this frequency band. These areas are lightly populated even as compared to the stringent population limits in the Commission's rules, as the covered populations are substantially less than the population limits allowed under Section 25.136(a)(4)(ii).

Verizon fails to offer any evidence that potential service disruptions for UMFUS users traveling along the potentially affected segments of the protected roads and railways will be significantly longer or worse than service disruptions typically experienced by other mobile users or even occur. Furthermore, contrary to Verizon's argument,²⁸ the Commission's failure to adopt a blanket *de minimis* exception to Section 25.136(a)'s earth station siting requirements does not foreclose its longstanding authority to grant individual waivers for good cause, including *de minimis* impact.

IV. The Bureau Should, and Has Authority to, Grant the Requested Waiver

Contrary to Verizon's argument,²⁹ the Bureau has delegated authority to grant the requested waiver and is not prohibited "under outstanding precedents and guidelines" from doing so.³⁰ As discussed in Sections II and III above, the Commission's *Spectrum Frontiers* decision, allowing collocated earth stations at grandfathered sites and adopting Section 25.136(a)'s earth station siting requirements, does not provide any precedent that would prohibit granting a waiver of those requirements for good cause in individual cases.

Moreover, Bureau grant of the requested waiver does not require the full Commission to have already granted a similar waiver of Section 25.136(a)'s requirements. As the Commission has noted, "[c]onsistency with prior precedent is not determined by whether the same outcome has been reached . . . [but] by whether the Commission's rules and orders have been applied faithfully."³¹ The Bureau has granted numerous waivers of various Part 25 rules,³² and none of

²⁷ See January 2020 Letter, Attachment.

²⁸ See Verizon Informal Objection at 4

²⁹ See *id.* at 5.

³⁰ See 47 C.F.R. § 0.261(a), (b).

³¹ *Advanced Communications Corporation*, 11 FCC Rcd 3399, ¶ 27 (1995).

³² See, e.g., *Space Exploration Holdings, LLC; Request for Modification of the Authorization for the SpaceX NGSO Satellite System*, 34 FCC Rcd 12307 (IB 2019) (waiving Schedule S requirements); *Temporary Waiver of Section 25.281(b) Transmitter Identification Requirements for Video Uplink*



these waiver decisions required a prior waiver grant by the full Commission. In fact, as discussed in Section II above, the Bureau effectively waived Section 25.136(a)(2)'s grandfathering provisions, absent any prior Commission waiver of the rule. Here, the record demonstrates that grant of the requested waiver is consistent with the Commission's waiver standard as well as its *Spectrum Frontiers* precedent and policies, and further serves the public interest.

V. Conclusion

Based upon the foregoing, Hughes urges the Commission to reject Verizon's late-filed informal objection and grant a limited waiver of Section 25.136(a)(4)(iii) to allow prompt deployment of its proposed Jupiter 3 gateways.

Please contact the undersigned with any further questions.

Sincerely,

/s/ Jennifer A. Manner

Jennifer A. Manner

Senior Vice President, Regulatory Affairs

Kimberly M. Baum

Vice President, Regulatory Affairs

Attachment

cc: Jose Albuquerque (FCC) Karl Kensinger (FCC)
Kerry Murray (FCC) Kal Krautkramer (FCC)
Jay Whaley (FCC) Paul Blais(FCC)
Kathryn Medley (FCC) Gregory M. Romano (Verizon)
Daudeline Meme (Verizon) Catherine Hilke (Verizon)

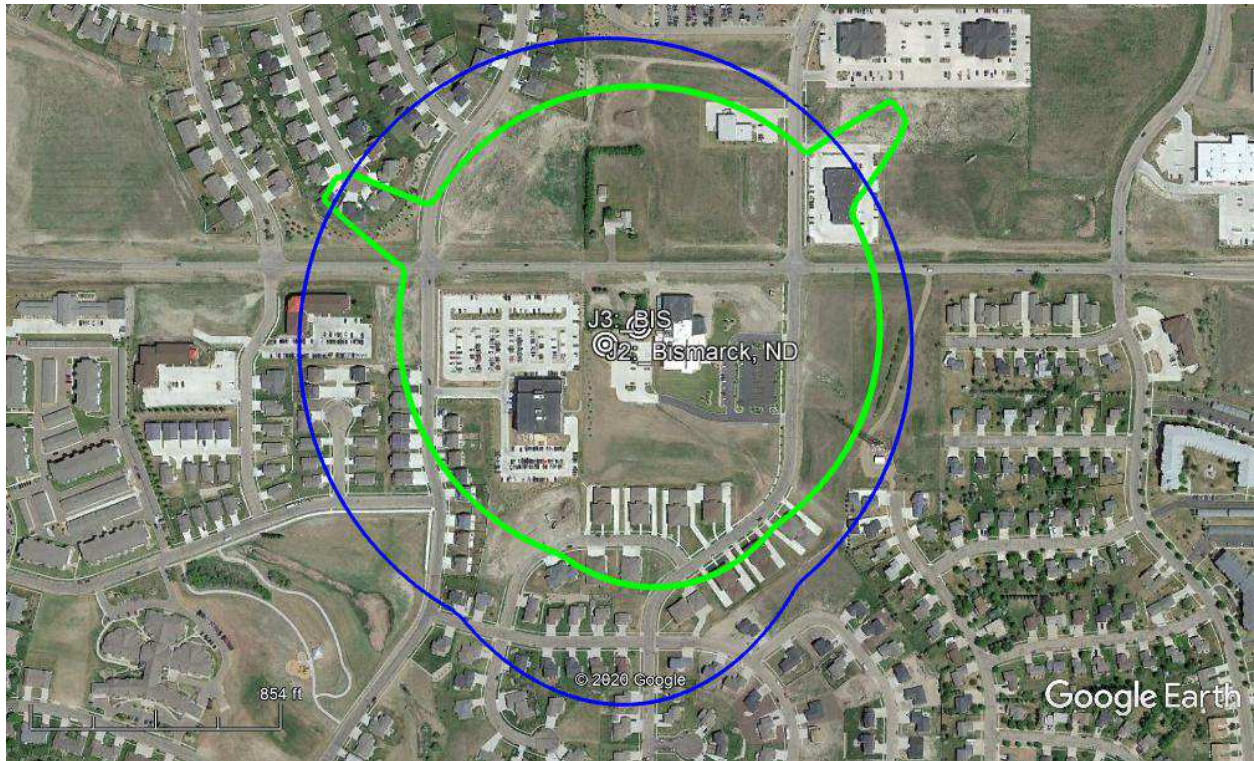
Transmissions, 31 FCC Rcd 1752 (IB 2016) (waiving Section 25.281(b) requirements); *Lockheed Martin Corporation*, 20 FCC Rcd 11023 (IB 2005) (waiving processing round procedures).

Attachment A

PFD Contour Maps for Grandfathered Sites

Bismarck, North Dakota (43rd Ave on FHWA HEPGIS map)

- Blue – contours for Jupiter 2 gateway, using Rec. P.2108 and $p = 85\%$ for clutter and a minimum 250 m; Green – contour for Jupiter 3 gateway, using Rec. P.2108 and $p = 85\%$ for clutter and a minimum 250 m



Missoula, Montana (Interstate 90 & W Broadway St both on FHWA HEPGIS map)

- Blue – contours for Jupiter 2 gateway, using Rec. P.2108 and $p = 85\%$ for clutter and a minimum 250 m; Green – contour for Jupiter 3 gateway, using Rec. P.2108 and $p = 85\%$ for clutter and a minimum 250 m



Santa Clara, CA (San Thomas Expy, Scott Blvd & Monroe St on FHWA HEPGIS)

- Blue – contours for Jupiter 2 gateway, using Rec. P.2108 and $p = 85\%$ for clutter and a minimum 250 m; Green – contour for Jupiter 3 gateway, using Rec. P.2108 and $p = 85\%$ for clutter and a minimum 250 m

