

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)
Space Exploration Holdings, LLC) ICFS File No.: SAT-MOD-20230207-00022
Application for Modification of Authorization for) Call Sign: S3069
the SpaceX Gen2 NGSO Satellite System to Add a)
Mobile-Satellite Service System)

ORDER

Adopted: March 26, 2024

Released: March 26, 2024

By the Associate Division Chief, Satellite Programs and Policy Division, Space Bureau:

I. INTRODUCTION

1. In this Order, we dismiss as unacceptable for filing the application of Space Exploration Holdings, LLC (SpaceX) for modification of its authorization to construct, deploy, and operate up to 7,500 "second-generation" Starlink satellites (Gen2 Starlink) to include authority for operations in the 1610-1617.775 MHz (Earth-to-space) and 2483.5-2500 MHz (space-to-Earth) bands (1.6/2.4 GHz bands), the 2000-2020 MHz (Earth-to-space) and 2180-2200 MHz (space-to-Earth) bands (2 GHz bands), and the 2020-2025 MHz (Earth-to-space) band.1 We conclude that the requests in the Modification Application do not substantially comply with Commission requirements established in rulemaking proceedings which determined that the 1.6/2.4 GHz and 2 GHz bands are not available for additional MSS applications and, with respect to operations in the 2020-2025 MHz band, conclude that the remaining request for uplink operations only does not constitute a comprehensive proposal necessary to sustain a satellite application, as required under Commission rules.2 Accordingly, we dismiss the Modification Application on our own motion. We also dismiss as moot the Petition to Dismiss or Deny the Modification Application filed by

1 Space Exploration Holdings, LLC, Application for Modification of Authorization for the SpaceX Gen2 NGSO Satellite System to Add a Mobile-Satellite Service System, ICFS File No. SAT-MOD-20230207-00022 (filed Feb. 7, 2023) (Modification Application).

2 See Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, Report and Order, 9 FCC Rcd 5936 (1994) (Big LEO Order), on reconsideration, Memorandum Opinion and Order, 11 FCC Rcd 12861 (1996); Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands, Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Service to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, Report and Order, Fourth Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 13386 (2004) (Big LEO Spectrum Sharing Order); Spectrum and Service Rules for Ancillary Terrestrial Components in the 1.6/2.4 GHz Big LEO Bands, Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands, Second Order on Reconsideration, Second Report and Order, and Notice of Proposed Rulemaking, 22 FCC Rcd 19733 (2007) (Big LEO Spectrum Sharing Second Order); Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Band, Report and Order and Order of Proposed Modification, 27 FCC Rcd 16102 (2012) (AWS-4 Report and Order); 47 CFR §§ 25.112(a), 25.114(a)(1).

DISH Network Corporation (DISH), EchoStar Satellite Services LLC, EchoStar Global PTY LTD, and EchoStar Mobile Limited,³ and deny in part and dismiss in part a SpaceX request to hold in abeyance.⁴

II. BACKGROUND

2. On March 28, 2018, the Commission granted SpaceX authority to deploy and operate a non-geostationary satellite orbit (NGSO) satellite system of 4,425 satellites to provide fixed-satellite service (FSS) in portions of the Ku- and Ka-bands, between 10.7 GHz and 30 GHz.⁵ On December 1, 2022, the Commission granted in part SpaceX's application for authority to deploy and operate the Gen2 Starlink system to provide FSS in the Ku- and Ka-bands.⁶ On March 8, 2024, the Space Bureau further granted in part SpaceX's Gen2 Starlink system application to authorize operations using additional frequencies in the E-band.⁷

3. On February 7, 2023, SpaceX filed the Modification Application seeking to introduce a mobile-satellite service (MSS) component to its Gen2 Starlink constellation that would use the 1.6/2.4 GHz bands, 2 GHz bands, and the 2020-2025 MHz (Earth-to-space) band.⁸ After filing of SpaceX's Modification Application, Globalstar, Inc. (Globalstar), which is licensed in the 1.6/2.4 GHz bands, submitted a letter in opposition to the Modification Application,⁹ and DISH, which is licensed in the 2 GHz bands, filed a letter and petition stating that the Modification Application should be dismissed

³ Petition to Dismiss or Deny of DISH Network Corporation, EchoStar Satellite Services LLC, EchoStar Global PTY LTD, and EchoStar Mobile Limited, ICFS File No. SAT-MOD-20230207-00022 (filed Mar. 14, 2023) (DISH Petition). We also dismiss as moot the related pleadings, including the SpaceX Opposition, the DISH Reply to Opposition, and the SpaceX Motion to Strike.

⁴ Letter from David Goldman, Vice President of Satellite Policy, SpaceX, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-MOD-20230207-00022, SAT-MOD-20230804-00192, and SES-RWL-20230926-02119 (filed Feb. 5, 2024) (SpaceX Request to Hold in Abeyance).

⁵ *Space Exploration Holdings, LLC, Application for Approval for Orbital Deployment and Operating Authority for the SpaceX NGSO Satellite System*, Memorandum Opinion, Order and Authorization, 33 FCC Rcd 3391 (2018). SpaceX's authorization for first-generation satellites has been modified several times. See, e.g., *Space Exploration Holdings, LLC, Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, 37 FCC Rcd 14882, para. 4 (2022) (*SpaceX Gen2 Order*), *appeals pending sub nom International Dark-Sky Association v. FCC*, No. 22-1337 (D.C. Cir. filed Dec. 29, 2022), *Dish Network Corp. v. FCC*, No. 23-1001 (D.C. Cir. filed Jan. 3, 2023).

⁶ *SpaceX Gen2 Order*; see also *Space Exploration Holdings, LLC, Application for Modification of Authorization for the SpaceX Gen2 NGSO Satellite System to Add a Direct-to-Cellular System*, Stamp Grant, ICFS File No. SAT-MOD-20230207-00021 (granted in part and deferred in part Dec. 1, 2023), petition for reconsideration pending.

⁷ *Space Exploration Holdings, LLC, Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, DA 24-222 (SB Mar. 8, 2024).

⁸ See, *supra*, note 1.

⁹ Letter from L. Barbee Ponder, General Counsel & Vice President, Regulatory Affairs, Globalstar, Inc., to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-MOD-20230207-00022 (filed Feb. 27, 2023) (Globalstar Opposition Letter).

without being accepted for filing.¹⁰ SpaceX responded to the Globalstar and DISH filings.¹¹ Because the Bureau has not accepted the Modification Application for filing, it was not placed on public notice.¹²

III. DISCUSSION

4. After review of the Modification Application and the filings in the record, we conclude that, under Commission rulemakings, the 1.6/2.4 GHz and 2 GHz bands are currently unavailable for additional MSS applicants,¹³ and therefore the Modification Application's requests to operate in these bands do not substantially comply with Commission requirements. Further, we conclude that the Modification Application's remaining request to provide MSS in the 2020-2025 MHz (Earth-to-space) band does not constitute a comprehensive proposal on its own required in a satellite application.¹⁴ Accordingly, we find the Modification Application unacceptable for filing.

A. Legal Standard

5. Section 25.112(a) of the Commission's rules provides that an application under part 25 will be unacceptable for filing and will be returned to the applicant if the application is defective with respect to completeness of answers to questions, informational showings, or other matters of a formal character, or if the application does not substantially comply with the Commission's rules, regulations, or other requirements.¹⁵ Section 25.114(a)(1) of the Commission's rules requires that license applications for NGSO constellations must comprise a "comprehensive proposal."¹⁶

B. 1.6/2.4 GHz Bands

6. For nearly 30 years, the 1610-1626.5 MHz and 2483.5-2500 MHz bands have been designated through Commission rulemaking proceedings for use by NGSO MSS "Big LEO" systems. In 1994, the Commission first adopted licensing and operating rules for Big LEO operators and established the Big LEO band plan.¹⁷ The initial band plan considered operations by multiple NGSO MSS systems using code division multiple access (CDMA) techniques, and operations by a single NGSO MSS system using time division multiple access (TDMA) techniques.¹⁸ The Commission designated the 1610-1621.35 MHz band for CDMA uplink operations, the 2483.5-2500 MHz band for CDMA downlink operations,

¹⁰ Letter from Pantelis Michalopoulos, Counsel for DISH Network Corporation, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-MOD-20230207-00022 (filed Feb. 17, 2023); DISH Petition.

¹¹ Letter from David Goldman, Sr. Director, Satellite Policy, SpaceX, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-MOD-20230207-00022 (filed Mar. 3, 2023); Letter from David Goldman, Sr. Director, Satellite Policy, SpaceX, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-MOD-20230207-00022 (filed Mar. 8, 2023); Opposition to Petition to Dismiss or Deny of Space Exploration Holdings, LLC, ICFS File No. SAT-MOD-20230207-00022 (filed Mar. 29, 2023). SpaceX, Globalstar, and DISH also submitted further filings in the record. See ICFS File No. SAT-MOD-20230207-00022.

¹² See 47 CFR §§ 25.112(a), (b), 25.157(c).

¹³ See *Big LEO Order*, 9 FCC Rcd 5936; *Big LEO Spectrum Sharing Order*, 19 FCC Rcd 13386; *Big LEO Spectrum Sharing Second Order*, 22 FCC Rcd 19733; *AWS-4 Report and Order*, 27 FCC Rcd 16102.

¹⁴ 47 CFR § 25.114(a)(1).

¹⁵ 47 CFR § 25.112(a); see *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, 30 FCC Rcd 14713, 14798, para. 258 (2015) (while the Commission may place on public notice applications with minor inaccuracies that are not material to the Commission's or the public's review, all applications under part 25 must be substantially complete when they are filed).

¹⁶ 47 CFR § 25.114(a)(1).

¹⁷ See *Big LEO Order*, 9 FCC Rcd 5936.

¹⁸ See *id.* at para. 43.

and the 1621.35-1626.5 MHz band for TDMA operations on a bi-directional basis.¹⁹ Of the Big LEO systems considered in developing the initial band plan, two were ultimately deployed – Globalstar, using CDMA, and Iridium Constellation LLC (Iridium), using TDMA.²⁰ In 2004, in response to a petition from Iridium, the Commission reconsidered the Big LEO sharing environment, given the two operational systems, and modified the spectrum designations by permitting TDMA (Iridium) operations in the 1618.25-1621.35 MHz band on a shared basis with CDMA (Globalstar) operations.²¹ In 2007, the Commission again rebalanced the Big LEO band plan, “based upon new information in the record showing the impracticality of Big LEO spectrum sharing,” to allow for exclusive use of 7.775 megahertz of spectrum to each CDMA (Globalstar) and TDMA (Iridium) MSS system, with the two systems sharing only 0.95 megahertz.²² The Commission subsequently modified the licenses of Globalstar and Iridium accordingly. Globalstar is authorized to operate its space stations in the 1610-1617.775 MHz frequency band on an “exclusive basis,” and in the 1617.775-1618.725 MHz band on a shared basis with Iridium.²³

7. In proposing to introduce 7,500 MSS space stations operating in the portion of the Big LEO band plan designated for CDMA operations and used exclusively by Globalstar, SpaceX argues that circumstances have changed from when the bands were last examined by the Commission.²⁴ SpaceX states that it can use a variety of strategies, including phased arrays and beam scheduling protocols, to “coexist” with existing operations without causing harmful interference to “any modern, capable, and well-designed” satellite system.²⁵ SpaceX’s interference analyses, however, rely on the successful outcome of coordination with co-frequency MSS operations.²⁶ In opposition, Globalstar argues that the Modification Application lacks sufficient technical justification, contradicts settled Commission precedent, and jeopardizes important services, including emergency services, provided by Globalstar for more than two decades.²⁷

8. The Big LEO rulemaking proceedings have addressed the availability of the 1.6/2.4 GHz bands for MSS systems, most recently based on the characteristics of the only two operational systems,

¹⁹ See *id.* at paras. 43-48.

²⁰ See *Big LEO Spectrum Sharing Second Order*, 22 FCC Rcd 19733, para. 4.

²¹ See *Big LEO Spectrum Sharing Order*, 19 FCC Rcd 13386, para. 3 (“When the Commission initially adopted the Big LEO band plan, it licensed five companies to provide MSS in the Big LEO bands. Two Big LEO systems were implemented and are now providing MSS – one TDMA system and one CDMA system. In this proceeding, we consider how this development impacts usage of Big LEO spectrum and, as a result, make changes to the existing band sharing plan.”).

²² *Big LEO Spectrum Sharing Second Order*, 22 FCC Rcd 19733, para.1 (“The Big LEO L-band band plan that we establish here provides an equitable distribution of the spectrum between the CDMA satellite system operated by Globalstar, Inc. (Globalstar), and the TDMA satellite system operated by Iridium Satellite LLC (Iridium)... As a result of today’s decision, Globalstar’s CDMA system and Iridium’s TDMA system will have equal amounts of L-band Big LEO spectrum for their exclusive MSS use.”).

²³ *Globalstar Licensee LLC, GUSA Licensee LLC and Iridium Constellation LLC, Iridium Satellite LLC, Iridium Carrier Services LLC, Modification of Authority to Operate a Mobile Satellite System in the 1.6 GHz Frequency Band*, Order of Modifications, 23 FCC Rcd 15207, para. 44 (2008) (*Globalstar Modification Order*).

²⁴ Modification Application at 4. SpaceX acknowledges that “the Commission has made multiple changes to the bands over time to reflect real world uses” through the rulemaking process, and that the Commission “bas[ed] the current band plan on the fact that [t]he Commission currently ha[d] no application before it for any new Big LEO MSS system.” *Id.* SpaceX does not propose to operate in Big LEO spectrum designated for TDMA operations.

²⁵ *Id.*, Attach. A at 6.

²⁶ *Id.*, Attach. A at 7.

²⁷ Globalstar Opposition Letter, Attach. at 1.

Globalstar and Iridium.²⁸ The carefully rebalanced Big LEO band plan the Commission adopted in 2007 does not envision an additional CDMA MSS system, much less a system of 7,500 space stations, operating in this band, as proposed under the Modification Application.²⁹ In light of prior Commission action addressing Big LEO spectrum availability in the context of a rulemaking proceeding, the proper proceeding would be a new rulemaking to determine whether there is additional availability for another CDMA MSS system in the 1.6/2.4 GHz bands, and if so, what operating criteria would be appropriate for that system.³⁰ Absent such a rulemaking to address any changed circumstances, we conclude that the 1.6/2.4 GHz bands are not available for licensing of an additional NGSO MSS system. Therefore, the Modification Application's request to operate in these bands is not in substantial compliance with Commission requirements and is unacceptable for filing.³¹

C. 2 GHz Bands

9. The 2000-2020 MHz and 2180-2200 MHz bands are allocated on a co-primary basis to the fixed, mobile, and mobile-satellite services and are licensed for both MSS and AWS-4 terrestrial wireless services.³² In 2001, the Commission authorized eight satellite operators to provide MSS in the 2 GHz bands.³³ Six operators subsequently either failed to meet their deployment milestones or surrendered their authorizations, and by 2005 there were only two operators remaining – ICO Satellite Services (ICO) and TMI Communications and Company, Limited Partnership (TMI).³⁴ In 2005, the Commission modified the spectrum reservations of ICO and TMI by reassigning the portions of the 2 GHz bands forfeited by the six terminated authorizations to ICO and TMI.³⁵ Later, the ICO and TMI spectrum reservations were acquired by DISH, through its subsidiaries. DISH's New DBSD Satellite Services G.P. (formerly ICO) currently operates the DBSD G-1 satellite at the 92.85° W.L. orbital location and DISH's Gamma Acquisition L.C.C. (formerly Terrestar, TMI) operates the Terrestar T-1 satellite at the 111° W.L.

²⁸ See *Big LEO Spectrum Sharing Second Order*, 22 FCC Rcd 19733, para. 1.

²⁹ Modification Application at 11 (“The proposed SpaceX MSS system will consist of a payload on the satellites currently authorized to deploy as part of SpaceX’s Gen2 system, and subject to the conditions set forth in the Gen2 Authorization initially granting SpaceX authority to launch and operate 7,500 satellites.”). While SpaceX argues that the Commission has never granted Globalstar exclusive use of the 1.6/2.4 GHz bands, the Commission discussion it cites was in reference to Globalstar’s initial license based on the band plan established in 1994, which considered four possible CDMA satellite systems, not the rebalanced band plan adopted in 2007 that considered only one CDMA system (Globalstar) or Globalstar’s 2008 license. See Modification Application at 4 n.9; *Big LEO Spectrum Sharing Second Order*, 22 FCC Rcd 19733, paras. 1, 19, 20; *Globalstar Modification Order*, 23 FCC Rcd 15207, para. 44 (“Globalstar’s Big LEO MSS satellites and mobile earth station terminals are AUTHORIZED to operate in the 1610-1617.775 MHz frequency band on an exclusive basis.”).

³⁰ SpaceX appears to concede that a rulemaking is necessary to decide these issues. See SpaceX Request to Hold in Abeyance at 2 (“The Commission should reset the sharing frameworks it originally envisioned for the 1.6/2.4 GHz and 2 GHz bands by expeditiously adopting a rulemaking to ensure multiple satellite operator coexistence and sharing in these bands.”).

³¹ See 47 CFR § 25.112(a)(2).

³² 47 CFR § 2.106.

³³ *Use of Returned Spectrum in the 2 GHz Mobile Satellite Service Frequency Bands*, Order, 20 FCC Rcd 19696, para. 2 (2005).

³⁴ *Id.*

³⁵ *Id.* at 19707.

orbital location.³⁶ Consequently, DISH is the only entity authorized to provide MSS in the 2 GHz bands.³⁷

10. In 2012, the Commission adopted a terrestrial service plan known as the AWS-4 plan, which allowed for stand-alone terrestrial service in the 2000-2020 MHz and 2180-2200 MHz bands, previously authorized for MSS and its associated ancillary terrestrial component.³⁸ These bands were allocated on a co-primary basis for mobile-satellite and terrestrial fixed and mobile services.³⁹ The Commission also modified the existing 2 GHz MSS licenses to give AWS operating authority so they could provide both terrestrial and satellite service using the same spectrum. It noted that “same band, separate operator” sharing between mobile-satellite and terrestrial operations is “impractical.”⁴⁰ In allocating terrestrial operations in these bands, the Commission adopted rules requiring AWS to protect 2 GHz MSS operations.⁴¹ It also provided that if AWS-4 spectrum rights are returned, they will be made available for reassignment for terrestrial use only and will not be subject to the MSS protection rule.⁴² The Commission noted that this approach was incompatible with the deployment of additional MSS systems and did not anticipate accepting applications for new or modified systems, except for incumbent operators.⁴³

11. SpaceX, in seeking to introduce a new 2 GHz MSS system, argues that DISH is not currently offering MSS service in these bands and has no plans to offer MSS service.⁴⁴ SpaceX states that, as with its proposed operations in the 1.6/2.4 GHz bands, it can use a variety of strategies to coexist with existing operations,⁴⁵ while ultimately relying on the successful outcome of coordination with co-frequency MSS operations in its interference analyses in the 2 GHz bands.⁴⁶ In its Petition to Dismiss or Deny the SpaceX Modification Application, DISH argues that the current 2 GHz regulatory framework does not allow for additional MSS systems and that the Commission’s AWS-4 order acknowledged that only incumbent operators can deploy MSS operations in the band.⁴⁷ DISH further states that it is building out its AWS system in accordance with specific benchmarks established in the AWS-4 order, including offering terrestrial service to at least 70 percent of the population in each of its license areas within seven

³⁶ See Call Signs S2651 and S2633.

³⁷ *DISH Network Corporation*, Memorandum Opinion and Order, 28 FCC Rcd 16787, para. 6 (WTB 2013).

³⁸ *AWS-4 Report and Order*, 27 FCC Rcd 16102.

³⁹ *Id.*, para. 33.

⁴⁰ *DISH Network Corporation*, 28 FCC Rcd at 16795.

⁴¹ *AWS-4 Report and Order*, 27 FCC Rcd at 16164, para. 160.

⁴² *Id.* at 16183. Advanced Wireless Services (AWS): (1710-1755 MHz and 2110-2155 MHz bands (AWS-1); 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz and 2175-2180 MHz bands (AWS-2); 2155-2175 MHz band (AWS-3); 2000-2020 MHz and 2180-2200 MHz (AWS-4). The loss of MSS protections refers to the economic area where the AWS system is not built out.

⁴³ *Id.* at n.468. The Commission acknowledged that “same band, separate operator sharing [may] become technically feasible in the future” but found that the appropriate means of facilitating this possible outcome was “to permit licensees of AWS-4 operating authority to utilize the Commission’s wireless secondary market mechanisms with respect to their terrestrial operating authority.” *Id.* at para. 163.

⁴⁴ Modification Application at 7.

⁴⁵ *Id.*, Attach. A at 6.

⁴⁶ *Id.*, Attach. A at 7-8.

⁴⁷ DISH Petition at 5-7.

years.⁴⁸ DISH notes that on September 29, 2023, the Commission confirmed that DISH has met its build out requirements.⁴⁹

12. In the 2012 AWS-4 Report and Order, additional MSS applications were precluded and incumbent MSS operators were assigned terrestrial rights by modification of their authorizations.⁵⁰ Limiting use of the 2 GHz bands to the incumbent MSS operators was based on the impracticality of avoiding harmful interference if separate operators for MSS and terrestrial systems were authorized in the same band. In light of prior Commission action addressing this issue in the context of a rulemaking proceeding, the proper proceeding would be a new rulemaking in order to determine if additional MSS systems should be authorized for operations in these bands.⁵¹ Absent such a rulemaking to address any changed circumstances, we conclude that the 2 GHz bands are not available for licensing an additional MSS system. Therefore, the Modification Application's request to operate in these bands is not in substantial compliance with Commission requirements and is unacceptable for filing.⁵²

D. 2020-2025 MHz band

13. SpaceX finally seeks authority to provide MSS (Earth-to-space) in the 2020-2025 MHz band. Internationally, there is a co-primary allocation to the MSS in Region 2 in the Earth-to-space direction, but no MSS allocation in Regions 1 or 3.⁵³ In the United States, this band is currently allocated on a primary basis to the fixed and mobile services, with no allocation to the MSS.⁵⁴

14. Domestically, the 2020-2025 MHz band once supported a primary MSS allocation. In 1997, the Commission added an MSS (Earth-to-space) primary allocation in the 2020-2025 MHz band.⁵⁵ Following the surrender of a number of S-band MSS licenses between 2001 and 2003, however, the Commission reallocated most of the spectrum available for MSS in the S-band to terrestrial mobile uses.⁵⁶ The Commission initially paired the 2020-2025 MHz and 2175-2180 MHz bands and proposed service

⁴⁸ Letter from Jeffrey Blum, DISH Network Corp., to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-MOD-20230207-00022 (filed July 6, 2023).

⁴⁹ Letter from Pantelis Michalopoulos, Counsel, DISH Network Corp., to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-MOD-20230207-00022, at 4 (filed Oct. 11, 2023).

⁵⁰ *AWS-4 Report and Order*, 27 FCC Rcd at 16164, para. 160, n.468; *DISH Network Corporation*, 28 FCC Rcd 16787.

⁵¹ SpaceX appears to concede that a rulemaking is necessary to decide these issues. See SpaceX Request to Hold in Abeyance at 2 (“The Commission should reset the sharing frameworks it originally envisioned for the 1.6/2.4 GHz and 2 GHz bands by expeditiously adopting a rulemaking to ensure multiple satellite operator coexistence and sharing in these bands.”).

⁵² See 47 CFR § 25.112(a)(2).

⁵³ *Id.*

⁵⁴ 47 CFR § 2.106. SpaceX requests waiver of the U.S. Table of Frequency allocations. Modification Application at 10.

⁵⁵ See *Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service*, First Report and Order and Further Notice of Proposed Rule Making, 12 FCC Rcd 7388, para. 1 (1997).

⁵⁶ See *Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile & Fixed Services, et al.*, Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order, 18 FCC Rcd 2223, para. 3 (2003).

rules.⁵⁷ However, in 2008, the Commission declined to adopt the proposal.⁵⁸ In 2013, the Commission proposed to align the 2020-2025 MHz band with the 2155-2180 MHz band to support complementary uplink/mobile operations for terrestrial systems in other frequencies.⁵⁹ The Commission, however, deferred action on addressing the 2020-2025 MHz band at that time.⁶⁰ In 2020, Kepler Communications, Inc., and Spire Global, Inc., filed a Petition for Rulemaking to add a primary MSS (space-to-Earth) allocation in the 2020-2021 MHz band and a primary MSS (Earth-to-space) allocation in the 2021-2025 MHz band for use by “small satellites.”⁶¹ That petition remains pending.

15. SpaceX’s request to operate MSS (Earth-to-space) in the 2020-2025 MHz band is inconsistent the Commission’s rules in the U.S. Table of Frequency Allocations and, we note, would not be fully covered even by the pending rulemaking petition, which does not seek an MSS (Earth-to-space) allocation in the 2020-2021 MHz band. Moreover, because we have concluded that SpaceX’s requests to operate in the 1.6/2.4 GHz and 2 GHz frequency bands are unacceptable for filing, the portion of the Modification Application seeking uplink operations only in the 2020-2025 MHz band does not constitute a “comprehensive proposal” even if a waiver of the U.S. Table were considered,⁶² because there are no corresponding downlink frequencies or description of whether, or how, the system could operate with only the 2020-2025 MHz (Earth-to-space) band.⁶³

E. SpaceX Request to Hold in Abeyance

16. On February 5, 2024, SpaceX submitted a letter requesting that the Space Bureau hold the Modification Application in abeyance while it “submit[s] formal requests for the Commission to reassess its MSS spectrum sharing frameworks for the 1.6/2.4 and 2 GHz bands.”⁶⁴ On February 21 and 22, 2024, SpaceX submitted the petitions for rulemaking.⁶⁵ SpaceX argues that, while its rulemaking

⁵⁷ See *Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems*, Sixth Report and Order, Third Memorandum Opinion and Order, and Fifth Memorandum Opinion and Order, 19 FCC Rcd 20720, para. 3 (2004); *Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz, and 2175-2180 MHz Bands; Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, Notice of Proposed Rulemaking, 19 FCC Rcd 19263, para. 1 (2004).

⁵⁸ See *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 1695- 1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands*, Notice of Proposed Rulemaking and Order on Reconsideration, 28 FCC Rcd 11479, para. 35 (2013).

⁵⁹ See *id.* para. 2.

⁶⁰ See *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, & 2155-2180 MHz Bands*, Report and Order, 29 FCC Rcd 4610, para. 59 (2014). DISH chose to use the adjacent band for downlink operations. See Letter from Jeffrey H. Blum, Senior Vice President & Deputy General Counsel, DISH, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 13-225 (filed June 1, 2016).

⁶¹ *Spire Global, Inc., and Kepler Communications, Inc., Petition to Revise Sections 2.106 and 25.142 of the Commission’s Rules to Expand Spectrum Availability for Small Satellites by adding Mobile-Satellite Service Allocation in the Frequency Band 2020-2025 MHz*, RM-11869 (filed Oct. 30, 2020).

⁶² See Modification Application at 10 (“SpaceX requests a waiver of the U.S. Table of Frequency Allocations to use the 2020-2025 MHz band for uplink for its mobile satellite user terminal consistent with the ITU Region 2 allocation, subject to the outcome of the Kepler/Spire Petition.”).

⁶³ See 47 CFR § 25.114(a)(1).

⁶⁴ SpaceX Request to Hold in Abeyance at 1; see also Letter from David Goldman, Vice President of Satellite Policy, SpaceX, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-MOD-20230207-00022 and SES-RWL-20230926-02119 (filed Mar. 13, 2024).

⁶⁵ Petition for Rulemaking of Space Exploration Technologies Corp., Revision of the Big LEO Spectrum Sharing Plan to Encourage Productive MSS Use of 1.6/2.4 GHz Frequencies (filed Feb. 21, 2024); Petition for Rulemaking

(continued....)

petitions are pending, the Commission should hold its application and “other pending space station and earth station applications in abeyance and implement a freeze on the filing of new or modification applications for MSS in the 1.6/2.4 GHz and 2 GHz bands.”⁶⁶ SpaceX specifically argues this should apply to the pending MSS applications filed by Globalstar and DISH subsidiary Gamma Acquisition LLC for modification or renewal of their existing authorizations.⁶⁷ EchoStar Corporation, parent company of DISH, submitted a letter in opposition to SpaceX’s request to hold in abeyance, and SpaceX responded to the opposition.⁶⁸

17. We deny SpaceX’s request to keep its Modification Application pending, in abeyance, while it seeks changes to the Commission’s policies and rules that could render the application acceptable for filing. SpaceX has gained no rights or status by the filing of the Modification Application,⁶⁹ and accordingly, holding the application in abeyance would not affect SpaceX’s rights if the Commission were to modify its policies and rules as SpaceX advocates in its petitions for rulemaking. SpaceX’s application was unacceptable when it was filed because the Commission is currently not accepting applications for new MSS entrants in the 1.6/2.4 GHz and 2 GHz bands; therefore, SpaceX’s reference to applications that have been held in abeyance after the institution of an application freeze, but which were acceptable when they were filed, is inapposite.⁷⁰ Should the Commission make the 1.6/2.4 GHz and 2 GHz bands available for additional MSS applicants in the future, SpaceX will be able to reapply under that revised framework. Until then, the Modification Application cannot be processed. To the extent that SpaceX also requests, in the context of the Modification Application, that we hold other applications in abeyance or institute an application freeze, those requests are beyond the scope of this application proceeding and we dismiss them as such with respect to this proceeding, noting they may be addressed as raised in other proceedings.

IV. CONCLUSION AND ORDERING CLAUSES

18. For the reasons discussed above, we conclude that the SpaceX Modification Application is unacceptable for filing, and on our own motion we dismiss it. For this reason, we dismiss as moot the Petition to Dismiss or Deny of DISH Network Corporation, EchoStar Satellite Services LLC, EchoStar Global Pty Ltd, and EchoStar Mobile Limited and related pleadings, including the SpaceX Motion to Strike the DISH Reply to SpaceX’s Opposition to Petition.

19. Accordingly, IT IS ORDERED that the Application of Space Exploration Holdings, LLC, for Modification of Authorization for the SpaceX Gen2 NGSO Satellite System to Add a Mobile-Satellite Service System, ICFS File No. SAT-MOD-20230207-00022, IS DISMISSED, the Petition to Dismiss or Deny of DISH Network Corporation, EchoStar Satellite Services LLC, EchoStar Global Pty Ltd, and EchoStar Mobile Limited and related pleadings ARE DISMISSED AS MOOT, the Space Exploration Holdings, LLC Motion to Strike the DISH Reply to SpaceX’s Opposition to Petition IS DISMISSED AS MOOT, and the request of Space Exploration Holdings, LLC to hold in abeyance IS DENIED in part and

of Space Exploration Technologies Corp., Revision of the Commission’s Sharing Plan to Encourage Productive Satellite Use of 2 GHz Frequencies (filed Feb. 22, 2024).

⁶⁶ SpaceX Request to Hold in Abeyance at 1.

⁶⁷ See *id.* at 2.

⁶⁸ Letter from Jennifer Manner, Senior Vice President, Regulatory Affairs, EchoStar Corporation, to Marlene H. Dortch, Secretary, FCC (filed Feb. 26, 2024); Letter from David Goldman, Vice President of Satellite Policy, SpaceX, to Marlene H. Dortch, Secretary, FCC (filed Mar. 13, 2024).

⁶⁹ See *Chadmoore Communications, Inc. v. FCC*, 113 F.3d 235, 240-41 (D.C. Cir. 1997) (holding that application of a new rule to a pending application “could [not have] impaired a right possessed by [the applicant] because none vested on the filing of its application”).

⁷⁰ SpaceX Request to Hold in Abeyance at 1-2.

DISMISSED in part as discussed herein, pursuant to sections 0.51, 0.261, 25.112, and 25.154 of the Commission's Rules, 47 CFR §§ 0.51, 0.261, 25.112, 25.154.

FEDERAL COMMUNICATIONS COMMISSION

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