**Before the**

Federal Communications Commission

Washington, D.C. 20554

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| In the Matter of  WorldVu Satellites Limited  Petition for Declaratory Ruling to Modify the U.S. Market Access Grant for the OneWeb Ku-band and Ka-Band NGSO FSS System | **)**  **)**  **)**  **)**  **)**  **)**  **)** | Call Sign S2963  IBFS File Nos. SAT-MPL-20200526-00062 and SAT-APL-20210112-00007 |

ORDER AND DECLARATORY RULING

**Adopted: April 28, 2023 Released: April 28, 2023**

By the Chief, Space Bureau:

# INTRODUCTION

1. In this Order and Declaratory Ruling, we grant in part and defer in part the petition for declaratory ruling of WorldVu Satellites Limited (OneWeb) for modification of its grant of U.S. market access for a 720-satellite constellation authorized by the United Kingdom.[[1]](#footnote-3) As modified, the constellation will operate with four fewer satellites, reduced from 720 to 716 satellites. We defer consideration of the remainder of OneWeb’s Modification Petition, which requests an expansion of the OneWeb system to 6,372 satellites. This grant in part will enable OneWeb to provide service in the United States using its planned, revised orbital architecture without negatively affecting other operators.

# BACKGROUND

1. In April 2016, OneWeb sought Commission approval for a non-geostationary satellite orbit (NGSO), fixed-satellite service (FSS) system designed “to provide high-speed, affordable broadband connectivity to anyone, anywhere” in the United States.[[2]](#footnote-4) OneWeb proposed to operate a constellation of 720 satellites, configured in 18 near-polar orbital planes with 40 satellites per plane, at an approximate altitude of 1200 kilometers.[[3]](#footnote-5) OneWeb sought market access in the frequency bands 10.7-12.7 GHz (space-to-Earth), 14-14.5 GHz (Earth-to-space), 17.8-18.6 GHz (space-to-Earth), 18.8-19.3 GHz (space-to-Earth), 27.5-29.1 GHz (Earth-to-space), and 29.5-30 GHz (Earth-to-space).[[4]](#footnote-6)
2. The initial OneWeb petition triggered a processing round.[[5]](#footnote-7) The processing round notice invited additional applications and petitions for declaratory ruling for NGSO-like satellite operation in the frequency bands requested by OneWeb.[[6]](#footnote-8) The notice announced that applications and petitions filed by the cut-off date of November 15, 2016, would be considered together with the initial OneWeb petition, but that requests filed after that date may not be entitled to shared use of the spectrum with respect to any grant of applications or petitions filed prior to the cut-off date.[[7]](#footnote-9) Eleven additional applications and petitions were filed in this first processing round.[[8]](#footnote-10)
3. OneWeb’s initial market access petition was granted in June 2017.[[9]](#footnote-11) The grant included a condition requiring OneWeb to share spectrum, on an equal basis, with any NGSO system licensed or granted U.S. market access through the first processing round in accordance with the Commission’s rules.[[10]](#footnote-12)
4. In March 2020, a second processing round was opened for the frequency bands included in the *OneWeb Grant*.[[11]](#footnote-13) The second processing round closed May 26, 2020.[[12]](#footnote-14) OneWeb initially submitted the Modification Petition within this second processing round window, and later amended it on January 12, 2021.[[13]](#footnote-15)
5. The Modification Petition proposes a revised constellation structure for the OneWeb NGSO FSS system, to be deployed in what is described as two phases. Phase 1 would consist of a reduction in the total number of operating satellites, from 720 to 716, and a revised orbital configuration.[[14]](#footnote-16) Rather than operating 40 satellites per plane in 18 orbital planes at an 87.9° inclination, OneWeb would operate 49 satellites per plane in 12 orbital planes at an 87.9° inclination and 16 satellites per plane in 8 orbital planes at a 55° inclination.[[15]](#footnote-17) OneWeb asks that this reduction and reconfiguration of the already-approved OneWeb system be granted without affecting its spectrum sharing rights based on its participation in the first processing round.[[16]](#footnote-18)
6. Phase 2 would represent a significant expansion of the OneWeb system. As originally filed, the Phase 2 deployment would increase the total constellation size to 47,844 satellites; [[17]](#footnote-19) however, the amendment reduced the maximum size to 6,372 satellites.[[18]](#footnote-20) OneWeb proposes that operation of these satellites be considered with other NGSO FSS systems filed in the second processing round.[[19]](#footnote-21) In addition to the phased deployments described above, OneWeb states that iterations of satellites may be augmented by optical inter-satellite links.[[20]](#footnote-22)
7. The Modification Petition was placed on public notice on March 18, 2022.[[21]](#footnote-23) Comments were submitted by Viasat, Inc. (Viasat), SES Americom, Inc. and O3b Limited (together, SES), and Kuiper Systems LLC (Kuiper).[[22]](#footnote-24) The National Telecommunications and Information Administration also filed a letter on behalf of the National Aeronautics and Space Administration (NASA) and the National Science Foundation (NSF).[[23]](#footnote-25) OneWeb responded to the comments and letter.[[24]](#footnote-26) ViaSat and Kuiper replied to OneWeb’s response.[[25]](#footnote-27)
8. In July 2022, OneWeb requested an expedited, partial grant of the Modification Petition to allow it to access the U.S. market using up to 49 satellites in two orbital planes to ensure that satellites which had been launched and were being raised into their final orbital configurations could begin testing and providing service in the United States as soon as they were ready.[[26]](#footnote-28) On September 16, 2022, the Satellite Division granted OneWeb’s request for expedited, partial grant and deferred action on the remaining requests related to its proposed Phase 1 and Phase 2 operations.[[27]](#footnote-29)
9. *National Security, Law Enforcement, Foreign Policy and Trade Policy Review*. On March 18, 2022, the Modification Petition was referred to the relevant Executive Branch agencies for their views on any national security, law enforcement, foreign policy, or trade policy.[[28]](#footnote-30) On March 25, 2022, the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector (Committee) notified the Commission that it was reviewing the Modification Petition for any national security and law enforcement concerns that may be raised by foreign participation in the United States telecommunications services sector and requested that the Commission defer action on the Modification Petition.[[29]](#footnote-31) On March 31, 2023, the National Telecommunications and Information Administration (NTIA), on behalf of the Committee, submitted a Petition to Adopt Conditions to Licenses (Committee Petition).[[30]](#footnote-32) In this filing the Committee advised the Commission that it has no objection to grant of the Modification Petition, provided that the Commission condition its approval on the assurance of OneWeb to abide by the commitments and undertakings set forth in the March 16, 2023, Letter of Agreement setting forth the commitments that OneWeb made to the Department of Justice, including the Federal Bureau of Investigation, the Department of Homeland Security and the Department of Defense (LOA).[[31]](#footnote-33)

# DISCUSSION

1. After review of the record, we conclude that partial grant of the Modification Petition with respect to the Phase 1 reduction and reconfiguration of OneWeb satellites will serve the public interest.[[32]](#footnote-34) Our public interest analysis considers the effect of the proposed modification on competition in the United States, as well as issues of spectrum availability, eligibility requirements and operating requirements, and national security, law enforcement, foreign policy, and trade.[[33]](#footnote-35)
2. OneWeb’s proposed Phase 1 changes do not raise any competition, spectrum availability, or eligibility concerns. The Commission has already approved OneWeb to provide service in the United States using 720 satellites configured in 18 orbital planes with 40 satellites per plane. Modifying this grant to reduce the operational constellation to 716 satellites, arranged in 49 satellites per plane in 12 orbital planes and 16 satellites per plane in 8 orbital planes, with no changes to their operational altitude or other characteristics, will have no material impact on competition in the United States or spectrum availability, and offers no reason to reconsider OneWeb’s eligibility qualifications. Below, we briefly discuss OneWeb’s operating requirements in the context of issues raised by commenters.
3. *Processing Round Status*. The International Bureau has approved modifications to NGSO systems, without changing their status in a particular processing round, when the modifications did not present significant interference problems.[[34]](#footnote-36) In this proceeding, no commenter argues that OneWeb’s Phase 1 changes would present significant interference problems. One commenter explicitly recognizes that they would not.[[35]](#footnote-37) We agree that the minor reduction and reconfiguration of OneWeb satellites in Phase 1 will have no significant effect on the interference environment and therefore approve the proposed Phase 1 modification without altering the NGSO FSS spectrum sharing status of the constellation in the first processing round.
4. *Operational Issues and Comments*. Commenters raise broader issues regarding the Modification Petition which, in most instances, we conclude are unnecessary to address in this order to approve the OneWeb Phase 1 modifications.
5. Viasat raises orbital debris and spectrum sharing concerns related specifically to OneWeb’s proposed Phase 2 constellation expansion, which we will address when we act upon the Phase 2 request.[[36]](#footnote-38)
6. NASA’s comments regarding the petition primarily raise concerns with respect to the OneWeb proposed Phase 2 expansion as well, particularly that Phase 2 would pose heightened orbital collision risks and may significantly increase astronomical light pollution.[[37]](#footnote-39) However, to the extent that NASA’s comments may also relate to OneWeb’s Phase 1 operations, OneWeb responds that it has and will continue to assess the conjunction warning and collision avoidance capabilities of the OneWeb system and provides additional information regarding its coordination of conjunction maneuvers with the 18th Space Defense Squadron.[[38]](#footnote-40) OneWeb states that it has already completed scalability testing on the flight dynamics system for the full Phase 1 constellation size. OneWeb further states that it has completed the analysis of the maximum number of expected Conjunction Data Messages and number of high-risk conjunctions requiring maneuver planning actions per day that NASA had encouraged the company to conduct. OneWeb provides initial results of this analysis and states that plans to complete this activity in the future and will share the results with NASA when they are available. Regarding the potential impact on astronomical light pollution, OneWeb states that field of view obstructions and potential impact on optical astronomy observations are important issues and OneWeb is committed to working with the science community to find workable solutions to reduce light pollution. OneWeb reports that it has partnered with the GAL Hassin Observatory in southern Italy to conduct a series of observations of in-orbit OneWeb satellites and is creating a tool to enable accurate prediction of the brightness of next-generation OneWeb satellites by correlating the model against these real-world observations. OneWeb intends to provide analyses demonstrating that the full constellation will not increase light pollution substantially over currently recommended levels. We find that these measures address the issues to the extent relevant for Phase 1, and expect OneWeb to continue its coordination with NASA and NSF to address orbital debris and concerns regarding impacts to astronomy and science missions, both for the Phase 1 satellites authorized by this grant and the Phase 2 satellites that will be addressed at a later date.
7. Kuiper’s comments focus on the differing, and related, regulatory treatments of OneWeb’s proposed Phase 1 and Phase 2 satellite operations.[[39]](#footnote-41) Kuiper requests that the Commission clarify the processing round statuses of OneWeb’s Phase 1 and Phase 2 satellites and whether they will be subject to separate bond and milestone requirements.[[40]](#footnote-42) Kuiper also raises arguments it has made in a pending proceeding regarding NGSO FSS spectrum sharing, asking that we sunset interference protections for Phase 1 operations and require OneWeb to share certain operational information with other NGSO FSS system operators.[[41]](#footnote-43) As noted above, partial grant of the Modification Petition to allow OneWeb access to the U.S. market with a revised Phase 1 constellation architecture will not present significant interference problems; therefore, it will not affect the sharing status of these operations in the first processing round. We do not address OneWeb’s Phase 2 proposal or its related issues, including the relative protection statuses of Phase 1/Phase 2 satellites or any additional bond and milestone requirements. Further, Kuiper’s rulemaking-related arguments were recently addressed in the context of a rulemaking proceeding..[[42]](#footnote-44) OneWeb’s market access grant remains subject to the outcome of the *NGSO FSS Sharing Report and Order and FNPRM*, and we expect that operators will not withhold information necessary to effectuate good faith coordination.[[43]](#footnote-45)
8. *EPFD Compliance.* Section 25.146(c) of the Commission’s rules requires that prior to the initiation of service, an NGSO FSS operator with market access in the 10.7-30 GHz frequency range must receive a “favorable” or “qualified favorable” finding by the ITU Radiocommunication Bureau regarding compliance with applicable ITU EPFD limits.[[44]](#footnote-46) The operator must also communicate the ITU finding to the Commission and submit the input files used for the ITU validation software.[[45]](#footnote-47) OneWeb explains that it has received a “favorable” finding from the ITU Radiocommunication Bureau regarding its “L5” and “MCSAT LEO” ITU filings, which reviewed networks with characteristics that correspond with the technical parameters of the 588 Phase 1 satellites that would operate in near polar planes (with 87.9° inclination).[[46]](#footnote-48) OneWeb asks that based on these findings, we conclude that OneWeb has satisfied the requirements in section 25.146(c) regarding the ITU finding EPFD compliance for Ku- and Ka-band operations with respect to its 588 Phase 1 satellites.[[47]](#footnote-49) For the remaining Phase 1 satellites that would operate at a 55° inclination and which OneWeb refers to as its Phase 1 “inclined satellites,” OneWeb states that it will provide the required information to demonstrate compliance with section 25.146(c) prior to commencing operations.[[48]](#footnote-50)
9. OneWeb effectively asks us to make independent determinations with respect to different portions of its Phase 1 regarding compliance with section 25.146(c). We decline to do so. The Commission has recognized that in some cases there may be multiple ITU filings associated with an NGSO FSS system, and most recently in its order partially authorizing the SpaceX second generation system, the Commission required SpaceX to obtain a favorable ITU finding regarding EPFD compliance with that finding explicitly indicating that the ITU has considered the joint effect of SpaceX’s multiple ITU filings.[[49]](#footnote-51) We take the same approach here, and require that with respect to the phase 1 satellites granted market access, the ITU finding regarding OneWeb’s EPFD compliance indicate that the ITU has considered the joint effect of OneWeb’s multiple ITU filings covering the Phase 1 satellites. However, based on the information OneWeb has provided, we find good cause to waive the requirement that OneWeb communicate such a finding to the Commission prior to the initiation of service.[[50]](#footnote-52) In its 2017 grant of market access for OneWeb’s system, the Commission recognized that grant would facilitate OneWeb’s goal of providing broadband Internet access to communities across the United States.[[51]](#footnote-53) OneWeb has satellites in-orbit and operational that are currently ready to serve the United States market, and we conclude that grant of waiver in this instance to allow OneWeb to begin providing satellite broadband service in the U.S. immediately, rather than waiting for a further finding from the ITU is in the public interest.[[52]](#footnote-54) As OneWeb notes in its modification application,[[53]](#footnote-55) and as the Commission has frequently recognized, there is a growing demand for broadband connectivity solutions, and OneWeb can begin providing these services upon grant of this application.
10. Grant of waiver in this instance to allow OneWeb to begin operating, pending further finding from the ITU with respect to EPFD compliance would also not undermine the purpose of the rule, which is to ensure that systems are in compliance with obligations under Article 22 of the ITU Radio Regulations not to cause unacceptable interference to GSO networks.[[54]](#footnote-56) First, we are persuaded by OneWeb’s analysis with respect to its “L5” and “MCSAT LEO” ITU filings — specifically, the ITU’s findings regarding these filings allow us to conclude that a favorable result has been reached regarding the Ku- and Ka-band operations with OneWeb’s near-polar (87.9° inclination) satellites. Second, OneWeb has conducted an EPFD analysis using the ITU-approved software for its entire Phase 1 system, inclusive of its 55° inclination satellites, and has offered to make available to any requesting party the input data used in this analysis.[[55]](#footnote-57) Therefore, in this instance we have both OneWeb’s certification regarding its analysis of the full Phase 1 system, as well as findings from the ITU relevant to its near polar satellites, which will be the satellites initially operated as part of its system serving the U.S. market. Regarding OneWeb’s analysis, we condition this grant on OneWeb making its input data files available to any interested party. Moreover, OneWeb will remain subject to the condition that it must receive a favorable or qualified favorable finding from the ITU with respect to the applicable EPFD limits, including as it relates to its combined ITU filings. Altogether, we can reasonably find that OneWeb’s operations in the United States are not likely to cause interference to GSO networks while a further determination of EPFD compliance by the ITU is pending. However, OneWeb proceeds at its own risk and must adjust its operations if it does not receive a favorable finding from the ITU, and must not cause unacceptable interference to GSO networks.
11. *National Security, Law Enforcement, Foreign Policy and Trade Policy Issues*. When analyzing an application or petition that includes foreign investment, we may also consider public interest issues related to national security, law enforcement, foreign policy, or trade policy concerns.[[56]](#footnote-58) As part of our public interest analysis, the Commission coordinates with the relevant Executive Branch agencies that have expertise in these particular issues.[[57]](#footnote-59) The Commission accords deference to the expertise of these Executive Branch agencies in identifying issues related to national security, law enforcement, foreign policy, or trade policy concerns raised by the agencies.[[58]](#footnote-60)  The Commission, however, ultimately makes an independent decision on the application based on the record in the proceedings.[[59]](#footnote-61)
12. The Committee has reviewed the Modification Petition and stated it has no objection to the Commission granting the Modification Petition, provided it conditions the grant on compliance with the LOA.[[60]](#footnote-62) In accordance with the Committee’s request, and in the absence of any objection from OneWeb, we grant the Committee Petition, and, accordingly, we condition grant of the Modification Petition on compliance by OneWeb with the commitments and undertakings set out in the LOA.[[61]](#footnote-63) A failure to comply with and/or remain in compliance with any of the provisions of the LOA shall constitute a failure to meet a condition of this grant and the underlying grant of U.S. market access and thus grounds for declaring the underlying approval terminated without further action on the part of the Commission. Failure to meet a condition of this grant and the underlying grant of U.S. market access may also result in monetary sanctions or other enforcement action by the Commission.

# CONCLUSION AND ORDERING CLAUSES

1. We conclude that grant in part of the Modification Petition will serve the public interest by enabling OneWeb to provide service in the United States using an updated constellation architecture with an overall reduction in size from 720 to 716 satellites.
2. Accordingly, IT IS ORDERED, that the Petition for Declaratory Ruling, as amended, filed by WorldVu Satellites Limited, d/b/a OneWeb, IS GRANTED IN PART and DEFERRED IN PART as described above, pursuant to section 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. § 303(r), and sections 0.51, 0.261, 25.137(c), (e), and (f) of the Federal Communication Commission’s rules, 47 CFR §§ 0.51, 0.261, 25.137(c), (e), (f).
3. Grant in part is conditioned on compliance with the terms of the Letter of Agreement from Neil Masterson, Chief Executive Officer, OneWeb and Kevin Steen, Chief Executive Officer, OneWeb Technologies, Inc. to Chief, Foreign Investment Review Section, and Deputy Chief, Compliance and Enforcement (FIRS), and Director, Global Investment and Economic Security Directorate, on behalf of the Assistant Attorney General for National Security, U.S. Department of Justice, dated March 16, 2023.
4. IT IS FURTHER ORDERED that the conditions of OneWeb’s grant of U.S. market access ARE MODIFIED to reflect that OneWeb may operate a constellation of up to 716 satellites, arranged as 49 satellites per plane in 12 orbital planes at an 87.9° inclination and 16 satellites per plane in 8 orbital planes at a 55° inclination.
5. IT IS FURTHER ORDERED that waiver of the requirement that under 47 CFR § 25.146(c) that OneWeb must receive a favorable or “qualified favorable” finding in accordance with Resolution 85 (WRC-03) with respect to its compliance with applicable equivalent power flux density (EPFD) limits in Article 22 of the ITU Radio Regulations prior to commencing operations with U.S. earth stations is GRANTED. OneWeb must make available to any requesting party the data used as input to the ITU-approved validation software to demonstrate compliance with applicable EPFD limits.
6. This authorization is subject to modification to bring it into conformance with any rules or policies adopted by the Commission in the future. Accordingly, any investments made toward operations in the bands authorized in this Order by OneWeb in the United States assume the risk that operations may be subject to additional conditions or requirements as a result of any future Commission actions. This includes, but is not limited to IB Docket 22-271 and IB Docket 18-818,[[62]](#footnote-64) WTB Docket 20-443,[[63]](#footnote-65) and IB docket 21-456.[[64]](#footnote-66)
7. IT IS FURTHER ORDERED that, except as provided in the preceding paragraphs, OneWeb must continue to comply with all of the terms and conditions of its original U.S. market access grant, *WorldVu Satellites Limited, Petition for a Declaratory Ruling Granting Access to the U.S. Market for the OneWeb NGSO FSS System*, Order and Declaratory Ruling, 32 FCC Rcd 5366 (2017).

FEDERAL COMMUNICATIONS COMMISSION

Julie M. Kearney

Chief

Space Bureau

1. WorldVu Satellites Limited, Modification to OneWeb U.S. Market Access Grant for the OneWeb Ku- and Ka-Band System, IBFS File No. SAT-MPL-20200526-00062 (filed May 26, 2020), amended by WorldVu Satellites Limited, Amendment to Modification Application for U.S. Market Access Grant for the OneWeb Ku- and Ka-Band System, IBFS File No. SAT-APL-20210112-00007 (filed Jan. 12, 2021) (together, Modification Petition). [↑](#footnote-ref-3)
2. *WorldVu Satellites Limited, Petition for a Declaratory Ruling Granting Access to the U.S. Market for the OneWeb NGSO FSS System*, Order and Declaratory Ruling, 32 FCC Rcd 5366, 5366, paras. 1-2 (2017) (*OneWeb Grant*). [↑](#footnote-ref-4)
3. *Id.* at 5366-67, para. 2. [↑](#footnote-ref-5)
4. *Id.* [↑](#footnote-ref-6)
5. *See* 47 CFR § 25.157(c). [↑](#footnote-ref-7)
6. *OneWeb Petition Accepted for Filing, IBFS File No. SAT-LOI-20160428-00041; Cut-Off Established for Additional NGSO-Like Satellite Applications or Petitions for Operations in the 10.7-12.7 GHz, 14.0-14.5 GHz, 17.8- 18.6 GHz, 18.8-19.3 GHz, 27.5-28.35 GHz, 28.35-29.1 GHz, and 29.5-30.0 GHz Bands*, Public Notice, 31 FCC Rcd 7666 (IB-SD 2016). [↑](#footnote-ref-8)
7. *Id.* at 7667. [↑](#footnote-ref-9)
8. *OneWeb Grant* at 5367, para. 3. [↑](#footnote-ref-10)
9. *OneWeb Grant*. [↑](#footnote-ref-11)
10. *See id.* at 5377, para. 23k; 47 CFR § 25.261(b)-(d). [↑](#footnote-ref-12)
11. *Cut-Off Established for Additional NGSO FSS Applications or Petitions for Operations in the 10.7-12.7 GHz, 12.75-13.25 GHz, 13.8-14.5 GHz, 17.7-18.6 GHz, 18.8-20.2 GHz, and 27.5-30 GHz Bands*, Public Notice, DA 20-325 (IB-SD 2020). [↑](#footnote-ref-13)
12. *Id.* at 2. [↑](#footnote-ref-14)
13. Modification Petition. [↑](#footnote-ref-15)
14. *Id.*, IBFS File No. SAT-APL-20210112-00007, Legal Narrative at 5. [↑](#footnote-ref-16)
15. *Id.* [↑](#footnote-ref-17)
16. *See id.*, IBFS File No. SAT-MPL-20200526-00062, Legal Narrative at 11-14. [↑](#footnote-ref-18)
17. *Id.*, IBFS File No. SAT-MPL-20200526-00062, Legal Narrative at 10. [↑](#footnote-ref-19)
18. *Id.*, IBFS File No. SAT-APL-20210112-00007, Legal Narrative at 5. [↑](#footnote-ref-20)
19. *See id.*, IBFS File No. SAT-MPL-20200526-00062, Legal Narrative at 14-15; IBFS File No. SAT-APL-20210112-00007, Legal Narrative at 5-7. [↑](#footnote-ref-21)
20. *Id.*, IBFS File No. SAT-MPL-20200526-00062, Technical Narrative at 8; Letter from Brian Weimer, Counsel to WorldVu Satellites Limited, to Karl A. Kensinger, Chief, Satellite Division, International Bureau, FCC, at 3 (filed Mar. 7, 2022). [↑](#footnote-ref-22)
21. *Space Station Applications Accepted for Filing*, Public Notice, Report No. SAT-01618 (IB-SD 2022) (*Public Notice*). [↑](#footnote-ref-23)
22. Comments of Viasat, Inc. (filed Apr. 18, 2022); Comments of SES Americom, Inc. and O3b Limited (filed Apr. 18, 2022); Comments of Kuiper Systems LLC (filed Apr. 18, 2022). In addition, Space Exploration Holdings, LLC filed, and later withdrew, comments and a petition to deny in part. Comments and Petition to Deny in Part of Space Exploration Holdings, LLC (filed Apr. 18, 2022); Letter from David Goldman, Director, Satellite Policy, Space Exploration Technologies Corp. and Kimberly Baum, VP, Spectrum Engineering & Strategy, WorldVu Satellites Limited to Marlene H. Dortch, Secretary, FCC (filed July 21, 2022). [↑](#footnote-ref-24)
23. Letter from Milton Brown, Chief Counsel (Acting), United States Department of Commerce, National Telecommunications and Information Administration, to Marlene H. Dortch, Secretary, FCC (filed Apr. 22, 2022) (NASA/NSF Letter). [↑](#footnote-ref-25)
24. Consolidated Response to Comments of OneWeb (filed May 3, 2022); Letter from Blake Wiles, Market Access Manager, North America, OneWeb, to Marlene H. Dortch, Secretary, FCC (filed May 5, 2022). [↑](#footnote-ref-26)
25. Reply of Viasat, Inc. (filed May 13, 2022); Reply Comments of Kuiper Systems LLC (filed May 13, 2023). [↑](#footnote-ref-27)
26. Letter from Blake Wiles, Market Access Manager, North America, OneWeb, to Marlene H. Dortch, Secretary, FCC (filed July 28, 2022); *see also* Letter from Douglas Svor, Sheppard, Mullin, Richter & Hampton LLP, counsel to WorldVu Satellites Limited, to Marlene H. Dortch, Secretary, FCC (filed Sept. 14, 2022). [↑](#footnote-ref-28)
27. *WorldVu Satellites Limited, Petition for Declaratory Ruling to Modify the U.S. Market Access Grant for the OneWeb Ku-band and Ka-Band NGSO FSS System*, Order and Declaratory Ruling, DA 22-970 (IB-SD). [↑](#footnote-ref-29)
28. *Public Notice*. [↑](#footnote-ref-30)
29. Letter from Megan Fluckiger, Attorney Advisor, Foreign Investment Review Section, National Security Division, U.S. Department of Justice, to Marlene H. Dortch, Secretary, FCC (filed Mar. 25, 2022); *see also* Letters from Elizabeth K. McIntyre, Attorney Advisor, Foreign Investment Review Section, National Security Division, U.S. Department of Justice, to Marlene H. Dortch, Secretary, FCC (filed Oct. 31, 2022, Dec. 30, 2022, Jan. 13, 2023, and Feb. 10, 2023) (advising the Commission on timing of Committee review of the Modification Petition). On September 16, 2022, the Satellite Division modified the referral to the relevant Executive Branch agencies to exclude certain space stations involved in the request for expedited, partial grant because they did not raise the concern that was the basis for the referral. *Satellite Policy Branch Information*, Public Notice, DA 22-964 (IB-SD). [↑](#footnote-ref-31)
30. *See* Petition to Adopt Conditions to Authorizations and Licenses, Andrew Coley, Attorney Advisor, NTIA (filed Mar. 31, 2023) (Committee Petition). [↑](#footnote-ref-32)
31. *See id.* [↑](#footnote-ref-33)
32. *Amendment of the Commission’s Regulatory Policies to Allow Non-U.S. Licensed Satellites to Provide Domestic and International Service in the United States*, Report and Order, 12 FCC Rcd 24094, 24106, para. 29 (1997). [↑](#footnote-ref-34)
33. *Id.* [↑](#footnote-ref-35)
34. *See Space Exploration Holdings, LLC, Request for Modification of the Authorization for the SpaceX NGSO Satellite System*, Order and Authorization and Order on Reconsideration, 36 FCC Rcd 7995, para. 18 (2021). [↑](#footnote-ref-36)
35. Kuiper Comments at 3 (“OneWeb’s phased approach separates the segment of the modification that would present significant interference problems, the addition of thousands of satellites (“Phase 2”), from the segment that would not present such problems, the removal of four satellites from and orbital shifting of its already-authorized constellation (“Phase 1”).”). [↑](#footnote-ref-37)
36. ViaSat Comments; ViaSat Reply. [↑](#footnote-ref-38)
37. *See* NASA/NSF Letter. NASA also notes that the additional satellites will likely cause field of view obstruction for certain NASA missions. *See id.* at 4. The National Science Foundation “shares the general concerns of NASA, regulators, and satellite operators with respect to orbital debris and congestion.” *Id.* at 9. [↑](#footnote-ref-39)
38. *See* Letter from Blake Wiles, Market Access Manager, North America, OneWeb, to Marlene H. Dortch, Secretary, FCC (file May 5, 2022). [↑](#footnote-ref-40)
39. Kuiper Comments; Kuiper Reply. [↑](#footnote-ref-41)
40. *See* Kuiper Comments at 4-6, 9-10. [↑](#footnote-ref-42)
41. Kuiper Comments at 7-12. [↑](#footnote-ref-43)
42. *See Space Exploration Holdings, LLC, Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, FCC 22-91, para. 66 (2022) (*SpaceX Gen2 Order*); *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems*, IB Docket No. 21-456, Notice of Proposed Rulemaking, 36 FCC Rcd 17871 (2021); *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems*, IB Docket No. 21-456, Report and Order and Further Notice of Proposed Rulemaking, FCC 23-29, (April 20, 2021) (*NGSO FSS Sharing Report and Order and FNPRM*). [↑](#footnote-ref-44)
43. OneWeb has affirmed its willingness to share beam pointing and satellite selection data with any NGSO FSS operator once they have placed operational satellites capable of delivering service in orbit. OneWeb Response at 23-24. [↑](#footnote-ref-45)
44. 47 CFR § 25.146(c). [↑](#footnote-ref-46)
45. 47 CFR § 25.146(c)(1), (2). [↑](#footnote-ref-47)
46. Letter from Kimberly M. Baum, Vice President, Spectrum Engineering and Strategy, WorldVu Satellites Limited, to Karl A. Kensinger, Chief, Satellite Division, FCC (filed Apr. 6, 2023) (OneWeb Apr. 6 Letter); Letter from Kimberly M. Baum, Vice President, Spectrum Engineering and Strategy, WorldVu Satellites Limited to Marlene H. Dortch, Secretary, FCC, at 1 (filed Apr. 14, 2023) (OneWeb Apr. 14 Ex Parte). [↑](#footnote-ref-48)
47. *See* OneWeb Apr. 14 Ex Parte at 1, 3. [↑](#footnote-ref-49)
48. *Id.* at 3-4. OneWeb also notes that its L7A ITU filing, which encompasses all Phase 1 inclined satellites, has a “qualified favorable” finding, with final EPFD validation from the ITU pending publication. *Id.* at 4. [↑](#footnote-ref-50)
49. *SpaceX Gen2 Order* at para. 34. [↑](#footnote-ref-51)
50. OneWeb also seeks waiver of section 25.146(c) to the extent necessary. OneWeb Apr. 14 Ex Parte at 4. Generally, the Commission may waive any rule for good cause shown. 47 CFR § 1.3. Waiver is appropriate where the particular facts make strict compliance inconsistent with the public interest. *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990). In making this determination, we may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis. *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969), *cert. denied*, 409 U.S. 1027 (1972); *Northeast Cellular*, 897 F.2d at 1166. Waiver is therefore appropriate if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest. *Northeast Cellular*, 897 F.2d at 1166. [↑](#footnote-ref-52)
51. *OneWeb Grant*, para. 1. [↑](#footnote-ref-53)
52. *Space Exploration Holdings, LLC*, 34 FCC Rcd 2526, para. 28 (IB 2019) (acknowledging delay associated with ITU review, and how such delay would substantially delay the start of service). [↑](#footnote-ref-54)
53. *See* Legal Narrative at 3. [↑](#footnote-ref-55)
54. *See Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Services Systems and Related* Matters, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd. 7809, 7822, para. 41 (2017). [↑](#footnote-ref-56)
55. OneWeb Response at 24, Attach. B; OneWeb Apr. 14 Ex Parte at 4. [↑](#footnote-ref-57)
56. *See* *Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership*, Report and Order, 35 FCC Rcd 10927 (2020) (*Executive Branch Review Order*) (setting rules and procedures for referring applications for Executive Branch review consistent with Executive Order No. 13913); *Rules and Policies on Foreign Participation in the U.S. Telecommunications Market; Market Entry and Regulation of Foreign-Affiliated Entities*, Report and Order and Order on Reconsideration, 12 FCC Rcd 23891 (1997) (*Foreign Participation Order*), *recon. denied*, 15 FCC Rcd 18158 (2000). [↑](#footnote-ref-58)
57. *See Executive Branch Review Order*, 35 FCC Rcd at 10935-36, paras. 17, 24. [↑](#footnote-ref-59)
58. *Id.* at 10930, para. 7 (citing *Foreign Participation Order*, 12 FCC Rcd at 23920-21, paras. 65-66; *Amendment of the Commission’s Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Satellite Service in the United States; Amendment of Section 25.131 of the Commission’s Rules and Regulations to Eliminate the Licensing Requirement for Certain International Receive-Only Earth Stations*, Report and Order, 12 FCC Rcd 24094, 24171-72, paras. 179, 182 (1997)). [↑](#footnote-ref-60)
59. 47 CFR § 1.40001(b) (“The Commission will consider any recommendations from the [E]xecutive [B]ranch on pending application(s) . . . that may affect national security, law enforcement, foreign policy, and/or trade policy as part of its public interest analysis. The Commission will evaluate concerns raised by the [E]xecutive [B]ranch and will make an independent decision concerning the pending matter.”). [↑](#footnote-ref-61)
60. *See* Committee Petition. [↑](#footnote-ref-62)
61. *See Applications of T-Mobile US, Inc., and Sprint Corporation, for Consent to Transfer Control of Licenses and Authorizations, et al.*, Memorandum Opinion and Order, Declaratory Ruling, and Order of Proposed Modification, 34 FCC Rcd 10578, 10732-33, para. 349 (2019); *Rules and Policies on Foreign Participation in the U.S. Telecommunications Market; Market Entry and Regulation of Foreign-Affiliated Entities*, Report and Order and Order on Reconsideration, 12 FCC Rcd 23891, 23918-21, paras. 59-66 (1997)*.* [↑](#footnote-ref-63)
62. *See, e.g.*, *Mitigation of Orbital Debris in the New Space Age*, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 4156 (2020). [↑](#footnote-ref-64)
63. *See generally* *Expanding Flexible Use of 12.2-12.7 GHz Band,* Notice of Proposed Rulemaking, 36 FCC Rcd 8147 (2021). [↑](#footnote-ref-65)
64. *See generally* *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems,* Report and Order and Further Notice of Proposed Rulemaking, FCC 23-29 (rel. April 21, 2023). [↑](#footnote-ref-66)