FCC FACT SHEET*

Expediting Initial Processing of Satellite and Earth Station Applications and Space Innovation Report and Order and Further Notice of Proposed Rulemaking – IB Docket Nos. 22-411, 22-271

Background: In this Order, the Federal Communications Commission (Commission) advances opportunities for innovation in the new space age by taking measures to expedite the application processes for space stations and earth stations. Applications for space services before the Commission continue to increase in complexity and number. Concrete measures to expedite the initial processing of applications for authority to operate space and earth stations under part 25 of the Commission's rules are vital to supporting U.S. leadership in the growing space economy.

What the Report and Order Would Do:

- Establish timeframes for placing space and earth stations on public notice.
- Eliminate a procedural rule that prevents consideration of requests for waiver of the International Table of Frequency Allocations.
- Remove the prohibition on licensed-but-unbuilt systems for NGSO operators.
- Create a new, streamlined processing framework for earth station operators to add satellite points of communication under certain circumstances.
- Lay the groundwork for a broader Transparency Initiative led by the Space Bureau to provide clarity and access to applicants when interfacing with our license application processes and filing system.

What the Further Notice of Proposed Rulemaking Would Do:

- Propose to eliminate the procedural burden of printing and maintaining a paper copy of a license.
- Propose to change the default status of space and earth station proceedings to permit-but-disclose.
- Propose to create a new rule provision that would allow earth station operators to apply for and receive a limited license under the condition that the license will require modification prior to operations with a specific point of communication, unless the point of communication is already on the Permitted List and the operations fit within the parameters specified therein.
- Seek comment on possible amendments to section 25.118, which allow for certain minor modifications to be made by operators without prior authorization from the Commission.
- Ask whether to provide a process for market access petitioners to seek the equivalent of an STA, and whether to expand the window for operators to file renewal applications for existing licenses.
- Consider further streamlining some of our coordination requirements for earth and space station operators in instances in which the earth station and space station sides must engage in potentially duplicative coordination.

^{*} This document is being released as part of a "permit-but-disclose" proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in IB Docket Nos. 22-411 and 22-271, which may be accessed via the Electronic Comment Filing System (https://www.fcc.gov/ecfs/). Before filing, participants should familiarize themselves with the Commission's *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission's meeting. *See* 47 CFR § 1.200 *et seq*.

Before the Federal Communications Commission Washington, D.C. 20002

In the Matter of)	
Expediting Initial Processing of Satellite and Earth)	IB Docket No. 22-411
Station Applications)	
)	
Space Innovation)	IB Docket No. 22-271

REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING*

Adopted: [] Released: []

Comments Date: [30 days after date of publication in the Federal Register] Reply Comments Date: [60 days after date of publication in the Federal Register]

By the Commission:

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^{*} This document has been circulated for tentative consideration by the Commission at its September open meeting. The issues referenced in this document and the Commission's ultimate resolution of those issues remain under consideration and subject to change. This document does not constitute any official action by the Commission. However, the Chairwoman has determined that, in the interest of promoting the public's ability to understand the nature and scope of issues under consideration, the public interest would be served by making this document publicly available. The FCC's *ex parte* rules apply and presentations are subject to "permit-but-disclose" *ex parte* rules. *See*, *e.g.*, 47 CFR §§ 1.1206, 1.1200(a). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission's meeting. *See* 47 CFR §§ 1.1200(a), 1.1203.

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I. INTRODUCTION

1. In this Order, the Federal Communications Commission (Commission) advances opportunities for innovation in the new space age by taking measures to expedite the application processes for space stations and earth stations, consistent with our objective to "promote a competitive and innovative global telecommunications marketplace via space services." Applications for space services before the Commission continue to increase in complexity and number. Concrete measures to expedite the initial processing of applications for authority to operate space and earth stations under part 25 of the Commission's rules are vital to supporting U.S. leadership in the growing space economy. Accordingly, the rule updates and policy changes we adopt today will: (1) improve the process that our

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¹ See Establishment of the Space Bureau and the Office of International Affairs and Reorganization of the Consumer and Governmental Affairs Bureau and the Office of the Managing Director, MD Docket No. 23-12, Order, FCC 23-1, para. 4 (Jan. 9, 2023).

staff uses to review space and earth station applications for acceptability for filing and to place the applications on public notice; (2) eliminate processing rules that are no longer necessary; (3) establish timeframes for placing space and earth stations on public notice; and (4) advance other initiatives to expedite the processing of applications.

- 2. In addition, as part of the Space Innovation agenda, the Space Bureau will undertake a Transparency Initiative. The goal of this initiative is to provide information and guidance, in a variety of forms, to interested parties so they can understand the Commission's procedures and what is needed to obtain authorization for their proposed space station and earth station operations. We believe that this initiative will reduce administrative burdens on both applicants and staff and will further expedite the processing of applications.
- 3. The actions we take today, however, are only the first of a series of measures that we will undertake to improve the Space Bureau's processes and procedures. We look forward to building on the enthusiastic response from the space industry that we received in this proceeding, and to working with industry and other interested parties to ensure that the United States lead the way in space innovation, exploration, development, and operations.

II. BACKGROUND

- 4. The Commission's rules establish filing criteria for space station and earth station applications submitted under part 25 of the Commission's rules, which generally apply to commercial satellite systems and earth stations.² Under these rules, an application that does not meet these criteria will be deemed unacceptable for filing and dismissed, unless a waiver of the acceptability criteria is granted.³ Commission staff conduct an initial review of applications for acceptability for filing and compliance with procedural and substantive rules before applications are placed on public notice for comment.⁴ Typical issues that may prolong staff review and delay acceptance for filing include internal inconsistencies in the application, omission of information required by the rules, omission of waiver requests, and/or missed filing deadlines. In general, a delay in acceptance for filing will also result in a delay in action on the application.
- 5. If an application is not dismissed as defective, then a public notice will be issued announcing that the application has been accepted for filing, which commences a 30-day period for public comment on the proposed operations.⁵ Once that period is complete, the Commission will evaluate any objections or other comments, responses, and replies, and make a determination on the merits regarding the application—including, for applications that are granted, what conditions, if any, should be placed on

² See generally 47 CFR part 25 subpart B (Applications and Licenses); § 25.112.

³ 47 CFR § 25.112(a), (b). As discussed below, a satellite application requesting to operate in a frequency band without a corresponding international frequency allocation will be considered unacceptable for filing even if the application requests waiver of the Table of Frequency Allocations. In addition, the rules provide that duplicative satellite applications are always unacceptable for filing. 47 CFR § 25.112(b).

⁴ The public notice inviting comment on space station or earth station applications typically states that the applications have been found, upon initial review, to be acceptable for filing, and that the Commission reserves the right to return any of the applications if, upon further examination, it is determined that the application is not in conformance with the Commission's rules or policies. *See, e.g., Satellite Licensing Division and Satellite Programs and Policy Division Information, Space Station Applications Accepted for Filing*, Report No. SAT-01748 (Aug. 4, 2023).

⁵ 47 CFR § 25.151(d). The Commission is not required to place certain applications on public notice prior to action, including, among other things, applications for special temporary authority for a period not to exceed 30 days, or for a period not to exceed 60 days and the applicant plans to file a request for regular authority for the service. 47 CFR §§ 25.151(c), 25.120(b)(3)-(4).

a particular license or grant of market access.⁶ In addition, where a space station or earth station application requests authority to operate in a frequency band that is shared on an equal, or subordinate, status with Federal users or stations in other services, coordination may be required with the National Telecommunications and Information Administration (NTIA) or other bureaus/offices at the Commission. This inter-agency and inter-bureau coordination may affect the timing of Commission action on those applications.

To facilitate application filing and processing, the Commission has improved the standard forms for satellite and earth station applications (FCC Form 312, 312R, and Schedules A and S) and is currently working on improvements to its online filing system for such applications, the International Communications Filing System (ICFS).⁷ In addition, the Commission has regularly taken steps to streamline its part 25 rules.⁸ As part of previous streamlining efforts, the Commission adopted a 45-day expected period for placing on public notice applications both for initial space station authorizations and for modification of a space station authorization. The Commission also adopted an expected time of 60 days for acting on space station applications after the close of the comment period. 10 For applications for special temporary authority (STA) for a space station, the Commission expected the application would be placed on public notice within 14 days of receipt (if public notice is required) and acted on within 30 days after the close of the comment period, or within 30 days of receipt if public notice is not required. 11 In addition, expected processing times were also announced for earth station applications.¹² These times were 45 days from confirmation of receipt of payment for placing applications for initial earth station authorizations or modifications on public notice, and 60 days after close of the comment period for action; 30 days from confirmation of receipt of payment for placing initial registrations of receive-only earth stations or modifications on public notice, and 45 days after close of comment period for action; and 14 days from confirmation of receipt of payment for applications for special temporary authority for earth stations, and 30 days after close of comment period for action, unless the application does not require public notice before action, in which case the expected time for action is 30 days of receipt. ¹³ In all cases,

⁶ Satellite operators who file for a license through the FCC are licensees, and operators who have been previously licensed by a foreign regulator who seek access to provide satellite communications in the U.S. market must request U.S.-market access through a petition for declaratory ruling, or if a U.S.-earth station operator files a license application to communicate with the foreign operator. *See, generally, Amendment of the Commission's Regulatory Policies to Allow Non-U.S.-Licensed Satellites to Provide Domestic and International Service in the United States*, IB Docket No. 96-111; Report and Order, 12 FCC Rcd 24094 (1997) for background on the Commission's rules to allow market access grantees to provide satellite services to the U.S. market. Unless indicated otherwise, when we refer to the term license or licensee in this document, we also include market access grants or grantees.

⁷ This was formerly known as the International Bureau Filing System (IBFS). See *Establishment of the Space Bureau and the Office of International Affairs and Reorganization of the Consumer and Governmental Affairs Bureau and the Office of the Managing Director*, Docket No. 23-12, Order, FCC-23-1, para. 8 (Jan. 9, 2023).

⁸ See, e.g., Further Streamlining Part 25 Rules Governing Satellite Services, Report and Order, 35 FCC Rcd 13285 (2020); Streamlining Licensing Procedures for Small Satellites, Report and Order, 34 FCC Rcd 13077 (2019); Comprehensive Review of Licensing and Operating Rules for Satellite Services, Second Report and Order, 30 FCC Rcd 14713 (2015) (Part 25 Streamlining Second R&O); Comprehensive Review of Licensing and Operating Rules for Satellite Services, Docket No. 12-267, Report and Order, 28 FCC Rcd. 12403 (2013).

⁹ Part 25 Streamlining Second R&O, 30 FCC Rcd. at 14761, paras. 133-34.

¹⁰ *Id.* at 14761, para. 134.

¹¹ *Id*.

¹² International Bureau Announces Expected Processing Times for Earth Station Applications, Public Notice, 31FCC Rcd 6854 (IB Jun. 14, 2016).

¹³ *Id*.

the Commission's expectations applied to "straightforward applications that are not contested" and were set "barring any complication." ¹⁴

- 7. As we enter the new space age, applications for space services before the Commission continue to increase in complexity and number. In response to this unprecedented era of growth in the space industry, the Commission launched the Space Bureau on April 11, 2023.¹⁵ Space activities are increasing in almost every industry sector. The Commission must, therefore, make expediting the processing of applications a priority of its Space Innovation Agenda. If the current rate of filings for applications continues in 2023, the Commission will receive approximately four times the number of space station applications and three times the number of earth station applications than it received in 2015. In addition, the complexity of applications continues to increase as new and novel space technologies are presented for consideration. The commercial space industry is evolving at a rapid pace, and it is critical that we keep up with the cadence of applications and complexity of regulatory issues presented.
- 8. The Notice of Proposed Rulemaking (*NPRM*)¹⁶ sought comment broadly on changes to our rules, policies, or practices to facilitate the acceptance for filing of space and earth station applications under part 25.¹⁷ In particular, the *NPRM* proposed to remove a procedural rule that formally prevents consideration of waiver requests for operations not in conformance with the International Table of Frequency Allocations.¹⁸ It also sought comment on whether the limits on applications for NGSO¹⁹ systems and unbuilt NGSO systems should be amended, and whether the Commission should provide greater transparency or certainty with respect to its expected application processing timelines. In response to the *NPRM*, 24 comments, 11 reply comments, and multiple *ex parte* notifications were filed.²⁰

III. REPORT AND ORDER

A. Facilitating the Application Process

9. An essential element of expediting the application process is to make it easier for applicants to understand what is required to have an application accepted for filing and to avoid the dismissal of an application. Accordingly, we discuss the steps we take today, and will take in the future, to provide transparency and guidance regarding our licensing procedures, as well as to reduce the risk of an application being dismissed, without considering the merits of the application, due to filing requirements that we deem are no longer needed to serve the public interest.

1. Transparency and Guidance

10. The *NPRM* sought comment on whether there is additional guidance or other assistance that the Commission should provide to applicants to avoid required information being omitted in their

¹⁴ Id.; Part 25 Streamlining Second R&O, 30 FCC Rcd at 14761, para. 134.

¹⁵ See Press Release, FCC, FCC Space Bureau & Office of International Affairs to Launch Next Week (Apr. 7, 2023), https://docs.fcc.gov/public/attachments/DOC-392418A1.pdf. The Commission released an order approving the establishment of the Space Bureau in January 2023. See Establishment of the Space Bureau and the Office of International Affairs and Reorganization of the Consumer and Governmental Affairs Bureau and the Office of the Managing Director, MD Docket No. 23-12, Order, FCC 23-1 (Jan. 9, 2023).

¹⁶ Expediting Initial Processing of Satellite and Earth Station Applications, Space Innovation, IB Docket Nos. 22-411 & 22-271, Notice of Proposed Rulemaking, FCC 22-95 (Dec. 22, 2022) (NPRM).

¹⁷ NPRM at para. 1.

¹⁸ See 47 CFR § 2.106(a), (b).

¹⁹ NGSO refers to satellites in non-geostationary satellite orbit.

²⁰ See Appendix E.

initial filings.²¹ Omission of required information can result in delays in processing an application, or even in the dismissal of an application.²² Commenters who responded to our procedural and technical inquiries overwhelmingly support the proposal of the Commission issuing guidance on the application process.²³

- 11. We believe that our licensing process for space and earth station applications can be expedited by making it more transparent and providing applicants with further guidance on the initial application stages, as several commenters have suggested.²⁴ We agree with commenters that clarity and guidance on what is required for an application to be acceptable for filing will result in an increase in complete filings that can be swiftly accepted for filing,²⁵ which will in turn expedite the processing of space and earth station applications. Clear and transparent guidance to the applicant will aid in expediting application processing for both the applicants and staff. Accordingly, the Space Bureau will undertake a Transparency Initiative to provide such guidance. The goal of this initiative is to provide information and guidance, in a variety of forms, to interested parties so they can understand the Commission's procedures and what is needed to obtain authorization for their proposed space station and earth station operations. We believe that this initiative will reduce administrative burdens on both applicants and staff and will further expedite the processing of applications. The guidance will take a variety of forms, including "frequently asked questions" or helpful links on the FCC's website. In other cases, public workshops may be held to explain certain requirements.
- 12. The initiative will cover a variety of topics, for example, application completeness, orbital debris requirements. Additionally, when we release the updated International Communications Filing System (ICFS),²⁶ it will include multiple forms of guidance for users, including training videos for the ICFS application process and a helpful links page. We believe that this Transparency Initiative will address many of the specific requests that commenters have identified in this record, facilitate new entrants into the space economy, and further expedite the Commission's processes to meet the needs of the innovative and expanding space sector.
- 13. In addition, we will continue to consider various ways in which the Space Bureau can provide more clarity and guidance on the application process moving forward, including, for example,

²² See 47 CFR § 25.112(a)(1) (stating that an application will be unacceptable for filing and dismissed if it is defective with respect to completeness of answers to questions, informational showings, internal inconsistencies, execution, or other matters of a formal character).

²¹ *NPRM* at 6, para.16.

²³ See, e.g., Turion Space Comments at 4-6; SIA Comments at 6-7; Iridium Comments at 8 (agreeing with SIA's suggestions that the Commission provide guidance on acceptable filing criteria); CSSMA Comments at 5-6; RBC Signals Comments at 2-3: Blue Origin Comments at 3; Swedish Space Corp. Comments at 2; Kuiper Reply Comments at 4-5 (supporting CSSMA's suggestions for guidance).

²⁴ See, e.g., SIA Comments at 14; Iridium Reply Comments at 3-4: ViaSat Comments at 4 (suggesting that the Commission "could provide more specific upfront guidance with respect to information that it expects applicants to provide to ensure that applicants are better equipped to satisfy the 'substantially complete' standard in the first instance."); Blue Origin Comments at 3 (recommending that "the FCC create filing guidelines that clearly specify the information required for meeting the acceptability criteria for filing and grant determinations.").

²⁵ See SIA Comments at 14; ViaSat Comments at 4: Blue Origin Comments at 3.

²⁶ The former International Bureau Filing System (IBFS), which is the electronic filing database used for all space and earth station applications under part 25 and for international services and cable landing applications, was renamed as the International Communications Filing System after the reorganization of the FCC's International Bureau into the Space Bureau and the Office of International Affairs (OIA). Establishment of the Space Bureau and the Office of International Affairs and Reorganization of the Consumer and Governmental Affairs Bureau and the Office of the Managing Director, Docket No. 23-12, Order, FCC-23-1, para. 8 (Jan. 9, 2023).

various methods for increasing transparency around the inter-bureau and inter-agency coordination process. We expect this to be a continuing process and we believe that this investment of time and resources will pay off in reducing staff time in reviewing and correcting incomplete applications and applicant time responding to staff requests for missing information, which will in turn expedite the processing of space and earth station applications. We encourage stakeholders to discuss their needs for information and guidance directly with Space Bureau staff in order that they may be considered and addressed in ways that do not require a change in our rules.

2. Reducing Risk of Dismissal

14. We find that expediting the processing of space and earth station applications requires reducing the risk that an application will be dismissed before full consideration of the merits of the application, thereby necessitating refiling the application and restarting the application process anew. We take several actions below to address these issues in light of existing reasons for dismissal.

a. Omissions, Inconsistencies, and Errors

- 15. Existing rules provide that a space or earth station application is considered unacceptable for filing if the application is defective with respect to completeness of answers to questions, informational showings, internal inconsistencies, execution, or other matters of a formal character.²⁷ The requirement that applications be "substantially complete" when filed has been in place since 1998 and ended the practice of reviewing the accuracy or merits of specific information in an application before placing it on public notice.²⁸ Under the "substantially complete" standard, an application is reviewed to ensure that it contains all information required by the Commission's rules and, if an application fails to include any of the required information, the application is returned without prejudice as being unacceptable for filing.²⁹
- 16. The *NPRM* noted that in recent years, Commission staff have worked with applicants to correct omissions or inconsistencies in their applications in order for an application to be deemed acceptable for filing under our rules.³⁰ The *NPRM* sought comment on this practice and potential alternatives that might speed up application review, such as dismissing applications that contained internal inconsistencies or omissions without prejudice to refiling or, conversely, loosening the standards for acceptability of filing.³¹
- 17. After consideration of the record, we will maintain our practice of not immediately dismissing applications that contain omissions or internal inconsistencies and instead working with applicants to correct such omissions or inconsistencies so that the application may be acceptable for filing. Most comments encourage the continuation of the practice of communicating with applicants and

²⁷ 47 CFR § 25.112(a)(1).

²⁸ International Bureau to Streamline Satellite and Earth Station Processing, Public Notice, Report No. SPB-140, 1998 WL 747982 (rel. Oct. 28, 1998) (1998 Public Notice). The Commission affirmed this "substantially complete" policy when it adopted its major First Space Station Reform Order in 2003, under what it called the "hard look" doctrine. Amendment of the Commission's Space Station Licensing Rules and Policies, First Report and Order and Further Notice of Proposed Rulemaking, IB Docket No. 02-34, FCC 03-102, para. 244 (2003) (First Space Station Reform Order).

²⁹ See 1998 Public Notice at 1.

 $^{^{30}}$ NPRM at para. 16.

³¹ See id.

allowing them opportunities to cure small mistakes or omissions, instead of issuing dismissals.³² We find that dismissing space and earth station applications for even minor omissions and inconsistencies, without an opportunity to correct the deficiencies, is inconsistent with our goal of expediting the processing of space and earth station applications, since substantial time is required to dismiss and refile a corrected application.³³ We agree that the same result can be achieved in less time by promptly reviewing the application for any deficiencies and communicating these deficiencies to the applicant, and by giving a limited time for the applicant to make corrections or to provide missing information.

- In order to achieve our goal of expediting application processing, we expect the Space Bureau will provide applicants with limited timeframes to respond to requests for additional information or to promptly rectify inconsistencies or omissions in the application. Limiting the time to respond will encourage applicants to file applications that are as complete and accurate as possible, with only minor errors or omissions that require correction in the limited timeframe for responding and will help ensure that a request for information does not result in unnecessary delay of processing the application if the applicant does not respond in a timely manner. Several comments support time limits for applicants to respond to Commission staff with additional information or corrections so as to avoid a drawn-out initial review process.³⁴ Failure to respond within those timeframes will risk dismissal of the application under existing rules.³⁵ Although some comments proposed specific deadlines for applicants to respond to staff inquiries, ³⁶ we decline to adopt specific deadlines at this time. Space and earth station applications can vary greatly depending on the nature of the operations or whether the activities are novel or involve new technology. As such, it is important to allow some flexibility and case-by-case determinations on setting time limits for responses from applicants. The deadline for response will be communicated clearly to applicants as part of requests for additional information or notices to the applicant that there are errors, omissions, or inconsistencies that need to be resolved before finding the application to be acceptable for filing.
- 19. We find that it is unnecessary to change our rules in order to implement this practice. Although the existing rules state that an applicant will be dismissed for various omissions or internal inconsistencies, it does not preclude staff from allowing applicants the opportunity to cure omissions or

³² See TechFreedom Comments at 5; Iridium Comments at 7; EchoStar Comments at 10; CSSMA Comments at 6; Spire Comments at 19; SpaceX Comments at 13; OneWeb Comments at 4; Inmarsat Comments at 4; Boeing Comments at 6; SIA Comments at 11; Intelsat Comments at 9-11; Blue Origin Comments at 5-6; Mangata Ex Parte, EESS Operators Reply Comments at 4-5.

³³ See, e.g., Boeing Comments at 7 ("The time required for the FCC staff to determine that an informational inquiry may need to be sent to a satellite system applicant is arguably much less than the deliberation that is necessary to determine that an application should be dismissed as defective. This is particularly true in light of the fact that application dismissals are usually accompanied by a letter or order identifying the information that was lacking in the application (the same information that could be included in a letter of inquiry). Further, a dismissal decision can result in lengthy adjudicatory proceedings involving satellite applicants seeking reversal of their dismissals as arbitrary or unwarranted."); SIA comments at 10-11.

³⁴ See, e.g., EchoStar Comments at 8-9; Iridium Comments at 7.

³⁵ Existing rules allow for the dismissal of an application for failure to respond substantially within a specified time period to official correspondence or requests for additional information. 47 CFR § 25.112(c).

³⁶ See, e.g., Iridium Comments at 7 (proposing a time frame of 60 days for the Commission to notify applicants of errors and omissions and an additional 60 days for applicants to correct those errors).

internal inconsistencies before accepting the application for filing.³⁷ We expect that there will be prompt communications between staff and applicants in order to expedite the application process.

- 20. We also received several comments on whether to loosen the standard for accepting applications for filing. AWS and OneWeb put forth what they deem to be faster processes for placing applications on public notice.³⁸ AWS suggests that, at least for earth station applicants, applications could be automatically placed on public notice after a designated period and applicants could work to cure any errors or omissions during the public notice period.³⁹ OneWeb advocates for a "check box" determination method for placing applications on public notice and proposes revisions to section 25.112(a)(1) to enable quicker determination.⁴⁰ Boeing also suggests that the Commission could place applications on public notice without necessarily first finding them to be acceptable for filing.⁴¹ Conversely, Viasat asserts that loosening the acceptability for filing standards would not lead to streamlining, but rather, would result in larger numbers of deficient or incomplete applications being reviewed by Commission staff and third parties, wasting limited resources. 42 Similarly, Verizon / AT&T assert that more stringent standards would reduce processing times by incentivizing applicants to submit complete and accurate applications in the first instance if they believe the Commission is more likely to dismiss an application if it is not complete. 43 Kuiper asserts that applications should be complete at the time of filing to avoid inefficiencies in review and suggests that the Commission require applicants to include a checklist table in their application demonstrating completeness and compliance with all relevant rules.⁴⁴ Others do not advocate for strengthening or loosening standards, but rather assert that the Commission could streamline the acceptability for filing process through guidance, by more clearly articulating the Commission's "substantially complete" threshold.45
- 21. We find that it is not necessary to loosen our acceptability for filing standards in order to expedite the processing of space and earth station applications. The Commission has previously explained what is meant by "substantially complete," and we continue to hold to this understanding: "[t]he applications must be complete in substance, and must provide all the information required in the

³⁷ In some cases, it may be necessary for the applicant to file an amendment of the pending application pursuant to section 25.116 of the rules. 47 CFR § 25.116.

³⁸ AWS Comments at 6; OneWeb Comments at 2-4.

³⁹ AWS Comments at 6 (suggesting a period of 30 days to automatically place applications on public notice).

⁴⁰ OneWeb Comments at 2-3.

⁴¹ Boeing Comments at 9 (suggesting that an "acceptability for filing" determination is not necessary prior to placing applications on public notice, and would speed up the application review process); *see also* Swedish Space Corp. Comments at 1 (suggesting that the Commission review applications while on public notice and asking whether STAs could be placed on public notice "with as little required information as possible while the rest of the application is coordinated?").

⁴² ViaSat Comments at 2-3.

⁴³ Verizon / AT&T Comments at 6.

⁴⁴ Kuiper Comments at 7; see also Blue Origin Comments at 3 (suggesting a compliance checklist).

⁴⁵ See, e.g., SIA Comments at 14 (also suggesting that "wholly deficient" be defined); Iridium Reply Comments at 3-4; ViaSat Comments at 4 (suggesting that the Commission "could provide more specific upfront guidance with respect to information that it expects applicants to provide to ensure that applicants are better equipped to satisfy the 'substantially complete' standard in the first instance."); Blue Origin Comments at 3 (recommending that "the FCC create filing guidelines that clearly specify the information required for meeting the acceptability criteria for filing and grant determinations.").

application form."46 This is a reasonable standard for finding that an application is acceptable for filing, and acceptance for filing has legal consequences for a GSO-like space station's place in the queue⁴⁷ or an NGSO-like space station's place in a processing round.⁴⁸ As such, we continue to find that there is merit to holding applications to a "substantially complete" standard and to review an application to ensure that it complies with this standard before accepting the application for filing. We are not convinced that looser standards will result in an expedited process, and we agree with commenters who note that looser standards on the front end of application review will likely lead to a more burdensome review of incomplete applications at later stages of the application process.⁴⁹ Although we recognize the interest in straightforward review, such as via a "check box" determination,⁵⁰ part 25 applications cover many types of operations, which makes it infeasible to capture all elements of such diverse operations in a "check box" format. We also are not convinced that more stringent acceptability for filing standards will expedite application processing. Rigidity in the initial application review can lead to premature dismissals, which in turn will take more of staff and applicants' resources.⁵¹ Instead, we believe that our process can be expedited by providing applicants at the initial application stages with greater transparency and guidance, which applicants will be able to access on our website as part of the Space Bureau's Transparency Initiative.52

22. Finally, numerous commenters support changes to the license application forms that would reduce duplication and the need to manually input technical information in various locations,

⁴⁶ See Amendment of Commission's Space Station Licensing Rules and Policies, IB Docket Nos. 02-34, 00-248, Notice of Proposed Rulemaking, FCC 02-45 at 29, para. 84 (2002). As observed in the *NPRM*, finding an application to be acceptable for filing and for placing on public notice does not imply that the Commission has no questions regarding the application or that the application is being looked upon favorably for grant. *NPRM* at para.

⁴⁷ License applications for GSO-like satellite operation are placed in a queue and considered in the order that they are filed, under a "first-come, first-served" licensing process. 47 CFR § 25.158(b). The application will be reviewed to determine whether it is acceptable for filing within the meaning of section 25.112 (i.e., not dismissed). If not acceptable for filing, the application will be returned to the applicant. 47 CFR § 25.158(b)(1). If it is acceptable for filing, the Commission will issue a public notice announcing that the application has been found acceptable for filing and will give interested parties an opportunity to comment or file a petition to deny. 47 CFR § 25.158(b)(2). Although the time of filing establishes an applicant's place in the queue, the applicant loses this status if the application is found not acceptable for filing and dismissed.

⁴⁸ Applications for NGSO FSS system licenses are considered in groups based on filing date, under a processing round procedure. 47 CFR § 25.157(c). A license application for "NGSO-like" satellite operation, including operation of an NGSO FSS system, that satisfies the acceptability for filing requirements is reviewed to determine whether it is a "competing application" or a "lead application." 47 CFR §§ 25.156(d)(1), 25.157(c). A competing application is one filed in response to a public notice initiating a processing round; any other application is a lead application. 47 CFR § 25.157(c). Competing applications are placed on public notice to provide interested parties an opportunity to file pleadings in response to the application. 47 CFR § 25.157(c)(1). Lead applications are also placed on public notice, and the public notice for a lead application initiates a processing round, establishes a cut-off date for competing NGSO-like satellite system applications, and provides interested parties an opportunity to file pleadings in response to the application. 47 CFR § 25.157(c)(2).

⁴⁹ See, e.g., ViaSat Comments at 2-3.

⁵⁰ See OneWeb Comments at 2-3.

⁵¹ See also Boeing Comments at 7; SIA Comments at 10-11.

⁵² Particular anticipated guidance is discussed as part of the Space Bureau's Transparency Initiative contained above in Section III..A.1.

which would reduce the risk of missing or inconsistent information being submitted.⁵³ Likewise, commenters generally support the inclusion of compliance checks into the application process.⁵⁴ Specifically, numerous commenters have suggested that the Commission consider these types of updates to specific licensing forms, including the Form 312, the Schedule S, and the Schedule B.⁵⁵ Additionally, although the Commission did not specifically ask about updates to ICFS, several commenters suggest that the Commission consider updates or a general overhaul of the filing system.⁵⁶

23. We observe that the electronic filing system used for space and earth station applications, ICFS, is already being updated in ways that respond to many of the issues that commenters raise regarding the technicalities of the application process. As a result of these updates, ICFS will have several new features for application forms, including automatic error notifications in the Form 312, data entry alerts to misinformation, and an overall validation prior to submitting a filing. There also will be some pre-filled sections of the application form based on previously entered data. With regard to modification or amendment applications, applicants will be presented with a pre-filled form including the information from their current authorization or pending application that they seek to modify or amend. This pre-filled form can then be adjusted in the areas that the applicant seeks to modify or amend. Additionally, the Schedule B and Form 312 will allow users to delete or remove sections or data that are no longer needed. We are also updating the fields in the Schedule S to better align with technical rules. We find that these updates address many, but not all, of the changes recommended by the comments. The Space Bureau expects to continue dialogue with system users about possible further improvements after the initial modifications of ICFS are introduced.

b. Conformance with International Frequency Allocations

24. Currently, with the exception of applications for streamlined small satellite and small spacecraft applications,⁵⁷ applications will be dismissed if they request authority to operate a space station in a frequency band that is not allocated internationally for such operations under the Radio

⁵³ See, e.g., TechFreedom Comments at 5-6 (suggesting that an auto-populate function where information must be input in multiple locations in the application will save hundreds or thousands of staff review hours); SpaceX Comments at 8, 10 (additionally suggesting that the Commission allow incorporation by reference for technical details that have not changed); Iridium Comments at 8; Swedish Space Corp. Comments at 2; Mangata Ex Parte at 12; RBC Signals Comments at 5 (suggesting that the Space Bureau create a system that allows earth station STA holders "to select a license application 'template' linked to an underlying STA grant, as is possible in the OET filing system, without requiring an entirely new submission from scratch."); see also SIA Comments at 8 (suggesting a more flexible process for inputting technical information, such as the ability to upload excel documents to the Schedule S); Inmarsat Comments at 2-3 (also suggesting replacing repetitive information with excel sheets); but see SpaceX Reply Comments at 4-5 (arguing against custom spreadsheets).

⁵⁴ See, e.g., SpaceX Comments at 13; Blue Origin Comments at 3; Swedish Space Corp. Comments at 2; Kuiper Reply Comments at 4-5.

⁵⁵ See, e.g., TechFreedom Comments at 5-6; CSSMA Comments at 5-6 (noting that requests for waiver of Schedule S due to the form's limitations are pervasive in space station license applications); SpaceX Comments at 13-14; Inmarsat Comments at 2; SIA Comments at 8-9; Intelsat Comments at 11-13; OneWeb Reply Comments at 4-5.

⁵⁶ See, e.g., Turion Space Comments at 4-5; Intelsat Comments at 11-13; SIA Comments at 7-8; Inmarsat Comments at 2.

⁵⁷ See 47 CFR §§ 25.122, 25.123; see also Streamlining Licensing Procedures for Small Satellites, Report and Order, 34 FCC Rcd 13077, 13084, paras. 19-20 (listing characteristics for satellites that can be eligible for streamlined processing under the "small satellite" application process); 13124, para. 115 ("We modify this rule to provide an exception, so that such streamlined small satellite applications requesting to operate in bands not allocated internationally, and which include an appropriate waiver request, can be considered on their merits without being deemed unacceptable for filing.").

Regulations of the International Telecommunication Union.⁵⁸ The Commission adopted this rule in 2003, with the purpose of eliminating premature applications filed prior to the ITU adopting a necessary frequency allocation, which can take several years.⁵⁹ At the time, the Commission had reasoned that applications that were filed far in advance of adoption of an ITU allocation had a likelihood of being placeholder applications for purposes of warehousing spectrum.⁶⁰

- We adopt the NPRM's proposal to amend our license application acceptability for filing 25. criteria to place waiver requests for satellite operations not in conformance with the International Table of Frequency Allocations on an equal procedural footing with other requests for waiver of substantive Commission rules.⁶¹ Comments widely support adoption.⁶² Furthermore, the limitation on acceptance of applications has caused delay in review of applications for acceptability for filing and has complicated review of space station applications, which is contrary to our goal of expediting the space station application process. In addition, as the Commission observed when it adopted streamlined rules for the processing of applications for small satellites, there may be benefits associated with operations not consistent with the current International Table of Frequency Allocations in certain circumstances. 63 Finally, our experience over the last twenty years since the rule was adopted supports the finding that the concerns about warehousing of spectrum and orbital resources through placeholder applications have been effectively addressed through our milestone and bond requirements, ⁶⁴ which makes this rule unnecessary. We find that adoption of this proposal will help avoid the dismissal of an application for failure to meet a rule that is no longer needed to protect against placeholder applications that warehouse spectrum resources.
- 26. Accordingly, we amend section 25.112 of our rules to delete subparagraph (a)(3) and will no longer immediately dismiss applications that request authority to operate a space station in a frequency band that is not allocated internationally for such operations under the ITU Radio Regulations when the applications include a request for waiver of the allocation.⁶⁵ We emphasize that our decision to allow the

⁵⁸ 47 CFR § 25.112(a)(3). We note that this criteria applies to requests for U.S. market access as well as applications for licenses.

⁵⁹ Amendment of the Commission's Space Station Licensing Rules and Policies, First Report and Order, 18 FCC Rcd 10760, 10809, para. 124 (2003) (Space Station Licensing Reform Order).

⁶⁰ See NPRM, at 3 para. 6; see also Amendment of the Commission's Space Station Licensing Rules and Policies; Mitigation of Orbital Debris, IB Docket Nos. 02-34, 02-54, First Report and Order and Further Notice of Proposed Rulemaking in IB Docket No. 02-34, and First Report and Order in IB Docket No. 02-54, 18 FCC Rcd 10760, 10783, paras. 49-50.

⁶¹ Expediting Initial Processing of Satellite and Earth Station Applications; Space Innovation, IB Docket Nos. 22-411; 22-271, Notice of Proposed Rulemaking, FCC 22-95, (2022) (NPRM).

⁶² See, e.g., TechFreedom Comments at 13-14; Turion Space Comments at 2; Commercial Smallsat Spectrum Management Association Comments at 3; Spire Comments at 7; SpaceX Comments at 32-33; OneWeb Comments at 5; Boeing Comments at 5; T Mobile Comments at 2-4; Intelsat Comments at 4; Blue Origin Comments at 7; Myriota Reply Comments at 6; EESS Operators Reply Comments at 4 (EESS Operators refers to the joint comments of Maxar Technologies Inc., Planet Labs PBC, ICEYE US Inc., Fleet Space Technologies, Umbra Lab Inc., ATLAS Space Operations Inc., and Lunasonde Inc.); Letter from Noah Cherry, Director, Regulatory Counsel, Mangata, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 22-411 et al., at 12 (filed Mar. 23, 2023) (Mangata Ex Parte).

⁶³ Streamlining Licensing Procedures for Small Satellites, Notice of Proposed Rulemaking, 33 FCC Rcd 4152, 4182, para. 72 (2018). For example, the Commission observed that there may be benefits from use of inter-satellite links in alleviating some of the difficulties faced by small satellite operators in identifying frequencies for Earth-to-space and space-to-Earth links and building or seeking out ground station infrastructure. *Id*.

⁶⁴ See, e.g., 47 CFR §§ 25.164, 25.165.

⁶⁵ We also revise section 25.112(b) accordingly to remove reference to paragraph (a)(3) of section 25.112.

Commission to review such applications is not intended to alter the allocation status of these bands. In considering the merits of such requests, we recognize our obligations as a ratifying member of the ITU, and as the regulatory body that allocates spectrum for commercial use in the United States. 66

Accordingly, any application that includes waiver requests for satellite operations not in conformance with the International Table of Frequency Allocations would need to demonstrate sufficient justification to support the waiver request in light of Article 4.4 of the International Telecommunication Union Radio Regulations (ITU R.R.), which states that Administrations shall not assign frequencies to a station in derogation of the International Table of Frequency Allocations, except on the express condition that the station's use of the frequencies shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the ITU R.R. 67 We may also consider, on a case-by-case basis, as some have suggested, opening rulemaking proceedings and accounting for any relevant ITU process to address potential related allocation issues if appropriate. 68

27. A few commenters suggest that the Commission adopt specific requirements related to these non-conforming operations beyond the Commission's rules for considering waivers, and propose other limitations, ⁶⁹ including for protecting against potential interference to operations in the radioastronomy service (RAS)⁷⁰ and earth exploration-satellite service (EESS). ⁷¹ Other commenters argue that interference concerns to such services can be managed through coordination. ⁷² We decline to

⁶⁶ See ITU Rules of Procedure, 1.6, Rules Concerning Article 4 of the ITU R.R., Edition of 2021 (rev.2).

⁶⁷ For example, we agree with comments that urge, to the extent that there are co-channel operations that might be the subject of potential interference, the request for waiver should address those operations. *See*, *e.g.*, T-Mobile Comments at 2, 7.

⁶⁸ See SIA Comments at 10; Boeing Comments at 5; EchoStar Comments at 9. Moreover, we expect that such applicants would be engaged contemporaneously in activities to work toward modification of the International Table of Allocations at the ITU, and the applicants should consider describing the status of such efforts in their application. We also encourage entities that are considering making a request for authorization for a non-conforming operation to discuss the request with Commission staff prior to filing.

⁶⁹ See NRAO Comments at 2-3; National Academy of Sciences Committee on Radio Frequencies (CORF) Comments at 1, 6-7. See also CORF Comments at 8-9 (suggesting that the Commission should not allow waivers "for space-to-Earth at or immediately adjacent to frequencies where RAS has primary or secondary allocation or to frequencies listed in fn 5.149 of the ITU table or fn US342 of the US table" or "for space-Earth, Earth-space, or space-space at frequencies where EESS (passive) has primary or secondary allocation." and "that licensed systems should be engineered with special, spectral, and temporal geofencing capability that enables suppression or coordination of transmission in radio quiet zones or within radios of RAS observatories with geographic footnote protection. Reasonable exceptions would be for intermittent safety-of-life applications."); NRAO Comments at 3 (suggesting "that the Commission should include a pre-condition that "non-conforming applications do not contain frequency assignments in bands subject to RR No. 5.340, and a further precondition that such applications demonstrate that their unwanted emissions will not generate harmful interference in frequency bands subject to RR No.5.340."); Iridium Comments at 3 (suggesting limits on the length and number of waivers); Verizon / AT&T Comments at 4.

⁷⁰ Radio Astronomy is astronomy based on the reception of radio waves of cosmic origin. 47 CFR § 2.1.

⁷¹ EESS is a radiocommunication service between earth stations and one or more space stations, which may include links between space stations, in which: (1) Information relating to the characteristics of the Earth and its natural phenomena, including data relating to the state of the environment, is obtained from active sensors or passive sensors on Earth satellites; (2) Similar information is collected from airborne or Earth-based platforms; (3) Such information may be distributed to earth stations within the system concerned; and (4) Platform interrogation may be included. This service may also include feeder links necessary for its operation. 47 CFR § 25.103.

⁷² OneWeb disagrees with CORF's proposal to mandate that space stations be specially engineered to protect radio quiet zones and RAS observatories with geographic footnote protection, arguing that quiet zones apply to terrestrial transmitters, not space-based. OneWeb Reply Comments at 6. Rather, OneWeb argues that interference concerns

adopt such proposals. We are not convinced that adopting strict engineering protocols is a necessary or appropriate means for preventing interference for every operation, or for operations in certain services. Further, it will not result in expediting the licensing process for applicants or the Commission. Instead, we can process such requests on a case-by-case basis, taking into account the facts and circumstances of individual waiver requests and the potential for harmful interference in specific cases. Based on our experience in instances where applicants have been granted limited non-conforming operations, such as in the small satellite context, 73 any waivers that the Commission determines to grant would include non-interference conditions and coordination conditions as necessary. 74

28. Furthermore, we are not convinced that caps on the number of waivers we grant or on the duration of operations will prevent the potential for harmful interference, and such caps will not further our goals to streamline the licensing process. Rather, we emphasize our review on technical showings of non-interference and on coordination requirements, which will better prevent harmful interference in these circumstances. Similarly, we will not exclude entire bands from consideration for non-conforming use, as some commenters suggested. To preemptively exclude certain bands from possible waiver request consideration would undercut our goals of fostering innovation in the satellite industry since we cannot predict what bands will support future development. We believe that the requirements for demonstrating non-interference and coordination, along with the Commission's waiver standards, will provide sufficient protections to existing services.

c. Unbuilt NGSO Systems

29. Commission rules currently contain procedural safeguards against applications that are considered more likely to be speculative or intended to warehouse spectrum resources, including the prohibition on one party having multiple NGSO-like⁷⁸ applications or licensed but unbuilt NGSO systems

can be managed through coordination instead. *Id.* Similarly, SpaceX notes that it has successfully coordinated with the National Science Foundation (NSF) to ensure protection for RAS, and that CORF's recommendations are overly restrictive. SpaceX Reply Comments at 14-15; *see also* CORF Comments at 10 (noting the recent NSF and SpaceX agreement as "a significant step towards realization of protections."). Turion Space, while agreeing that demonstrating a favorable interference analysis is necessary, suggests that the 8025-8400 MHz band is suitable for sharing with EESS in particular. Turion Space Comments at 2.

⁷³ See, e.g., Capella Space Corp., Grant Stamp, ICFS File No. SAT-LOA-20210824-00109, condition 4 (granted Dec. 15, 2021); see also Streamlining Licensing Procedures for Small Satellites, Report and Order, 34 FCC Rcd 13077, 13124, para. 115.

⁷⁴ See, e.g., Momentus, Grant Stamp, ICFS File No. SAT-LOA-20220504-00047, condition 7 (granted Nov. 15, 2022).

⁷⁵ See, e.g., Verizon/AT&T Comments at 4: Iridium Comments at 3.

⁷⁶ Iridium Comments at 3 (suggesting that waivers should be limited in the 1617.775-1626.5 MHz band); CORF Comments at 8 (suggesting that waivers be excluded for space-to-Earth at or immediately adjacent to frequencies where RAS has primary or secondary allocation, to frequencies listed in fn 5.149 of the ITU table, 47 CFR § 2.106(a), (b)(5.149), or fn US342 of the US table, 47 CFR §2.106(a), (c)(342) or at frequencies where EESS (passive) has primary or secondary allocation.).

⁷⁷ We note that the D.C. Circuit has emphasized the importance of allowing the possibility of waivers in such instances, explaining that "[t]he agency's discretion to proceed in difficult areas through general rules is intimately linked to the existence of a safety valve procedure for consideration of an application for exemption based on special circumstances." *WAIT Radio*, 418 F.2d at 1157 (D.C. Cir. 1969).

⁷⁸ "NGSO-like" applications are applications for licenses for all non-geostationary satellite orbit (NGSO) satellite systems, and for geostationary satellite orbit (GSO) satellites intended to provide mobile-satellite service (MSS) to earth stations with omni-directional antennas. *See First Space Station Licensing Reform Order*, 18 FCC Rcd at 10773, para. 21. *See also* 47 CFR § 25.157(a).

in the same frequency band.⁷⁹ This prohibition prevents a party from applying for an additional NGSO-like satellite system license in a particular frequency band if that party already has an application for an NGSO-like satellite system license on file or a licensed-but-unbuilt NGSO-like satellite system in the band. The Commission adopted the unbuilt systems rule, in addition to bond and milestone requirements,⁸⁰ as a means to restrain speculation without restricting applicants' business plans and to give licensees an incentive to surrender licenses for satellite systems that they do not intend to build.⁸¹ Recognizing that the unbuilt NGSO systems rule can lead to delays in processing applications by adding complexity to the review in determining whether an applicant has violated the rule, and, considering the current rapid state of development of NGSO systems, we sought comment on whether the limit on unbuilt NGSO systems may be a hinderance to the acceptability of legitimate satellite applications and if so, whether the Commission should amend or eliminate such limitation.⁸²

30. After review of the record, we conclude that our goal of expediting the initial processing of space station applications will be advanced by eliminating the part of our rule in sections 25.159(b) and 25.137(d)(5) that prohibit a licensee or market access grantee respectively from applying for another NGSO license or grant of market access where the party has an already licensed-but-unbuilt NGSO system for the same frequencies.⁸³ We find that it is often time consuming to determine whether the relevant applicant violates this prohibition, for example when there are disputes in the record regarding whether a system is "unbuilt," and the need to make this determination prior to accepting an application for filing can delay placing an application on public notice to permit consideration of the application on the merits.⁸⁴ And we are not convinced, as some commenters suggest,⁸⁵ that its elimination will lead to speculative license applications or spectrum hoarding. Our current bond and milestone requirements, which were also put in place to deter speculative license applications and spectrum warehousing, remain in place, and we agree with many commenters who note that these requirements serve as adequate deterrents.⁸⁶ Our experience has been that the restriction on unbuilt NGSO systems is unnecessary to

⁷⁹ NPRM at 2, para. 2. Applicants with an application for one NGSO-like satellite system license on file with the Commission in a particular frequency band, or one licensed-but-unbuilt NGSO-like satellite system in a particular frequency band, other than those filed or licensed under the procedures in § 25.122 or § 25.123, will not be permitted to apply for another NGSO-like satellite system license in that frequency band. 47 CFR § 25.159(b); see also 47 CFR § 25.137(d)(5) for equivalent prohibition for market access grantees.

⁸⁰ See, e.g., 47 CFR §§ 25.164 "Milestones"; 25.165 "Surety Bonds"; see also "three-strikes rule" at 47 CFR § 25.159(d) (providing that a licensee that misses three or more milestone requirements within any three-year period may not apply for another space station license if it has more than one space station application already pending or more than one outstanding license for an unbuilt satellite system, unless the licensee rebuts a presumption that it filed applications for speculative purposes or demonstrates that it would be "very likely" to construct the licensed facilities if allowed to file more applications.).

⁸¹ NPRM at 4, para. 9; see also Amendment of the Commission's Space Station Licensing Rules and Policies, First Report and Order, 18 FCC Rcd 10760, 10847, para. 230.

⁸²NPRM at 6, para. 15.

⁸³ We make an equivalent edit to remove this prohibition for market access grantees in section 25.137(d)(5) of our rules. 47 CFR § 25.137(d)(5).

⁸⁴ In situations where it was not clear whether the prohibition has been violated by the proposed application, the Space Bureau (and the former International Bureau) has accepted the application for filing, without prejudice to a determination. *See, e.g., Satellite Policy Branch Information, Applications Accepted for Filing*, Report No. SAT-01598 (Dec. 23, 2021) (accepting ICFS file number SAT-LOA-20200526-00055, SpaceX Gen2, for filing).

⁸⁵ See, e.g., ViaSat Comments at 4-5; Iridium Comments at 6; OneWeb Comments at 6.

⁸⁶ See; TechFreedom Comments at 16; Turion Space Comments at 3; SpaceX Comments at 24; Myriota Comments at 6; EchoStar Comments at 6-7.

deter warehousing of spectrum and orbital resources, in light of the bond and milestone requirements and other safeguards, and the restriction on unbuilt NGSO systems could delay processing times without a corresponding benefit to the public. However, we retain and revise the portion of the rule that prohibits operators from filing multiple applications in the same frequency band where such applications are subject to NGSO-like processing round rules, which require that in the event there is insufficient spectrum in the requested frequency band or there is harmful interference between NGSO FSS licensees, the available spectrum is divided equally among licensees.⁸⁷

- Several commenters suggested that instead of eliminating the prohibition on licensed-butunbuilt systems, we could "soften" the rule, amend it, more broadly interpret the meaning of "unbuilt", or issue waivers on a case-by-case basis. 88 We find that these suggested changes for nuanced, case-by-case approaches in interpretation would not result in an expedited review process on the whole. Rather additional review, and therefore a more-lengthy application processing timeframe, would be required. Kuiper suggests that the Commission amend the rule to focus on investment and progress.⁸⁹ Our current bond and milestone requirements are set up for such purpose. When the Commission adopted the bond requirements in 2003, the Commission reasoned that requiring satellite licensees to make a financial commitment to construct and launch their satellites would help deter speculative applications and thus prevent valuable spectrum resources from lying fallow. 90 When the Commission adopted a revised escalating methodology for bond and milestone rules in 2015, which increases operators' liability over time, the Commission aimed to further incentivize satellite operators to construct and launch spacecraft expeditiously or surrender their authorization early.91 We agree with comments that state that the Commission's bond and milestone rules have been effective in deterring speculative applications, 92 and we find that the licensed-but-unbuilt NGSO-like systems prohibition on filing an application for another NGSO-like satellite system license in that frequency band in section 25.159(b) has become redundant, while also creating an additional hurdle to the application process for NGSO operators. While we agree that a focus on investment and progress towards completing a system is prudent, we do not agree that amending the unbuilt systems rule to focus on investment is necessary. Rather, the most effective method for streamlining the application process is to eliminate the prohibition on applying for another NGSO system license when an applicant already has a licensed-but-unbuilt NGSO-like system and rely on our longstanding bond and milestone requirements.
- 32. Several commenters suggest that at the very least EESS operators should be exempt from the unbuilt NGSO systems rule given their views that EESS operators often have the ability to share

 $^{^{87}}$ See 47 CFR § 25.157(e). NGSO FSS system applications granted with a condition to share spectrum pursuant to section 25.261 are not subject to this rule provision. 47 CFR § 25.157(b)(2). Section 25.261 provides that, absent coordination between two or more NGSO FSS satellite systems, whenever the increase in system noise temperature of an earth station receiver, or a space station receiver for a satellite with on-board processing, of either system, $\Delta T/T$, exceeds 6 percent due to interference from emissions originating in the other system in a commonly authorized frequency band, such frequency band will be divided among the affected satellite networks. 47 CFR § 25.261.

⁸⁸ See, e.g., CCSMA Comments at 5; Spire Comments at 12; Mangata Ex Parte at 12; Kuiper Reply Comments at 2-3.

⁸⁹ Kuiper Comments at 2.

⁹⁰ Amendment of the Commission's Space Station Licensing Rules and Policies, 18 FCC Rcd 10760, 10824 paras. 166-67.

⁹¹ Part 25 Streamlining Second R&O, 30 FCC Rcd at 14714, 14734 paras. 3, 50-51 (2015).

⁹² See, e.g., TechFreedom Comments at 16; Turion Space Comments at 3; SpaceX Comments at 28; Myriota Comments at 6: EchoStar Comments at 6-7.

spectrum without causing interference.⁹³ This point is moot given our decision to eliminate the prohibition on licensed-but-unbuilt systems and therefore there is no longer any need to expressly exempt EESS operators from it. However, we agree with commenters that EESS NGSO operators provide a relevant example for why the one-size-fits-all unbuilt NGSO systems rule did not account for the nuance of certain NGSO satellite operations, or the way NGSO systems have developed in the 20 years since the rule was implemented. As both Spire and a group of EESS operators point out, EESS operations licenses are routinely granted outside of processing rounds,⁹⁴ which the unbuilt systems rule was designed for.⁹⁵ Again, our experience and the record demonstrate that eliminating the prohibition on licensed-but-unbuilt systems is the most efficient method for streamlining, and because of our bond and milestone requirements, we can do so without jeopardizing our goals to prevent spectrum warehousing and speculative applications.⁹⁶ Additionally, by revising the remaining language in section 25.159(b) and 25.137(d)(5) to clarify that the prohibition on filing multiple applications in the same frequency band is tied to being subject to our "modified processing round rules" section 25.157 of our regulations,⁹⁷ EESS operators who are granted licenses or market access outside of processing rounds will not be subject to sections 25.159(b) or 25.137(d)(5) at all.

33. Several commenters suggest that the Commission take into account how to ensure that elimination of the unbuilt systems rule does not result in the potential for interference for other operators and ensure that ITU Equivalent Power Flux Density (EPFD) limits⁹⁸ are adhered to.⁹⁹ ViaSat cautions that, if this rule were eliminated, applicants might "propose to operate multiple NGSO 'systems' that would use the same frequency bands as a way of circumventing the Commission's substantive EPFD limits" or "attempt to game the default 'band-splitting' mechanism set forth in section 25.261 of the Commission's rules (which divides spectrum equally among the 'systems' involved in an inline

⁹³ Spire Comments at 12 ("Since EESS systems are not 'always-on,' operators can vary the number of operational satellites in the network depending on the service(s) being provided, and without impacting the spectrum available to other operators and systems."); EESS Operators Reply Comments at 6.

⁹⁴ Spire Comments at 10 (citing, as examples, Commission grants to Spire Authorizations at Condition 22; Loft Orbital Solutions Inc., Stamp Grant, File No. SAT-LOA-20220606-00057, at Condition 18 (Nov. 15, 2022)); EESS Operators Reply Comments at 6 (citing, as examples, Commission grants to Planet, Stamp Grant, IBFS File No. SAT-LOA-20130626-00087 (granted Dec. 3, 2013); Skybox, Stamp Grant, IBFS File No. SAT-LOA-20120322-00058 (granted Sep. 20, 2012); Space Imaging, LLC, Declaratory Order and Order and Authorization, 20 FCC Rcd 11964 paras. 9-11 (2005)); *see also DigitalGlobe, Inc.*, Order and Authorization, 20 FCC Rcd 15696 (Sat. Div., Int'l Bur. 2005), at para. 8. Blue Origin similarly points out that "[f]or many types of satellite systems, including the inorbit service missions that Blue Origin intends to operate, [spectrum warehousing] is simply not an issue because of the capability of sharing." Blue Origin Comments at 5.

⁹⁵ As we explained in the NPRM, the unbuilt NGSO systems rule was issued in the context of NGSO processing rounds to prevent a speculative applicant from precluding other applicants from the ability to access the spectrum for their operations. *See NPRM* at paras. 9, 15; *see also Amendment of the Commission's Space Station Licensing Rules and Policies*, IB Docket No. 02-34, Second Order on Reconsideration, 31 FCC Rcd 9398, 9408, para. 24.

⁹⁶ EchoStar suggests in a footnote that the Commission might consider elimination of licensing bonds in the future. *See* EchoStar Comments at 3 n. 2. Such suggestion is outside the scope of this rulemaking and we do not consider this possibility here. We note the usefulness of bond requirements in many circumstances for deterring spectrum warehousing, in particular given our decision to eliminate the unbuilt systems rule.

^{97 47} CFR § 25.157(e).

⁹⁸ See, e.g., ITU Radio Regulations No. 22.

⁹⁹ See, e.g., ViaSat Comments at 5; Intelsat Comments at 7, Intelsat Reply Comments at 8-9; see also SES Comments at 1 (encouraging the Commission to take steps to "preserve... certainly regarding the prospective interference environment...").

interference event)."¹⁰⁰ Intelsat raises a similar concern regarding EPFD limits and suggests that the Commission clarify that NGSO systems must continue to adhere to the EPFD limits incorporated in section 25.146(c) of the Commission's rules.¹⁰¹ Our decision to eliminate the unbuilt systems rule does not alter section 25.146(c), which remains in place. Moreover, applicants will continue to be held to Commission and ITU rules on EPFD limits.¹⁰² And, as stated above, we are retaining the portion of the rule that prohibits operators from filing multiple applications in the same frequency band in specific circumstances to avoid the possibility of a single operator receiving unequal division of spectrum in cases where band-splitting is required.

SES, while supporting the removal of the unbuilt systems prohibition in section 25.159 so long as other protections are in place, suggests that the Commission ensure that NGSO operators must be limited to one application per processing round. SES argues that "[p]ermitting an applicant to submit two or more system designs in a [processing] round would multiply the burden on Commission staff and other round participants, who would be forced to evaluate each possible configuration, even if it is clear that the applicant only intends to build and launch one of its proposed options."103 EchoStar disagrees and suggests that applicants might plan to use different NGSO systems for different applications, and given the financial commitments that are necessary, companies are unlikely to file applications frivolously. 104 We agree with SES that there are different considerations related to our rules on the number of applications per applicant per processing round versus whether the applicant has a licensed-but-unbuilt system. Although NGSO systems have evolved and an operator may have two distinct purposes for seeking multiple applications in the same processing round, 105 we are not convinced that doing away with this aspect of our rules will expedite the application or review process for processing rounds, but rather would require heightened review and consideration that might delay the processing of the application. Additionally, this aspect of the rule serves to ensure that in the event there is insufficient available spectrum in a frequency band, the available spectrum will truly be shared equally among the licensees, as required by section 25.157(e) of our rules on NGSO processing rounds. In sum, we adopt revisions to sections 25.159(b) and its equivalent for market access grantees in 25.137(d)(5) of our rules by eliminating the prohibition on licensed-but-unbuilt systems in these rules, but we retain the limitation on the number of applications per NGSO operator per processing round. We have also clarified the text related to the number of applications to demonstrate this limit is tied directly to being subject to the procedures in sections 25.157 and 25.261.¹⁰⁶ Additionally, we revise section 25.159(c) of our rules to reflect the changes we made in removing the prohibition on licensed-but-unbuilt systems.

¹⁰⁰ ViaSat Comments at 5.

¹⁰¹ Intelsat Comments at 7.

¹⁰² See, e.g., ITU Radio Regulations No. 22.

¹⁰³ SES Comments at 2.

¹⁰⁴ EchoStar Comments at 4-5. EchoStar appears to go even further and suggest that the Commission eliminate section 25.159(d), 47 CFR § 25,159(d), which states, among other things, that "In the event that a licensee misses three or more milestones within any three-year period, the Commission will presume that the licensee obtained one or more of those licenses for speculative purposes." *Id.* at 5 n.6. We decline to consider this suggestion further as it is beyond the scope of our queries related to paragraph (b), and we find that paragraph (d) in section 25.159 plays a distinct and important role in deterring speculative applications. *See, e.g., Part 25 Streamlining Second R&O*, 30 FCC Rcd at para. 338..

¹⁰⁵ EchoStar Comments at 4-5.

¹⁰⁶ We note that we have eliminated references to sections 25.122 (small satellites streamlined licensing procedure) and 25.123 (small spacecraft streamlined licensing procedure) as exceptions to section 25.159(b) and 25.137(d)(5)

d. Waiver Requests

- 35. Current rules state that an application will be unacceptable for filing and will be returned to the applicant if it is defective, internally inconsistent, or incomplete, or if it does not substantially comply with the Commission's rules, regulations, specific requests for additional information, or other requirements.¹⁰⁷ Current rules also, however, specifically allow the Commission to accept for filing an application that is defective for these reasons if the application contains a request for waiver of any rule, regulation, or requirement with which the application is in conflict.¹⁰⁸ Alternatively, the Commission may accept the application if the Commission, upon its own motion, waives (or allows an exception to), in whole or in part, any rule, regulation or requirement.¹⁰⁹ Thus, the current rules allow an otherwise defective application to be accepted for filing if it contains a request for waiver of a rule¹¹⁰ that it is in conflict with, or the Commission waives the rule on its own motion.
- 36. The *NPRM* asked whether applications omitting necessary waiver requests should be dismissed, and how well-supported should a waiver request need to be to overcome the acceptability for filing requirements, including waivers of filing deadlines or waivers that raise novel issues.¹¹¹ This is an important question, given the risk of an application being delayed from being accepted for filing while the applicant and opposing parties argue whether an application complies with Commission rules, where the application did not explicitly request a waiver of the rule in question.¹¹² As a result of this argument, a decision on the merits of the application instead becomes a procedural question that inhibits accepting the application for filing and placing the application on public notice for comment, which is a prerequisite for acting on the application.
- 37. We find that no change to our rules is necessary to address the potential delay of an application being accepted for filing because of a failure to request a waiver of our rules. Instead, we encourage applicants to remember to request any necessary waivers of Commission rules or policies in order to avoid dismissal of applications or delay in accepting applications for filing. By filing a waiver request, the applicant removes a potential obstacle to accepting the application for filing and placing the application on public notice. Likewise, we do not need to change any rules in order to answer the question of how well-supported a waiver request needs to be to overcome the acceptability for filing requirements. The current rules simply state that a defective application can be accepted for filing if it is "accompanied by a request which sets forth the reasons in support of a waiver of (or an exception to), in whole or in part, any specific rule, regulation, or requirement with which the application is in conflict." 113

because licenses granted under these streamlined procedures are made outside of processing round and thus not subject to sections 25.157 and 25.261.

¹⁰⁷ 47 CFR § 25.112(a)(1)-(2).

¹⁰⁸ 47 CFR § 25.112(b)(1).

¹⁰⁹ *Id.* at § 25.112(b)(2).

¹¹⁰ This includes requests for waiver of the frequency allocation table or its footnotes. See 47 CFR § 2.106 et seq.

¹¹¹ NPRM at 6, para, 16.

¹¹² For example, in one case an applicant and interested parties argued over a period of four months whether the Satellite Division was required to dismiss an application for failing to request a waiver of the rules. *See* IBCS File Nos. SAT-LOA-20200526-00055 & SAT-AMD-20210818-00105. Furthermore, the application was eventually placed on public notice as accepted for filing, even without a waiver request, without prejudice to issues raised on the record regarding alleged inconsistency of the application with Commission rules. *See*, *e.g.*, Public Notice, *Satellite Policy Branch Information – Space Station Applications Accepted for Filing*, Report No. SAT-01598, ICFS File Nos. SAT-LOA-20200526-00055 & SAT-AMD-20210818-00105 (Dec. 23, 2021).

¹¹³ 47 CFR § 25.112(b)(1). Because the waiver request must seek a waiver of a "specific rule, regulation, or requirement," an application cannot satisfy section 25.112(b)(1) with a blanket request for waiver of any unspecified rule that the Commission might find the application in conflict with.

The rule does not impose any separate requirements on how well-supported the waiver request needs to be, so the general requirement for any waiver request to show "good cause" under our rules applies.¹¹⁴

38. Some comments suggest that we adopt requirements for, or limitations on, requests of waivers of specific rules.¹¹⁵ We find that these suggestions go beyond the generalized goal of expediting the processing of space and earth station applications and are better addressed in the context of specific applications and rulemakings. Accordingly, we will not address them here.

B. Expediting Public Notice of Acceptability for Filing

- 39. We establish timelines for Space Bureau staff to either: (1) determine that an application for authority to operate a space or earth station is acceptable for filing and place it on public notice; or (2) notify the applicant that staff has identified questions, errors, or omissions, and that the application will not be placed on public notice until after these questions, errors, or omissions are addressed by the applicant to the satisfaction of the Bureau. For all earth stations and GSO space station applications, we conclude that a 30-day timeline is appropriate. For all NGSO space station applications, we conclude a 60-day timeline is appropriate. In all cases, the timeline is measured in calendar days, starting on the day after the application is filed in ICFS. We find that expressing clear goals for accepting an application for filing or notifying the applicant of deficiencies will establish expectations for expedited processing of applications for both staff and applicants.
- 40. The *NPRM* asked whether the Commission should have deadlines for accepting certain space or earth station license applications for filing or dismissing them as unacceptable for filing. It also sought comment on what a reasonable deadline might be and whether deadlines should depend on the type of application filed. Additionally, it asked whether there should be limitations on any acceptability for filing deadline we might adopt, such as for applications requesting operations not consistent with the International Table of Frequency Allocations, or where the application could involve

¹¹⁴ 47 CFR § 1.3 (stating that "The provisions of this chapter may be suspended, revoked, amended, or waived for good cause shown, in whole or in part, at any time by the Commission, subject to the provisions of the Administrative Procedure Act and the provisions of this chapter.")

¹¹⁵ See, e.g., CORF Comments at 8-9 (suggesting that the Commission should not allow waivers for nonconforming use with the international table of allocations "for space-to-Earth at or immediately adjacent to frequencies where RAS has primary or secondary allocation or to frequencies listed in fn 5.149 of the ITU table or fn US342 of the US table" or "for space-Earth, Earth-space, or space-space at frequencies where EESS (passive) has primary or secondary allocation.).

¹¹⁶ Earlier in this Order, we affirmed our practice of giving a limited time for the applicant to make corrections or to provide missing information that prevents the application from being accepted for filing. *See* Section III.A.2.a. of this R&O. We do not specify the timeline for Space Bureau staff to place an application on public notice after receipt of this information from the applicant, but we expect staff to act expeditiously after receipt of the information.

¹¹⁷ We note that for STAs that meet the criteria outlined in the 2015 and 2016 documents and require public notice, we continue to aim to put those STAs on public notice by 14 days. *See Part 25 Streamlining Second Report and Order*, 30 FCC Rcd at 14761, para. 134; *International Bureau Announces Expected Processing Times for Earth Station Applications*, Public Notice, 31 FCC Rcd 6854 (IB-SD rel. June 14, 2016).

¹¹⁸ *NPRM* at para. 19.

¹¹⁹ *Id*.

initiation of a new NGSO processing round, or for contested applications. ¹²⁰ Finally, it queried whether instituting a deadline would result in more dismissals. ¹²¹

41. Most comments welcome the establishment of timeframes for placing applications on public notice, however, commenters differ on whether the timelines should be definitive deadlines, such as "shot clocks," 122 or more flexible goalposts. 123 Commenters are generally wary of automatic dismissals.¹²⁴ AWS explains that a shot clock resulting in automatic dismissal if not approved before the deadline would not streamline the process, rather it would require an additional review burden on both the applicant and the Commission staff. 125 Instead of an automatic dismissal approach, AWS suggests that earth station applications could be automatically placed on public notice after 30 days if the Commission does not deem them acceptable for filing sooner. 126 Inmarsat and SIA also suggest a 30-day shot clock for placing earth station applications on public notice. 127 Boeing puts forth a similar suggestion, proposing that all earth station applications be placed on public notice after 30 days of filing and space stations after 90 days of filing, except in the event the staff determines that the application is incomplete or defective (thus requiring additional time for inquiry to the applicant). 128 EchoStar also generally suggests a 30-day timeline for placing applications on public notice, unless they are deemed incomplete. 129 However, EchoStar disagrees with the notion of making this timeline a shot clock and suggests that extensions to the timeline should be allowed when staff identify genuine issues that require more time to address. 130 Globalstar and Viasat also advocate against firm shot clocks for placing applications on public notice, especially for space station license applications. 131 Globalstar suggests that Commission staff will likely require at least 90 days for making the necessary technical assessments to find space station licenses acceptable for filing. 132 SpaceX advocates for the Commission to adopt the

¹²⁰ *Id*.

¹²¹ *Id*.

 $^{^{122}}$ A shot clock is a defined period for reviewing and taking an action on an application. In this instance it was considered as a review limitation for finding an application to be acceptable for filing.

¹²³ Compare EchoStar Comments at 10, 12 (suggesting that the Commission create a 30 day timeline, but not a hard deadline, for placing applications on public notice.); CSSMA Comments at 7 (The Commission should establish guidelines for timelines to place applications on public notice); with OneWeb Comments at 2 (suggesting the Commission implement shot clocks for placing applications on public notice and suggesting the process could be simplified through a "check box" initial review.); Boeing Comments at 9-10 (suggesting that the Commission establish shot clocks for placing all types of applications on public notice); SpaceX Comments at 1-2 (suggesting the Commission establish shot clocks for placing applications on public notice as a means of disincentivizing competitor operators from engaging in delay tactics).

¹²⁴ See supra, Section III.A.2 for comments and discussion on dismissal.

¹²⁵ AWS Comments at 5-6.

¹²⁶ Id.; SIA Comments at 14.

¹²⁷ Inmarsat Comments at 3.

¹²⁸ Boeing Comments at 10.

¹²⁹ EchoStar Comments at 10.

¹³⁰ EchoStar Comments at 10; *see also* EchoStar *Ex Parte* (Apr. 17, 2023) (urging the Commission not to adopt any rules that could prevent a thorough, careful review of applications and supporting Globalstar's position against shot clocks for space station license applications).

¹³¹ Globalstar Reply Comments at 4-5; Viasat Comments at 5-6.

¹³² Globalstar Reply Comments at 4-5.

anticipated timeframes we contemplated in 2015 and 2016 for placing applications on public notice as firm shot clocks. 133

- 42. We believe that establishing specific timeframes for finding applications to be acceptable for filing and placing them on public notice will aid in expediting the licensing process. Additionally, we agree with those comments that highlight the need for the Commission to have sufficient time to review applications and notify and engage in dialogue with applicants whose applications may require additional communication between Commission staff and the applicant due to the novel nature or complexity of the application. 134 Given these considerations, we conclude that maintaining a level of flexibility for dialogue with applicants is necessary when the Space Bureau staff discover errors, omissions, or unclear information. In these cases, we include an alternative to our specified timelines for determining acceptability for filing. However, in the spirit of transparency, we direct the staff to notify applicants regarding their application status if those applications will not go on public notice within the specified timelines and offer the reasons why the application is not acceptable for filing. Applicants can expect, therefore, that they will receive some form of application status confirmation within the specified timelines, either with the application appearing on an accepted for filing public notice, 135 or with a communication notifying the applicant that the application requires the submission of missing information. 136
- 43. Notably, we do not require that an application be automatically dismissed if Space Bureau staff does not find it acceptable for filing within the specified timelines. Such a requirement could result in more applicants having to resubmit dismissed applications simply because of expiration of time, which would delay, rather than expedite, the earth and space station application process. We also do not require automatically placing an application on public notice as acceptable for filing if Space Bureau staff does not act within the specified timelines. Although we expect Space Bureau staff to act on applications consistent with the specific timelines established today, we recognize that unusual circumstances may prevent such timely action. It would not serve the public interest to automatically accept the application for filing in such circumstances, simply because of expiration of time.
- 44. We are mindful that different applications have different levels of complexity, and our rules require various considerations depending on the type of application. We appreciate observations that space station applications in particular can require significant time to review, even for acceptability

¹³³ SpaceX Comments at 4-5 (45 days for initial and modification space and Earth applications, except for receive-only Earth station applications which is 30 days, and 14 days for STAs for space or Earth stations); *see also International Bureau Announces Expected Processing Times for Earth Station Applications*, Public Notice, 31 FCC Rcd 6854 (IB-SD rel. June 14, 2016); *Part 25 Streamlining Second R&O*, 30 FCC Rcd 14713 (2015).

¹³⁴ See, e.g., Boeing Comments at 10; EchoStar Comments at 10.

¹³⁵ The Commission has a weekly schedule for placing applications that are accepted for filing on public notice: the earth station public notice is released each Wednesday, and the space station public notice is released each Friday. Therefore, we note that in some circumstances, Space Bureau staff might determine an application is acceptable for filing within the 30- or 60-day timeframe, yet the application might not appear on public notice until the next possible public notice release date following the determination.

¹³⁶ We anticipate that the most common form of this communication will be a letter to the applicant from Space Bureau staff, but do not preclude the use of other forms of communication that provide adequate notice to the applicant of the need to submit missing information.

¹³⁷ For example, new information may be placed into the record at a very late date that calls into question whether the application is acceptable for filing and does not allow time for Space Bureau staff to notify the applicant that the application is not accepted for filing.

for filing. ¹³⁸ For NGSO applications, there is often a need for a longer time-period of initial review to reflect the greater complexity related to those applications. For example, deciding whether to accept an application as the lead application in a processing round requires a more substantive review than GSO applications which are not subject to a processing round because opening a new processing round affects not only the lead applicant, but also any other applicants that would apply in that processing round as well as applicants and grantees from prior processing rounds and, potentially, future processing rounds; further, potential lead applicants have often requested waiver of the processing round requirement altogether, which, if granted, would obviate the need to open a new round. Similarly, an application for NGSO space stations can include thousands of satellites in a single application, which greatly increases the amount of information that Space Bureau staff will need to review for acceptability for filing. Additionally, in our experience, NGSO applicants typically request a larger range of frequencies and utilize more complex and numerous beam patterns than GSO applicants, which again necessitates a longer review period than that for GSO and earth station applications.

- 45. We also recognize that the timelines we establish today differ from some previously established, which did not distinguish between applications for GSO and NGSO space stations, and were for applications considered to be "straightforward", "not contested", and "barring any complications."¹³⁹ We find that applying our new timelines across application types will provide greater certainty to applicants, and that the initial review timelines for GSO space stations of 30 days and initial review timeline for NGSO space stations of 60 days, reflects the differences identified above in the amount of time required to review the different types of applications. By establishing timelines for initial review that the Commission believes it can consistently meet, we help to mitigate regulatory uncertainty.
- 46. We also find that it is unnecessary to limit our timelines to applications for initial authorizations and for modifications. The remaining categories of filings—amendments, transfers of control, and assignments—to the extent that they require public notice, are not inherently more complex or review intensive than applications for initial authorizations and for modification with respect to determining acceptability. We also apply these timeframes across the board, rather than limiting them to a smaller category such as "straightforward" applications. The decision to accept an application for filing need not consider the underlying merits of the application and is generally done prior to receiving comments and objections from other parties, which results in a simpler process than deciding whether to grant or deny an application. In any event, we believe that any staff time spent on determining whether an application is straightforward or not, for example, would be better spent on reviewing the application for public notice and resolving issues that prevent it from being accepted for filing.
- 47. Although some commenters suggested that the Commission consider longer timeframes for initial space station review, ¹⁴⁰ we note that our initial review, while thorough, is focused on an acceptability for filing determination, not on the merits of the application, and generally does not require the evaluation of comments and oppositions to the application, and we believe that the revised timelines adopted here can be achieved. These new timelines strike a balance between the need to place applications for earth and space station operations on public notice expeditiously, and the time needed for staff to make the determination of whether an application is acceptable for filing under our rules.

¹³⁸ See Boeing Comments at 10; Globalstar Reply Comments at 4-5.

¹³⁹ See Part 25 Streamlining Second R&O, 30 FCC Rcd at14761, para. 134 (2015).

¹⁴⁰ See, e.g., Globalstar Reply Comments at 4-5 (suggesting a timeline of 90 days for finding space stations to be acceptable for filing).

C. Action on the Merits

- 48. The *NPRM* sought comment generally on whether the Commission should adopt broader shot clocks for ultimate "action taken" on certain types of space station or earth station applications. ¹⁴¹ We received a wide variety of comments and suggestions on this issue and the record is divided on support for "action taken" shot clocks. ¹⁴² Some commenters approve of shot clocks for certain types of applications (for example, just for earth station applications), ¹⁴³ while others argue that all types of space and earth station applications should have shot clocks for Commission action taken. ¹⁴⁴ Suggested shot clock timeframes range from 45 days after the close of public notice to one year for "action taken" on an application. ¹⁴⁵
- 49. A number of commenters oppose shot clocks for actions taken, cautioning that the institution of shot clocks for taking action on licenses could jeopardize the thorough review of complex technical issues that our rules require. Some commenters point out that considering action taken shot clocks is "premature" or that the Commission could consider the possibility of shot clocks in the future, after the Space Bureau has been well-established and resourced, but that implementing them should at least be deferred for the time being. As with the acceptability for filing issue, some commenters suggest that the Commission issue timelines instead of shot clocks, which would serve more as goals than

¹⁴¹ *NPRM* at para. 19.

¹⁴² A shot clock is a defined period for reviewing and, in this instance, taking action on an application.

¹⁴³ See, e.g., Globalstar Reply Comments at 1-2 (suggesting shot clocks might be possible for certain types of earth stations); OneWeb Reply Comments at 1-3; see also AWS Comments (only addressing shot clocks for earth stations).

¹⁴⁴ See, e.g., TechFreedom Comments at 14-15; SpaceX Comments at 4-5; Inmarsat Comments at 3-4; CSSMA Comments at 8; Myriota Reply Comments at 5, 7.

¹⁴⁵ See, e.g., Kuiper Comments at 8 (proposing a one-year shot clock for action taken on all earth station applications); SpaceX Comments at 4-5 (proposing shot clocks to act on initial and modification space and earth station applications by 60 days after the close of the public notice period; 45 days after close of public notice for receive-only earth station applications, and 30 days after the close for STAs. Also proposing that if action is not taken by the deadline, applications should be deemed granted); Inmarsat Comments at 3-4 (suggesting a deadline of 45 days after placing on public notice for taking action on routine applications, with the applications deemed granted if no action, and 150 days after public notice for more complex, non-routine applications); SIA Comments at 13-14 (proposing a deadline of 45 days after the public notice date for acting on routine applications); Blue Origin Comments at 3 (proposing that the Commission take action on straightforward applications 60 days after the public notice date).

¹⁴⁶ See, e.g., Turion Space Comments at 6-7 ("Shot clocks or very short action periods are complex to implement and risk more applications being dismissed or denied. No space or earth station application is truly identical, so each related review differs."); Viasat Comments at 5-6 (suggesting that applying shot clocks to action taken would risk undermining quality decision-making, the impact on the operating environment, and public interest considerations); Globalstar Reply Comments at 4-5; EchoStar Ex Parte (Apr. 28, 2023); Intelsat Reply Comments at 2 ("Shot clocks, however, fail to address the underlying cause of extended processing times and should not be adopted at this time; requiring the Commission to act more quickly on pending applications without providing a better process for doing so will not result in better outcomes for licensees, but rather could have unforeseen consequences if the Commission is unable to review applications with sufficient thoroughness."); OneWeb Comments at 1-2 (noting that "the Commission has seen a surge in the number of applications for satellite technologies... [and] [a]nalyzing these applications is no small task, as systems are complex and require careful review, with each presenting unique issues." and supporting deadlines for placing applications on public notice, but opposing them for final action on license applications and suggesting that the Commission is best suited to determine the appropriate timeframe for a shot clock).

¹⁴⁷ See Turion Space Comments at 6-7; Intelsat Reply Comments at 1.

obligations for action taken, ¹⁴⁸ or that the Commission can toll the shot clocks as needed. ¹⁴⁹ Several commenters offer specific suggestions for alternatives to action-taken shot clocks. Intelsat argues for an "auto grant" procedure for straightforward applications, ¹⁵⁰ and AWS suggests that uncontested earth station applications could begin operations on a non-inference basis after six months, if action is not yet taken on their application. ¹⁵¹

- 50. Consistent with several of the commenters views, we decline to adopt a general, one-sizefits-all shot clock for taking action on license applications. We agree with commenters who point out that our rules require a thorough review of all technical requirements, 152 and in our experience each application presents individualized issues, and applications increasingly request authority for new and innovative operations that require careful consideration and often detailed conditions on the authority granted to protect other spectrum users and the public interest. Additionally, our rules require nearly all applications to be placed on public notice in order to allow for a period of public comment. 153 While we cannot predict the level of public interest each application will generate, we consider comments that are filed in reference to each application, 154 and the length of this process depends on the breadth and depth of comments that are filed. We strive to ensure that opportunities for public comment on government action are meaningful, and the regulated community has confidence that their comments have been carefully considered. The Commission is dedicated to fostering innovation in the satellite industry and recognizes the need to envision new ways to ensure license applications are reviewed in a timely manner, while still ensuring that a thorough review is completed. We recognize and appreciate that the industry relies on the Commission for timely application processing and authorization, and at the same time we work to ensure that our authorization does not result in licensees interfering with other spectrum users, contributing to the risks presented by orbital debris, or operating in such ways as to otherwise endanger the operations of others in orbit. This proceeding has focused primarily on expediting the initial processing of license applications. Nonetheless, we will continue to consider issues raised by commenters regarding timelines for taking action on the merits of an application in future actions we take to expedite the processing of space and earth station applications, including whether and how to update guidance regarding expected timelines.
- 51. We also decline to adopt a shot clock for action taken on all earth station applications, as some commenters suggest. Rather, we find that certain earth station applications are suitable for a more streamlined application review process, and we discuss in more details below our decision to

¹⁴⁸ EchoStar Comments at 10-11 (suggesting action taken timelines of 60 days after public notice for earth station applications and 180 days after public notice for space station applications); EchoStar *Ex Parte* (Apr. 17, 2023) ("There should be no strict shot clocks or other mandatory time limits on review of space station applications that raise concerns about legitimate issues, such as avoiding harmful interference with other space stations and limitations on orbital debris.").

¹⁴⁹ See, e.g., EchoStar Comments at 10 (suggesting Commission staff could extend processing period timelines when they identify specific issues that require further inquiry or analysis); EchoStar *Ex Parte* (Apr. 17, 2023); CSSMA Comments at 8 (advocating for action taken shot clocks with "appropriate safeguards to allow the Commission sufficient time to address applications that present non-routine issues.").

¹⁵⁰ Intelsat Comments at 4-5;

¹⁵¹ AWS Comments at 6.

¹⁵² See e.g., Turion Space Comments at 6-7; Viasat Comments at 5-6; OneWeb Comments at 1-2..

¹⁵³ See 47 C.F.R. § 25.151.

¹⁵⁴ 5 U.S.C. § 551 et seq.; 47 U.S.C. § 309(b).

¹⁵⁵ See Globalstar Reply Comments at 1-2 (suggesting shot clocks might be possible for certain types of earth stations); OneWeb Reply Comments at 1-3; see also AWS Comments (only addressing shot clocks for earth stations).

expand the category of applications that may be deemed granted after a specific period of time. 156

- 52. Within the scope of our inquiry regarding whether the Commission should consider adopting any shot clocks or processing deadlines, we sought comment on which types of license applications the Commission should consider "straightforward" and whether to implement processing timelines for such applications in particular.¹⁵⁷ We pointed to our 2016 public notice that identified expected processing timelines for straightforward, uncontested earth station applications, barring any complication, and asked whether these guidelines should be codified, whether a more flexible approach and considerations of other factors was warranted, or whether given the pace of change in space activities and corresponding number of applications presenting unique or complex issues, we should limit the scope of "straightforward" applications.¹⁵⁸ After considering the record, we decline to further identify or otherwise separate out processing timelines for "straightforward" applications.
- 53. The record was divided on this issue. Numerous commenters generally support the notion of identifying "straightforward" applications and creating processing timeframes for those applications. However, only a few commenters specifically propose examples of applications that the Commission consider as "straightforward." RBC Signals suggests including: (1) earth station applications when operations with a U.S.-licensed satellite and consistent with standard technical characteristics for the relevant bands; (2) earth station modification applications when it is an application to add U.S.-licensed satellite or market access grantee operating in previously authorized bands; and (3) a new earth station license that is at a site within a defined distance of similar earth station operations (e.g., 1 mile) and operating within same parameters as pre-existing earth stations within the "straightforward" category. Intelsat proposes that uncontested earth or space station applications that pose minimal interference risk should be considered "straightforward." Boeing, TechFreedom, and SpaceX suggest that the Commission should not make such a distinction, and rather should apply shot clocks to all types of applications, regardless of whether they are "straightforward." 162
- 54. We recognize points made by SpaceX and TechFreedom that creating a carve-out for only "easy" or uncontested applications might incentivize the filing of oppositions and increase the

¹⁵⁶ See infra, Section III. D.

¹⁵⁷ *NPRM* at para. 17.

¹⁵⁸ *Id.*; see also International Bureau Announces Expected Processing Times for Earth Station Applications, Public Notice, 31FCC Rcd 6854 (IB-SD rel. June 14, 2016).

¹⁵⁹ See, e.g., OneWeb Comments at 6; Inmarsat Comments at 3-4; SIA Comments at 13-14; Blue Origin Comments at 3.

¹⁶⁰ RBC Signals Comment at 6 (suggesting, in the alternative, that section 25.118 may be an appropriate vehicle for implementing some of these streamlined earth station licensing suggestions.).

¹⁶¹ Intelsat Comments at 6 (providing as examples, earth station modifications requesting authority to add points of communication that are authorized to communicate with U.S. earth stations; space station applications seeking modifications that do not involve operational changes, such as modifications to coverage area or antenna repointing; and Earth and space station applications that seek to extend a license term.).

¹⁶² Boeing Comments at 8 ("Perhaps a better approach would be to expedite the processing of all satellite and earth station applications without regard for whether they are novel or complex."); TechFreedom Comments at 14-15 ("Applying shot clocks only to 'easy' applications will stifle the cycle of innovation which has characterized the last decade of NGSO deployment and leave the United States vulnerable to foreign entities seeking to dominate the cislunar system."); SpaceX Comments at 5 ("But even for shot clocks for final action on an application, the Commission should refrain from distinguishing between types of applications—straightforward or non-straightforward; contested or uncontested. Such a carve out would exacerbate the current situation by increasing the incentives for anticompetitive manipulation that further complicate the staff's job.").

number of contested applications.¹⁶³ Yet, we disagree that the solution should be to institute across-the-board action taken shot clocks. In the same vein, while we agree with Boeing that the Commission must make efforts to expedite application processing in general, ¹⁶⁴ to apply shot clocks regardless of how novel or complex the application might be is simply not feasible or responsible, as we explained above. ¹⁶⁵ The Commission is currently faced with an unprecedented influx of earth station and space station applications. ¹⁶⁶ We find that the other concrete steps we are taking today, including removing no longer necessary rules that slow down the application process, committing to issue numerous forms of guidance for streamlining application filing, and creating a 30 and 60-day timeframe for determining acceptability for filing, are the types of practical and necessary processing improvements that the Commission can quickly implement. Additionally, taking into account the divided record on this issue, we conclude that it would not serve our goals to further identify or carve-out certain types of applications as "straightforward" in this proceeding.

D. Expediting Earth Station Applications to Add Points of Communication

- 55. Today we take action to expedite the processing of a common category of earth station applications: applications to modify existing earth station licenses by adding new space stations as points of communication. Specifically, we adopt a new rule, ¹⁶⁷ under which applications to add space station points of communication to existing earth station licenses will be deemed granted 35 days after being placed on public notice, under certain conditions described below and provided that no objection to the application is filed. While we decline to draw lines based on whether we consider this type of application to be "straightforward," we find that, under a specific set of conditions, the process of adding space station as additional points of communication to existing earth station licenses can be significantly expedited.
- 56. Our rules allow earth stations to transmit to any space station in the same radio service that is listed as a point of communication in the earth station license, provided that permission has been received from the space station operator to access that space station. ¹⁶⁸ The *NPRM* specifically asked whether applications to add points of communication to existing earth station licenses should qualify as "straightforward" so long as the space station to be added is: (1) either U.S.-licensed, or (2) has been granted U.S. market access within the parameters requested in the earth station application, and the applicant identifies either the call sign of or the earth station license(s) in which the space station was granted market access. ¹⁶⁹ The *NPRM* sought comment on whether these types of applications should be automatically deemed granted 60 days after they are filed, absent other Commission action. ¹⁷⁰

¹⁶³ See SpaceX Comments at 5; TechFreedom Comments at 14-15.

¹⁶⁴ See Boeing Comments at 8.

¹⁶⁵ See supra, para. 50.

¹⁶⁶ See, e.g., Remarks of Chairwoman Jessica Rosenworcel, Space Innovation And The FCC, Washington, D.C., Speech, (Rel. Nov. 3, 2022) ("Today the FCC has before it applications for 64,000 new satellites. 64,000. But it is not just satellites. Last year we also saw an eight-fold increase in the number of applications for fixed satellite service gateway Earth stations filed at the agency. On top of that, we are seeing new applications for novel space activities like lunar landers, space tugs that can deploy other satellites, and space antenna farms that can relay communications.").

¹⁶⁷ This rule is added as a new paragraph, (i) in section 25.117, which governs modifications of station licenses that require Commission authorization. 47 CFR § 25.117.

¹⁶⁸ 47 CFR § 25.276.

¹⁶⁹ *NPRM* at para. 18.

¹⁷⁰ *Id*.

- 57. Numerous commenters support the consideration of earth station operators' applications to add previously authorized space stations as points of communication as "straightforward" and to allow for applications to be deemed granted after 60 days, absent other Commission action. AWS suggests that the Commission consider various benchmark shot clocks within the 60-day period for placing the application on public notice and coordination. Several commenters suggest that the Commission go even further and allow the addition of previously authorized points of communication through notification, such as via section 25.118 of our rules, instead of through a license application process. SpaceX proposes that notification, instead of authorization, should be allowed when a space station operator is also the earth station licensee and is requesting to add one of its own previously authorized space stations as a point of contact. Microsoft suggests that earth station operators could add any space station as a point of communication, so long as a certain set of conditions are met. EchoStar suggests that the Commission should permit earth station operators to specify in their application that they will communicate with all FCC-authorized NGSO systems (just as is done with GSO systems currently 176), which will reduce the number of modifications requiring filing. To
- 58. In contrast, several commenters suggest the Commission proceed with caution on this proposal. For example, Iridium cautions that in the case of earth stations subject to section 25.203(k) of

¹⁷¹ OneWeb Comments at 6-7; EchoStar Comments at 11; AWS Comments at 4-5; Blue Origin Comments at 3; Swedish Space Corp. Comments at 2; Myriota Reply Comments at 4-5; Microsoft Reply Comments at 3-6 (supporting Commission's proposal for instances that would not fit within Microsoft's proposed notification-only scheme); EESS Operators Reply Comments at 2-3 (supporting the Commission's proposal as well as alternative proposals raised by other commenters).

¹⁷² AWS Comments at 5 (suggesting 14 days after filing to put the application on public notice, 14 days after public notice to input application information into OFACS for NTIA coordination, 14 days for NTIA to review after FCC review, otherwise deemed coordinated, 60 days after public notice to issue decision, otherwise deemed granted.).

¹⁷³ See, e.g., RBC Signals Comments at 3 ("Subject to any Earth station coordination requirements, operating Earth stations with satellites using previously authorized uplink or downlink spectrum should be subject to the streamlined procedures of Section 25.118."); TechFreedom Comments at 6-7 (suggesting the Commission develop rules to allow adding points of communication through notification, noting similarity with CSAT rules and expanding on the fleet operations approach the Commission took in 2003); SpaceX Comments at 15 (suggesting amending Section 25.118(a)(3) to include adding points of communication so long as the operator does not simultaneously seek to change the relevant operating parameters of either system in a way that would require prior authorization, and provides notice of the change within 30 days); Kuiper Reply Comments at 6 (supporting commenters' proposals to expand the types of modifications that could be made through notification under Section 25.118, noting SpaceX's proposal); Microsoft Comments at 13-14 (advocating amending Section 25.118 to allow earth station operators to add a point of communication through notification so long as five criteria are met); Intelsat Reply Comments at 3 n. 5 (noting commenters' suggestion for Section 25.118 notification as an alternative to an automatic grant procedure).

¹⁷⁴ SpaceX Comments at 16.

¹⁷⁵ Microsoft Comments at 13-14 (including the following five conditions for adding points of communication without prior authorization: the space station has been licensed or granted market access, the space station is a U.S. government satellite, the space station is operating in EESS, all communications would occur in the 2025–2110 MHz, 8025–8400 MHz, or 25.5–27.0 GHz bands, the space station operator certifies that it has complied with regulatory requirements, and all transmissions from the earth station occur in bands where the earth station is authorized to operate and consistent with the earth station's authorized transmit power limits and pointing angles).

¹⁷⁶ U.S.-licensed and market access GSO space stations providing Fixed-Satellite Service in certain frequency bands where GSO FSS has primary status, are on "The Permitted List" for routine earth stations to communicate with. 47 CFR § 25.103.

¹⁷⁷ EchoStar Comments at 9; see also SpaceX Reply Comments at 7 (supporting EchoStar's suggestion).

the Commission's rules,¹⁷⁸ applicants must either complete coordination or demonstrate that they will not cause unacceptable interference and therefore proposes that given these requirements, such applications should not be considered "straightforward" or subject to the proposed 60-day timeline for being deemed granted.¹⁷⁹ Viasat asserts that adding NGSO systems as points of communication could "upset" the EPFD limit calculations and coordination agreements in NGSO system authorizations.¹⁸⁰ Viasat proposes that if the Commission allows for streamlining in adding points of communication, earth station operators should be required to include a certification that the addition will not result in operations or impacts inconsistent with the EPFD analysis or coordination agreements of the NGSO operator.¹⁸¹

- After consideration of the record, we conclude that, in a specific set of instances, it is 59. feasible and appropriate to adopt a licensing procedure by which an application to add a point of communication can be deemed granted 35 days after the application has been found acceptable for filing and also placed on public notice¹⁸² if no sooner action is taken by the Commission. This timeline takes into account our new timeframe for finding earth stations to be acceptable for filing within 30 days (or notifying the applicant of the need for further information). Therefore, a substantially complete application to add a point of communication would be found acceptable for filing and placed on public notice within 30 days, starting on the day after the application is filed in ICFS, and then would be deemed granted 35 days after public notice, a total of 65 days for processing. However, we agree with Iridium that applications requiring coordination take additional time, and we conclude that for such applications, a short, automatic deemed granted time period is unrealistic and could lead to complications if coordination is not completed prior to any "deemed granted" date. Such complications would surely not result in an expedited process for the applicant, the Commission, or other operators engaging in the coordination process. Although AWS suggests that the federal coordination could be completed within 14 days or deemed coordinated, 183 our experience tells otherwise. Given the number of applications requiring federal coordination, it is rare, if ever, that only a single application is being coordinated through various federal agencies at any given moment. Our understandings with NTIA do not contemplate unilaterally curtailing the federal coordination review process in such a way, 184 and we do not desire to do so, given the important scientific, safety, and security-related federal operations at play. Therefore, we establish a more limited set of circumstances in which earth station operators seeking to add a point of communication can expect a deemed granted license processing procedure. We do, however, seek comment in the Further Notice below regarding some additional circumstances in which an earth station modification to add a point of communication could be expedited.
- 60. This expedited process is premised on certain conditions necessary to balance faster processing for adding points of communication and protecting other spectrum users from interference.

¹⁷⁸ See 47 CFR § 25.203(k) (requiring earth station applicants, other than an ESV, VMES or an ESAA, operating with GSO or NGSO satellites in a shared frequency band to either demonstrate in its application that it will not cause harmful interference or certify that its operations will conform to established coordination agreements with other operators).

¹⁷⁹ Iridium Comments at 4-5.

¹⁸⁰ Viasat Reply Comments at 10-11.

¹⁸¹ *Id*. at 11.

¹⁸² We note that in some instances an application might be found acceptable for filing within 30 days, but might not be placed on public notice exactly within 30 days due to the weekly schedule of releasing public notices.

¹⁸³ See AWS Comments at 5.

¹⁸⁴ See, e.g., Memorandum of Understanding Between the Federal Communications Commission and the National Telecommunications and Information Administration (Aug. 1, 2022), https://docs.fcc.gov/public/attachments/DOC-385867A1.pdf (MOU).

First, we note that our timeline for this type of expedited processing is tied to receiving no objections filed during the 30-day public notice period. Additionally, we require that these modifications be limited in nature, and not part of a larger set of modifications, which might require more lengthy review. Therefore, the modification can be only to add space stations as points of communication. Next, applications will need to demonstrate that the addition of a new point of communication will not cause earth station transmissions to exceed the highest equivalent isotropically radiated power (EIRP), EIRP density, and bandwidth prescribed for any already authorized emission. Additionally, in order to qualify for this streamlined processing, the modification cannot cause earth station to repoint the earth station's antenna beyond any coordinated range. Finally, this option will only be available in frequency bands that are not shared with federal or terrestrial wireless users, which would otherwise require coordination.

We are not convinced, as some have suggested, that all applications for adding a point of communication are appropriate for notification-only consideration. ¹⁸⁷ We observe that applications to add space stations as points of communication are only required for space stations that are not on the Permitted List, 188 and for operations that fall outside "routine" earth station technical parameters. 189 If a GSO space station is licensed by the Commission, or has been granted access to the U.S. market, and operates in specified frequency bands where GSO FSS has primary status, then the space station is a Permitted List space station and is automatically included as a point of communication for all U.S.licensed earth stations that list the Permitted List as a point of communication, provided that the earth station operations with the space station fall within the existing technical parameters and conditions of the earth station license. 190 The Permitted List already represents the Commission's judgment as to which space stations can be added as points of communications to an earth station's license without requiring an application and approval by the Commission. Allowing the addition of any space station as a point of communication, without prior application or approval, in any orbit or service or frequency band, and without regard to whether the operations fall within existing technical parameters would essentially render the Permitted List meaningless, which is an outcome outside the scope of this proceeding to expedite the processing of space and earth station applications.

E. Other Suggestions

62. The *NPRM* sought comment generally on the issues we identified for streamlining and on other guidance that may assist applicants and speed application processing.¹⁹¹ In response to our general questions, some commenters advocate for additional rule changes that they believe will reduce the need to

¹⁸⁵ While we generally decline to separate out application processing based solely on whether they are unopposed, for such a quick turn-around on this type of license modification, we find that it is prudent to include this requirement as a gating factor.

¹⁸⁶ EIRP is the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna (absolute or isotropic gain), 47 CFR 2.1.

¹⁸⁷ See, e.g., RBC Signals Comments at 3; TechFreedom Comments at 6-7; SpaceX Comments at 15; Microsoft Comments at 13-14. Under section 25.118 of our rules, some minor modifications can be made by providing notification to the Commission, as opposed to seeking authorization. 47 CFR § 25.118.

¹⁸⁸ The Permitted List is a list of all U.S.-licensed GSO space stations providing Fixed-Satellite Service in certain frequency bands where GSO FSS has primary status, as well as non-U.S. licensed GSO space stations approved for U.S. market access to provide FCC in those same frequency bands. 47 CFR § 25.103.

¹⁸⁹ See 47 CFR § 25.103, Definitions, "Routine Processing or Licensing".

¹⁹⁰ Upon grant, a licensed earth station with Permitted List as an authorized point of communications may communicate with, consistent with the technical parameters of its license, all U.S.- licensed GSO FSS space stations authorized to operate in the conventional C, Ku, or Ka bands, and all non-U.S.-licensed space stations operating in these bands that are included on the Permitted List. *See Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Report and Order, FCC 13-111, at para. 13 (2013).

¹⁹¹ *NPRM* at para. 20.

file modification applications, but which are either outside of the scope of this proceeding or which we decline to take action on at this time. Additionally, some of the comments and suggestions more appropriately align with other ongoing Commission proceedings and, as such, are not further considered in this *Report and Order*. Finally, several comments can be addressed by clarifying and explaining existing Space Bureau practices. We value the input that we received in response to the *NPRM*, and the absence of action today or inclusion in the accompanying Further Notice of Proposed Rulemaking in no way precludes consideration of these ideas as part of other existing proceedings or as part of future rulemaking proceedings.

- 63. Suggestions for Modifications without Prior Authorization. Spire proposes that the Commission adopt a new provision in section 25.118 for EESS spacecraft, permitting operators to notify the Commission of these set of changes.¹⁹² SpaceX suggests that the Commission expand Spire's proposal to include all NGSO systems, not just EESS.¹⁹³
- 64. We decline to adopt Spire's proposal. Changes in the size and mass of a cubesat can change orbital debris mitigation considerations and we are not convinced that this suggestion, while possibly resulting in less burden for certain EESS operators, outweighs the importance of Commission review to ensure that such modifications can be authorized. Second, we note that replacement of certain equipment and sensors may not require our review or notification to the Commission at all if the replacement creates no change to radio frequency and does not affect orbital debris mitigation plans. For example, if a satellite operator were replacing a camera for remote sensing purposes, they may need to seek approval or notify NOAA, but such a change would not require review or approval by the FCC as long as there was no change in the information supplied as part of the orbital debris showings or effect on radio frequencies used.
- 65. Spire additionally proposes that discrepancies related to whether an applicant can make a minor modification through notification or via prior authorization can be alleviated to some degree if the Commission codifies a broad definition of the term "technically identical." Spire proposes that "[t]he Commission should formally codify the explanation it provided in the 1994 MSS Order that 'technically identical' spacecraft are those that have 'identical satellite antenna footprints and transmission parameters' but which may have de minimis variation among them—including the physical structure or microelectronics." Additionally, Spire suggests that the Commission should expressly exempt "technically identical" components from modification rules. ¹⁹⁵
- 66. We decline to adopt a specific definition of "technically identical" in our rules at this time because such a definition may become outdated as technology advances. We aim to amend our rules in technologically-neutral and performance-based ways, and in light of this framework we find it inappropriate to adopt such a definition in the rules. We note, as explained above, that truly *de minimis* changes in structure and microelectronics, if creating no change to radio frequency or mass, would not require Commission approval or notification under our rules. However, changes that do affect radio

¹⁹² Spire Comments at 15-16 (Specifically, Spire suggests that EESS operators could notify the Commission of any changes to "(1) the size or mass of the cubesat form factor, and (2) equipment and sensors from one spacecraft to another, that do not involve: (i) an increased risk of harmful interference to other systems not permitted by coordination agreements; (ii) a request for increased interference protection; (iii) an increased risk of causing orbital debris; or (iv) a change in orbital altitude (unless it meets the criteria otherwise permitted by Section 25.118(f)).").

¹⁹³ SpaceX Reply Comments at 6-7.

¹⁹⁴ Spire Comments at 3, 14-15.

¹⁹⁵ Spire Comments at 3, 15.

frequency or would otherwise have an impact on orbital debris calculations, including changes in mass, for example, are not truly *de minimis* and would require Commission review.

- 67. Suggested Changes to the Space Bureau's Special Temporary Authority Process. Several commenters suggest various approaches to further streamline the license application process for STAs. SpaceX proposes, and other commenters agree, that STAs with an underlying request for full authorization should renew automatically while the underlying application is pending. BBC Signals suggests that the Space Bureau adopt a procedure which allows STA operations to continue while a license application with identical parameters to the STA is under review. And Intelsat suggests that the Commission "adopt the Section 1.62 policies previously employed" for Earth station applications "wherein operators were not required to file a new STA extension request prior to the grant of the previous STA extension request."
- 68. Here we find that an explanation of the Space Bureau's STA process and statutory requirements is merited when considering these comments. Our rules for special temporary authorizations under part 25 allow operators to apply for STAs for various amounts of time, ¹⁹⁹ and state that STAs expire at the end of those allotted terms. ²⁰⁰ These rules stem from the Communications Act, which allows the Commission to grant STAs for up to 180 days if they are placed on public notice per section 309(f) of the Act, ²⁰¹ and allows the Commission to grant up to 30 and 60-day STAs in certain circumstances without public notice per section 309(c)(2)(G) of the Act. ²⁰² The reasoning behind these rules is simple: special temporary authorizations are meant to be used under exceptional or "extraordinary" circumstances, as the Act states and as our rulemakings have emphasized. ²⁰³ The Space Bureau has applied section 1.62 to special temporary authorizations in that if an applicant with an STA files a new STA application to extend its temporary authorization three days prior to the end of its current license term, it may continue its temporary operations while the new STA application is pending. ²⁰⁴ As

¹⁹⁶ SpaceX Comments at 17-18; Kuiper Reply Comments at 6-7; Intelsat Reply Comments at 4; *see also generally* TechFreedom Comments at 8.

¹⁹⁷ RBC Signals Comments at 5; *see also* 47 CFR § 5.61(c) ("Extensions of an STA may be granted provided that an application for a conventional experimental license that is consistent with the terms and conditions of that STA (i.e., there is no increase in interference potential to authorized services) has been filed at least 15 days prior to the expiration of the licensee's STA. When such an application is timely filed, operations may continue in accordance with the other terms and conditions of the STA pending disposition of the application, unless the applicant is notified otherwise by the Commission.").

¹⁹⁸ Intelsat Comments at 6.

¹⁹⁹ See 47 CFR § 25.120.

²⁰⁰ See 47 CFR § 25.163(b).

²⁰¹ See 47 USC § 309(f) (allowing 180-day STAs under extraordinary circumstances for applications subject to 309(b), which requires a 30-day public notice period prior to grant).

²⁰² See 47 USC § 309(c)(2)(G) (paragraph (c) is an exception to the 30-day public notice requirement in paragraph (b) and allows for 30-day STAs without an underlying application and allowing 60-day STAs with a contemplated underlying application).

²⁰³ See Amendment of the Commission's Space Station Licensing Rules and Policies, IB Docket No. 02-34, First Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10760, 10862-63 para. 271-73 (2003) ("In addition, the Communications Act specifies that we grant STAs only when there are 'extraordinary circumstances.' There is nothing in the Communications Act that suggests that Congress contemplated allowing STA requests to be routinely granted.").

²⁰⁴ See 47 CFR § 25.120(a); § 1.62(a)(1) ("Where there is pending before the Commission at the time of expiration of license any proper and timely application for renewal of license with respect to any activity of a continuing

such, an operator with an STA may continue its temporary operations while a new application to extend the time period for their authorization is under review and we acknowledge this in our license grants. However, the Act does not contemplate extensions of an STA in the absence of a request to extend the STA. We note, though, that our rules allow for STAs for up to 180 days at a time. Despite this, many applicants still file shorter-term STA applications for up to 30 days, which the Commission can issue without placing on public notice or 60-day durations, which the Commission has the discretion to not place on public notice if the applicant plans to file an underlying request for regular authority of the service. Additionally, because requests for special temporary authority are meant to be granted under exceptional circumstances and for relatively short duration, any coordination that is needed for the temporary authorization is generally limited to the time period requested by the applicant, or no more than up to 180 days. Additional requests then require additional coordination for the new time period.

- 69. For all these reasons, we decline to adopt the suggested changes to our STA rules at this time. We recognize that STA applications are often accompanied by an underlying license or modification application for regular operations, and it can be difficult for applicants to determine the full timeframe for which they might require special temporary authorization. However, we note that applicants may consider a variety of time frames for their STA needs, including the 180-day STA. We also note that we do not wish to circumvent our 180-day STA requirements, which is distinguished by the 30 and 60-day STAs only in so far that the Act requires the Commission to place applications for STAs beyond 60 days and up to 180 days on public notice. Therefore, the Commission has discretion to place 30 and 60-day STA applications on public notice, and may choose to do so in the event an individual applicant files numerous shorter-term STA requests that result in longer than a 180-day use. Ultimately, we are hopeful that our continued streamlining efforts will lead to faster processing of underlying applications and a reduction in the need for extensions to STAs.
- 70. Additional Suggestions for Streamlining of Modifications. SpaceX suggests that the Commission should permit and encourage operators to submit a single modification application that applies an identical change across multiple Earth station licenses.²⁰⁷ SpaceX proposes, as part of its suggestion, that for any modification that would require re-coordination with other commercial or federal users, "the Commission could require the modification application to attach coordination information for each separate site."²⁰⁸ TechFreedom suggests "a hybrid licensing approach under which the common elements (technical parameters, points of communications, etc.) of a network of earth stations could be licensed on a network basis under a single license with only the individual elements (e.g., location)

nature, in accordance with the provisions of section 9(b) of the Administrative Procedure Act, such license shall continue in effect without further action by the Commission until such time as the Commission shall make a final determination with respect to the renewal application."); see also, e.g., Satellite Communications Services Information, Actions Taken, Report No. SES-02594, (SB Aug, 16, 2023).

²⁰⁵ See 47 CFR § 25.120(b)(3), (4).

²⁰⁶ 47 CFR § 25.120(b)(2).

²⁰⁷ SpaceX Comments at 17 (citing to its own experience of having to file nearly 60 separate modification applications to make a common change to multiple earth stations).

²⁰⁸ Id. at 17 n. 15.

licensed separately."²⁰⁹ Both SpaceX and TechFreedom assert that these types of changes would dramatically cut down on the amount of modification applications that would require filing and review.²¹⁰

- 71. We are conscious of commenters' points regarding large numbers of modification applications being filed for common changes, and we will consider this issue for future updates to our filing system, which currently cannot support this modification. In response to TechFreedom's suggestion, we note that the Commission has made similar efforts to streamline common changes, such as through C-band earth station network licensing in section 25.115(c)(2) of our rules²¹¹ and our unified licensing system for space stations and blanket earth stations adopted in 2020.²¹² In the 2020 order creating the unified licensing system, the Commission declined to include individually licensed earth stations in the process, finding that adding them would "create more complexity than its streamlining benefit," given the need for site-specific information and coordination.²¹³ This reasoning remains valid. However, we may consider similar suggestions such as TechFreedom's "hybrid licensing" approach as we gain more experience with some of the streamlining rules we have more recently put in place, such as the unified licensing system, that have not yet been widely utilized. We may consider further streamlining in a future proceeding.
- 72. Emission Designators. Intelsat and SIA both suggest that the Commission do away with requiring emission designators in earth station applications.²¹⁴ SIA asserts that requiring applicants to include emission designators causes confusion, delay, and complexity to the application process "without providing any meaningful information."²¹⁵ We decline to consider changes to our emission designator requirements. Emission designators provide a variety of necessary information to inform the licensing process and to make a determination to authorize an operation under Part 25. For example, they provide technical information that Commission staff use to verify and calculate the power spectral density, occupied bandwidth, whether transmissions are analog or digital, etc. Additionally, this information is typically requested as part of the federal coordination process with NTIA. We also note that emission designators are required by OET in their license applications as well for similar reasons.²¹⁶
- 73. Market Access and Orbital Debris Mitigation Showings. In response to the NPRM, a few commenters suggest that the Commission ensure market access operators and U.S. licensees are subject to the same rules, in particular they suggest the Commission amend its rules related to orbital debris showings.²¹⁷ TechFreedom asserts that applicants for market access are treated more favorably than U.S. licensees in part because "domestic applications are vetted at the acceptance stage to determine whether their orbital debris showings are sufficient, whereas such showings in market access petitions are not

²⁰⁹ TechFreedom Comments at 7.

²¹⁰ SpaceX Comments at 17; TechFreedom Comments at 7 (noting that "a modification of any of the common elements (e.g., a change in antenna parameters that did not increase possible interference) could be accomplished with a single form rather than require the filing of hundreds of nearly identical applications.").

²¹¹ See 47 CFR 25.115(c)(2) "Networks of earth stations operating in the 3700–4200 MHz and 5925–6425 MHz bands".

²¹² See Further Streamlining Part 25 Rules Governing Satellite Services, IB Docket No. 18-314, Report and Order, 35 FCC Rcd 13285 (2020).

²¹³ *Id.* at para. 28.

²¹⁴ Intelsat Comments at 13; SIA Comments at 9.

²¹⁵ SIA Comments at 9 (additionally asserting that OET does not use emission designators). As stated further below, OET does require emission designators in their applications.

²¹⁶ See, e.g., 47 CFR part 2 subpart C; § 5.61.

²¹⁷ See, e.g., TechFreedom Comments at 11-12; SpaceX Comments at 20-21; OneWeb Reply Comments at 4.

reviewed until a later stage."²¹⁸ Conversely, OneWeb notes that market access applicants are effectively required to provide the same orbital debris showings as license applicants, but because this is often done through requests for information from Commission staff, OneWeb asserts the determination process is delayed as compared with the process for U.S. licensees.²¹⁹

- As an initial matter, we note that section 25.114(d)(14)(v) of the Commission's rules, which addresses orbital debris showings for market access grantees, is the subject of a pending petition for reconsideration filed by SpaceX for the same reasons raised by SpaceX in this proceeding.²²⁰ Therefore, we will consider any changes to that rule in the other proceeding. However, we take this opportunity to emphasize that the Commission applies the same scrutiny to orbital debris showings for market access grantees and U.S.-licensees, and ultimately determines whether to grant market access based on the same technical information that a U.S.-licensee would provide for orbital debris considerations.²²¹ Our current rules allow market access applicants to satisfy the requirement to describe the design and operational strategies to minimize orbital debris risk by demonstrating that their debris mitigation plans are subject to direct and effective regulatory oversight by the national authority that licensed their space station operations.²²² Such a showing requires market access applicants to provide supporting documentation and respond to inquiries from Commission staff in order for the staff to compare the foreign rules and determine whether there is an effective regulatory regime in place.²²³ However, while this provision allows the Commission to accept such equivalent regulatory oversight showings, it does not preclude applicants from alternatively providing the same orbital debris mitigation showings that are detailed elsewhere in section 25.114 of the rules. And, except for a few cases, applicants have generally found it preferable to just provide the Commission with a description of the design and operational strategies for orbital debris mitigation instead of presenting all of the showings necessary to demonstrate the effective regulatory oversight of another national authority.
- 75. UMFUS Pre-Application Coordination. Verizon / AT&T assert in their comments that the Commission could streamline the license application process by requiring earth station operators in bands shared with the Upper Microwave Flexible Use Service (UMFUS) to engage in additional pre-application coordination and certify conformance with section 25.136 of the Commission's rules and Space Bureau guidance in addition to the Part 101 coordination requirements.²²⁴ Additionally, they suggest that the Commission require earth station operators to provide more than visual information about proposed earth station contours, including the antenna gain at the horizon or the maximum equivalent isotropically radiated power at the horizon to validate how the contours were developed.²²⁵ OneWeb,

²¹⁸ TechFreedom Comments at 11-12.

²¹⁹ OneWeb Reply Comments at 4.

²²⁰ See, Mitigation of Orbital Debris in the New Space Age, Petition for Reconsideration of Space Exploration Technologies Corp., IB Docket No. 18-313 (Sep. 24, 2020).

²²¹ See, e.g., 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, ICFS File Nos. SAT-MPL-20200526-00062 and SAT-APL-20210112-00007, Order and Declaratory Ruling, para. 28 (SB April 28, 2023).

²²² See 47 CFR § 25.114(d)(14)(v).

²²³ This includes submitting an English language version of the debris mitigation rules or regulations of the authority and indicating the current status of the national licensing authority's review. *See Mitigation of Orbital Debris in the New Space Age*, IB Docket No. 18-313, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 4156, 4222-23 para. 145 (2020).

²²⁴ Verizon / AT&T Comments at 6-7.

²²⁵ *Id.* at 7.

Viasat, Intelsat, and EchoStar disagree with this proposal.²²⁶ We agree with commenters' assertions that these proposals fall outside the scope of this rulemaking.²²⁷ Similarly, we find that Viasat's proposal to amend our review process under section 25.136 is also beyond the scope of this rulemaking.²²⁸ We agree that operators must fully engage in the coordination process identified for specific applications, but we do not believe this proceeding, which focuses on expediting the license application process, is the pertinent forum for considering additions to pre-application coordination requirements.

- 76. Redefining NGSO systems and EESS Licensing. Spire suggests that the Commission consider expanding and altering its NGSO licensing framework beyond the streamlined procedure carve out for small satellites in section 25.122.²²⁹ We note that Spire's suggestions, which concern our overall licensing framework, operator definitions, and NGSO processing rounds, are beyond the scope of this rulemaking. The Commission may consider these suggestions when contemplating future rulemaking proceedings.
- beyond the scope of this proceeding but may be more appropriate for consideration in other ongoing Commission proceedings. For example, Kuiper suggests that the Commission can streamline its licensing procedures in part by finishing its rulemaking to revise section 25.261 of the Commission's rules. 230 SpaceX asserts these issues are beyond the scope of this rulemaking. 231 We agree and we note that the Commission adopted new rules for satellite system spectrum sharing and issued a further notice of proposed rulemaking on April 20, 2023. 232 Turion Space proposes that In-space Servicing, Assembly, and Manufacturing (ISAM) operations should be authorized by service category and the Commission should develop a new framework for space stations that deploy third-party payloads. 233 The Commission has issued a Notice of Inquiry on ISAM operations and proposals related to these novel operations are more appropriate for consideration in that proceeding and are beyond the scope of this rulemaking. 234 Similarly, Spire's proposals related to amending the U.S. Table of Frequency Allocations for space-to-space transmissions in the S-Band and considering other frequencies for intersatellite links may be more

²²⁶ See OneWeb Reply Comments at 4-5; Viasat Reply Comments at 9; Intelsat Reply Comments at 6-7; EchoStar *Ex Parte* (Apr. 17, 2023); EchoStar *Ex Parte* (Apr. 28, 2023).

²²⁷ See, e.g., Viasat Reply Comments at 9; EchoStar Ex Parte (Apr. 28, 2023).

²²⁸ Viasat Comments at 7; see also Verizon / AT&T Reply Comments at 6-8 (opposing Viasat's proposal).

²²⁹ Spire Comments at 10-13. (asserting that "[b]y formally adopting a more expansive vocabulary with which to describe and categorize classes of satellites—including by size, capability, and service (i.e., non-propulsive EESS small satellite)—the Commission will be better able to adopt a more precise framework, tailoring regulations to the specific vehicles that can and should be subject to a particular course of action.") Additionally, Spire proposes that the Commission modify its licensing process for EESS operators "to authorize EESS systems with a variable number of satellites, allowing operators to scale their system up or down depending on the needs of their customers." *Id.* And Spire suggests we exempt EESS operators from NGSO processing rounds through a rule modification, noting that we routinely waive these rules for EESS operators. *Id.*

²³⁰ Kuiper Comments at 3-4.

²³¹ SpaceX Reply Comments at 16.

²³² FCC Adopts New Rules for Satellite System Spectrum Sharing, Report and Order and Further Notice of Proposed Rulemaking, FCC-23-29, SB Docket No. 21-456 (Rel. Apr. 21, 2023).

²³³ Turion Space Comments at 8, 10.

²³⁴ Space Innovation; Facilitating Capabilities for In-space Servicing, Assembly, and Manufacturing, Docket Nos. 22-271, 22-272, Notice of Inquiry (2022) (ISAM NOI).

appropriate for consideration in our ISAM and Space Launch Spectrum proceedings.²³⁵ Myriota's suggestions related to Space-as-a-service (SaaS) and licensing antennas hosted at third-party facilities²³⁶ are also beyond the scope of this proceeding, however we note that similar suggestions have been raised in response to the Commission's ISAM NOI.

- 78. Station-keeping Requirements. Intelsat suggests that the number of modification and STA requests could be cut down by revising section 25.210(j) of the Commissions' rules to permit maintaining GSO satellites within 0.1° of their assigned orbital longitude, which is consistent with the ITU's east-west station-keeping requirements as opposed to our current rules, which require maintaining satellites within 0.05° of their assigned orbital longitude²³⁷ Intelsat suggests that this change would give operators increased flexibility for conducting fleet management maneuvers and obviate the need for requests for modifications or STAs in that situation.²³⁸ This suggestion falls outside the scope of this proceeding, which is focused on expediting the application process and not a review of all of our technical rules. Nonetheless, we note that we have amended the rule in the past to allow exceptions for end-of-life operations,²³⁹ and we have considered waiver requests to this rule for applicants in the past.²⁴⁰ We believe our current rules and practice are prudent, while allowing operators to apply for a waiver if needed under unique conditions.
- 79. Bureau Practices. Several commenters raise issues that can be clarified by pointing commenters to current Space Bureau practices, procedures, and policies. One commenter suggests that the Commission waive, for good cause, NGSO-like processing rules for EESS operators.²⁴¹ This type of waiver has been granted where justified given the nature of EESS operations and the ability for operators to share spectrum. Similarly, requests for email notification when licenses are granted and contact information for Bureau staff are already a part of Space Bureau practice.²⁴² However, we note that FCC emails are sent to the designated point of contact on applications and, we remind applicants to notify the Commission of any updates to their designated point of contact details.
- 80. Timing of Orbital Debris Showings. The Swedish Space Corporation asserts that the Commission should allow applicants to address space debris mitigation plans and deorbiting strategy after a license is granted because these matters require obtaining data from manufacturers and may cause delay

²³⁵ See ISAM NOI; Allocation of Spectrum for Non-Federal Space Launch Operations; Amendment of Part 2 of the Commission's Rules for Federal Earth Stations Communicating with Non-Federal Fixed Satellite Service Space Stations; Federal Space Station Use of the 399.9-400.05 MHz Band, ET Docket No. 13-115, Report and Order and Further Notice of Proposed Rulemaking, 36 FCC Rcd 7764 (2021).

²³⁶ Myriota Reply Comments at 2-4.

²³⁷ Intelsat Comments at 6-7 (citing ITU R.R. No. 22.6-8.).

²³⁸ *Id*. at 7.

²³⁹ See Mitigation of Orbital Debris, IB Docket No. 02-54, Second Report and Order, 19 FCC Rcd 11567, 11586, paras. 42-43 (2004).

²⁴⁰ See, e.g., SES Americom, Inc., File Nos. SAT-MOD-20050325-00075 SAT-STA-20050531-00112, Order and Authorization, 20 FCC Rcd 11542, 11545 para. 14 (IB 2005).

²⁴¹ Swedish Space Corp. Comments at 1-2.

²⁴² Swedish Space Corp. Comments at 2. We note that Bureau staff contact information is listed in the FCC website ICFS sends automatic notification of license grant via email to applicants, and FCC staff assigned to space station licenses routinely email applicants to notify them as well.

before licensing.²⁴³ The commenter could raise this in our Orbital Debris Mitigation proceeding,²⁴⁴ While orbital debris assessments are a key component in determining whether to grant a license or market access, in some instances we have authorized licenses on the condition that the applicant must submit its orbital debris plan through a modification and meet the requirements in the Commission's rules prior to commencing operations.²⁴⁵

- the Commission's practices related to license conditions. ²⁴⁶ Commenters suggest, for example, that the Commission could cut down on the license processing time by also limiting the number of conditions applied to each license. TechFreedom suggests this could be achieved in part by adding a new rule to part 25 "making clear that all licenses are issued subject to any rule changes later adopted." Similarly, Intelsat asserts that current license grants are more lengthy than needed due to restatements of various of FCC rule requirements. ²⁴⁸ SpaceX asserts that the Commission should avoid imposing any conditions that conflict with section 25.118. ²⁴⁹ SpaceX also asserts that the Commission has inconsistently applied conditions to similarly situated applicants in the past and suggests that the Commission should adopt "consistent conditions—ideally with identical language—that reduce the incentive for operators to claim heightened conditions for their competitors and reduce the need for operators to contest their competitors' applications to ensure equitable treatment."²⁵⁰
- 82. We find these comments to be outside the scope of our queries on expediting application processing, and rather directly concerns the specifics of license operations. However, we recognize that authorization conditions do at times include restatements of our rules. As commenters point out, all operators are subject to the rules in part 25, unless granted a waiver of a specific rule section. Additionally, it is already well established that licenses are subject to changes in rules that are the result of Commission rulemaking proceedings. Nonetheless, the Space Bureau may consider these suggestions when crafting future license conditions. Regarding SpaceX's suggestion, we note that certain conditions may apply generally, for example if applications are requesting a particular frequency or waiver of a particular section of our rules. In such instances, effort is made to have standardized conditions that are placed in license grants where possible, and we expect the Space Bureau will continue

²⁴³ Swedish Space Corp. Comments at 1.

²⁴⁴ Orbital Debris Mitigation in the New Space Age, IB Docket No. 18-313, Second Report and Order and Further Notice of Proposed Rulemaking, 35 FCC 4156 (2020).

²⁴⁵ See, e.g., Kuiper Systems LLC, Request for Modification for the Authorization for the Kuiper NGSO Satellite System, ICFS File No. SAT-MOD-20211207-00186, Order and Authorization, DA 23-114 (SB Feb. 8, 2023); Kuiper Systems LLC, Application for Authority to Deploy and Operate a Ka-band Non-Geostationary Satellite Orbit System, Order and Authorization, 35 FCC Rcd 8324 (2020).

²⁴⁶ See TechFreedom Comments at 10-11; SpaceX Comments at 16; Intelsat Comments at 11;

²⁴⁷ TechFreedom Comments at 11.

²⁴⁸ Intelsat Comments at 11.

²⁴⁹ SpaceX Comments at 16.

²⁵⁰ *Id*. at 19.

²⁵¹ See Celotronix Telemetry, Inc. v. FCC, 272 F.3d 585, 589 (D.C. Cir. 2001), citing United States v. Storer Broadcasting Co., 351 U.S. 192, 205 (1956); National Broadcasting Co. v. United States, 319 U.S. 190, 225 (1943); Committee for Effective Cellular Rules v. FCC, 53 F.3d 1309, 1319-20 (D.C. Cir. 1995); WBEN, Inc. v. FCC, 396 F.2d 601, 617-18 (2d Cir. 1968)).

to review license conditions accordingly. Beyond that, however, we note that each application presents individualized circumstances and operations, and conditions will reflect those differences.²⁵²

- 83. Experimental Licensing. Turion Space suggests that the Commission's experimental licensing rules under part 5 of our rules should be updated and that the Space Bureau, not OET, should administer the experimental licenses. OET has delegated authority to administer experimental licenses under part 5,254 in coordination with the Space Bureau when necessary. We note that part 5 rules cover all manner of experimental licenses and OET has the delegated authority and expertise related to experimental licenses generally. When OET receives experimental license applications for satellite operations, OET and the Space Bureau coordinate given the Bureau's subject-matter expertise on satellite operations.
- 84. Physical Characteristics of Spacecraft. SpaceX suggests that the Commission should cease requiring operators to provide specific dimensions for satellites, claiming requests for such information is inconsistent with Commission rules and policy. We disagree with SpaceX's interpretation of our rules and policy. In a past licensing streamlining proceeding the Commission deleted a specific requirement in section 25.114(c)(10) requiring space station applications to provide, among other things, specific dimensions and mass because the Commission found that the information was either collected elsewhere or was unnecessary.²⁵⁶ In the case of specific dimensions, this information is often pertinent to the design and operational strategy that operators submit to demonstrate compliance with orbital debris mitigation under section 25.114(d)(14). Although the Commission removed the blanket requirement under section 25.114(c)(10) in 2013, the Commission retains authority under section 25.114(d)(14) to ensure that applicants submit sufficient showings to ensure compliance with orbital debris mitigation requirements concerns and therefore may request or expect operators to provide such information in individual cases.
- 85. Public Participation in the Application Process, Informal Complaints, and Commission Discretion on Considering Comments. TechFreedom and SpaceX suggest that the Commission can further streamline the application process by dismissing any late-filed informal complaints related to an application.²⁵⁷ Additionally, TechFreedom suggests that the Commission hold informal complaints to the standards set forth in section 1.41 of the Commission's rules.²⁵⁸ Both commenters suggest that the informal complaint procedure has been used to frustrate and slow down application processing.²⁵⁹
- 86. As commenters suggest, the Commission's rules offer multiple avenues for public participation related to Commission licensing actions: for example, through filing objections or petitions

²⁵² For example, the conditions placed on an applicant requesting to launch and operate one NGSO satellite will be different from an applicant requesting to launch and operate a fleet of satellites. In turn, the number of satellites, the size and location of the fleet, and other factors will all play a role in what conditions are placed on an operator.

²⁵³ Turion Space Comments at 10.

²⁵⁴ See, e.g. 47 CFR §§ 0.241(a)(1)(ii); 5.55(d)(1); 5.61(a)(2).

²⁵⁵ SpaceX Comments at 16.

²⁵⁶ See Comprehensive Review of Licensing and Operating Rules for Satellite Services, Docket No. 12-267, Report and Order, 28 FCC Rcd. 12403, para. 89 (2013); Comprehensive Review of Licensing and Operating Rules for Satellite Services, Docket No. 12-267, Notice of Proposed Rulemaking, 27 FCC Rcd 11619, 11639 para. 60 (2012).

²⁵⁷ TechFreedom Comment at 8; SpaceX Comments at 7.

²⁵⁸ TechFreedom Comments at 8.

²⁵⁹ SpaceX refers to the process as "sandbagging" staff, *see* SpaceX Comments at 7, and TechFreedom states that it is "no secret" that companies use the process to slowdown competitors' applications, *see* TechFreedom Comments at 8.

to deny under section 25.154(a), through informal objections under section 25.154(b), as well as other avenues such as section 1.1307 (actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared). Formal pleadings, such as petitions to deny, must generally be made within the 30-day public comment period, however, the Commission has authority to extend the opportunity for public comment. Under FCC rules, pleadings that are not filed in accordance with section 25.154(a), including those not meeting the 30-day deadline, are classified as informal objections under subsection (b). We recognize that allowing informal objections that are not subject to the 30-day public notice timeframe may slow down the pace of application processing in some instances, especially when a significant number of comments are generated due to an application for innovative services and novel operations. However, allowing public comment under our existing processes and rules benefits our review process, especially when comments are well thought out, and factually supported. Thus, we believe the benefit of robust debate and input as part of the record outweighs the concerns about delay, and therefore decline to change the informal objection process. However, in those cases where parties file frivolous pleadings, or pleadings meant solely to delay the process, we remind them that such filings are prohibited under section 1.52 of the Commission's rules.

F. Digital Equity and Inclusion

87. In the *NPRM*, the Commission noted its continuing efforts to advance digital equity for all, consistent with the Communications Act and with Executive Order 13985.²⁶⁶ Specifically, we asked how our streamlining proposals may promote or inhibit advances in diversity, equity, inclusion, and accessibility, as well as the scope of the Commission's relevant legal authority.²⁶⁷ Both SIA and EchoStar assert that efforts to expedite the licensing process will advance digital equity. EchoStar notes that a simpler, more efficient application process supports the Commission's digital equity and inclusion goals and will make it easier for satellite operators to offer services and lower costs to users across the country, including members of historically disadvantaged groups.²⁶⁸ Additionally, EchoStar notes that a streamlined process makes it more likely that a wide range of applicants will be able to participate in space business.²⁶⁹ SIA similarly emphasizes the effect of satellite broadband services in closing the digital divide for rural communities in particular and highlights the important role that satellite remote

²⁶⁰ See, e.g., 47 CFR §§ 1.1307; 25.154(a), (b); see also, e.g., Petition Pursuant to Section 1.1307(c) of Viasat, Inc., ICFS File No. SAT-MOD-20200417-00037 (Dec. 22, 2020).

²⁶¹ See 47 CFR § 1.45.

²⁶² See, e.g., 47 CFR § 25.154(a)(2).

²⁶³ 47 CFR § 25.154(b).

²⁶⁴ TechFreedom cites to *NetworkIP*, *LLC v. Federal Communications Commission*, 548 F.3d 116 (D.C. Cir., 2008) and proposes that the Commission should extend the court's reasoning in that case "to the informal complaint procedures for satellite applications" and hold "all parties to strict filing deadlines". *See* TechFreedom Comments at 9-10. We find the court's decision in *NetworkIP* to be inapposite. In that case, the court found that the FCC's failure to apply its six-month filing deadline by granting a waiver was arbitrary and capricious. 548 F.3d at 128. Unlike the situation in *NetworkIP*, here, by accepting a filing after the 30-day period and classifying it as an informal objection, we are complying with our rules, not waiving them.

²⁶⁵ 47 CFR § 1.52; see also Commission Taking Tough Measures Against Frivolous Pleadings, 11 FCC Rcd 3030, FCC-96-42, (Feb. 9, 1996).

²⁶⁶ *NPRM* at para. 21.

²⁶⁷ Id.

²⁶⁸ EchoStar Comments at 3-4.

²⁶⁹ *Id.* at 3-4, 11.

sensing services can play in natural and cultural resource management on Tribal lands.²⁷⁰ SIA also urges the Commission to "continue to adopt rules that remain neutral with respect to the business models of the satellite systems that the Commission authorizes... [which] will ensure that the benefits of broadband satellite services will continue to be available to all end user groups, including underserved consumers, and the business, industries, and government infrastructure that support them and their communities."²⁷¹

88. We agree with commenters that our efforts to expedite the application process and increase transparency for applicants will aid in lowering barriers to new entrants into the satellite communications industry. We also agree that supporting efforts to increase connectivity to historically underserved communities is in line with our mandate under the Communications Act and our efforts to comply with Executive Order 13985. With this in mind, the actions we take today to increase transparency and guidance for applicants are aimed at increasing accessibility, supporting innovation, and furthering the Commission's goal of increasing connectivity for all.

IV. FURTHER NOTICE OF PROPOSED RULEMAKING

89. In this Further Notice of Proposed Rulemaking (*FNPRM*), we continue our long-standing practice of reviewing our licensing rules and practices in light of innovation and development in the satellite industry and seek further comment on possible further streamlining of our rules. Specifically, we seek further comment on several proposals raised by commenters in response to the *NPRM*, but which require more development of the record and opportunity for public input.

A. Allowing Additional Minor Modifications without Prior Authorization.

90. We seek comment on whether to expand upon the list of minor modifications that can be made by operators without prior authorization by the Commission. Currently, the section of our part 25 rules addressing minor modifications provides for various circumstances in which operators can make minor modifications without prior Commission approval.²⁷² In response to the *NPRM*, numerous commenters suggest additions to this list of modifications. Intelsat proposes that earth station modifications including removal of a satellite point of communication or modification of an earth station's antenna identification should be included as minor modifications.²⁷³ SpaceX suggests that NGSO system operators should be able to modify space station antenna parameters without prior Commission authorization so long as those changes fall within the authorized parameters of the satellite system, with notice after the fact.²⁷⁴ Intelsat also suggests that the Commission consider revising the existing provision allowing certain relocation of GSO space stations with prior notification to the Commission to permit operation of service links during the drift period to the new location, rather than limiting operations to 'tracking, telemetry, and command functions during the drift period."²⁷⁵

²⁷⁰ SIA Comments at 15.

²⁷¹ SIA Comments at 16-17.

²⁷² See 47 CFR § 25.118. Section 25.118 specifies circumstances under which operators can make minor modifications (1) with the obligation to notify the Commission of the change(s) within 30 days of implementing them, 47 CFR § 25.118(a); (2) without the need to notify the Commission, 47 CFR § 25.118(b); or (3) with the obligation to notify the Commission in advance of making the change(s), 47 CFR § 25.118(e), (f).

²⁷³ Intelsat Comments at 7 (suggesting additions to section 25.118(a)); *see also* Kuiper Reply Comments at 6 (agreeing with commenter proposals to expand the list of minor modifications that do not require pre-authorization).

²⁷⁴ SpaceX Comments at 16 ("For example, as the Commission already permits for earth stations, the Commission should permit operators to modify the antenna parameters of their previously authorized satellites without seeking prior authorization where such changes fall within the envelope of the parameters for which the operator has received authorization, with notice after the fact").

²⁷⁵ Intelsat Comments at 12.

- 91. We seek comment on expanding the list of minor modifications not requiring prior authorization, and if we do expand this list, what the appropriate notification process should be. Should we permit earth station operators to remove satellite points of communication and modify antenna identification without prior authorization? If so, should the additions be included in the existing provision allowing earth station licensees to make certain modifications without prior authorization provided that the licensee notify the Commission within 30 days of the modification?²⁷⁶ Or is a different notification process appropriate? What certifications should be made in connection with any notification?²⁷⁷ Should we consider allowing certain satellite operators to change antenna parameters without prior authorization? If so, what notification process might be appropriate, and if so, what certifications should be required in connection with this type of modification? We seek comment by way of examples, information, and other data that would demonstrate that such a change would not require Commission prior approval. Are there types of space station antenna changes or other that should be excluded from potential consideration under this minor modification rule? ²⁷⁸
- 92. Finally, we seek comment on Intelsat's proposal suggesting that operations beyond tracking, telemetry, and command functions (TT&C) should be able to continue during certain satellite drifts so long as the operator provides "certification that operations are limited to coordinated transmissions during the relocation and drift transition period."²⁷⁹ We observe that under our current rules addressing certain GSO satellite relocations as minor modifications, 280 the operators would be able to resume full satellite operations, including provision of service, once the space station arrives at its new destination without prior Commission approval, i.e. it may continue normal operations within the technical parameters authorized and coordinated for the space station previously assigned to that location. 281 We seek comment on whether continued operations during relocation, provided the operator certifies that operations are limited to transmissions that have been coordinated with other potentially affected operators, would result in an important benefit to licensees? We also seek comment on any potential interference concerns that may arise during relocation and whether the risk of potential interference outweighs any temporary benefits to allow continued operations during drift. Would it be sufficient for the operator to conduct such operations on a non-interference, unprotected basis? Would any additional certifications to the Commission be required before the operator initiates the drift? Additionally, we seek comment on whether we should limit operations to instances of short drift periods only, e.g. less than 30-days total duration. Finally, we seek comment on additional conditions that might be appropriately placed on any operations during drift beyond TT&C to protect other operators in the GSO arc.

²⁷⁶ See 47 CFR § 25.118(a).

²⁷⁷ See, e.g., 47 CFR § 25.118(b)(2)(i)-(vi) (allowing modifications of antennas without prior Commission approval so long as they do not involve: "(i) An increase in EIRP or EIRP density (either main lobe or off-axis); (ii) Additional operating frequencies; (iii) A change in polarization; (iv) An increase in antenna height; (v) Antenna repointing beyond any coordinated range; or (vi) A change from the originally authorized coordinates of more than 1 second of latitude or longitude for stations operating in frequency bands shared with terrestrial systems or more than 10 seconds of latitude or longitude for stations operating in frequency bands not shared with terrestrial systems."

²⁷⁸ For any proposed additions to the list of minor modifications, we ask commenters to address how such minor modifications should be handled in the event of a temporary freeze on applications for new or modified space stations in a particular band.

²⁷⁹ Intelsat Comments at 12.

²⁸⁰ 47 CFR § 25.118(e).

²⁸¹ 47 CFR § 25.118(e), 25.137(f).

B. Market Access and Requests for Special Temporary Authority

- 93. In an effort to continue our streamlining goals, we seek further comment on the suggestion for a type of temporary authorization that could be sought by U.S. market access grantees whose operations are authorized through a space station grant. U.S. licensees may apply for an STA to operate under certain circumstances. Under current rules, market access grantees may file the equivalent of an amendment and a modification to petitions for declaratory ruling via section 25.137(e) and (f) respectively.²⁸² However, although earth station licensees may request special temporary authority to reflect changes to the communications with non-U.S. licensed space stations, there is no such provision for an STA to be filed as part of the space station application process for market access grantees. This is consistent with the distinction between market access grants and licensees. Nonetheless, since the Commission frequently issues grants of U.S. market access to space station operators through action on petitions for declaratory ruling,²⁸³ we seek further comment on some type of special temporary grant that could be sought by the space station operator.
- Nearly three decades ago the Commission began efforts to consider how to expand competition and provide opportunities for foreign entities to deliver satellite services in this country.²⁸⁴ This effort coincided with broader U.S. government negotiations through the World Trade Organization to establish the WTO Basic Telecom Agreement.²⁸⁵ In the order establishing rules to implement U.S. commitments to the WTO Basic Telecom Agreement, the Commission explained that "[e]nhanced competition in the U.S. market, in turn, will provide users more alternatives in choosing communications providers and services, as well as reduce prices and facilitate technological innovation."286 The Commission further noted that "in addition to encouraging a more competitive satellite market in the United States, this new environment will spur development of broader, more global satellite systems[,]" and that "these advancements will foster greater global community benefits by providing users, ranging from individual consumers and businesses to schools and hospitals, increased access to people, places, information, and ideas worldwide."287 The public interest goals articulated by the Commission at that time are just as relevant today. Additionally, as we seek to keep pace with the ever expanding satellite communications market, we are continuously evaluating whether and where we can streamline our rules and procedures to provide for greater clarity and accessibility for applicants seeking to engage in satellite operations in the United States.²⁸⁸

²⁸² 47 CFR § 25.137(e), (f).

²⁸³ See, e.g., 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 23-362 (SB, Apr. 28, 2023).

²⁸⁴ See, e.g., Amendment of the Commission's Regulatory Policies to Allow Non-U.S.-Licensed Satellites to Provide Domestic and International Service in the United States, IB Docket No. 96-111; Report and Order, 12 FCC Rcd 24094 (1997).

²⁸⁵ *Id.* at paras. 1-3.

²⁸⁶ *Id*. at para. 4.

²⁸⁷ Id.

²⁸⁸ See, e.g., Part 25 Streamlining Second R&O, 30 FCC Rcd at 14803, para. 275, n. 668 (2015). ("This will place market access recipients on an equal footing with U.S. licensees in this regard, and is consistent with the Commission's decisions to extend similar provisions to foreign licensees granted market access. See, e.g., Amendment of the Commission's Space Station Licensing Rules and Policies, Second Report and Order, IB Docket No. 02-34, 18 FCC Rcd 12507, 12514, para. 14 (2003) (applying the "fleet management" procedure in Section 25.118(e) to market access recipients through Section 25.137(f)).)."

95. As such, we seek comment on whether it is in the public interest to amend our rules to allow for an equivalent to special temporary authority for space station market access grantees to communicate with U.S. licensed earth stations. For example, should we include a new paragraph in section 25.137 of our rules to allow market access space station grantees to seek some type of temporary authorization related to their grant of market access? If so, would applications for such authority be subject to our application public notice requirements in all cases? Under any new process we would continue to consider public interest factors in reviewing requests,²⁸⁹ and we would treat market access applicant petitions for declaratory ruling the same as a satellite application, consistent with our WTO commitments to treat non-U.S. satellite operators no less favorably than we treat U.S. satellite operators. Alternatively, are the current procedures by which STA requests can be filed by earth station operators sufficient? We invite comment.

C. Expanding Timeframes for Filing License Renewal Applications

- 96. In response to our general streamlining queries in the *NPRM*, we received a suggestion to expand or eliminate the current 60-day window for earth station licensees to submit a renewal application. Under our current rules, earth station license holders may seek a renewal of their license between 90 and 30 days prior to their license expiration.²⁹¹ Intelsat suggests that the Commission remove this 60-day window, or in the alternative, provide operators a 365-day window in the year leading up to the license expiration.²⁹² We note that renewal applications must be placed on a 30-day public notice and so we tentatively decline to expand the renewal application period up to the license expiration date, as this change would create a potentially larger administrative burden for Commission staff reviewing applications. Nonetheless, we believe that a longer window for filing renewals could provide more flexibility for operators without negatively impacting Commission processing. As such, we propose to amend our rules to expand the window for earth station operators to file an application for renewal from no earlier than 180 days, and no later than 30 days, prior to the expiration of the existing license. We seek comment on this proposal and any alternatives.
- 97. We note that NGSO space station licensees are required to file applications for renewal no earlier than 90 days, and no later than 30 days, prior to the end of the twelfth year of the existing 15 year license term.²⁹³ We seek comment on whether we should consider similarly expanding the filing window within the twelfth year of the existing term for these space station operators as another means of providing flexibility and streamlining the application process. For example, should we amend our rules to include a window of no earlier than 180 days and no later than 30 days prior to the end of the twelfth year of the license for filing a renewal? We seek comment this proposal as well as any alternatives.

D. Earth Station Licensing without an Identified Satellite Point of Communication

98. In the *NPRM* we asked whether the Commission should consider allowing earth station operators to receive a license without having first identified a satellite point of communication.²⁹⁴ We received limited, but supportive comments for creating such a procedure. We seek to expand the record

²⁸⁹ See Amendment of the Commission's Regulatory Policies to Allow Non-U.S.-Licensed Satellites to Provide Domestic and International Service in the United States, 12 FCC Red at 24100, para. 15.

²⁹⁰ See Amendment of the Commission's Space Station Licensing Rules and Policies, IB Docket No. 02-34, First Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10760, 10870 para. 294 (2003)

²⁹¹ See 47 CFR § 25.121(e).

²⁹² Intelsat Comments at ; see also Section III.E for discussion.

²⁹³ See 47 CFR § 25.121(e).

²⁹⁴ *NPRM* at para. 18.

on this issue, considering what some operators have described as "ground stations as a service" (GSaaS) operations in particular.²⁹⁵ We tentatively conclude that issuing a limited license for earth station operators who do not yet have an identified point of communication would align with our goals to support innovation in the satellite industry and increase accessibility to services. However, we envision that such a license would need to be limited and include a mechanism for modification once a point of communication has been established, prior to initiation of operations. In addition, for frequency bands shared with terrestrial systems (for example, bands shared with point-to-point microwave stations licensed under Part 101 of the Commission's rules), we are not proposing to confer first-in-time rights to earth stations without an identified satellite point of communication on what could effectively be a multiband, full-arc basis. Furthermore, in bands shared with UMFUS, earth stations would need to make a showing under section 25.136 of the Commission's rules in order to limit their obligation to protect UMFUS or to receive interference protection.²⁹⁶ We seek comment on how this process may affect coordination processes. We propose to create a new provision in our rules that would allow earth station operators to apply for and receive a limited license under the condition that the license will require modification prior to operations with a specific point of communication, unless the point of communication is already on the Permitted List²⁹⁷ and the operations fit within the parameters specified therein. We seek comment on this proposal, as well as on any alternatives to facilitate licensing where a satellite point of communication has not been identified, or perhaps a point of communication has been identified but a space station application has not yet been granted.

E. Inter-Bureau and Inter-Agency Review and Coordination Streamlining

- 99. In the *NPRM* we sought comment on various coordination considerations, including how the Commission might better streamline inter-Bureau reviews in shared-spectrum bands, and how we might eliminate duplicative coordination requirements.²⁹⁸ Although we did not specifically ask about it, multiple commenters offered suggestions on streamlining the inter-agency coordination and review process with NTIA.²⁹⁹ We seek to further expand the record on coordination considerations and the suggestions raised by commenters.
- 100. With respect to the coordination within the Commission, for coordination with other bureaus and offices, several commenters suggested updates to timeframes, or other limitations on interbureau review. Recognizing the establishment of the Space Bureau, we expect that the Bureau will continue to look at means to make the inter-bureau and office coordination process more efficient, taking into consideration certain types of applications and the unique issues that those applications present from a coordination perspective. We note that such improvements to the inter-bureau coordination process do not require any rule changes. We will plan, however, to continue the practice of conducting coordination

²⁹⁵ See Microsoft Comments at 3 (discussing the GSaaS model).

²⁹⁶ See 47 CFR 25.136. If adding a point of communication would modify the earth station's -77.6 dBm/m²/MHz contour, the earth station operator would need to make a showing that the revised contour complies with section 25.136.

²⁹⁷ See Section III.D for discussion on the Permitted List.

²⁹⁸ *NPRM* at para. 16.

²⁹⁹ See, e.g., CSSMA Comments at 6; Turion Space Comments at 9; SpaceX Comments at 10-13; AWS Comments at 3-4; SIA Comments at 7; Intelsat Comments at 10; Swedish Space Corp. Comments at 2; Iridium Reply Comments at 5.

³⁰⁰ See, e.g., EchoStar Comments at 12-13; SpaceX Reply Comments at 10; Intelsat Comments at 8; AWS Comments at 7 (suggesting a two-week deadline for the Commission to input information into the Office of Engineering and Technology's Frequency Assignment System (OFACS)).

at the bureau/office level once the draft authorization, including proposed conditions, is ready to share within the Commission and to pursue ways to improve the internal coordination processes.

- 101. Several commenters also offered suggestions to improve the inter-agency coordination process.³⁰¹ Often, applications must be coordinated with NTIA because the applicant requests use of a frequency band that is also allocated for use by Federal stations. We note as a general matter that broader issues regarding coordination are addressed through the Memorandum of Understanding (MOU) between the Commission and NTIA.³⁰² At the bureau level, the Space Bureau facilitates the coordination process by engaging directly with NTIA both for earth stations and space stations applications, as well as applications for special temporary authority in certain instances. The bureau-level coordination process varies slightly depending on the type of application presented for review.
- Among the suggestions on the record, SpaceX states that the Commission could streamline coordination, in particular for earth station applications, by preparing specific shared databases for coordination and by adopting a "green light / yellow light" system for coordination with federal users.³⁰³ Similarly, Turion Space argues that standardized input documents and processing would ease the inter-agency application coordination process.³⁰⁴ Intelsat suggests that applications that have been precoordinated between an applicant and federal user should not require an additional referral from the Commission to NTIA and otherwise suggests that the Commission consider automating the referral process and eliminating manual data entry. 305 SIA suggests that the Commission provide applicants with NTIA contact information or share specifics of concerns raised by NTIA during the application review process so that applicants can address any concerns expeditiously.³⁰⁶ AWS proposes that the Commission provide applicants with a template and guidance for the information needed for NTIA coordination.³⁰⁷ Some commenters also suggest that coordination and review would be faster if applications are sent to other reviewers as soon as they are filed or as soon as they are placed on public notice. To the extent that such a practice would involve the inter-agency coordination process, we observe that sending a large amount of application information for coordination to NTIA without direction from the Bureau on what the yet-to-be-proposed authorization would entail has the potential to encumber review and slow down deliberations on the application. Therefore, we will plan to continue the practice of conducting coordination once the draft authorization, including proposed conditions, is ready to share with NTIA reviewers.
- 103. As part of the transparency initiative described above, there may be opportunities to provide additional information to applicants regarding processes for the coordination of specific application requests. We do not seek to unilaterally adopt changes to the overall inter-agency coordination

³⁰¹ See, e.g., SpaceX Comments at 11-12; Turion Space Comments at 9-10; Intelsat Comments at 8; SIA Comments at 12; AWS Comments at 3.

³⁰² Memorandum of Understanding Between the Federal Communications Commission and the National Telecommunications and Information Administration (Aug. 1, 2022), https://docs.fcc.gov/public/attachments/DOC-385867A1.pdf (MOU).

³⁰³ SpaceX Comments at 10, 11-12 ("To speed earth station coordination with federal users, the Commission could adopt a "green light" / "yellow light" system, as it has done for fixed links in the 70/80 GHz band, for checking whether a proposed earth station deployment falls within coordination zones of existing federal deployments, such as radio astronomy sites and military installations."

³⁰⁴ Turion Space Comments at 9-10.

³⁰⁵ Intelsat Comments at 8.

³⁰⁶ SIA Comments at 12.

³⁰⁷ AWS Comments at 3.

process. We further note the interests of NTIA and appropriate federal stakeholders in the process and recognize that implementation may not be achievable considering technological limitations and various agency security needs. However, we agree with commenters that providing increased information regarding federal coordination may aid in streamlining the application process. Commission staff will continue to engage in their regular and ongoing dialogue with our colleagues at NTIA and other federal agencies to identify and consider ways to improve the inter-agency coordination process. In support of such discussions, we seek comment on the proposals above made by commenters, as well as any additional proposals for improvements regarding inter-agency coordination of space station and earth station applications.

F. Eliminating Potentially Duplicative Coordination Requirements

- 104. We seek further comment on whether we can further streamline some of our coordination requirements for earth and space station operators in instances in which the earth station and space station sides must engage in potentially duplicative coordination. In the *NPRM* we asked about any duplicative coordination processes that could be streamlined and received several comments pointing to areas in which earth and space station applications are part of separate coordinations related to the same underlying set of operations. AWS suggests that the Commission could reduce duplicative coordination in cases where a space station's downlinks have already been coordinated and the same frequencies and points of communication corollate with earth station applications and provided an example of the requirements for EESS operators in the X-band (8025-8400 MHz).³⁰⁸ Similarly, Microsoft asserts that authorization process for communications in the S-, X-, and Ka-bands between EESS space stations and earth stations requires a space station operator to engage in the same coordination to add an earth station to its authorized list that an earth station operator is also required to engage in to add the space station to its authorized list.³⁰⁹
- 105. We seek comment on how to expedite the coordination process for operations where the space station operator has identified earth stations as part of the licensing process, and where such a list of such earth stations is provided to NTIA during the space station licensing process. Specifically, we consider whether is it possible to coordinate the earth station sites and frequencies utilized with those earth stations once, as part of either just the space station or earth station coordination with NTIA? Again, we do not seek to change these processes unilaterally and note this will involve continued dialogue to assess whether such changes are feasible given the need to coordinate operations in frequency bands that are shared with federal users. If we determine that such streamlining is possible, we seek comment on how to ensure that the earth stations have been previously coordinated. For example, should we allow earth station applicants to certify that a new satellite point of contact the earth station operator seeks to add has already been coordinated with NTIA in the relevant frequency bands in connection with a space station application? Additionally, we seek further comment on any additional situations in which identical coordination is required and could be eliminated without creating any gaps in coordination and interference protection.
- 106. We also inquire as to how this proposal may affect the new streamlined modification procedure for earth station operators adding points of communication that we adopt in the Order.³¹⁰ For example, should we enable earth station licensees operating in bands shared with federal users to take advantage of the streamlined modification procedure to add a new point of communication that has already been coordinated with federal users through the space station licensing process? Assuming that we determine that coordinating certain earth stations with federal users through the space station process is possible, are there other change to our licensing rules we should consider?

³⁰⁹ Microsoft Comments at 12.

³⁰⁸ AWS Comments at 7.

³¹⁰ See, supra, Section III.D for the discussion on new section 25.117(i).

G. Eliminating Printed, Hardcopies Requirement.

107. Intelsat suggests eliminating our current part 25 rule that requires operators to keep an original paper copy of an electronically filed application.³¹¹ We agree that this requirement, found in section 25.110(e) of our rules, is outdated and unnecessary and we therefore propose to amend our rules to eliminate this procedural requirement. Applicants of course are free to continue such practice if they so choose, but we believe that removal of the requirement would fit squarely into our application streamlining goals as well as conform with long-standing broader government initiatives to reduce reliance on hard copy paper filings.³¹² We seek comment on this proposed change.

H. Change of Default Ex Parte Status of Space and Earth Station Applications

We propose to change the default status of all space and earth station applications from 108. "restricted" to "permit but disclose" under our rules governing ex parte presentations³¹³ and seek comment on this proposal. Currently, space and earth station applications are by default classified as "restricted" proceedings under the rules, since they are applications for authority under Title III of the Communications Act, and ex parte presentations are prohibited.³¹⁴ Our rules regarding ex parte presentations give Commission staff discretion to modify applicable ex parte rules, where it is in the public interest to do so in a particular proceeding,³¹⁵ and Commission staff has frequently done so, sometimes at the request of parties. The reasons for changing the *ex parte* status of a particular application can include, but are not limited to, the fact that the application covers the same subject area as a related rulemaking proceeding, ³¹⁶ or the topic to be discussed in a particular application has applicability across a wide number of applications.³¹⁷ The change of status of an application from "restricted" to "permit-but-disclose" requires resources to draft and release an order, letter, or public notice. 318 Modifying the *ex parte* status of an application is an ancillary task that requires Space Bureau resources that could otherwise be spent on placing applications on public notice or acting on the merits of applications. In addition, applicants – especially new space industry entrants or entrants from countries outside the United States – are often unaware of the Commission's ex parte rules and can inadvertently make impermissible presentations in restricted proceedings, which further diverts staff resources from processing applications.

³¹¹ Intelsat Comments at 13 (citing 47 CFR § 25.110(e)).

³¹² See, e.g., Government Paperwork Elimination Act, Pub. L. No. 105-277 (1998).

³¹³ The Administrative Procedure Act (APA) defines "ex parte communication" as "an oral or written communication not on the public record with respect to which reasonable prior notice to all parties is not given, but it shall not include requests for status reports on any matter or proceeding covered by this subchapter." 5 U.S.C. § 551(14). Consistent with that definition, the Commission's rules define an ex parte presentation as "[a]ny presentation which: (1) If written, is not served on the parties to the proceeding; or (2) If oral, is made without advance notice to the parties and without opportunity for them to be present," with "presentation" defined as "[a] communication directed to the merits or outcome of a proceeding, including any attachments to a written communication or documents shown in connection with an oral presentation directed to the merits or outcome of a proceeding." 47 CFR § 1.1202(a), (b).

³¹⁴ 47 CFR § 1.1208 ("Proceedings in which *ex parte* presentations are prohibited, referred to as "restricted" proceedings, include, but are not limited to, all proceedings that have been designated for hearing, proceedings involving amendments to the broadcast table of allotments, applications for authority under Title III of the Communications Act, and all waiver proceedings (except for those directly associated with tariff filings.")

^{315 47} CFR § 1.1200(a).

³¹⁶ 47 CFR § 1.1206(a)(1)-(3) (listing informal rulemaking proceedings as "permit-but-disclose" proceedings).

³¹⁷ See, e.g., Satellite Policy Branch Information, Actions Taken, Report No. SAT-01695 (Jan. 20, 2023) (including changes to the designations of a dozen proceedings from "restricted" to "permit-but-disclose" to serve the public interest by facilitating the resolution of broad policy issues raised in the applications).

³¹⁸ 47 CFR § 1.1200(a).

109. We propose to amend part 1 of the rules³¹⁹ by adding "applications for space and earth station authorizations, including requests for U.S. market access through non-U.S. licensed space stations" to the list of proceedings that are "permit-but-disclose" proceedings from the outset. As "permit-but-disclose" proceedings, applications for space and earth station authorizations would be subject to the disclosure requirements that apply to *ex parte* presentations in such proceedings.³²⁰ We seek comment on this proposed implementation.

V. PROCEDURAL MATTERS

A. Ex Parte Rules - Permit-But-Disclose

The proceeding this Further Notice initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules.³²¹ Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must: (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

B. Filing Requirements—Comments and Replies

- 111. Filing Comments. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments in response to this Further Notice on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).
 - *Electronic Filers*: Comments may be filed electronically using the Internet by accessing the ECFS: http://apps.fcc.gov/ecfs.
 - *Paper Filers*: Parties who choose to file by paper must file an original and one copy of each filing.

³¹⁹ Specifically, we would propose to amend section 1.1206(a) by adding a new subparagraph. *See* 47 CFR § 1.1206(a).

³²⁰ 47 CFR § 1.1206(b).

³²¹ Id. §§ 1.1200 et seq.

- Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
- o Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L
 Street, NE, Washington, DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, DA 20-304 (March 19, 2020), https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy.
- 112. Persons with Disabilities. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

C. Regulatory Flexibility Act

- 113. Regulatory Flexibility Act. The Regulatory Flexibility Act of 1980, as amended (RFA),³²² requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities." ³²³ Accordingly, we have prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of rule and policy changes adopted in this Report and Order on small entities. The FRFA is set forth in Appendix C.
- 114. We have also prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning the potential impact of the rule and policy changes contained in the *Further Notice*. The IRFA is set forth in Appendix D. Written public comments are requested on the IRFA. Comments must be filed by the deadlines for comments on the *Further Notice* indicated on the first page of this document and must have a separate and distinct heading designating them as responses to the IRFA.

D. Paperwork Reduction Act

- 115. Paperwork Reduction Act Analysis. This document does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).
- 116. In addition, this *FNPRM* may contain potential new or revised information collection requirements. Therefore, we seek comment on potential new or revised information collections subject to the Paperwork Reduction Act of 1995, 44 U.S.C. § 3501 *et seq*. If the Commission adopts any new or revised information collection requirements, the Commission will publish a notice in the Federal Register inviting the general public and the Office of Management and Budget to comment on the information

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³²² 5 U.S.C. §§ 601–612. The RFA has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

³²³ 5 U.S.C. § 605(b).

collection requirements, as required by the Paperwork Reduction Act. The PRA defines a "collection of information" as "the obtaining, causing to be obtained, soliciting, or requiring the disclosure to third parties or the public, of facts or opinions by or for an agency, regardless of form or format OMB, other Federal agencies, and the general public are invited to comment on the modified information collection requirements contained in this document."³²⁴ In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4)), we seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

E. Congressional Review Act

117. [The Commission will submit this draft Report and Order and FNPRM to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, for concurrence as to whether this rule is "major" or "non-major" under the Congressional Review Act, 5 U.S.C. § 804(2).] The Commission will send a copy of this Report and Order and FNPRM to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

F. Further Information.

118. For additional information on this proceeding, contact Julia Malette, Space Bureau Satellite Programs and Policy Division, at julia.malette@fcc.gov or 202-418-2453.

VI. ORDERING CLAUSES

- 119. IT IS ORDERED, pursuant to Sections 4(i), 7(a), 301, 303, 307, 309, 310, and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 157(a), 301, 303, 307, 309, 310, 332, that this Report and Order IS ADOPTED, the policies, rules, and requirements discussed herein ARE ADOPTED, Part 25 of the Commission's rules IS AMENDED as set forth in Appendix A, and this Further Notice of Proposed Rulemaking IS ADOPTED.
- 120. IT IS FURTHER ORDERED that this Report and Order SHALL BE effective 30 days after publication in the Federal Register and will be submitted for approval by the Office of Management and Budget under the Paperwork Reduction Act and shall become effective after the Commission publishes a notice in the Federal Register announcing such approval and the relevant effective date.
- 121. IT IS FURTHER ORDERED that the Office of the Secretary, SHALL SEND a copy of this Report and Order and Further Notice of Proposed Rulemaking, including the Final and Initial Regulatory Flexibility Analyses, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with Section 603(a) of the Regulatory Flexibility Act, 5 U.S.C.
- 122. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance Program Management, SHALL SEND a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

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³²⁴ 44 U.S.C. § 3502(3)(A).

Marlene H. Dortch Secretary

APPENDIX A

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends title 47 of the Code of Federal Regulations, part 25, as follows:

PART 25 – SATELLITE COMMUNICATIONS

1. The authority citation for part 25 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302, 303, 307, 309, 310, 319, 332, 605, and 721, unless otherwise noted.

- 2. Amend § 25.112 by removing and reserving paragraph (a)(3) and revising the introductory text of paragraph (b) to read as follows:
- § 25.112 Dismissal and return of applications.
- (a) * * *
- (3) [Reserved]

* * * * *

(b) Applications for space station authority found defective under paragraph (a)(4) of this section will not be considered. Applications for authority found defective under paragraphs (a)(1) or (a)(2) of this section may be accepted for filing if:

* * * * *

- 3. Amend § 25.117 by adding paragraph (i) to read as follows:
- § 25.117 Modification of station license.

* * * * *

- (i) Unless otherwise ordered by the Commission, an application to add a space station point of communication to an earth station authorization will be deemed granted 35 days after the date of the public notice that the application has been accepted for filing, provided no objection is filed during the 30-day notice period and:
- (1) the license modification is only to add one or more points of communication;
- (2) the modification will not cause the earth station transmissions to exceed the highest EIRP, EIRP density, and bandwidth prescribed for any already authorized emission;
- (3) the modification will not cause the earth station to repoint an antenna beyond any coordinated range; and
- (4) the new space station point of communication will operate with the earth station only in frequency bands that are not shared with federal or terrestrial wireless users.

* * * * *

- 4. Amend § 25.137 by revising paragraph (d)(5) to read as follows:
- § 25.137 Requests for U.S. market access through non-U.S.-licensed space stations

* * * * *

- (d) * * *
- (5) Entities that have one market access request on file with the Commission for NGSO-like satellite

operations in a particular frequency band will not be permitted to request access to the U.S. market for another NGSO-like satellite system in that frequency band in the same processing round subject to the procedures of §§ 25.157 and 25.261.

* * * * *

- 5. Amend § 25.159 by revising paragraph (b) and the introductory text of paragraph (c) to read as follows:
- § 25.159 Limits on pending applications and unbuilt satellite systems

* * * * *

- (b) Applicants with an application for one NGSO-like satellite system license on file with the Commission in a particular frequency band will not be permitted to apply for another NGSO-like satellite system license in that frequency band in the same processing round subject to the procedures of §§ 25.157 and 25.261.
- 6. (c) If an applicant has an attributable interest in one or more other entities seeking one or more space station licenses or grants of U.S. market access, the pending applications and licensed-but-unbuilt satellite systems filed by those other entities will be counted as filed by the applicant for purposes of the limits on the number of pending space station applications or requests for U.S. market access and licensed-but-unbuilt satellite systems in this section and in § 25.137(d)(5). For purposes of this section, an applicant has an "attributable interest" in another entity if:

* * * * *

APPENDIX B

Proposed Rule Changes

The Federal Communications Commission proposes to amend title 47 of the Code of Federal Regulations part 1, as follows:

PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for part 1 continues to read as follows:

Authority: 47 U.S.C. 47 U.S.C. chs 2,5,9,13; 28 U.S.C. 2461

- 2. Amend § 1.1206 (a) by adding subparagraph (14) to read as follows:
- § 1.1206 Permit-but-disclose proceedings:
- (a) * * *
- (14) Applications for space and earth station authorizations, including requests for U.S. market access through non-U.S. licensed space stations.

* * * * *

The Federal Communications Commission proposes to amend title 47 of the Code of Federal Regulations, part 25, as follows:

PART 25 – SATELLITE COMMUNICATIONS

3. The authority citation for part 25 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302, 303, 307, 309, 310, 319, 332, 605, and 721, unless otherwise noted

- 4. Amend § 25.110 by removing and reserving paragraph (e):
- § 25.110 Filing of applications, fees, and number of copies.

* * * * *

(e) [Reserved]

* * * * *

APPENDIX C

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA), as amended, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Expediting Initial Processing of Satellite and Earth Station Applications* Notice of Proposed Rulemaking (*NPRM*) released in December 2022. The Federal Communications Commission (Commission) sought written public comment on the proposals in the *NPRM*, including comment on the IRFA. No comments were filed addressing the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

A. Need for, and Objectives of, the Report and Order

- 2. In recent years, the Commission has received an unprecedented number of applications for earth and space station licenses. The Report and Order facilitates and expedites the acceptance for filing of satellite and earth station applications under 47 CFR part 25 and adopts other streamlining measure to keep pace with growing demand for satellite services and innovative satellite operations. This rulemaking continues to and will promote competition and innovation among satellite and earth station operators, including the market entry of new competitors by removing barriers to applying for licenses.
- 3. The Report and Order adopts changes to Commission rules aimed at reducing barriers and burdens on satellite operators. Specifically, the Report and Order removes and reserves section 25.112(a)(3) thus allowing operators to seek a waiver for operations not in conformance with the international table of allocations. Additionally, the Report and Order removes the prohibition on licensed-but-unbuilt systems for NGSO operators by amending sections 25.159(b) and 25.137(d)(5), and creates a new, streamlined processing framework for earth station operators to add satellite points of communication under certain circumstances. Finally, the Report and Order lays the groundwork for a broader transparency initiative led by the Space Bureau to provide clarity and access to applicants when interfacing with our license application processes and filing system.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

4. There were no comments filed that specifically addressed the proposed rules and policies presented in the IRFA.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business

- 5. Pursuant to the Small Business Jobs Act of 2010, the Commission is required to respond to any comments the Chief Counsel for Advocacy of the Small Business Administration (SBA) filed in this proceeding, and to provide a detailed statement of any change made to the proposed rules as a result of those comments.⁴ The Chief Counsel did not file any comments in response to the proposed rules or policies in this proceeding.
 - D. Description and Estimate of the Number of Small Entities to which the Rules will

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996, (SBREFA) Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² Expediting Initial Processing of Satellite and Earth Station Applications, Space Innovation, IB Docket Nos. 22-411 & 22-271, Notice of Proposed Rulemaking, FCC 22-95 (Dec. 22, 2022) (NPRM).

³ 5 U.S.C. § 604.

⁴ *Id.* § 604(a)(3).

Apply

- 6. The RFA directs agencies to provide a description of, an where feasible, an estimate of, the number of small entities that may be affected by the rules adopted herein.⁵ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.⁷ A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).⁸
- 7. Below, we describe and estimate the number of small entities that may be affected by the adoption of the final rules.
- 8. Satellite Telecommunications. This industry comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications." Satellite telecommunications service providers include satellite and earth station operators. The SBA small business size standard for this industry classifies a business with \$38.5 million or less in annual receipts as small. U.S. Census Bureau data for 2017 show that 275 firms in this industry operated for the entire year. Of this number, 242 firms had revenue of less than \$25 million. Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 65 providers that reported they were engaged in the provision of satellite telecommunications services. Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees. Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance

⁵ *Id*.

⁶ 5 U.S.C. § 601(6).

⁷ 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

⁸ 15 U.S.C. § 632.

⁹ See U.S. Census Bureau, 2017 NAICS Definition, "517410 Satellite Telecommunications," https://www.census.gov/naics/?input=517410&year=2017&details=517410.

¹⁰ See 13 CFR § 121.201, NAICS Code 517410.

¹¹ See U.S. Census Bureau, 2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEREVFIRM, NAICS Code 517410, https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false.

¹² *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, *see* https://www.census.gov/glossary/#term ReceiptsRevenueServices.

¹³ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf.

¹⁴ *Id*.

Requirements for Small Entities

9. The Report and Order amends rules that are applicable to earth and space station operators requesting a license or authorization from the Commission, or entities requesting that the Commission grant a request for U.S. market access. The changes adopted in the Report and Order, as described below, will decrease the burden for small entities and other business operators. Specifically, the Report and Order eliminates the rule requiring automatic dismissal of applications requesting operations not in conformance with the international table of allocations, eliminates the NGSO unbuilt systems rule, and creates an expedited licensing process for certain earth station operators to add points of communication. The Commission estimates that all operators in the industry will incur a one-time cost for familiarizing themselves with the rule changes adopted today. Further, in light of these limited changes and rule reductions, the Commission does not believe that small entities will have to hire professionals to comply with the Report and Order.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities and Alternatives Considered

- 10. The RFA requires an agency to provide, "a description of the steps the agency has taken to minimize the significant economic impact on small entities...including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.¹⁵
- 11. The Report and Order amends the Commission's rules governing acceptability for filing by removing and reserving section 25.112(a)(3), which led to automatic dismissals of applications that proposed frequency operations not in conformance with the international table of frequency allocations. By removing this barrier, applicants may now apply for a waiver of the international table, just as operators applying under the small satellite or small spacecraft streamlined procedures have been able to do and just as all operators have been able to apply for waivers of the U.S. table of frequency allocations.
- 12. As an alternative, the Commission could have left 25.112(a)(3) in place. This would have potentially created a barrier to innovative uses of spectrum and stifled the development of the industry, including for small entities. The Commission allowed waivers of the international table of frequency allocations for small satellites and small spacecraft through its streamlined rulemaking processes, found at sections 25.122 and 25.123 respectively. However, small entities as defined for purposes of the RFA do not always align with the requirements to apply for a license under the small satellite or small spacecraft streamlined process. By removing 25.112(a)(3), all applicants may now seek a waiver for nonconforming use instead of risking automatic dismissal of an application that required time and resources to file.
- 13. In addition, the Report and Order removes the prohibition on applicants from applying for an additional NGSO-like satellite system license in a particular frequency band if that party already had a licensed-but-unbuilt NGSO-like satellite system in the band. By removing this prohibition we eliminate an additional barrier to applicants in moving forward with their satellite operations while maintaining safeguards against speculative license applications through our bond and milestone requirements.
- 14. As an alternative, the Commission could have allowed applicants to seek waivers of the prohibition on a case-by-case basis. This alternative would have been more costly to small entities, requiring additional resources to craft a request for waiver as part of their application or to engage with

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¹⁵ 5 U.S.C. § 604(a)(6).

outside counsel to assist with crafting the waiver request. Leaving the rule as is would have potentially created a barrier to small entities to apply for a license and expand their operations.

15. The Report and Order creates a new, streamlined review process under section 25.117 (Modification of station licenses) for earth station operators to add points of communication under specific circumstances. The Commission identified a set of circumstances under which the review process can be expedited and applications for this modification can be deemed granted 35 days after being placed on public notice. This new process will allow applicants to add points of communication to their operations at a quicker pace, thus creating an economic benefit to operators as well as a benefit to the public who will be able to access the services being provided sooner.

G. Report to Congress

16. The Commission will send a copy of the Report and Order, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act. ¹⁶ In addition, the Commission will send a copy of the Report and Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.

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¹⁶ 5 U.S.C. § 801(a)(1)(A).

APPENDIX D

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act (RFA),¹ the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Further Notice of Proposed Rulemaking (*FNPRM*). The Commission requests written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines provided on the first page of the *FNPRM*. The Commission will send a copy of the *FNPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *FNPRM* and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules

2. In recent years, the Commission has received an unprecedented number of applications for earth and space station licenses. The FNPRM continues to and will facilitate the application streamlining process and promote competition and innovation among satellite and earth station operators, including the market entry of new competitors.⁴ The FNPRM seeks public comment on proposed revisions to the Commission's rules governing satellite and earth station applications under 47 CFR part 25. Specifically, the FNPRM proposes to eliminate the procedural burden of printing and maintaining a paper copy of license applications by removing and reserving section 25.110(e) and amend section 25.118 of the Commission's rules, which allows operators to make certain minor modifications without prior authorization from the Commission. In addition, we propose to create a new provision in our rules that would allow earth station operators to apply for and receive a limited license under the condition that the license will require modification prior to operations with a specific point of communication, unless the point of communication is already on the Permitted List and the operations fit within the parameters specified therein. Further, the FNPRM seeks comment on whether to provide an equivalent to special temporary authority for space station market access grantees to communicate with U.S. licensed earth stations. We also seek comment on whether to expand the window for operators to file renewal applications for existing licenses. Additionally, the FNPRM seeks further comment on whether we can further streamline some of our coordination requirements for earth and space station operators in instances in which the earth station and space station sides must engage in potentially duplicative coordination. And, finally, the FNPRM proposes to change the default status of space and earth station proceedings to permit-but-disclose as a means of further streamlining the licensing process.

B. Legal Basis

3. The proposed action is authorized under sections 4(i), 7(a), 301, 303, 307, 308(b), 309, 310, 332, of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 157(a), 301, 303, 307, 308(b), 309, 310, 332.

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612 has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996).

² 5 U.S.C. § 603(a).

³ *Id*.

⁴ See generally Executive Order No. 14036, Promoting Competition in the American Economy, 86 FR 36987 (July 9, 2021 ("The heads of all agencies shall consider using their authorities to further the policies set forth in section 1 of this order, with particular attention to: (i) the influence of their respective regulations, particularly any licensing regulations, on concentration and competition in the industries under their jurisdiction; and..."). Executive Order at 86 FR 36991.

C. Description and Estimate of the Number of Small Entities to which the Proposed Rules will Apply

- 4. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules and policies, if adopted.⁵ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁸
- 5. Satellite Telecommunications. This industry comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications." Satellite telecommunications service providers include satellite and earth station operators. The SBA small business size standard for this industry classifies a business with \$38.5 million or less in annual receipts as small. U.S. Census Bureau data for 2017 show that 275 firms in this industry operated for the entire year. Of this number, 242 firms had revenue of less than \$25 million. Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 65 providers that reported they were engaged in the provision of satellite telecommunications services. Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees. Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.
- 6. All Other Telecommunications. The "All Other Telecommunications" category is comprised of establishments primarily engaged in providing specialized telecommunications services,

⁵ 5 U.S.C. § 603(b)(3).

⁶ 5 U.S.C. § 601(6).

⁷ 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

⁸ 15 U.S.C. § 632.

⁹ See U.S. Census Bureau, 2017 NAICS Definition, "517410 Satellite Telecommunications," https://www.census.gov/naics/?input=517410&year=2017&details=517410.

¹⁰ See 13 CFR § 121.201, NAICS Code 517410.

¹¹ See U.S. Census Bureau, 2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEREVFIRM, NAICS Code 517410, https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false.

¹² *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, *see* https://www.census.gov/glossary/#term ReceiptsRevenueServices.

¹³ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf.

¹⁴ *Id*.

such as satellite tracking, communications telemetry, and radar station operation. ¹⁵ This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. ¹⁶ Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry. ¹⁷ The SBA has developed a small business size standard for "All Other Telecommunications," which consists of all such firms with annual receipts of \$35 million or less. ¹⁸ For this category, U.S. Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year. ¹⁹ Of those firms, a total of 1,400 had annual receipts of less than \$25 million and 15 firms had annual receipts of \$25 million to \$49, 999,999. ²⁰ Thus, the Commission estimates that the majority of "All Other Telecommunications" firms potentially affected by our action can be considered small.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

- 7. The FNPRM seeks public comment on proposed revisions to the Commission's rules governing satellite and earth station applications under 47 CFR part 25. Specifically, the FNPRM proposes to eliminate the procedural burden of printing and maintaining a paper copy of license applications by removing and reserving section 25.110(e) and amend section 25.118 of the Commission's rules, which allows operators to make certain minor modifications without prior authorization from the Commission. In addition, we propose to create a new provision in our rules that would allow earth station operators to apply for and receive a limited license under the condition that the license will require modification prior to operations with a specific point of communication, unless the point of communication is already on the Permitted List and the operations fit within the parameters specified therein. Further, the FNPRM seeks comment on whether to provide an equivalent to special temporary authority for space station market access grantees to communicate with U.S. licensed earth stations. We also seek comment on whether to expand the window for operators to file renewal applications for existing licenses. Additionally, the FNPRM seeks further comment on whether we can further streamline some of our coordination requirements for earth and space station operators in instances in which the earth station and space station sides must engage in potentially duplicative coordination. And, finally, the FNPRM proposes to change the default status of space and earth station proceedings to permit-butdisclose as a means of further streamlining the licensing process.
- 8. In the *FNPRM*, the Commission seeks comment on whether any of the burdens associated with the filing, recordkeeping and reporting requirements can be minimized for small entities. We therefore expect the information we received in comments to include cost and benefit data, and to help the Commission further identify and evaluate relevant matters for small entities, including

¹⁵ See U.S. Census Bureau, 2017 NAICS Definition, "517919 All Other Telecommunications," https://www.census.gov/cgibin/sssd/naicsrch?input=517919&search=2017+NAICS+Search&search=2017.

¹⁶ *Id*

¹⁷ *Id*.

¹⁸ See 13 CFR § 121.201, NAICS Code 517919.

¹⁹ See U.S. Census Bureau, 2012 Economic Census of the United States, Table ID: EC1251SSSZ4, Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012, NAICS Code 517919, https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517919&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false.

²⁰ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard of annual receipts of \$35 million or less.

compliance costs, and other burdens that may result from the proposals and inquiries we make in this proceeding.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

- 9. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rules for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities."²¹
- 10. In the *FNPRM*, our proposal to remove and reserve section 25.110(e) should minimize the economic impact for small entities by eliminating the administrative burdens associated with printing and maintaining a paper copy of license applications. Likewise amending section 25.118 of the Commission's rules to allows operators to make certain minor modifications without prior authorization from the Commission should reduce administrative costs for small entities. In addition, small entities should benefit if our proposal to add a provision allowing earth station operators to apply for and receive a limited license under the condition that the license will require modification prior to operations with a specific point of communication, subject to the limitations described above in section A, is adopted.
- 11. An alternative we considered and seek comment on involved the elimination of potentially duplicative coordination requirements. More specifically, we inquired if some of our coordination requirements for earth and space station operators in situations where the earth station and space station sides must engage in potentially duplicative coordination can be streamlined. We also considered whether or not to expand timeframes for filing license renewal applications in our efforts to provide small and other entities flexibility, and further streamline the application process. We consider whether or not to expand the renewal filing window of the existing term for earth and space station operators.
- 12. We project that the changes considered in the *FNPRM* will be cost-neutral or result in lower costs for small entities and other operators. Additionally, while the Commission believes the possible rule changes considered in the *FNPRM* will generally reduce costs and burdens for the regulated community, the Commission seeks comment on whether any of the costs associated with any possible rule changes would have a significant negative economic impact on small entities. The Commission expects to more fully consider the economic impact and alternatives for small entities based on its review of the record and any comments filed in response to the *FNPRM* and this IRFA.
 - F. Federal Rules that may Duplicate, Overlap, or Conflict with the Proposed Rules
 - 13. None.

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²¹ 5 U.S.C. § 603(c)(1)–(c)(4).

APPENDIX E

List of Commenters

Comments in IB Docket No. 22-411

Amazon Web Services, Inc. (AWS)

Blue Origin

Commercial Smallsat Spectrum Management Association (CSSMA)

National Academy of Sciences Committee on Radio Frequencies (CORF)

Hughes Network Systems, LLC, EchoStar Satellite Services, LLC, EchoStar Mobile Limited (EchoStar)

Inmarsat Inc. (Inmarsat)

Intelsat License LLC (Intelsat)

Iridium Communications Inc. (Iridium)

Kuiper Systems LLC (Kuiper)

Microsoft Corporation

National Radio Astronomy Observatory (NRAO)

OneWeb

RBC Signals, LLC (RBC Signals)

Satellite Industry Association (SIA)

SES Americom, Inc. and O3b Limited (SES)

Space Exploration Holdings, LLC (SpaceX)

Spire Global, Inc. (Spire)

Swedish Space Corporation US, Universal Space Network (Swedish Space Corp.)

TechFreedom

The Boeing Company (Boeing)

T-Mobile USA, Inc. (T-Mobile)

Turion Space

Verizon, AT&T Services, Inc. (Verizon / AT&T)

Viasat, Inc. (Viasat)

Reply Comments in IB Docket No. 22-411

Globalstar, Inc. (Globalstar)

Intelsat

Iridium

Kuiper

Maxar Technologies Inc. Planet Labs PBC, ICEYE US, Inc., Fleet Space Technologies, Umbra Lab Inc.,

ATLAS Space Operations, Inc., Lunasonde Inc. (EESS Operators)

Microsoft

Myriota Pty. Ltd. (Myriota)

SpaceX

Verizon / AT&T

Viasat

WorldVu Satellites Limited (OneWeb)

Ex Parte Filings in IB Docket No. 22-411

Atomos Nuclear and Space Corporation (Atomos) (June 8, 2023)

EchoStar (April 17, 2023)

EchoStar (April 28, 2023)

Mangata Networks (March 15, 2023)

Mangata Networks (March 15, 2023)

Mangata Networks (March 10, 2023)

Mangata Networks (March 6, 2023)
Letter from Paul Caritj, Counsel for Microsoft to Marlene H. Dorch, Secretary, FCC (December 14, 2022)
Microsoft (July 13, 2023)
SpaceX (June 6, 2023)
Space X (December 14, 2022)
Spire (June 28, 2023)
Spire (March 10, 2023)