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

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In the Matter of	)	
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Amendment of the Commission's Space Station Licensing Rules and Policies	)	IB Docket No. 02-34
	)	
	)	
Mitigation of Orbital Debris	)	IB Docket No. 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

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I. INTRODUCTION

1. In this Order, we revise our space station licensing process to adapt it to today's satellite environment. The procedures we adopt today significantly revamp the licensing process that we have used since the early 1980s. The new procedures will allow us to act on applications dramatically faster than we can now, and to recognize the technical growth in satellite design over the last two decades. Specifically, in this Order, we consider two proposals made in the *Space Station Reform NPRM* to expedite the satellite licensing process.[1] For reasons discussed in detail below, we adopt a queue for considering satellite applications. In addition, we find that different kinds of satellite systems raise different processing issues. Therefore, we adopt two different licensing frameworks – a modified processing round approach based on our current procedure for non-geostationary satellite orbit (NGSO)-like systems, and a "first-come, first-served" procedure for geostationary satellite orbit (GSO)-like systems. By allowing us to cut processing time from the current two-to-three years to *less than one year*, these procedures will lead to substantial public interest benefits, including faster provision of satellite services to the public, and maintenance of the United States' position as the leader of the global satellite industry.

II. EXECUTIVE SUMMARY

2. In the *Space Station Reform NPRM*, the Commission noted that the satellite industry is a crucial component of the global communications marketplace.[2] For example, satellites are key to wide-area distribution of the video signals of over-the-air broadcasts and cable systems to other satellite systems and directly to consumers. Satellite facilities also constitute a major component of the wireless backbone infrastructure for voice and data communications, and provide an important opportunity to create another competitive platform for delivery of broadband services. Satellite facilities are especially well suited for extending these services to rural and unserved areas.[3] Satellite technology facilitates provision of Internet services, and it likely will continue to play an increasingly important role in this area. Satellite systems have also been used to provide data and voice services to mobile and handheld portable devices.

3. In the *Space Station Reform NPRM*, the Commission explained in detail why we are considering revisions to our satellite licensing procedure.[4] We noted that there are several factors

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[1] Amendment of the Commission's Space Station Licensing Rules and Policies, *Notice of Proposed Rulemaking*, IB Docket No. 02-34, 17 FCC Rcd 3847 (2002) (*Space Station Reform NPRM* or *Notice*).

[2] *Space Station Reform NPRM*, 17 FCC Rcd at 3849 (para. 2).

[3] *Space Station Reform NPRM*, 17 FCC Rcd at 3849 (para. 2), *citing* FWCC Request for Declaratory Ruling on Partial-Band Licensing of Earth Stations in the Fixed-Satellite Service that Share Terrestrial Spectrum, *First Report and Order*, IB Docket No. 00-203, 16 FCC Rcd 11511 (2001) (*FWCC/Onsat First Report and Order*).

[4] In this proceeding, we consider revisions to the procedure for all new satellite license applications except for Direct Broadcast Satellite (DBS) and Digital Audio Radio Satellite (DARS) licenses. *Space Station Reform NPRM*, 17 FCC Rcd at 3850 n.4. Thus, none of the rules adopted in this Order are applicable to DBS or DARS applications, including but not limited to the licensing procedure rules. Accordingly, while we adopt a mandatory electronic filing requirement for other space station

that can increase the time needed to issue satellite licenses, and one major factor is often our current use of processing rounds.[5] This is particularly true in processing rounds in which there are not enough orbital locations and/or there is not sufficient spectrum available to accommodate all the qualified applicants, as is often the case. In those cases, we afford the applicants an opportunity to negotiate "mutually agreeable" compromises so that all the applications can be granted. Those negotiations can require several months or even years of effort.[6]

4. Changes in the satellite industry since the current procedure was adopted in the 1980s[7] warrant consideration of proposals to accelerate the licensing process. First, the satellite industry has matured tremendously since the 1980s. For example, there are many more satellites in operation now then there were in 1980. Many of today's satellites operate in two or three frequency bands, while 1980 technology permitted only single-band satellites. Furthermore, all of today's satellites have greater capacity and operate at higher power than was possible in 1980. Other factors also weigh in favor of accelerating the licensing process. For example, the Commission noted that the International Telecommunication Union (ITU) had recently revised its procedures to require satellite operators to bring planned systems into use within seven years rather than nine as was allowed previously.[8] The Commission also observed that the current procedure can result in long and complex licensing proceedings in cases where the licensees apply for mobile satellite service (MSS) or non-geostationary satellite orbit (NGSO) authority and request feeder link or intersatellite link authorizations in different frequency bands as well.[9] Finally, delays in the provision of satellite services caused by the current satellite licensing procedure can impose costs on both satellite service providers and their customers.[10] It also results in inefficient spectrum use because it increases the amount of time scarce orbit and spectrum resources lie fallow.[11]

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applications in Section VII.F., DBS and DARS applicants will continue to be permitted but not required to submit applications electronically. In addition, DBS license terms will remain as specified in the *Part 100 Order* rather than Section VII.I.1. of this Order. *See* Policies and Rules for the Direct Broadcast Satellite Service, *Report and Order*, IB Docket No. 98-21, 17 FCC Rcd 11331, 11351 (para. 39) (2002) (*Part 100 Order*). DBS licensees will continue to be required to comply with the due diligence requirements of Section 25.148(b) rather than the milestone requirements we adopt in Section VII.C. below. *Part 100 Order*, 17 FCC Rcd at 11353 (para. 44); 47 C.F.R. § 25.148(b). Nothing in the discussion of the anti-trafficking rule in Section VII.D. will apply to DBS or DARS licenses. Instead, DBS license transfers are discussed in the *Part 100 Order*, 17 FCC Rcd at 11377-78 (para. 99). Finally, neither DBS nor DARS applicants are subject to the limit on number of pending applications in Section VII.E.3., or the replacement satellite procedure in Section VII.G.

5 *Space Station Reform NPRM*, 17 FCC Rcd at 3850-52 (paras. 5-10). We explain processing rounds in Section III.A. below.

6 *Space Station Reform NPRM*, 17 FCC Rcd at 3851 (para. 10).

7 Filing of Applications for New Space Stations in the Domestic Fixed Satellite Service, *Memorandum Opinion and Order*, 93 FCC 2d 1260 (1983) (*1983 Cut-Off Order*), *cited in Space Station Reform NPRM*, 17 FCC Rcd at 3850-51 n.3.

8 *Space Station Reform NPRM*, 17 FCC Rcd at 3855 (paras. 19-20).

9 *Space Station Reform NPRM*, 17 FCC Rcd at 3853-55 (paras. 15-18).

10 *Space Station Reform NPRM*, 17 FCC Rcd at 3852-53 (paras. 12-14).

11 *Space Station Reform NPRM*, 17 FCC Rcd at 3855 (para. 21).

Streamlining the satellite licensing process would reduce those costs. Thus, the procedures we adopt today will ensure that satellite spectrum and orbital resources will be used efficiently, to the benefit of American consumers.

5. In this Order, we adopt procedural reforms to expedite the satellite licensing process. The central procedural revision in this Order is to create a single queue for all new satellite applications. We base additional reforms on our determination that one size does not fit all -- that different procedures are better suited to applications for different kinds of satellite systems. For satellites communicating with earth stations with omni-directional antennas (NGSO-like systems), we adopt a modified processing round procedure. When the application reaches the front of the queue, we will start a processing round, and divide the available spectrum equally among all the qualified applicants. This is similar to the approach used in the *2 GHz Order*.[12] For other satellite applications (GSO-like systems), we adopt the first-come, first-served approach we proposed in the *Space Station Reform NPRM*, with revisions to address some concerns raised in the record.[13] Under both these procedures, we will be able to issue satellite licenses to qualified applicants significantly more quickly than is now possible.

6. We also adopt a number of other measures to expedite satellite licensing and provision of service to the public. For example, we adopt a streamlined procedure for replacement satellite applications.[14] We strengthen our milestone requirements, which will expedite service to the public by reassigning the orbit/spectrum resource where the original licensee is unwilling or unable to construct, launch, and operate its proposed satellite system.[15] In addition, we replace our current financial qualification showing with a bond-posting requirement.[16] The current financial qualification requirement was designed to address whether the applicant had the financial resources needed to launch a satellite and operate it for one year.[17] Our experience has been that a licensee's financial ability to implement a satellite system does not necessarily mean that it will ultimately expend its resources to that end. Finally, we remove our current restrictions on sales of satellite licenses, to facilitate transfers of licenses in the secondary market to parties that can provide a higher-valued use, but impose certain safeguards to ensure against spectrum speculation and other possible abuses.[18]

7. Underlying all our decisions in this Order is our long-standing policy that, as a general proposition, our regulations and procedures should not unreasonably interfere with licensees' business negotiations, and we should allow those negotiations to be based on market forces to the

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[12] The Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, *Report and Order*, IB Docket No. 99-81, 15 FCC Rcd 16127 (2000) (*2 GHz Order*). *See also* Section V.

[13] *Space Station Reform NPRM*, 17 FCC Rcd at 3859-61 (paras. 32-39). *See also* Section VI.

[14] Section VII.G.

[15] Section VII.C.

[16] Section VII.B.

[17] *See Space Station Reform NPRM*, 17 FCC Rcd at 3880 (para. 100).

[18] Sections VII.D. and VII.E.

extent possible.[19] This is particularly true in this proceeding, in which placing greater reliance on market mechanisms in our licensing procedures should promote the interests of satellite service consumers without any significant negative effect on satellite operators. Specifically, we adopt procedures that should enable us to establish satellite licensees' operating rights clearly and quickly. We also remove unnecessary barriers to license transfers, so that satellite operators have greater flexibility to negotiate post-licensing transfers of satellite licenses in response to changing market conditions and consumer demands. As a result, licensees will be able to provide service to the public much sooner than is often possible under our current satellite licensing procedures. Customers should not have to wait for months or years while applicants identify and discuss their concerns with each other in the context of processing round negotiations. The rules adopted today rely on market mechanisms to achieve the same or substantially similar results more efficiently, on a faster time scale, and with greater administrative ease once licenses are granted. This will ensure that there is the most efficient use of the satellite spectrum and orbit resources.[20]

III. BACKGROUND

A. Current Licensing Procedure

8. As we explained in the *Notice*, we currently issue satellite licenses in "processing rounds," a procedure by which we combine into groups and process together applications to operate satellites in a particular frequency band.[21] The typical process is as follows: First, an

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[19] *See* Price Cap Performance Review for Local Exchange Carriers, *First Report and Order*, CC Docket No. 94-1, 10 FCC Rcd 8961, 8990-92 (paras. 67-69) (1995); Access Charge Reform, *Fifth Report and Order and Further Notice of Proposed Rulemaking*, CC Docket No. 96-262, 14 FCC Rcd 14221, 14263-64 (para. 79) (1999) (*Incumbent LEC Pricing Flexibility Order*), *cited in Space Station Reform NPRM*, 17 FCC Rcd at 3866 (para. 54). In particular, in this Order below, we adopt licensing procedures to facilitate negotiations among licensees outside of a regulatory process, rather than encouraging those negotiations in the context of processing rounds as the Commission has in the past.

[20] In November 2002, the Spectrum Policy Task Force (SPTF) issued a Report making several recommendations to revise the Commission's spectrum management policies. *See* Federal Communications Commission, SPTF Report, ET Docket No. 02-135, (released Nov. 2002) (Spectrum Policy Task Force Report). This report can be found at www.fcc.gov/sptf. *See also* Commission Seeks Public Comment on Spectrum Policy Task Force Report, *Public Notice*, ET Docket No. 02-135, FCC 02-322 (released Nov. 25, 2002). The new satellite licensing procedures we adopt in this Order place greater reliance on market mechanisms, and so are consistent with the recommendations in the SPTF Report. SPTF Report at 56-58. In addition, the SPTF Report recommends that the Commission consider a statutory proposal for Congress that would assess and re-examine Section 647 of the Orbit Act to consider permitting, but not requiring, the Commission to utilize competitive bidding to resolve mutually exclusive applications for global and international satellite services. SPTF Report at 42. Section 647 of the Communications Satellite Act of 1962 (Satellite Act), as amended by the Open-Market Reorganization for the Betterment of International Telecommunications Act (ORBIT Act), 47 U.S.C. § 765f. Our adoption of new satellite licensing procedures should not be construed as implying any conclusion regarding this task force proposal. Moreover, nothing in this Order is intended to preclude the Commission from designating future U.S. satellite spectrum allocations for domestic satellite service only. Moreover, nothing in this Order is intended to limit the Commission from designating future U.S. satellite spectrum rights for distribution via auction consistent with our statutory authority.

[21] *Space Station Reform NPRM*, 17 FCC Rcd at 3850 (para. 5). The Commission also noted that it, in the past, it has used another procedure for Direct Broadcast Satellite (DBS) and Digital Audio Radio Satellite (DARS) licenses. This proceeding does not address the DBS or DARS licensing procedures. *Space Station Reform NPRM*, 17 FCC Rcd at 3850 n.4.

initial (or "lead") application for a particular service in a specific band is filed.[22] After staff determines that the application is acceptable for filing, we issue a public notice announcing a "cut-off" date, a deadline for other interested parties to file any additional applications to be considered, concurrently with the lead application, as part of a group.[23] We afford an opportunity for parties to file petitions to deny, comments, and replies with respect to each applications filed.[24]

9. On occasion, license applications in a processing round remain pending while the Commission initiates and completes a notice-and-comment rulemaking proceeding to adopt rules for the newly proposed service.[25] In addition, in cases where frequency bands have not been allocated internationally or domestically for a proposed service, the United States must develop and submit proposals for new frequency allocations at International Telecommunication Union (ITU) World Radio Conferences (WRCs),[26] and subsequently the Commission must amend its domestic Table of Frequency Allocations,[27] before it can act on the pending satellite license applications.[28]

10. If there are enough orbital locations and/or there is sufficient spectrum available to accommodate the proposed satellite systems of all of the qualified applicants in the processing round, we issue licenses at that point.[29] If, as is often the case, there are not enough orbital locations and/or there is not sufficient spectrum available to accommodate all the qualified applicants, we afford the applicants an opportunity to negotiate "mutually agreeable" compromises so that all the applications can be granted.[30] Those negotiations can require several months or even years of effort.[31] On occasion, applicants have not been able to reach mutually agreeable compromises, and the Commission has had to mandate a solution.[32] This process also

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22 *See Space Station Reform NPRM*, 17 FCC Rcd at 3850 (para. 6).

23 *See Space Station Reform NPRM*, 17 FCC Rcd at 3850 (para. 6), *citing 1983 Cut-Off Order*, 93 FCC 2d 1260.

24 *Space Station Reform NPRM*, 17 FCC Rcd at 3850 (para. 6).

25 *Space Station Reform NPRM*, 17 FCC Rcd at 3850-51 (para. 7).

26 WRCs are held approximately every two or three years. *Space Station Reform NPRM*, 17 FCC Rcd at 3851 (para. 9).

27 47 C.F.R. § 2.106.

28 *Space Station Reform NPRM*, 17 FCC Rcd at 3851 (para. 9).

29 *Space Station Reform NPRM*, 17 FCC Rcd at 3851 (para. 10). The Commission dismisses applications when it finds that the applicant is not legally, financially, or technically qualified to hold a satellite license. *See, e.g., Space Station Reform NPRM*, 17 FCC Rcd at 3851 (para. 10).

30 *Space Station Reform NPRM*, 17 FCC Rcd at 3851 (para. 10).

31 *Space Station Reform NPRM*, 17 FCC Rcd at 3851 (para. 10).

32 *Space Station Reform NPRM*, 17 FCC Rcd at 3852 (para. 10), *citing 2 GHz Order*, 15 FCC Rcd 16127.

requires the completion of a notice-and-comment rulemaking proceeding to implement an assignment scheme consistent with the negotiated agreement or, in cases where no agreement is reached, a Commission approach to resolving mutual exclusivity among the competing applicants. Developing proposals in a Notice of Proposed Rulemaking, reviewing comments, and finalizing rules in a Report and Order can also be time-consuming.

B. Proposed Revisions to Satellite Licensing Procedure

11. Certain factors outside our control can lengthen the time needed to grant a license. These include the time necessary to pursue and obtain new international allocations for satellite services pursuant to ITU procedures. Rather than concentrate on those factors where the Commission's ability to shorten the time involved is limited, we have focused our efforts on those licensing areas that are within our control.[33]

12. Accordingly, the *Notice* invited comment on two proposals that would shorten the time required to act on space station applications by either eliminating, or limiting, the opportunity for negotiations among applicants. Specifically, we invited comment on two alternatives for revising our satellite processing procedure. The first option is a first-come, first-served approach, based in large part on the procedure we used for FM radio and television licenses from 1985 to 1998.[34] The second option is to reform and streamline our current processing round procedure.[35]

13. For the reasons set forth below in Section IV., we conclude that license applications for different types of satellites raise distinct issues that can be resolved most effectively in procedures adapted to those issues. Specifically, we find that applications for certain satellite systems are best considered in a modified processing round, while others are best considered in a first-come, first-served approach. In Section V., we establish a single queue for all new satellite applications, and we set forth our modified processing round procedure in detail. We discuss our first-come, first-served procedure in Section VI. In Section VII., we adopt other revisions to our space station licensing rules, including replacing our current financial qualification requirements with a bond, eliminating the satellite anti-trafficking rules, strengthening our milestone requirements, and adopting safeguards to protect against speculative satellite applications. We revise our procedures for non-U.S.-licensed satellite operators seeking access to the U.S. market in Section VIII., to be consistent with our procedures for U.S.-licensed satellite operators that we adopt herein.[36] Section IX. is a conclusion for the Report and Order. Finally, in Section X., we

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[33] *Space Station Reform NPRM*, 17 FCC Rcd at 3856 (para. 25).

[34] *Space Station Reform NPRM*, 17 FCC Rcd at 3857-71 (paras. 28-66), *citing* Amendment of the Rules Concerning Cut-Off Procedures for FM and TV Broadcast Stations, *Report and Order*, MM Docket No. 84-750, FCC 85-125, 50 Fed. Reg. 19936, 19941-42 (paras. 33-36) (May 13, 1985) (*TV and FM Broadcast Order*), *recon. denied*, 50 Fed, Reg. 43157 (Oct. 24, 1985), *aff'd without published opinion sub nom.* Hilding v. FCC, 835 F.2d 1435 (9th Cir. 1987), *reprinted at* 58 Rad. Reg. 2d 776 (1985). In *Hilding*, the Court rejected the petitioner's challenge of the broadcast first-come, first-served rule because it found that the Commission reasonably concluded that its rules balanced the competing public interest concerns better than alternative rules proposed by the petitioner.

[35] *Space Station Reform NPRM*, 17 FCC Rcd at 3871-75 (paras. 67-83).

[36] In the *Space Station Reform NPRM*, we proposed revisions to Schedule S, a standardized space station licensing form initially proposed in another proceeding. *See Space Station Reform NPRM*, 17 FCC Rcd at 3875-79 (paras. 84-94); 2000 Biennial Regulatory Review -- Streamlining and Other Revisions

adopt a Further Notice of Proposed Rulemaking to invite additional comment on the details of the bond requirement.

IV. PRELIMINARY ISSUES

A. Need for Reform

14. *Background.* Several commenters claim that we need to make only slight revisions to our satellite licensing procedures.[37] Many of these parties note that the Commission has relied on processing rounds for many years (since 1983) with good results. For example, a number of parties claim that processing rounds have enabled the Commission to license as many satellite operators as possible given limited satellite spectrum.[38] Teledesic argues that, while processing rounds have been successful in the past, they have become too slow to be a good means for issuing satellite licenses.[39] Teledesic maintains that any proposals to streamline or facilitate processing rounds are misplaced because, regardless of whether or to what extent the processing round procedure can be improved, the first-come, first-served procedure would produce a better result.[40] Teledesic contends that processing rounds discourage innovative satellite proposals by grouping them together with applications from parties who may not have any interest in moving forward with their proposed satellite systems.[41] SES Americom replies that Teledesic overstates the delays of processing rounds, and overstates the time savings of the first-come, first-served approach.[42]

15. Hughes and PanAmSat argue that delays in licensing are often not the result of processing rounds, but rather spectrum allocation or service rule proceedings.[43] Hughes also

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of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations, *Notice of Proposed Rulemaking*, IB Docket No. 00-248, 15 FCC Rcd 25128, 25191-25201 (App. C) (2000) (*Part 25 Earth Station Streamlining NPRM*). We will consider comments filed in response to the revised Schedule S in a future Order, as well as our proposal to require non-U.S.-licensed satellite operators seeking access to the U.S. market to complete Schedule S. *See Space Station Reform NPRM*, 17 FCC Rcd at 3890 (para. 127). In a future Order, we will also consider some commenters' proposals that may require revisions to Schedule S, such as a streamlined procedure for some space station modification applications. *See, e.g.*, SIA Comments at 20-21; Teledesic Space Station Comments at 26-27; Intelsat Comments at 21.

[37] *See* Hughes Comments at 47; SIA Comments at 14; SES Americom Reply at 11-12; PanAmSat Comments at 10; Intelsat Reply at 6-7; PanAmSat Reply at 3-4.

[38] SIA Comments at 5-6; Hughes Comments at 2-3; PanAmSat Comments at 8-9. *See also* Boeing Comments at 5-6, 10.

[39] Teledesic Comments at 2-5. *See also* Intelsat Comments at 5-6.

[40] Teledesic Comments at 34-35.

[41] Teledesic Comments at 5.

[42] SES Americom Reply at 8-9.

[43] Hughes Comments at 3-4, 33; PanAmSat Comments at 9.

questions the Commission's reasons in the *Notice* for considering revisions to the satellite licensing process.[44]

16. *Discussion*. We disagree with commenters that assert that we should limit our consideration to minor revisions to the satellite licensing process. We explained in the *Notice* that the negotiations among applicants are usually time consuming and not always successful.[45] In these cases, the Commission must develop a framework for resolving mutual exclusivity among the applicants. Such a framework is generally adopted in a notice-and-comment rulemaking proceeding. This process (negotiations and rulemaking) has generally taken two to three years, or more.[46] These delays impose real and substantial economic costs on satellite customers as well as service providers.[47] Alternatively, in this Order, we move away from a highly regulatory procedure to a more market-based approach. Furthermore, the International Telecommunication Union (ITU) has shortened its bringing-into-use date by two years,[48] which prompts us to expedite our licensing procedures as much as possible. In addition to these public interest benefits, we also noted that, given the important role the satellite industry plays in the U.S. and world economy, the public interest demands that we continually review our procedures and improve them whenever possible.[49] Moreover, in another context, at least one applicant has criticized the length of the current processing round procedure.[50] Finally, our experience has shown that satellite licensees need about three to six years to construct and launch satellite systems. Given the now-seven-year ITU deadline for bringing planned satellites into use, we need to expedite the licensing process dramatically. Accordingly, we conclude that we must reform the current satellite licensing procedure.

17. Furthermore, while Hughes and PanAmSat are correct that we could issue satellite licenses more quickly if we could expedite spectrum allocation and service rule proceedings, this observation does not provide a sufficient reason to defer needed revisions of the satellite licensing process. Moreover, as we noted in the *Space Station Reform NPRM*, attempting to streamline the spectrum allocation and service rule procedures in addition to the satellite licensing process would be unwieldy.[51] Thus, it is reasonable to address these issues one at a time, and to address the satellite licensing process first. Moreover, we adopt measures in this Order to limit the delays

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44 Hughes Comments at 5-8.

45 *Space Station Reform NPRM*, 17 FCC Rcd at 3851-52 (para. 10).

46 *Space Station Reform NPRM*, 17 FCC Rcd at 3871-72 (para. 68).

47 *Space Station Reform NPRM*, 17 FCC Rcd at 3852-53 (paras. 12-14).

48 The ITU's Radio Regulations requires ITU member nations to bring their proposed satellite systems into use within five years of the date the nation informed the ITU of its intent to construct and operate that satellite system. This deadline can be extended to seven years under certain circumstances. Failure to meet the bringing-into-use date causes the member nation to lose its priority relative to other member nations' proposed satellite systems.

49 *Space Station Reform NPRM*, 17 FCC Rcd at 3856 (para. 22).

50 *See* Letter from Peter Allen, Director, Pacific Century Group, to Jennifer Gilsenan, Chief, Policy Branch, Satellite Division, International Bureau, FCC (dated Sept. 19, 2002) (describing the Second Ka-band processing round as "unfortunately all too lengthy").

51 *Space Station Reform NPRM*, 17 FCC Rcd at 3856 (para. 25).

caused by frequency allocation and service rule proceedings. For applications filed before the ITU has adopted an international frequency allocation, we decide in this Order to return the application without prejudice as premature.[52] We also adopt commenters' recommendations to create generic, default service rules to apply in cases where we grant applications filed in the absence of specific service rules.[53] Accordingly, we do not expect either frequency allocation proceedings or service rule proceedings to delay our actions on satellite applications as much as they have in the past. In any case, we may consider exploring other options for expediting service rule proceedings in the future.

B. General Framework

18. *Background.* In the *Notice*, we invited comment on two general approaches for revising the current satellite licensing procedure. One of those approaches is the first-come, first-served approach, in which we are to process satellite applications one at a time in the order that they are filed.[54] The other approach modifies and streamlines the current processing round procedure by placing a time limit on negotiations in processing rounds, or establishes a sharing mechanism that would clarify the operating rights of the prospective licensees, and so reduces or eliminates the need for processing round negotiations.[55]

19. *Discussion.* Intelsat proposes something it calls the modified first-come, first-served procedure.[56] Intelsat recommends applying its procedure only to new license applications for orbital locations and spectrum with established service rules and frequency allocations, such as the C-band, Ku-band, and Ka-band, but not to services where band-segmentation is preferable, such as MSS and possibly NGSO satellite constellation applications.[57] In other words, Intelsat would not apply a first-come, first-served procedure to applications for authority to operate in a frequency band where needed service rules or allocations have not yet been adopted.[58] SES Americom argues that limiting the first-come, first-served proposal to "established bands" would not address any of the concerns that commenters have raised about potential for speculation in or the legal basis for a first-come, first-served procedure.[59] SES Americom also questions whether a satellite service should be considered "established" as soon as the Commission adopts service

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52 Sections VI.D.1. and VI.E.1.e. below.

53 Sections V.D.1. and VI.E.1.d. below.

54 *Space Station Reform NPRM*, 17 FCC Rcd at 3857-71 (paras. 28-66).

55 *Space Station Reform NPRM*, 17 FCC Rcd at 3871-75 (paras. 67-83).

56 Intelsat Comments at 8. Intelsat intends all the proposals in its "modified first-come, first-served" approach to be considered together as a single package. Intelsat Comments at 3. For reasons discussed below, we cannot adopt all the elements in Intelsat's proposal. Section VI.F. We find, however, that adoption of some of Intelsat's proposals would further the public interest even if we do not adopt everything in Intelsat's proposal. Accordingly, we will consider the individual elements of Intelsat's proposal on a case-by-case basis.

57 Intelsat Comments at 9-10.

58 Intelsat Comments at 9-10.

59 SES Americom Reply at 14-15.

rules and frequency allocations.[60] Although PanAmSat supports retaining processing rounds over a first-come, first-served procedure, PanAmSat makes a point very similar to Intelsat. PanAmSat argues that different factors may be relevant in processing rounds for different kinds of satellite licenses, such as NGSO or GSO, FSS or MSS.[61] Telesat argues that operators of non-U.S.-licensed GSO FSS satellites seeking access to the U.S. market should be subject to a different procedure than other non-U.S.-licensed satellite operators.[62]

20. Intelsat and PanAmSat raise a very good point, in that different kinds of satellite applications raise different kinds of issues, and therefore it may be reasonable to adopt different procedures to address the issues raised by each kind of satellite application. We also agree with SES Americom, however, that Intelsat's proposal to apply different procedures to applications for satellites in "established" and "unestablished" frequency bands may not be the best way to classify satellite applications. Rather, we find that Intelsat's comment is very relevant when it noted that satellite applications for which band segmentation is preferable should be considered pursuant to a different procedure than other satellite applications.

21. The framework we adopt in this proceeding is based on Intelsat's observation that band segmentation is preferable for some but not all satellite applications. The classification we adopt here is based on a refinement of Intelsat's observation that MSS and NGSO applications raise different issues than other satellite applications.[63] Rather than adopting Intelsat's classification, however, we conclude that the classification should be as follows: (1) NGSO satellite constellations and GSO satellites communicating with earth stations with omni-directional antennas, and (2) GSO satellites communicating with earth stations with non-omni-directional antennas. For purposes of this Order, we refer to these types of satellite applications as "NGSO-like" and "GSO-like" applications, respectively. NGSO-like satellite systems are those in which the earth station has little or no directivity towards a satellite, so that the earth station must track the satellite in all directions, such as hand-held satellite telephones. NGSO systems generally cannot operate on the same spectrum without causing unacceptable interference to each other. Examples of GSO-like satellite systems are those which use earth stations with antennas with directivity towards the satellites, such as FSS, and MSS feeder links which use GSO satellites. GSO satellites can operate on the same spectrum at two-degree orbit spacings.

22. This NGSO-like classification better describes the universe of satellite applications for which band segmentation is preferable because it promotes better our goal of trying to license as many satellite systems as possible, so that there is as much competition as possible for each satellite service. If we adopted a first-come, first-served procedure for NGSO-like satellite applications, the first qualified applicant could request authority to operate in so much of the orbit-spectrum resource that additional market entry would be precluded. In these cases, therefore, band segmentation is preferable because it facilitates the potential for competitive market entry. For GSO-like satellite applications, however, licensees are usually authorized to operate throughout the frequency band. Thus, large spectrum requests in GSO-like satellite

60 SES Americom Reply at 15-16.

61 PanAmSat Comments at 13.

62 Telesat Comments at 4-5.

63 Intelsat Comments at 9-10.

applications do not by themselves preclude additional market entry. Accordingly, we adopt a first-come, first-served procedure for GSO-like satellite applications. We explain these conclusions in Sections V. and VI. below.

V. MODIFIED PROCESSING ROUNDS FOR NGSO-LIKE SATELLITE SYSTEMS

A. Overview

23. As we explained above, the Commisison proposed two general approaches for updating and expediting our satellite licensing process. One was the first-come, first-served approach,[64] and the other approach was to modify the current processing round procedure. We proposed several modifications, including placing a 60-day time limit on those negotiations,[65] adopting criteria for selecting among applicants if the negotiations fail,[66] and establishing a sharing mechanism that would clarify the operating rights of the prospective licensees, and so reduce the need for negotiations.[67] We adopt a modified processing round approach using a spectrum-splitting framework for applications for NGSO-like satellite applications. We find further that the first-come, first-served approach is not well suited to this kind of satellite system.

B. Opportunities for Competitive Entry for NGSO-Like Satellite Systems

24. *Background.* In the *Notice*, the Commission invited comment on applying a first-come, first-served procedure to both NGSO-like and GSO-like satellite applications. Under a first-come, first-served approach, the first-filed acceptable application for a particular satellite license would be considered before considering other applications requesting to use the same spectrum.[68] Under this procedure, we would issue a public notice inviting comment on the lead application. Subsequently filed applications would be included in a queue according to their sequential date of filing. If for any reason we could not grant the lead application, we would dismiss the lead application and consider the next application in the queue and continue this process until we could grant an application.[69]

25. The Commission recognized the possibility that the first applicant in the queue could seek authority for so much spectrum that future service providers could be unreasonably precluded from the market.[70] This is especially true with respect to NGSO-like satellite systems, in which licensing one satellite system operator to provide service in a particular frequency band segment precludes other satellite system operators from providing service in that frequency band

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64 This approach is described in detail in the *Space Station Reform NPRM*, 17 FCC Rcd at 3859-61 (paras. 32-40), and in this Order below.

65 *Space Station Reform NPRM*, 17 FCC Rcd at 3872 (para. 70).

66 *Space Station Reform NPRM*, 17 FCC Rcd at 3872-73 (paras. 70-76).

67 *Space Station Reform NPRM*, 17 FCC Rcd at 3873-74 (para. 78).

68 *Space Station Reform NPRM*, 17 FCC Rcd at 3859 (para. 32).

69 *Space Station Reform NPRM*, 17 FCC Rcd at 3859 (para. 33).

70 *Space Station Reform NPRM*, 17 FCC Rcd at 3860 (para. 36).

segment.[71] The Commission suggested that this issue could be addressed by limiting the amount of the spectrum-orbit resource granted to each applicant to the amount needed to provide the proposed service. The Commission also proposed to determine the appropriate amount of spectrum in the context of service rule proceedings, and invited parties to propose methods or criteria for making such determinations.[72]

26. We received several comments on the first-come, first-served procedure. We address those comments in detail below.[73] Here, we focus on comments related to using rulemaking proceedings to determine the amount of spectrum needed to provide a service. Based on those comments, we conclude that a revised processing round approach using a pre-established sharing mechanism is better suited for NGSO-like satellite systems than the first-come, first-served procedure is.

27. *Discussion*. Boeing argues that it would be virtually impossible for the Commission to determine the precise amount of spectrum necessary to provide a particular service on a case-by-case basis.[74] Hughes maintains that determining reasonable spectrum limits in service rules proceedings would force those proceedings to take on all the characteristics of processing rounds, and so would not reduce the time needed to issue licenses.[75] SES Americom argues that a rulemaking proceeding is not a good forum for determining the amount of bandwidth needed by an applicant in a first-come, first-served procedure. This is because, according to SES Americom, comments in the rulemaking proceeding would be unduly influenced by the commenters' place in the queue, rather than on engineering or economic considerations. In other words, according to SES Americom, commenters who are near the front of the queue would have an incentive to argue that more spectrum is necessary to preclude other applicants from obtaining bandwidth, while commenters near the end of the queue would have an incentive to argue that less spectrum is necessary, to try to ensure that spectrum is still available by the time they reach the front of the queue.[76] Telesat argues that, in some cases, it would not be in the public interest to grant the entire available spectrum to the first applicant in the queue, and so suggests the band-splitting procedure used in the *2 GHz* proceeding in those cases.[77]

28. Teledesic argues that a first-come, first-served procedure would not give the first applicant the ability to monopolize new services, because the Commission can deny "excessive" applications, grant such applications in part, or condition licenses on compliance with future

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71 This is because NGSO-like satellite systems use earth stations that cannot discriminate between satellites when there is an in-line event for NGSOs. In other words, the earth stations have no isolation, as a result of their lack of directivity.

72 *Space Station Reform NPRM*, 17 FCC Rcd at 3860 (para. 36).

73 Section VI.D.

74 Boeing Comments at 7-8.

75 Hughes Comments at 34.

76 SES Americom Comments at 6-7.

77 Telesat Comments at 3.

rulemakings.[78] Teledesic contends further that the Commission will need to consider issues of spectrum efficiency and spectrum excess regardless of whether the Commission adopts a first-come, first-served procedure, and that the Commission would be able to resolve those issues more easily if the Commission can "de-link" several applications on file and address the spectrum issue "head-on."[79] CTIA also advocates limiting spectrum assignments in service rule proceedings, and recommends using those proceedings to consider reallocating spectrum to other uses.[80] Teledesic and CTIA do not, however, provide any suggestions for methods or criteria for determining the amount of spectrum that can reasonably be considered "excessive" in the context of service rule proceedings.

29. The amount of spectrum a particular satellite operator would need to provide a particular service depends on the satellite operator's system design itself and the operator's business assessments of the service to be provided. Given the innovative designs, unique niche markets targeted by each operator, and cutting edge technology, we have not attempted to evaluate each licensee's individual spectrum needs. Rather, we have relied on market mechanisms to the extent possible. Rather than attempting to judge whether an applicant has justified its spectrum request in a first-come, first-served procedure, we believe that a more efficient way of awarding spectrum for NGSO-like systems is through a modified processing round approach with a pre-set band-splitting mechanism. This, together with eliminating the anti-trafficking rule for satellite licenses and adopting safeguards against speculation, will allow the secondary market to determine the appropriate amount of spectrum for each NGSO-like system. Accordingly, we adopt Telesat's recommendation to apply a modified processing round procedure using a band-splitting approach to NGSO-like satellite system applications.

C. Modification of Processing Round Procedure

1. Sharing Mechanism

30. *Background.* Having determined to implement a modified processing round approach using a band-splitting framework, we must decide how to divide the available spectrum among the competing applicants. The Commission's proposed sharing mechanism is based on the method it used in the *2 GHz Order* to resolve mutually exclusive situations.[81] Under this approach, once we receive an application to use particular spectrum, we would issue a public notice establishing a cut-off date for additional applications to be considered together with the "lead" application. After the cut-off date has passed, we would dismiss any applications that are

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[78] Teledesic Comments at 11-12, *citing* Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, *Memorandum Opinion and Order*, 94 FCC 2d 129, 137 (para. 19) (1983) (denying an application deemed to be excessive); Loral Orion Services, Inc., *Order and Authorization*, 14 FCC Rcd 17665 (Int'l Bur., 1999) (granting authority to launch satellite and conduct in-orbit testing, but denying authority to provide commercial service, without prejudice); PanAmSat Licensee Corp., *Order and Authorization*, 13 FCC Rcd 1405, 1414 (para. 27) (Int'l Bur. 1997) (license conditioned on outcome of future rulemaking proceeding).

[79] Teledesic Reply at 22-23.

[80] CTIA Comments at 6-7.

[81] *Space Station Reform NPRM*, 17 FCC Rcd at 3873-74 (para. 78), *citing 2 GHz Order*, 15 FCC Rcd at 16138 (para. 16).

not "acceptable for filing."[82] After we have placed the remaining applications on public notice, we would deny any applications that do not demonstrate that the applicant is qualified to operate a satellite system under the Commission's rules. If spectrum sufficient to accommodate the remaining applicants is not available, we would divide the available spectrum equally among those applicants.[83]

31. *Discussion.* SIA argues that a modified processing round procedure of the kind the Commission adopted in the *2 GHz Order* may not always be the best method for resolving mutually exclusive situations.[84] Teledesic asserts that it is unreasonable to conclude that this procedure would allow applicants an adequate amount of spectrum regardless of the number of applicants.[85]

32. We conclude that dividing the available spectrum equally among the qualified applicants is the best way of issuing licenses for NGSO-like satellite systems quickly and fairly. Neither SIA nor Teledesic has persuaded us otherwise. We explained in the *Space Station Reform NPRM* and in this Order above that there is considerable public interest harm that can result from a very long licensing procedure.[86] If we do not adopt a pre-set method of assigning bandwidth to satellite system applicants, then we will need to continue to base bandwidth assignments on lengthy applicant negotiations, which can take years to complete. We would effectively be allowing one or more applicants in a processing round to delay service to the public while they develop a spectrum sharing arrangement. Thus, we need to adopt a pre-set method of assigning bandwidth to achieve a primary goal of this proceeding, to expedite the satellite licensing process. Further, as we discussed above, it is difficult to determine the amount of spectrum a particular satellite operator would need to provide a particular service.[87] Thus, to the extent that Teledesic contends that the Commission should determine the amount of spectrum that would be adequate for each applicant, we reject that proposal because it would delay licenses and service to the public more than the current procedure.

33. In addition, we disagree that this procedure would not provide licensees with sufficient spectrum for their systems. We eliminate the anti-trafficking rule as part of our package of licensing reforms,[88] and so licensees will be free to purchase spectrum rights from

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82 In other words, we proposed dismissing applications that do not meet all the applicable information requirements.

83 *Space Station Reform NPRM,* 17 FCC Rcd at 3873-74 (para. 78). We also proposed this procedure in the context of the first-come, first-served approach, as a second-tier selection mechanism in the event that we adopt a first-come, first-served procedure in which we may need to consider two or more satellite applications together. *Space Station Reform NPRM,* 17 FCC Rcd at 3863-64 (paras. 46-48). We discuss this issue in Section VI.E.2. below.

84 SIA Comments at 16.

85 Teledesic Comments at 32-33.

86 *Space Station Reform NPRM,* 17 FCC Rcd at 3852-56 (paras. 11-23); Section IV.A. above.

87 Section V.B., above.

88 Section VII.D.

another licensee after licenses have been issued if they believe that they have not been awarded sufficient spectrum, provided that they comply with all applicable rules governing that license, including but not limited to the milestone requirements, performance bond, and limits on pending applications and unbuilt satellites adopted in this Order below. Alternatively, the parties are free to develop spectrum-sharing arrangements. Thus, by dividing the spectrum equally among qualified applicants, we do not need to rely on a lengthy and complicated rulemaking proceeding, or regulatory fiat, to determine the proper amount of spectrum to give to each applicant. Rather, we rely on a market mechanism, *i.e.*, the purchase of additional spectrum from other licensees, which should produce a reasonable result more quickly and with fewer administrative burdens than any other alternative presented in this record.

34. In summary, we conclude that the modified processing round procedure with the sharing mechanism we adopt here, together with a policy that allows licensees to buy or sell licenses freely, should result not only in faster licensing but faster deployment of satellite systems.

2. Facilitating Processing Round Negotiations

a. Time Limit on Negotiations

35. *Background.* As an alternative to adopting a specific sharing mechanism, we sought comment on placing a time limit on negotiations in the context of processing rounds, such as 60 days after the record closes on applications filed on the cut-off date, for the parties to negotiate a plan to accommodate all the applicants. If the parties could not reach an agreement by that time, we would determine which applications to grant based on specific criteria.[89] Alternatively, in the absence of an agreement, we would divide the spectrum as discussed above.[90]

36. *Discussion.* Teledesic argues that many applications filed in processing rounds are speculative, and parties filing such applications have no interest in reaching a negotiated agreement. As a result, according to Teledesic, efforts to facilitate negotiations by placing a time limit on negotiations cannot succeed.[91] SES Americom denies that satellite applicants in processing rounds have no interest in reaching a negotiated agreement.[92]

37. Hughes observes that a processing round is a zero-sum game, and compares processing rounds to a game of "chicken" in which parties "posture and dig in – claiming that they'll never swerve, they actually like car crashes, and so on – until the absolute last instant, just before the two cars collide."[93] Nevertheless, Hughes and other parties support placing a time limit on negotiations in processing rounds, and claim that no other licensing procedure reforms

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89 *Space Station Reform NPRM*, 17 FCC Rcd at 3872-73 (paras. 71-76).

90 *Space Station Reform NPRM*, 17 FCC Rcd at 3873-74 (para. 78).

91 Teledesic Comments at 31.

92 SES Americom Reply at 10-11.

93 Hughes Comments at 35.

are needed.[94] CTIA claims that a time limit on negotiations would help speed the process, but would not discourage speculative applications.[95]

38. Teledesic's and Hughes's observations weigh heavily against adopting any negotiation period, either as part of the sharing approach adopted above or together with the system of preferences we proposed in the *Notice*,[96] as discussed below. In particular, Hughes's description of applicants' behavior in processing round negotiations suggests that any mandated negotiation period would have no effect other than delaying our actions on the satellite applications. Although this delay would be limited to 60 days, we do not believe that there is any public interest benefit that is significant enough to justify even a limited delay. Furthermore, as we noted above, this procedure does not preclude negotiations among licensees after we issue licenses. In fact, quickly issuing licenses and clarifying licensees' operating rights and responsibilities should facilitate subsequent negotiations more than a time limit on negotiations would. As we noted above, establishing a clear delimitation of rights and responsibilities provides a necessary basis for negotiations regarding the possible purchase and sale of those rights.[97] In addition, applicants may negotiate before or after we issue licenses. If the applicants present a frequency band assignment plan to the Commission before it acts on the applications, the Commission will consider that plan. For the reasons set forth below, however, we will not delay our procedures if the applicants cannot complete their negotiations by the time we are ready to issue licenses.[98]

b. System of Preferences

39. *Background*. In the *Notice*, we invited comment on adopting criteria for selecting among applicants in a processing round in the event that the applicants cannot reach a negotiated agreement. We noted that we currently have one such criterion in our rules, in that GSO satellite operators with licenses for two unbuilt satellites in a particular frequency band may not apply for another satellite license in that band.[99] We requested parties to discuss additional criteria. For example, we invited comment on establishing a preference for new entrants over existing licensees.[100] We also proposed giving a preference to satellite operators who have not missed a milestone in the past five years, who have already made progress in constructing a satellite, who

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[94] Hughes Comments at 47. *See also* SIA Comments at 14 (supporting a limit of 60 to 90 days); SES Americom Reply at 11-12 (60 to 90 day limit); PanAmSat Comments at 10 (supporting a limit "such as 60 days"); Intelsat Reply at 6-7; PanAmSat Reply at 3-4.

[95] CTIA Comments at 4.

[96] *Space Station Reform NPRM*, 17 FCC Rcd at 3872-73 (paras. 70-76).

[97] Section V.C.2., *citing Space Station Reform NPRM*, 17 FCC Rcd at 3864 (para. 50); Coase, *Social Cost*, 3 J.L. & Econ. at 8; Coase, *FCC*, 2 J.L. & Econ. at 25.

[98] *See* Section V.C.2.d. below.

[99] *Space Station Reform NPRM*, 17 FCC Rcd at 3872 (para. 70), *citing* 47 C.F.R. §§ 25.140(e), (f).

[100] *Space Station Reform NPRM*, 17 FCC Rcd at 3872 (para. 71).

have made a commitment to provide service to rural and unserved areas, and who filed applications before the end of the cut-off period.[101]

40. *Discussion*. Several parties argue that many if not all of the Commission's proposed criteria would be at best difficult to apply, and so would not make it easier to complete a processing round.[102] Intelsat urges the Commission to develop selection criteria different from the criteria proposed in the *Notice*. It argues that the difficulty in developing workable criteria weighs in favor of a first-come, first-served approach.[103] Pegasus supports a preference for new entrants and a limit on unbuilt satellites to two initial GSO orbit locations in each frequency band, but maintains that the other criteria proposed in the *Notice* support no sound policy objective or are susceptible to gaming.[104] PanAmSat argues that the limit on unbuilt satellites should help avoid most mutually exclusive situations, but advocates adoption of one or more of the criteria proposed in the *Notice* in the event that mutually exclusive situations arise.[105]

41. We agree with commenters who argue that many of the criteria we proposed in the *Space Station Reform NPRM* would be difficult to apply. Moreover, applying any of the criteria proposed in the *Notice* would not streamline our licensing procedure as well as the modified processing round procedure we adopt above for NGSO-like satellite system applications. In addition, the criteria may not accurately reflect who will actually construct, launch, and operate a satellite system, and may therefore delay service to the public. Accordingly, we will not adopt the proposal to decide among applicants in a processing round based on any of the criteria suggested in the *Notice*.

c. Other Proposals for Facilitating Negotiations in Processing Rounds

42. Hughes suggests that the Commission take on a mediator role during satellite applicants' negotiations, giving parties in processing rounds informal opinions regarding their relative positions.[106] Although this might facilitate the negotiations in some cases, it would not facilitate the satellite licensing process as well as the sharing mechanism we adopt above, nor would it lead to a better result than the sharing mechanism we adopt above, together with the freedom to buy and sell spectrum after licenses are granted. In fact, issuing licenses quickly pursuant to the procedure we adopt above, and thereby clarifying licensees' operating rights and responsibilities, should facilitate negotiations more effectively than the Commission could if it assumed the mediator role proposed by Hughes.[107]

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101 *Space Station Reform NPRM*, 17 FCC Rcd at 3873 (paras. 72-75).

102 Teledesic Comments at 31-32; SIA Comments at 35-37; Hughes Comments at 37-42; Pegasus Comments at 5-6; Intelsat Reply at 7-9.

103 Intelsat Reply at 9.

104 Pegasus Comments at 5-6.

105 PanAmSat Comments at 12-13.

106 Hughes Comments at 47-48.

107 Section V.C.2., *citing* Coase, *Social Cost*, 3 J.L. & Econ. at 8; Coase, *FCC*, 2 J.L. & Econ. at 25.

43. SIA recommends prohibiting *ex parte* statements filed more than 30 days after the end of the negotiation period.[108] In light of our decision to adopt a pre-set sharing mechanism rather than a negotiation period, there is no need to consider SIA's proposal further.

d. Need for Pre-Licensing Negotiations

44. Several commenters question whether we should adopt any licensing procedure that does not base the resulting licenses on applicant negotiations. SIA contends that the Commission's band-splitting proposal may not always be the best method for resolving mutually exclusive situations.[109] SIA argues further that the modified processing round procedure ignores the preferences of applicants and the potential for alternative spectrum sharing arrangements.[110] Similarly, Teledesic argues that, in the event that we adopt a procedure that allows for mutually exclusive applications to be considered together, we should allow negotiations and not limit them to a 60-day period.[111] Hughes and PanAmSat recommend that the Commission mediate the applicants' negotiations rather than adopt predicable rules governing bandwidth assignments in processing rounds.[112]

45. We disagree with SIA and other commenters that we should delay issuing licenses until the applicants have completed negotiations. As an initial matter, nothing in this proceeding precludes licensees from negotiating alternative agreements to redistribute bandwidth among licensees after licenses have been issued. Rather, in this Order below, we eliminate the anti-trafficking rule in part to facilitate such negotiations.[113] Furthermore, as we observed in the *Notice*, creating clearly defined initial rights should encourage rather than discourage subsequent negotiations.[114] This is consistent with our determination in other proceedings that creating clearly defined initial operating rights reduces regulatory uncertainty, and so encourages investment.[115] The commenters have not persuaded us to revisit this observation. We also

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108 SIA Comments at 14-15. *See also* SES Americom Reply at 9-10.

109 SIA Comments at 16.

110 SIA Comments at 6-7, 16.

111 Teledesic Comments at 23.

112 Hughes Comments at 47-48; PanAmSat Reply at 3-4.

113 The Commission noted in the *Space Station Reform NPRM* that eliminating the anti-trafficking rule would encourage negotiations. *Space Station Reform NPRM*, 17 FCC Rcd at 3864 n.56.

114 *Space Station Reform NPRM*, 17 FCC Rcd at 3864 (para. 50), *citing, e.g.*, Coase, *The Problem of Social Cost*, 3 J.L. & Econ. 1 (1960) (Coase, *Social Cost*). In that article, Coase points out that, in the context of nuisance cases, "[i]t is necessary to know whether the damaging business is liable or not for damage caused since without the establishment of this initial delimitation of rights there can be no market transactions to transfer and recombine them." 3 J.L. & Econ. at 8. *See also* Coase, *The Federal Communications Commission*, 2 J.L. & Econ. 1, 25 (1959) (Coase, *FCC*) ("One of the purposes of the legal system is to establish that clear delimitation of rights on the basis of which the transfer and recombination of rights can take place through the market.")

115 The Commission has noted on several occasions that regulatory uncertainty can discourage investment, and so unnecessary regulatory uncertainty should be avoided. *See, e.g.*, Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Internet Over Cable Declaratory Ruling, Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable

believe that post-licensing negotiations will often be easier than pre-licensing negotiations, because in many cases only two parties will be involved in negotiations to transfer bandwidth rights from one party to the other. Unlike pre-licensing negotiations, it will not be necessary to have unanimous agreement in those cases. Therefore, a speculative applicant will not be able to delay its competitors through manipulation of post-licensing negotiations, as it could do in pre-licensing negotiations. In addition to finding that post-licensing negotiations should be easier than pre-licensing negotiations in many cases, we have no basis for assuming that the spectrum assignments resulting from post-licensing negotiations will be more or less efficient, or more or less likely to further the public interest, than the spectrum assignments resulting from pre-licensing negotiations. Moreover, we know of no reason to assume that the spectrum assignments resulting from pre-licensing negotiations are likely to be so superior to those resulting from post-licensing negotiations that even the 60-day delay of service to the public advocated by commenters is warranted.

46. We also disagree with commenters to the extent that they argue that the Commission cannot or should not issue any licenses until applicants have been given opportunities to determine and state their preferences, beyond the statements and preferences included in their applications. The Commission has found in other proceedings that applicants do not have an automatic right to a license.[116] It follows that applicants do not have an automatic right to a license for a particular frequency band assignment, particularly when we adopt measures to facilitate post-licensing negotiations.

47. In sum, the procedures we adopt in this Order will enable us to issue licenses quickly, thereby clearly defining satellite licensees' rights and responsibilities, and facilitating later negotiations. Accordingly, there is no reason for continuing to rely on a much slower process in which satellite applicants must conduct negotiations before their rights and responsibilities are defined.

D. Details of Modified Processing Round Procedure

1. Overview of Framework

48. Under this procedure, we will continue to license NGSO-like satellite systems through processing rounds.[117] Once a satellite application is filed, and we have determined that it

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Facilities, *Declaratory Ruling and Notice of Proposed Rulemaking*, GN Docket No. 00-185, CS Docket No. 02-52, 17 FCC Rcd 4798, 4802 (para. 5) (2002); Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Universal Service Obligations of Broadband Providers; Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements; *Notice of Proposed Rulemaking*, CC Docket Nos. 02-33, 95-20, 98-10, 17 FCC Rcd 3019, 3022-23 (para. 5) (2002); Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, *Second Report and Order*, GN Docket No. 93-252, 9 FCC Rcd 1411, 1421 (para. 25) (1994). *See also* Kirby Corp. v. Pena, 109 F.3d 258, 266-67 (5th Cir., 1997); Houston Lighting and Power Co. v. United States, 606 F.2d 1131, 1145 (D.C. Cir., 1979); Chemical Bank New York Trust Co. v. S.S. Westhampton, 358 F.2d 574, 580 (4th Cir. 1965).

[116] TelQuest Ventures, L.L.C., *Memorandum Opinion and Order*, 16 FCC Rcd 15026, 15038-39 (para. 34) (2001), *citing* National Broadcasting Co., Inc. v. United States, 319 U.S. 190, 227 (1943).

[117] We describe the procedure for feeder link applications in Section VI.E.1.f. below.

is acceptable for filing, we will put it on public notice, and announce a cut-off date for applications to be considered concurrently. We will review applications filed by the cut-off date to determine whether they are acceptable for filing, and if so, we will place those applications on public notice.[118] Once the record has closed on all the applications placed on public notice, we will act on the applications. If there is not enough spectrum to accommodate all qualified applicants, we will divide the spectrum equally among those applicants. Each licensee will be allowed to choose its specific band assignment between 30 and 60 days before it launches its first satellite, by filing a letter with the Commission and serving the other participants in the processing round.[119]

49. In cases where there is no international frequency allocation, we will dismiss applications for NGSO-like satellite systems without prejudice as premature. In the past, the Commission has accepted applications before needed international frequency allocations were adopted to bolster its position at an international allocation conference, although such applications are not necessary for the United States to develop its position at such conferences. In any event, a petition for rulemaking to amend the domestic Table of Frequency Allocations[120] can also provide support for an international frequency allocation.

50. Once there is an international frequency allocation, we will accept and consider satellite applications. For applications filed before a domestic allocation is adopted, the applicant must request a waiver of the domestic Table of Frequency Allocations.[121] We will consider these requests on a case-by-case basis to determine whether the waiver should be granted or denied, or whether other licensing options, including but not limited to auctions, consistent with our statutory authority, should be pursued. Further, until the Commission adopts a domestic allocation, operations must be on a non-conforming, non-interference basis with respect to allocated services. We will also include a condition in each license that requires the licensee to meet any rules that may be adopted for the service, either together with or after a domestic allocation is made.[122]

51. We will also consider applications after we adopt a domestic frequency allocation, but before we have adopted frequency-band-specific service rules. We agree with Teledesic that

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[118] In the event that only one or two applicants file applications in the processing round, we will consider initiating a second processing round pursuant to the procedure discussed in Section V.D.4. below.

[119] Allowing licensees to select their frequency band segment at the time they launch their first satellite is consistent with the *2 GHz Order*. *2 GHz Order*, 15 FCC Rcd at 16139 (para. 19). Also consistent with the *2 GHz Order*, licensees will be permitted to operate outside their band segment on a secondary basis. *2 GHz Order*, 15 FCC Rcd at 16139 (para. 19).

[120] 47 C.F.R. § 2.106.

[121] 47 C.F.R. § 2.106.

[122] If the international allocation is appropriate to countries or Regions not including the United States, these satellites will only be able to be authorized to provide service in these internationally allocated bands to those countries, and not the United States. If the Commission has made a determination not to implement an international allocation, that band will also not be authorized for service to and from the United States.

frequency-band-specific service rules may not be needed in all cases.[123] In addition, SIA is also correct that the Commission based its service rules for 2 GHz licenses on the service rules for the Big LEO satellite service, and that therefore it should be possible to craft generic service rules based on frequency-band-specific service rules that the Commission has adopted in the past.[124] Intelsat also supports adoption of generic or default service rules, although it does not suggest any such rules.[125] For the reasons discussed below, we adopt Teledesic's proposal, and adopt default service rules to govern satellite operations in frequency bands unless and until the Commission adopts frequency-band-specific service rules.

52. We generally base service rules for new satellite services on our existing rules governing similar services. Thus, we based our service rules for 2 GHz NGSO mobile-satellite service systems on rules for Big LEO NGSO mobile-satellite service systems. Given this, we see no reason to delay licensing satellite systems allocated for but not being used for satellite operations pending establishment of service rules. Rather, as the commenters suggest, we will license systems based on default rules and subject to any subsequent service rules for specific satellite operations in that band. Specifically, we will use the Part 25 technical requirements specified in Appendix C as default service rules for NGSO-like satellite systems.[126] We also require licensees to comply with any applicable ITU technical requirements.[127] Furthermore, licensees will be required to comply with any service-band-specific service rules that the Commission may adopt in that frequency band.

53. Also, as part of our default service rules, applicants must submit a narrative statement describing the design and operational strategies that they will use to mitigate orbital debris, as well as a casualty risk assessment if planned post-mission disposal involves atmospheric re-entry of the spacecraft. We have consistently adopted, or proposed to adopt, this requirement in recent years in connection with a number of new services.[128] Furthermore, last

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[123] Teledesic Comments at 20-22.

[124] SIA Comments at 13-14, *citing* The Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, *Notice of Proposed Rulemaking*, IB Docket No. 99-81, 14 FCC Rcd 4843, 4846 (para. 3) (1999) (*2 GHz NPRM*) (proposing using big LEO service rules as a "starting point" for another service for the 2 GHz band).

[125] Intelsat Comments at 9.

[126] We adopt default service rules for GSO-like satellite systems in Section VI.E.1.d. below.

[127] Of course, we will continue to require all earth stations operating in frequency bands that are shared on a co-primary basis between satellite and other services, such as terrestrial wireless services, to coordinate their operations in accordance with Section 25.203 before they are licensed, regardless of whether they plan to communicate with space stations operating under default service rules or frequency-band-specific service rules. 47 C.F.R. § 25.203. Similarly, non-government operations of earth stations in a frequency band that is shared by Government and Non-Government operations will be required to be coordinated through the National Telecommunications and Information Administration (NTIA) Interdepartment Radio Advisory Committee's (IRAC) Frequency Assignment Subcommittee (FAS) before awarding a license in these bands. *See* Amendment of Parts 2, 25, and 90 of the Commission's Rules to Allocate the 13.75-14.0 GHz Band to the Fixed-Satellite Service, *Report and Order*, ET Docket No. 96-20, 11 FCC Rcd 11951, 11960-61 (para. 20) (1996).

[128] *See 2 GHz Order*, 15 FCC Rcd at 16188 (paras. 135-38); The Establishment of Policies and Service Rules for the Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ku-Band, *Report and Order and Further Notice of Proposed Rulemaking*, IB Docket No. 01-96, 17 FCC Rcd 7841, 7865-66

year we proposed to apply this requirement to all FCC-licensed systems in the *Orbital Debris Notice*.[129] Based on this precedent and on the record developed in response to the *Orbital Debris Notice*, we find that the public interest concerns that lead us to require satellite licensees in the past to disclose their orbital debris mitigation plans and that were discussed in the *Orbital Debris Notice* also support adopting this requirement for satellite systems to which these default rules will apply. In preparing such exhibits, applicants may find guidance in the U.S. Government Orbital Debris Mitigation Standard Practices and the debris mitigation guidelines adopted by the Inter-Agency Space Debris Coordination Committee (IADC).[130] We note that the *Orbital Debris Notice* sought comment on a broad range of issues in addition to the question of whether a requirement to disclose debris mitigation plans should be adopted. These questions, along with the question of whether additional systems should be subject to a routine disclosure requirement, will be addressed by subsequent Commission action.

54. Our adoption of default service rules is a logical outgrowth of the *Notice*. There, the Commission proposed a procedure for considering satellite applications filed before service rules are adopted,[131] and it invited parties to recommend alternatives to this proposal, together with all the proposals in the *Notice*.[132] In response, several commenters recommended the adoption of default service rules.[133] In addition, SIA recommended that the Commission base the default service rules on service rules that Commission has adopted for similar services in the past.[134] Furthermore, the Commission emphasized that one of its primary goals for this proceeding is to expedite the satellite licensing process,[135] and default service rules further that goal.[136] Thus, interested parties should have anticipated that the Commission might consider adopting proposals

(para. 81) (2002). *See also* Establishment of Policies and Service Rules for Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ka-Band, *Notice of Proposed Rulemaking*, IB Docket No. 02-19, 17 FCC Rcd 2807, 2821 (para. 43) (2002).

[129] Mitigation of Orbital Debris, *Notice of Proposed Rulemaking*, IB Docket No. 02-54, 17 FCC Rcd 5586 (2002) (*Orbital Debris Notice*).

[130] *Orbital Debris Notice*, 17 FCC Rcd at 5615-18 (App. A). *See also* Application Of Constellation Communications Holdings, Inc., *Order and Authorization*, 16 FCC Rcd 13724, 13731 (Int'l Bur. and Office of Eng. and Tech. 2001); Application of the Boeing Company, *Order and Authorization*, 16 FCC Rcd 13691, 13702 (Int'l Bur. 2001). A technical presentation concerning the IADC debris mitigation guidelines, made to the most recent meeting of the Scientific and Technical Subcommittee of the U.N. Committee on the Peaceful Uses of Outer Space, is available at www.unvienna.org. The guidelines themselves will reportedly be available electronically in the near future at www.iadc-online.org.

[131] *Space Station Reform NPRM*, 17 FCC Rcd at 3860 (para. 35).

[132] *Space Station Reform NPRM*, 17 FCC Rcd at 3897 (para. 147).

[133] SIA Comments at 13-14; Teledesic Comments at 20-22; Intelsat Comments at 9.

[134] SIA Comments at 13-14.

[135] *Space Station Reform NPRM*, 17 FCC Rcd at 3849-50 (para. 3).

[136] SIA Comments at 13-14.

for default service rules.[137] Moreover, because these parties made their recommendations in their comments, interested parties had an opportunity to respond to the proposals in their replies.[138]

55. In sum, our default service rules for NGSO-like satellite systems are consistent with requirements that we have imposed on satellite licenses in the past. These default service rules are reasonable, and they further the public interest by enabling licensees to proceed with their business plans more quickly than would be possible otherwise. Moreover, if the default service rules are not appropriate in a particular case, they will be superceded by any service-specific service rules that we may adopt subsequently. Thus, licensees will be required to comply with those subsequent service-specific service rules. Finally, we emphasize that, in cases where we find that frequency-band-specific service rules may be warranted, we will initiate a rulemaking proceeding to consider such rules within four to six months of that determination. For example, frequency-band-specific service rules may be particularly appropriate in cases in which the band is shared between satellite service and other services.

2. Interrelation with Procedures for GSO-Like Satellite Systems

56. Because we stated above that we are adopting one licensing procedure for NGSO-like satellite system applications and another for GSO-like satellite system applications,[139] we will process both types of satellite system applications in a single queue in the order that they are filed. We will consider GSO-like satellite system applications, one at a time in the order they are filed. When an NGSO-like satellite system application reaches the front of the queue, we will conduct a processing round based on the modified processing round procedure we adopted above.

57. In cases where an applicant files an application for a satellite system that includes both categories of satellites, and we have established service rules for sharing between GSO and NGSO satellite systems, we will treat that application as two separate applications. We will consider the GSO-like request under the first-come, first-served procedure, and the NGSO-like request under the modified processing round procedure we adopt today.

58. On a going-forward basis, in cases where there are no service rules establishing criteria for sharing between GSO and NGSO satellite systems in a particular frequency band, we will consider only applications of the kind that is filed first. That is, if an NGSO-like satellite system application is filed first, we will conduct a processing round pursuant to the modified processing round procedure, and we will dismiss subsequently-filed GSO-like satellite system applications in that band until sharing criteria are established. Similarly, if a GSO-like satellite system application is filed first, we will consider other GSO-like satellite system applications in the order they are filed, and we will dismiss subsequently-filed NGSO-like satellite system applications in that band until sharing criteria are established. This is consistent with our current practice. For example, in the Ku-band, we initially considered only GSO satellite applications

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137 The concept of "logical outgrowth" includes proposals that parties should have anticipated might be imposed. Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 548-49 (D.C. Cir., 1983).

138 *See also* American Iron and Steel Institute v. EPA, 115 F.3d 979, 988 (D.C. Cir., 1997) (statute directing agency to issue "guidance" for state water quality criteria also authorized agency to adopt default rules applicable to States that did not adopt standards, policies, and procedures consistent with the guidance).

139 Section IV.B. above.

because the first applications for licenses in that band were for GSO systems.[140] We did not begin considering Ku-band NGSO applications until we had established sharing criteria for compatible services with GSO applicants in that band.[141] In cases in which an applicant proposes a hybrid GSO-like/NGSO-like satellite system in a frequency band before we adopt sharing criteria for that band, we will treat the proposed satellite system as an NGSO-like system, with the GSO portion of the system as additional satellites in the constellation. This is consistent with the Commission's actions in the *2 GHz Order*. Finally, in the event that one or more GSO-like satellite system applications and one or more NGSO-like satellite system applications are filed at the same time, we will initiate a processing round, and divide the frequency band equally among all the qualified applicants. We will designate part of the band for GSO-like satellites and the rest of the band for NGSO-like satellite systems, based on the proportion of qualified GSO-like applicants to qualified NGSO-like applicants.

3. Amendments and Modifications

59. In the *Notice*, the Commission invited comment on revising the amendment and modification procedures.[142] We find here that neither our amendment procedure nor our modification procedure require any revision as a result of our decision to modify the processing round procedure for NGSO-like satellite system applications. In contrast, we discuss below revisions to the amendment and modification procedures to be adopted in conjunction with the first-come, first-served procedure.[143]

4. Additional Processing Rounds

60. Teledesic criticizes the Commission for not explaining in the *Notice* how this approach would apply to second processing rounds.[144] We explain here the procedure we will use for second and additional processing rounds. This procedure is a logical outgrowth of the procedure we proposed in the *Notice*.[145]

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[140] *See* Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, *Memorandum Opinion and Order*, 94 FCC 2d 129 (1983); Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, *Memorandum Opinion and Order*, 3 FCC Rcd 6972 (1988); Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, *Order and Authorizations*, 11 FCC Rcd 13788 (Int'l Bur. 1996).

[141] Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range, *First Report and Order and Further Notice of Proposed Rulemaking*, ET Docket No. 98-206, 16 FCC Rcd 4096 (2000).

[142] *Space Station Reform NPRM*, 17 FCC Rcd at 3866-67 (paras. 55-58). By definition, the term "amendment" refers to changes to an application before a license is issued, and the term "modification" refers to changes to a license after it is issued. 47 C.F.R. § 25.116 (amendments); 47 C.F.R. § 25.117(d) (space station license modifications). The *Notice* did not propose revisions to the definitions of "amendment" or "modification," but rather invited comment on revising the treatment of amendments or modifications in a first-come, first-served framework.

[143] Sections VI.E.3. and VI.E.4. below. We discuss transfer of control applications for both GSO-like and NGSO-like applications in Section VII.D. below.

[144] Teledesic Comments at 33.

[145] *Space Station Reform NPRM*, 17 FCC Rcd at 3863-64 (paras. 46-48), 3873-74 (para. 78).

61. As an initial matter, we do not anticipate conducting many second or additional processing rounds, because operating rights in all the available spectrum in the frequency band will be assigned equally to all qualified applicants in the first processing round, assuming that the applicants' spectrum requirements exceed the available allocation. In addition, the Commission invited comment on redistributing a licensee's spectrum rights to the licensee or licensees remaining in operation, in the event that a license is cancelled or relinquished.[146] The Commission argued that this would likely put the spectrum into use more quickly than any other alternative.[147] We hereby adopt this proposal in a slightly modified form. If a licensee loses or terminates its license, we will probably reassign the spectrum assigned to that licensee equally among the remaining licensees, assuming that there are a sufficient number of licensees remaining to make reasonably efficient use of the frequency band, and assuming that there is no basis at that time for considering reallocation of the spectrum. For reasons discussed below, we presume that a "sufficient number of licensees" for this purpose is three or more. By "reasonably efficient use of the frequency band," we mean that the remaining satellite licensees have not been assigned more spectrum than they need to meet their current and reasonably anticipated future customer needs.

62. Under this procedure, if one of those three licensees were to lose its license, the two remaining licensees would keep their spectrum assignments, and we could reassign the newly available spectrum to a new applicant or applicants pursuant to the applicable processing procedure. The existing licensees would not be allowed to apply for another license. This procedure represents a reasonable balance between quickly bringing spectrum into use and promoting multiple service providers in each frequency band.[148] Of course, the Commission always has the option to consider initiating a rulemaking proceeding to determine whether the available spectrum should be reallocated.

63. We will also apply this procedure to initial processing rounds in cases in which fewer than three qualified applicants file applications. In those cases, we will license each qualified applicant to operate in 1/3 of the available spectrum, and initiate a second processing round for the remaining spectrum. If there are fewer than a total of three licensees after the completion of the second processing round, we will determine at that time whether to keep that spectrum available for possible future applicants, or consider reallocation of the unlicensed spectrum.

64. We base this presumption that three is a sufficient number of remaining licensees on the Commission's reasoning in the *EchoStar-DirecTV Hearing Designation Order*, in which the Commission observed that courts have generally condemned mergers that would result in duopoly, particularly in cases where additional market entry would be difficult.[149] The Commission explained further that, in cases where the merger is likely to result in a significant

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146 *Space Station Reform NPRM*, 17 FCC Rcd at 3864 (para. 48).

147 *Space Station Reform NPRM*, 17 FCC Rcd at 3864 (para. 48).

148 We noted our concerns about promoting multiple service providers in the *Space Station Reform NPRM*, 17 FCC Rcd at 3860 (para. 36).

149 Application of EchoStar Communications Corporation, General Motors Corporation and Hughes Electronics Corporation, *Hearing Designation Order*, CS Docket No. 01-348, 17 FCC Rcd 20559, 20604-05 (paras. 99-103) (2002) (*EchoStar-DirecTV Hearing Designation Order*), *citing, e.g.*, FTC v. H.J. Heinz Co., 246 F.3d 708, 717 (D.C. Cir. 2001); FTC v. Staples, 970 F. Supp. 1066, 1081 (D.D.C. 1997).

reduction in the number of competitors and a substantial increase in concentration, antitrust authorities generally require the parties to demonstrate that there exist countervailing, extraordinarily large, cognizable, and non-speculative efficiencies that are likely to result from the merger.[150] Here, we find that the factors that have led courts to disfavor mergers to duopoly also support establishing a procedure that will maintain at least three competitors in a frequency band, unless an interested party can rebut our presumption that three is necessary to maintain a competitive market. To rebut this presumption, a party must provide convincing evidence that allowing only two licensees in the frequency band will result in extraordinarily large, cognizable, and non-speculative efficiencies.[151] We also reserve the authority to initiate a second processing round or spectrum reallocation rulemaking proceeding as circumstances warrant when there are more than three licensees remaining in operation in cases where it can be shown that our presumption is incorrect that three licensees would not make reasonably efficient use of the frequency band.[152]

65. This procedure for reassigning spectrum among the remaining NGSO-like licensees in a processing round, and the presumption of initiating a new processing round when there are fewer than three licensees, are logical outgrowths of our proposals in the *Notice*. The focus of the "logical outgrowth" test is whether parties should have anticipated that such a requirement might be imposed.[153] The Commission explicitly invited comment on redistributing spectrum initially licensed in a modified processing round among the remaining licensees.[154] The Commission also noted its concerns about promoting multiple service providers in the *Notice*.[155] Thus, parties should have anticipated that we would adopt rules to redistribute spectrum in this manner, and to allow new licensees an opportunity to apply for licenses when the number of licensees in a frequency band is less than a certain amount. Furthermore, even if this were not a logical

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150 *EchoStar-DirecTV Hearing Designation Order*, 17 FCC Rcd at 20604-05 (para. 102).

151 In some cases in the past, prior to the Commission's adoption of the *EchoStar-DirecTV Hearing Designation Order*, the Commission has allowed only two licensees in a market. *See* An Inquiry Into the Use of the Bands 825-845 MHz and 870-890 for Cellular Communications Systems; and Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems, *Report and Order*, CC Docket No. 79-318, 86 FCC 2d 469, 478-79 (para. 19) (1981); Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz,1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands, *Report and Order*, WT Docket No. 02-8, 17 FCC Rcd 9980, 9993 (para. 23) (2002).

152 PanAmSat argues that the Commission could expedite processing rounds by starting a second processing round before completing the first round. PanAmSat Comments at 10. We disagree. The licenses that could be issued in a second processing round are dependent on the licenses issued in the first round. Thus, conducting two processing rounds simultaneously would needlessly complicate the second round. In any case, under our new procedure, there will be little need to have a second processing round, and so we need not determine the timing of those proceedings at this time.

153 Aeronautical Radio, Inc., v. FCC, 928 F.2d 428, 445-46 (D.C. Cir. 1991); Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 549 (D.C. Cir. 1983).

154 *Space Station Reform NPRM*, 17 FCC Rcd at 3864 (para. 48).

155 *Space Station Reform NPRM*, 17 FCC Rcd at 3860 (para. 36).

outgrowth, Courts have explained that the Commission has broad discretion to manage its proceedings as we have done here.[156]

5. Revision of Pleading Cycles

66. *Background.* In the *Notice*, we invited comment on whether the pleading cycle for petitions to deny, oppositions, and replies to a lead application should run concurrently with the pleading cycle for competing applications. In other words, after mutually exclusive applications are filed in response to a cut-off date announcement, petitions to deny, oppositions, and replies would be filed in response to all applications, including the lead application, under the same pleading cycle.[157]

67. *Discussion.* SIA suggests placing all applications in a processing round on identical pleading cycles.[158] We will not adopt this suggestion because it could cause a further delay in processing applications in a processing round. Under our current practice, we can start our review of the lead application to determine the applicant's qualifications while we wait for the record to close on the other applications in the processing round. If we postponed the pleading cycle for the lead application to run concurrently with other applications, we would lose that opportunity. As a result, our review of the lead application would be delayed somewhat, and thus action on all the applications in the processing round would also be delayed. Moreover, in cases where no competing applications are filed, the pleading cycle for the lead application would be delayed by 30 days unnecessarily, which in turn would delay licensing and service to the public.

E. Other Proposals for Modifying Processing Rounds

68. Some commenters propose other modifications to the processing round procedure. For example, SIA contends that, in 1998, the International Bureau (Bureau) adopted a goal of placing satellite applications on public notice within 10 days, and recommends renewing its efforts towards that goal.[159] While the Bureau strives to place applications on public notice as quickly as possible, and will continue to do so in the future, this 10-day goal applies to routine earth station applications only.[160] Space station applications are more complex than routine earth

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[156] *See* Telecommunications Resellers Association v. FCC, 141 F.3d 1193, 1196 (D.C. Cir., 1998), *citing* Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto. Ins. Co., 463 U.S. 29, 43 (1983); GTE Service Corp. v. FCC, 782 F.2d 263, 273-74 (D.C. Cir., 1986).

[157] *Space Station Reform NPRM*, 17 FCC Rcd at 3873 (para. 77).

[158] SIA Comments at 13.

[159] SIA Comments at 12-13, *citing* International Bureau to Streamline Satellite and Earth Station Processing, *Public Notice*, Report No. SPB-140 (released Oct. 28, 1998). *See also* Hughes Comments at 46-47.

[160] *See* International Bureau to Streamline Satellite and Earth Station Processing, *Public Notice*, Report No. SPB-140 (released Oct. 28, 1998). The public notice states that the Bureau will place "routine applications" on public notice within 10 business days of receipt. The Commission does not distinguish between routine and non-routine space station applications. These categories apply only to earth station applications. *See* 2000 Biennial Regulatory Review -- Streamlining and Other Revisions of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network

station applications, and it will be difficult to determine whether a space station application is complete and acceptable for filing given that the Commission does not currently have a uniform format for such applications.[161] In addition, placing applications on public notice has not been a major source of delay in most processing round proceedings in the past,[162] and so we do not see a need for a formal requirement at this time.

69. PanAmSat recommends establishing a deadline of one year for the Commission to complete processing rounds.[163] We anticipate that the processing round procedure we adopt today will take less than a year to complete, and so PanAmSat's proposed deadline appears unnecessary at this time.

70. Finally, SIA observes that a number of potential sources of delay in issuing satellite licenses, such as coordination with other Federal Government agencies, and the international spectrum allocation process, are outside the Commission's control, and recommends focusing on sources of delay within its control.[164] We agree with SIA. Accordingly, the Commission focused on sources of delay within its control in the *Notice*. The Commission directed its attention on procedures for processing satellite applications in the *Notice* when an allocation and service rules are available.[165] Moreover, we note that we have adopted procedures in this Order to dismiss satellite applications before an international frequency allocation is adopted, and that enable us to consider satellite applications before we adopt service-band specific service rules.[166] Therefore, we expect frequency band allocation and service rule proceedings to cause less licensing delay than they have in the past. Finally, in the *Notice*, the Commission also recognized that interagency coordination can also delay processing of some satellite applications.[167] In the past, we have worked together with other Federal Government agencies to find ways to facilitate interagency coordination,[168] and we will continue to do so in the future. In the meantime, however, SIA's discussion of sources of potential licensing delay outside our control does not dissuade us from addressing the sources of potential licensing delay within our control. We

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Earth Stations and Space Stations, *Notice of Proposed Rulemaking*, IB Docket No. 00-248, 15 FCC Rcd 25128, 25132 (para. 7) (2000) (*Part 25 Earth Station Streamlining NPRM*).

[161] 47 C.F.R. § 25.114(b). The Commission has decided to adopt a uniform format for space station applications, to be called "Schedule S." *Space Station Reform NPRM*, 17 FCC Rcd at 3877 (para. 88). We are currently considering comments regarding the details of Schedule S, and we will address those issues in a future Order.

[162] Generally, we have delayed placing satellite applications on public notice only in cases in which a needed domestic or international frequency allocation has not been adopted.

[163] PanAmSat Comments at 10.

[164] SIA Comments at 9-11.

[165] *Space Station Reform NPRM*, 17 FCC Rcd at 3856 (para. 25).

[166] Section V.D.1. above.

[167] *Space Station Reform NPRM*, 17 FCC Rcd at 3851 (para. 8).

[168] *See* FCC and NTIA Sign New Memorandum of Understanding on Spectrum Coordination, *Press Release* (released Jan. 31, 2003).

believe that those specific issues need to be addressed during the development of multilateral procedures to facilitate interagency coordination.

VI. FIRST-COME, FIRST-SERVED PROCEDURE FOR GSO-LIKE SATELLITE SYSTEMS

A. Background

71. In the *Notice*, the Commission also invited comment on a first-come, first-served processing approach, based in large part on the procedure used for FM radio and television licenses from 1985 to 1998.[169] Under this approach, in cases where frequencies have been allocated for the proposed service, and we have adopted service rules, we would issue a public notice inviting comment on the first application filed.[170] Subsequently filed mutually exclusive applications would be included in a queue according to their date of filing.[171] If for any reason we could not grant the lead application, we would dismiss it and begin consideration of the next application in the queue and continue this process until we could grant an application.[172] After we issue a license, we would keep the subsequently filed applications on file for the specific GSO orbit location and frequency band. If the licensee loses its license at any time before it begins operation, for failure to meet a milestone or for any other reason, the next application in the queue would be considered. If and when the licensee places its satellite or any of its satellites in a constellation in operation, we proposed returning the later-filed applications to those applicants.[173]

72. In cases where frequencies have not been allocated for the proposed service, or the Commission has not adopted service rules, the Commission proposed placing the lead application and subsequently filed applications in a queue. The applications would remain pending until the frequency allocation and service rule proceedings are complete. At that time, under the Commission's proposal in the *Notice*, it would consider the pending applications under the first-come, first served approach. Specifically, it would process those applications one at a time, in the order that they have been placed in the queue, until it grants an application.[174]

73. For reasons discussed in Section VI.B. below, we conclude that the first-come, first-served procedure is the best option available for GSO-like satellite systems, *i.e.*, satellite systems where the earth station antennas accessing the satellites in that system can exclude transmissions from satellites other than the one at which it is directly pointed. In Section VI.C., we explain why a modified processing round approach is not well suited to GSO-like satellite systems. In Section

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[169] *Space Station Reform NPRM*, 17 FCC Rcd at 3857 (para. 26). *See also* Amendment of the Rules Concerning Cut-Off Procedures for FM and TV Broadcast Stations, *Report and Order*, MM Docket No. 84-750, FCC 85-125, 50 Fed. Reg. 19936, 19941-42 (paras. 33-36) (May 13, 1985) (*TV and FM Broadcast Order*), *recon. denied*, 50 Fed, Reg. 43157 (Oct. 24, 1985), *aff'd without published opinion sub nom.* Hilding v. FCC. 835 F.2d 1435 (9th Cir. 1987), *reprinted at* 58 Rad. Reg. 2d 776 (1985).

[170] *Space Station Reform NPRM*, 17 FCC Rcd at 3859 (para. 33).

[171] *Space Station Reform NPRM*, 17 FCC Rcd at 3859 (para. 33).

[172] *Space Station Reform NPRM*, 17 FCC Rcd at 3859 (para. 33).

[173] *Space Station Reform NPRM*, 17 FCC Rcd at 3860 (para. 34).

[174] *Space Station Reform NPRM*, 17 FCC Rcd at 3860 (paras. 35-37).

VI.D., we consider and reject several arguments raised in opposition to the first-come, first-served procedure. In Section VI.E., we describe in detail the first-come, first-served procedure we adopt in this Order, including slight variations from the proposals in the *Notice* based on the record in this proceeding. In Section VI.F., we consider Intelsat's modified first-come, first-served proposal. Finally, Section VI.G. addresses the proposal in the *Notice* to eliminate the fungibility policy.

B. Benefits of First-Come, First-Served Procedure

74. We find that the first-come, first-served procedure will enable us to act on satellite applications dramatically more quickly and efficiently than under the current processing round procedure. Thus, consumers will benefit because they will receive service faster. In addition, our procedure will lead to more efficient spectrum usage because it will reduce the amount of time spectrum lies fallow. Furthermore, a faster licensing procedure would enable U.S. satellite operators to comply with ITU bringing-into-use requirements more easily, and so help preserve U.S. leadership in the satellite industry. Moreover, we expect that the first-come, first-served procedure will be faster than the modified processing round procedure we adopt in this Order above. Accordingly, it would further the public interest to adopt a first-come, first-served procedure for as many types of satellite licenses as possible, except NGSO-like applications, for which licensing the first applicant to operate in a certain frequency band would prevent other applicants from using that spectrum.[175]

75. Some commenters question whether the first-come, first-served procedure will expedite licensing. For example, Hughes and PanAmSat argue that delays in licensing are often not the result of processing rounds, but rather spectrum allocation or service rule proceedings.[176] Although we agree that spectrum allocation or service rule proceedings can increase the time needed to issue satellite licenses, Hughes and PanAmSat are mistaken in asserting that the use of processing rounds under our current procedure does not also cause delay. Even in cases where we did not have to obtain an international allocation or adopt service rules, such as the second processing round for GSO Ka-band satellite systems, it often takes several years from filing date to licensing.[177] We also note that the procedures we adopt here will enable us to act on satellite applications before we adopt specific service rules,[178] which will further expedite licensing procedures.

76. Boeing and Hughes also question whether the procedure proposed in the *Notice* would expedite licensing because of our proposal to facilitate competition by setting spectrum limits in service rule proceedings.[179] These parties maintain that determining spectrum limits in rulemaking proceedings would force those proceedings to take on all the characteristics of processing rounds, and so would not reduce the time needed to issue licenses.[180] We do not

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175 Section V.B.

176 Hughes Comments at 3-4, 5-8, 33; PanAmSat Comments at 9.

177 *See Space Station Reform NPRM*, 17 FCC Rcd at 3871-72 (para. 68) (citing second Ka-band processing round).

178 Section V.D.1. above.

179 *Space Station Reform NPRM*, 17 FCC Rcd at 3860 (para. 36).

180 Boeing Comments at 7-8; Hughes Comments at 34.