In this proceeding, the Commission has sought comment on a wide array of proposals to update and streamline the Commission’s regulation under Part 25 for the operation of geostationary orbit, Fixed-Satellite Services space stations using non-planned frequency bands (“GSO FSS space stations”).\(^1\) In its initial comments, DIRECTV, LLC (“DIRECTV”) focused on two general areas: (1) the timing and consequences of submitting materials for filing at the International Telecommunication Union (“ITU”) and related applications for space station authorizations at the Commission; and (2) aspects of the Commission’s rules (including the two-degree spacing policy) that help define a stable interference environment for satellite operations. In these reply comments, DIRECTV reviews the submissions of other commenters in these and related areas.

A. The Interplay of ITU and Commission Processes

In its initial comments, DIRECTV proposed a regime in which a party could request that the Commission file an Advance Publication of Information (“API”) with the ITU, but would not

perfect its place in the Commission’s space station processing queue unless it files a Coordination Request ("CR/C") with the Commission within six months of the date the API is submitted to the ITU, and within 30 days thereafter files a related space station application with the Commission. Iridium proposed a similar approach. EchoStar, however, would allow a party to hold a place in the Commission’s processing queue for up to two years simply by filing an API with a simplified description of its satellite and an ITU cost recovery declaration. Such a rule would enable a party to warehouse valuable spectrum/orbital resources for years with little cost implication and without making any concrete commitment to their development, and therefore should be rejected. Similarly, the Commission should reject Inmarsat’s proposal to issue multiple licenses at a given orbital location, as such a rule could create opportunities for regulatory gamesmanship among the multiple licensees at a given slot, especially if they are affiliated with one another.

DIRECTV agrees with those commenters who believe that the Commission should not apply the “three strike” rule in Section 25.159(d) to the mere filing of an API, since parties should be able to explore the potential of a limited number of slots for a limited period of time without fear of penalty. However, once a party has perfected a place in the space station processing queue, this rule must attach. DIRECTV also believes that the submission of an API

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2 Comments of DIRECTV, LLC ("DIRECTV Comments") at 4-5. All comments cited in this document were filed in IB Docket No. 12-267 on January 29, 2015.
3 See Comments of Iridium Constellation LLC ("Iridium Comments") at 6.
4 See Comments of EchoStar Satellite Operating Corporation and Hughes Network Systems, LLC ("EchoStar Comments") at 20. Intelsat supports a similar approach with no space station application required for up to two years, though it would require the operator to file a CR/C within six months of the API. See Comments of Intelsat License LLC ("Intelsat Comments") at 6-10.
5 See Comments of Inmarsat ("Inmarsat Comments") at 3-4.
6 See EchoStar Comments at 23-24; Intelsat Comments at 10-11.
should count for purposes of the current limits in Section 25.159(a) of the Commission’s rules in order to discourage parties from making numerous speculative submissions that could forestall others. DIRECTV also agrees with Intelsat that the Commission should maintain the confidentiality of API filings until they have been published by the ITU.7

DIRECTV cannot, however, support Intelsat’s proposal to reset the queue priority of those who file a CR/C for an orbital location other than the one originally associated with an API,8 or SES’s proposal to require a party to file a complete space station application within 90 days of submitting an API.9 In both cases, the proposal would defeat the purpose of allowing early submission of APIs, which is to enable U.S. operators to avoid the “claim jumping” that can result from having to disclose their plans publicly before an API has matured to the point where a CR/C can be filed to secure international date priority.10 Penalizing an operator for ultimately pursuing an orbital location other than the one subject to an API would force U.S. operators to tip their hand to foreign operators and deny them the flexibility available under the ITU rules. Similarly, filing within 90 days would still leave 90 more days during which a competitor could make a CR/C filing through a foreign administration and thereby secure ITU priority over their U.S.-licensed counterparts.11

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7 See Intelsat Comments at 5.

8 Id. at 9.

9 See Joint Comments of SES Americom, Inc. and New Skies Satellites B.V. (“SES Comments”) at 12.

10 The ITU is currently considering a change to its procedures to eliminate the mandatory six-month period between the filing of an API and the earliest date that a CR/C is receivable. If the ITU were to adopt such a change, the Commission could adopt a requirement for filing a space station application within a shorter period of time without undermining U.S. interests.

11 Because there is no mandatory six month lag between the filing of a modification in the FSS planned bands, there is no reason for the Commission to expedite submission of such filings before determining that an underlying application is acceptable for filing. Accordingly, DIRECTV opposes Intelsat’s proposal to extend this policy to the planned bands. See Intelsat Comments at 4.
DIRECTV also strongly disagrees with SES’s description of the interplay between ITU filings and Commission processes. For example, SES asks the Commission to expressly state that “a request for the International Bureau to submit an ITU filing cannot block a later market access request by a foreign licensee with ITU priority.”12 SES grossly overstates the significance of ITU date priority. It is true that the holder of a space station license issued by the Commission takes the risk that it might not be able to operate because a foreign-licensed operator has ITU priority. It is also true, however, that ITU priority does not guarantee the right to serve the United States, so a foreign-licensed operator takes the risk that it might not be granted landing rights if (for example) a U.S. operator already holds the U.S. license at a given orbital location.

B. Two-Degree Spacing Policy

DIRECTV generally agrees with those who argue that the Commission should retain its two degree spacing policy, with the updates proposed in this proceeding.13 However, DIRECTV does not agree that the policy should be expanded to cover the extended Ku-band, as doing so could retroactively invalidate coordination arrangements between existing systems that do not comply with the two-degree parameters. At a minimum, the Commission should not apply the policy to that portion of the band that is subject to the international plan found in Appendix 30B of the ITU Rules. In that portion of the extended Ku-band, the international community (including the U.S.) has established a Plan under which each administration is assigned at least one orbital slot from which to provide Fixed-Satellite Service. In order to protect these assignments from interference, the Plan includes protection criteria and a methodology for

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12 SES Comments at 19.

13 See, e.g., EchoStar Comments at 30-31.
determining the impact that a proposed new system operating in the band would have on other systems that were previously proposed or are already in the Plan. Under the particular ITU rules governing the Appendix 30B band, accepting interference from another U.S. licensee would erode protection against additional interference from future systems proposed by other administrations. Thus, a U.S.-licensed system would be able to protect itself in the international coordination process mandated by Appendix 30B from licensees of other administrations, but would be subject to a back door through which systems could use the Commission’s domestic licensing process to circumvent an international coordination regime in which they are doomed to fail. The Commission should not establish a process that encourages such forum shopping to the detriment of U.S. operators.

With respect to the two-degree policy, DIRECTV agrees with Intelsat that a party with a later-granted license or authorization cannot require a previously-licensed operator to reduce power below previously coordinated levels, even if that service does not conform to the policy. Operators with long-standing operations should not have their customers’ settled expectations upset by requiring a change in operating parameters.

C. Milestones and Bonds

Several commenters, including Boeing, EchoStar, and Intelsat, propose that the Commission adopt a clear and concise list of showings that would satisfy milestone requirements. DIRECTV agrees that the milestone regime would be greatly improved by the creation of safe harbor criteria for demonstrating compliance, so long as licensees retained the

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14 See Intelsat Comments at 26.

15 See Comments of The Boeing Company (“Boeing Comments”) at 4-5; EchoStar Comments at 26-27; Intelsat Comments at 15-17. SES also suggested that the Commission adopt milestone criteria, but its formulation was much more vague and qualitative, and thus less useful in providing concrete guidance to licensees. See SES Comments at 14.
option to present alternative evidence to satisfy their milestone requirements. With respect to the specific criteria proposed, DIRECTV submits that the rules for the CDR milestone should anticipate that a licensee might seek to modify its authorization in light of design changes arising from that review, such that any statement of conformance to licensed parameters could take into account a pending modification request. DIRECTV also supports commenters who propose that milestone showings should be deemed granted if not acted upon within 60 days.\footnote{See Boeing Comments at 5-6; SES Comments at 15.}

DIRECTV opposes EchoStar’s contention that a licensee should be able to use an in-orbit satellite to satisfy the milestones applicable to an authorization to launch and operate a new satellite.\footnote{See EchoStar Comments at 25-26.} Where an operator applies for and is granted a new authorization based on the representation that it will construct, launch, and operate a new space station, it should not thereafter be able to continue to preclude other operators from using that slot through the use of an existing satellite rather than the new one as promised. An operator with an existing satellite is already free to seek a modification of its authorization to relocate and operate that satellite at any available orbital location, providing the flexibility that EchoStar identifies as the rationale for its proposal.

DIRECTV supports EchoStar’s proposal that satellite licensees be given the option, if they meet certain financial criteria, to use a corporate guarantee (rather than posting a bond) as a safeguard against spectrum and orbital warehousing.\footnote{Id. at 29-30.} Where the licensee has sufficient capital resources, such a guarantee is just as effective as a bond at imposing economic consequences should there be a failure to satisfy one or more milestone requirements.
D. Other Issues

DIRECTV supports Inmarsat’s proposal that, rather than eliminating the cross polarization requirements for FSS space station antennas in Section 25.210(i)(1), the Commission should instead reduce the requirement from 30 dB to 25 dB. Because the reduced level is readily achievable and addresses the type of relief typically requested when the 30 dB value cannot be met, it will obviate the need for waiver requests while still capturing the spectrum management benefits of cross polar isolation.

DIRECTV generally supports EchoStar’s proposal for an autogrant procedure in cases where FSS operators seek to relocate a spacecraft by no more than 0.15º. However, as stated in its initial comments, DIRECTV believes that because U.S. operators typically rely upon the Commission’s two-degree spacing rules rather than coordination, the Commission must provide any U.S.-licensed operator located within 2 degrees of a proposed fleet management relocation the opportunity to review and comment before the space station is moved.

DIRECTV supports the proposal by EchoStar and Inmarsat that the Commission regularly release public notices listing orbital/spectrum resources that become available for application (and those reserved for federal use). At present, when a space station license is either canceled by the Commission or returned voluntarily by the operator, there is no schedule for making the associated resources available for application under the Commission’s first come, first served regime. As a result, in some instances, valuable spectrum remains unavailable for several months or more, leaving potentially interested parties unable to move forward with plans.

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19 See Inmarsat Comments at 5.

20 See EchoStar Comments at 53-54.

21 Id. at 31-32; Inmarsat Comments at 8.
for development. Moreover, because there is no set schedule for release, there is no way to anticipate when a particular slot will become available, and often only a matter of days between the notice of availability and the date for submitting an application. If the Commission were to release a public notice at the end of each calendar quarter (for example), spectrum would not be left needlessly unclaimed and operators could better anticipate when an opportunity would present itself. By publishing a running list of slots/spectrum that have not yet been claimed, the Commission would also facilitate the process of identifying opportunities for making more use of valuable resources.

DIRECTV also supports EchoStar’s proposal that the Commission codify its satellite replacement policies. As EchoStar points out, it is critical that satellite operators have certainty in order to justify the investment of resources necessary to construct and launch replacement satellites. At present, the replacement expectation is discussed in various Commission orders, but does not have the clarity and force of a codified rule. Given the significance of this issue, codification would be a significant improvement and give satellite operators the long-term assurance that is necessary in such a capital-intensive enterprise.

DIRECTV agrees with Boeing that the Commission should modify its satellite end-of-life disposal rules to accommodate satellites that comply with the Commission’s orbital debris mitigation policy, but are not designed to fully vent all stored pressure. In particular, DIRECTV supports Boeing’s proposal to change the phrase “and other appropriate measures” in Section 25.283(c) to “or other appropriate measures,” as that would better align the rule with actual practice and European satellite policies without undercutting the Commission’s orbital debris

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22 See EchoStar Comments at 32.
mitigation policies. Alternatively, the Commission could adopt Iridium’s proposed requirement that reactive propellants be vented to the minimum residuals reasonably possible and inert propellants be vented to no more than 20 percent of the system burst pressure.

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DIRECTV applauds the Commission’s effort to update its GSO FSS space station rules, and appreciates the opportunity to participate in that process.

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23 See Boeing Comments at 14.
24 See Iridium Comments at 7.