

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of

Comprehensive Review of Licensing and
Operating Rules for Satellite Services

IB Docket No. 12-267

REPLY COMMENTS OF INTELSAT LICENSE LLC

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I. INTRODUCTION AND SUMMARY

Intelsat License LLC (“Intelsat”) hereby replies to comments submitted in the above-captioned Further Notice of Proposed Rulemaking (“*FNPRM*”).¹ In its opening comments, Intelsat suggested changes to the FCC’s rules designed to safeguard the interests of existing U.S. licensees under the International Telecommunication Union (“ITU”) regime and to make the United States an attractive jurisdiction for future satellite licensing.² In a world where World Trade Organization (“WTO”) Agreements eliminate market entry as the dominant consideration for the choice of licensing jurisdiction, it is essential that the FCC preserve its historic licensing primacy by permitting its licensees the same technological and economic flexibility under ITU rules and regulations that are offered by other Administrations. A failure to adjust the U.S.

¹ See *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Further Notice of Proposed Rulemaking, IB Docket No. 12-267, FCC 14-142 (Sept. 30, 2014) (“*FNPRM*”).

² See Comments of Intelsat License, LLC, IB Docket No. 12-267 (filed Jan. 29, 2015) (“Intelsat Comments”).

regulatory regime to current realities could likely result in a diminishing U.S. licensing base, putting U.S. national security interests and consumer welfare under the control of other nations.

Other commenters claimed to support the proposition that the FCC's Part 25 rules should be harmonized "with those of the rest of the world,"³ but then proceeded to advocate self-serving exceptions to that rubric that would swallow the base rule. For the most part, those not in agreement with Intelsat's recommendations offered only statements of position without supporting reasons, making it difficult for Intelsat to critique their arguments. Intelsat expects the reply comments of those parties may now explain the bases of their conclusions, and seeks an opportunity to respond and ensure a full rulemaking record.

In this brief reply, Intelsat identifies the principal areas of difference now apparent from the record and briefly summarizes the problems that would arise from adopting the opposing recommendations. Specifically, Intelsat emphasizes the following:

- The FCC should allow the submission of confidential APIs prior to the filing of licensing applications, and not permit this proposal to be undermined by unrealistic licensing application deadlines;
- To solve the acknowledged problems of the two-degree spacing policy, the FCC should eliminate it and instead adhere to ITU priority;
- The FCC should keep the existing bond structure;
- The Commission should adopt the *FNPRM*'s proposed amendment to the fleet management rule;
- The FCC should adopt the proposed Section 25.202(g) with Intelsat's suggested modifications; and

³ Comments of The Global VSAT Forum, IB Docket No. 12-267 at 2-3 (filed Jan. 29, 2015) ("GVF Comments"); *see also* Comments of EchoStar Satellite Operating Corporation and Hughes Network Systems, LLC, IB Docket No. 12-267 at 67 (filed Jan. 29, 2015) ("EchoStar Comments") (explaining that proposed changes will "ensure that the U.S. satellite industry is the world's leader").

- The Commission should adopt Inmarsat’s proposal to allow a longer first-come, first-served filing window.

II. THE UNIVERSAL RECOGNITION THAT THE UNITED STATES MUST PERMIT SUBMISSION OF CONFIDENTIAL APIs PRIOR TO THE FILING OF LICENSING APPLICATIONS SHOULD NOT BE UNDERMINED BY UNREALISTIC LICENSING APPLICATION DEADLINES

The record contains unanimous support for the *FNPRM*’s proposal to allow entities to submit confidential Advance Publications of Information (“API”) and Coordination Requests (“CR”) for filing with the ITU in advance of full FCC applications.⁴ This proposed early API process harmonizes the ITU procedures of the United States with most other Administrations. It consequently will improve spectrum access for U.S.-licensed space systems and enhance the position of the United States as a competitive satellite licensing regime.

Suggestions by DIRECTV, Iridium, and SES to modify the FCC’s proposed ITU filing regime by restricting licensing application deadlines at varying times not premised on ITU rules, however, would strip the benefit of this change. Intelsat and EchoStar support the *FNPRM*’s proposal of a two-year deadline for full FCC applications after submitting an API.⁵ In contrast, DIRECTV would require the full FCC application to be filed within 30 days of the CR and the CR to be filed within six months of the API; Iridium suggests an FCC application deadline that is six months after API; and SES supports a 90-day FCC application deadline following ITU

⁴ See Intelsat Comments at 3; Comments of DIRECTV, LLC, IB Docket No. 12-267 at 3 (filed Jan. 29, 2015) (“DIRECTV Comments”); EchoStar Comments at 19; Comments of SES Americom, Inc. and New Skies Satellites B.V., IB Docket No. 12-267 at 10 (filed Jan. 29, 2015) (“SES Comments”); Comments of The Boeing Company, IB Docket No. 12-267 at 11 (filed Jan. 29, 2015) (“Boeing Comments”); GVF Comments at 2-3; Comments of The Satellite Industry Association, IB Docket No. 12-267 at 3 (filed Jan. 29, 2015) (“SIA Comments”); Comments of Iridium Constellation LLC, IB Docket No. 12-267 at 6 (filed Jan. 29, 2015) (“Iridium Comments”).

⁵ Intelsat Comments at 9-10; EchoStar Comments at 19.

receipt of the initial API.⁶ These proposals would require full license application details well in advance of ITU requirements—particularly the SES proposal, which would require a full application prior to the filing of a CR.⁷

Under the ITU regime, the purpose of the CR is to permit an operator to become aware of possible interference potential and to make adjustments in its proposal in deference to senior ITU parties. The Commission should not be required to review or act on—and a prospective licensee should not be forced to hurriedly file—an application that is subject to probable amendment because it was filed before there has been adequate time for international coordination and consequent design review and revision. The two-year deadline is a reasonable time period to allow any required adjustments and ensure that the FCC can act on a coordinated and more mature satellite design.

DIRECTV, Iridium, and SES suggest that shorter time frames are somehow necessary to deter warehousing.⁸ However, such shorter timeframes are inconsistent with ITU procedures and the practices of other Administrations⁹ and, if adopted, effectively would force operators desiring U.S. licenses to delay filing APIs until they are nearly ready to file a full satellite application. This essentially is what occurs today and thus the proposed shorter timeframes fail to further the

⁶ DIRECTV Comments at 4-5; Iridium Comments at 6; SES Comments at 12.

⁷ See SES Comments 12. Six months after the API is the earliest that the ITU will accept a CR filing. *FNPRM*, ¶ 6.

⁸ SES Comments at 12 (noting “potential abuses of the new ITU filing procedure by parties whose primary purpose is not to make use of spectrum and orbital resources but to keep others from using them”); DIRECTV Comments at 4 (explaining that “the mere filing of an API should not enable a party to block the development of a portion of the orbital arc by another U.S. operator for an extended period of time”); Iridium Comments at 6 (explaining that an extended time period for filing an FCC application “would provide opportunities to warehouse spectrum and could deter efforts to pursue spectrum by parties with legitimate spectrum needs”).

⁹ See Intelsat Comments at 4.

FNPRM's purpose of making the U.S. Administration more hospitable and competitive with other jurisdictions.¹⁰

III. THE ACKNOWLEDGED PROBLEMS OF TWO-DEGREE SPACING CAN ONLY BE RESOLVED BY ADHERING TO ITU PRIORITIES RATHER THAN ARBITRARY LIMITS ON EFFICIENT SATELLITE DESIGN

The *FNPRM* recognized that the two-degree spacing policy has the potential to cause competitive harm and impair continuity of service and innovation.¹¹ The two-degree spacing policy can be leveraged in an anticompetitive manner to impair the United States' priority spectrum rights at the ITU. Moreover, it constrains technological innovation in satellite design, particularly for the mobility and aeronautical services that today's customers demand. And, it jeopardizes the equities of fully coordinated satellites.

Intelsat's comments established that eliminating or substantially reforming two-degree spacing is one of the most critical steps to meet the Commission's and satellite industry's shared purpose of "mak[ing] the United States a more attractive administration for licensing."¹² No commenter even attempts to show that replacing the two-degree rule with the ITU regime would restrict competition.

¹⁰ DIRECTV's proposed expansion to Section 25.159 similarly would undermine the Commission's thoughtful and effective early API process. *See* DIRECTV Comments at 4. Revising the rule to count APIs toward the five-item limit on pending applications and licensed-but-unbuilt space stations would severely restrict applicants' abilities to file with the ITU. As no other Administrations impose such a restriction on space station applicants, DIRECTV's misguided proposal would be detrimental to the success of the early API process.

¹¹ *FNPRM*, ¶¶ 45-46.

¹² EchoStar Comments at 1.

Despite acknowledging these points,¹³ some commenters proposed coordination rules that reinforce the two-degree policy and pressure prospective licensees to reduce transmit power levels, thus limiting the services that can be provided. Specifically, EchoStar supports allowing operators to enter into coordination agreements to permit non-two-degree-conforming operations, but would not protect these services from later-in-time licensees.¹⁴ SES and DIRECTV acknowledge that an operator of an existing, coordinated service in excess of two-degree limits should not have to reduce its power levels to protect a later-licensed, adjacent, two-degree compliant station,¹⁵ but inexplicably assert—in direct contravention to this reasonable conclusion—that earlier-licensed operators should receive no protection from interference by later-licensed neighbors.¹⁶ In other words, EchoStar, SES, and DIRECTV all would require existing coordinated non-two-degree compliant services to accept the interference they would receive by a later in time two-degree compliant system. Such a result threatens service continuity and does not serve the public interest.

Moreover, none of the commenters fully addresses how two-degree limits could be imposed on foreign-licensed satellites whose sponsoring Administrations assert superior ITU

¹³ SES even correctly notes that the vast majority of satellites today operate at power levels in excess of the two-degree spacing limits. SES Comments at 7 (“In preparing its recommendations, SES reviewed information about current satellites in the SES and Intelsat fleets and determined that roughly 80% of Ku-band satellites and more than 90% of C-band satellites are operating at downlink EIRP levels that exceed those specified in the Commission’s two degree spacing rules today.”).

¹⁴ EchoStar Comments at 31 & n.70.

¹⁵ DIRECTV Comments at 7; SES Comments at 8.

¹⁶ SES Comments at 8 (proposing to allow a later entrant to operate at two-degree power limits “regardless of whether there may be an impact on existing adjacent networks”); DIRECTV Comments at 7 (proposing that the earlier-licensed operator must, “going forward . . . accept any additional interference caused by operations from a two-degree-compliant system”).

rights. Although foreign-licensed operators with U.S. market access have been quick to argue that they can impose two-degree levels on U.S. licensees that have higher ITU priority (thus downgrading the value of the U.S. filing), it is unclear how it would work in reverse. In other words, if the foreign-licensed operator had the higher priority filing, does the United States believe that it can strip another Administration of the benefits of that other Administration's treaty-based priority as a condition of market access?

Not surprisingly, it would appear that non-U.S. licensees want to have their cake and eat it, too. For example, SES has argued that the two-degree spacing policy allows foreign-licensed satellite operators with U.S. market access effectively to ignore the higher ITU priority of U.S. filings utilized by U.S. licensees. On the other hand, SES vigorously defends the importance of ITU priority in situations where its foreign Administration holds ITU priority over a U.S. licensee, as in SES's ongoing dispute with DIRECTV at 103° W.L., where SES has been adamant about the need for the FCC to protect the higher priority Canadian 17/24 GHz ITU filing.¹⁷ Intelsat doubts that SES would be pleased if the FCC told SES that the Canadian ITU priority would be ignored vis-à-vis the lower priority U.S. DIRECTV filing for market access purposes. Moreover, it is not clear that the United States can, consistent with its treaty obligations, eviscerate Canada's, Luxembourg's, or any other Administration's ITU priority as a condition of U.S. market access. If the Commission does not eliminate two-degree spacing, it should confirm that such a policy would apply equally in the other direction.

¹⁷ See In the Matter of DIRECTV Enterprises, LLC Applications for Modification of the License to Launch and Operate DIRECTV RB-2 and for Extension or Waiver of the Launch and Operations Milestone, File Nos. SAT-MOD-20140612-00066 & SAT-MOD-20140624-00075, Petition to Deny of SES Americom, Inc. and Ciel Satellite Limited Partnership at 19-23 (filed Sept. 2, 2014) (urging the FCC to “ensure that the U.S.-licensed RB-2 payload does not cause harmful interference to the higher priority Canadian satellite at the same location”).

Even if the FCC were willing, in derogation of the ITU regime, to apply two-degree spacing requirements consistently over CONUS, there would be no basis to extend U.S. competition interests to beams outside CONUS where the two-degree spacing policy serves only as a handicap to U.S. licensees. At a minimum, the Commission should at this time restrict the two-degree spacing policy to beams—or a collection of beams from a single satellite—that serve all of the contiguous United States (“CONUS”). The FCC should then make a more detailed examination of the two-degree spacing policy’s impact on U.S. competition to confirm whether there is any public interest reason to retain this policy at all.

Similarly, the Commission absolutely should not expand applicability of the two-degree rule to bands currently excluded from the policy—*i.e.*, conventional C-band downlink, extended C-band uplink and downlink and extended Ku-band uplink and downlink. The existing rules include no explicit uplink power density limit in extended Ku-band.¹⁸ The FCC should not apply explicit or implied two-degree power density limits in the 13.75-14.0 GHz band.

Also, the FCC should clarify that the two-degree spacing policy does not apply to the Planned FSS portion of the extended Ku-bands (10.70-10.95 GHz, 11.20-11.45 GHz, and 12.75-13.25 GHz) (“AP30B frequencies”).¹⁹ Applying two-degree power constraints in the AP30B frequencies would be inconsistent with the ITU rules, which are founded on interference protection for existing services and allotments in the Plan.²⁰ It also would degrade the

¹⁸ It is possible that a limit could be inferred by combining the off-axis EIRP density limits in Section 25.288(g) and (h) with the antenna pattern mask in Section 25.209.

¹⁹ SES suggests that the *FNPRM* could be read to impose the two-degree rule in the FSS Planned Band portion of the extended Ku-band. *See* SES Comments at 7; *FNPRM*, ¶¶ 50-51.

²⁰ An interference analysis for FSS Planned Bands must be conducted using the Appendix 30B criteria. Specifically, Annex 4 of Appendix 30B of the ITU Radio Regulations contains the criteria to be used for determining whether FSS Planned Band systems and allotments will be affected by the additional system, which is based on orbital separation and strict carrier-to-noise

interference protection status of the higher priority U.S. Appendix 30B Plan filing with respect to all other future Appendix 30B filings.²¹ In addition, it would put at risk existing coordinated DTH services in FSS Planned Bands on Intelsat satellites. This would be particularly harmful if the Commission does not adopt an effective later entrant proposal such as suggested in the *FNPRM*'s paragraph 47—permitting continued higher-power operation by previously coordinated services.²²

In sum, the FCC should not keep a rule that can be manipulated to harm U.S. licensees and the consumers they serve by requiring coordinated U.S. satellites to accept harmful interference into operational services. This is directly contrary to the public interest and the purpose of this proceeding. Intelsat reiterates its support for elimination of the outdated two-degree spacing rules to allow U.S. licensees to compete on an equal playing field with the global satellite community.

and carrier-to-interference levels. The mandatory demonstration for all FSS Planned Band operators requires an analysis based on the ITU GIBC (Graphical Interface for Batch Calculation) and GIMS (Graphical Interference Management System) software packages.

²¹ See EchoStar Satellite Operating Corporation Application for Authority to Launch and Operate ECHO-45 W Fixed-Satellite Service Payload; Minor Amendment to Application for Authority to Launch and Operate ECHO-45 W Fixed-Satellite Service Payload, File Nos. SAT-LOA-20120921-00152 & SAT-AMD-20130614-00085, Petition to Impose Conditions or to Deny of Intelsat License LLC at 10 (filed Oct. 31, 2013).

²² As Intelsat noted in its comments, the actual rule language proposed by the Commission would not effectively solve the problem that the agency purports in paragraph 47 to want to solve. Intelsat Comments at 24-26.

IV. THE COMMISSION SHOULD KEEP THE EXISTING BOND STRUCTURE

Several commenters agree with Intelsat that the Commission should retain the existing bond structure,²³ which has successfully served the scheme’s purposes of “offset[ting] the incentives for inefficient warehousing behavior that are harmful to both competition and consumers” and “encourag[ing] the rapid deployment of new spacecraft and the optimal utilization of scarce orbital and spectrum resources.”²⁴ There is no evidence that the existing bond structure causes a large number of surrendered licenses, and there is certainly no evidence that such surrenders increase as the bond amount is reduced. This is because the substantial investments required to progress from one milestone to the next increase the cost of abandonment as the bond declines.

An escalating bond, or an inversion of the current regime, would do less rather than more to combat warehousing. Boeing suggests that an escalating bond “would rapidly deter unprepared or speculative applicants from continuing the process,”²⁵ and EchoStar claims such a bond gives licensees “a financial incentive to surrender a license as early as it is apparent that it will not be utilized.”²⁶ In fact, the result would be exactly the reverse: by minimizing the cost of surrender when no milestone has been reached, the escalating bond would create of a window of opportunity for speculation and warehousing. Under this scheme, applicants without the

²³ See Intelsat Comments at 17-19; DIRECTV Comments at 5; SIA Comments at 6 (opposing an increase in bond amounts); SES Comments at 15 (stating that “bond reform is not a priority, as the current system of bond assessment has proved reasonably workable”).

²⁴ *FNPRM*, ¶ 19.

²⁵ Boeing Comments at 9.

²⁶ EchoStar Comments at 28. See also SES Comments at 15-16 (stating that although SES believes “bond reform is not a priority, as the current system of bond assessment has proved reasonably workable,” it would “support exploration of an escalating bond” if the FCC “nevertheless decides to revise the bond framework”).

financial wherewithal to build, launch, and operate a satellite are more likely to be able to afford the initial bond amount, and they will be able to—indeed, may have an incentive to—tie up valuable spectrum for years before retaining the license becomes prohibitively expensive, even if there is no chance that a satellite will be built. To avoid this problem, the bond would have to start at the current \$3 million level and escalate from there, putting a strain on capital resources at a time when operators’ construction and launch costs are at their highest. The escalating bond would therefore create a significant entry barrier for smaller new entrants and favor those with large capital resources. The Commission has no reason to adopt this scheme.

EchoStar’s assertion that a reverse bond would create financial incentives for satellite licensees to surrender a license early to avoid an escalating bond²⁷ suggests the licensee somehow is able to backload until very late in the construction process significant payments that normally would be due to the manufacturer earlier. To the extent EchoStar is concerned that such financial arrangements are allowing licensees to meet the second and third milestones while actually spending little, Intelsat believes that requiring a financial disclosure as part of the commencement of construction milestone showing, as suggested in Intelsat’s opening comments, would better protect the public interest.²⁸

Intelsat does not oppose in principle EchoStar’s proposal to allow an entity to use a corporate guarantee as an alternative to a surety bond.²⁹ However, the current proposal is too amorphous and a more specific proposal is needed. For example, it is not known if the guarantee would come from the license applicant or from a parent entity. If the applicant can make its own

²⁷ EchoStar Comments at 28.

²⁸ See Intelsat Comments at 17.

²⁹ EchoStar Comments at 29.

guarantee, how could it be bankruptcy survivable and what financial resources would be required to become eligible for a guarantee? This proposal simply needs further development to ensure the guarantee would be effective and serve the purposes of the bond.

V. **THE COMMISSION SHOULD AMEND THE FLEET MANAGEMENT RULE AS PROPOSED IN THE FNPRM**

No commenters opposed the *FNPRM*'s proposal to allow operators to relocate licensed satellites to an orbital location within ± 0.15 degrees of another location assigned to the same licensee. This amendment allows the fleet management rule to more fully meet its purpose of permitting operational flexibility by eliminating the need for prior approval in certain circumstances. DIRECTV, however, would completely frustrate the objective of this streamlining docket and the rule by putting each fleet management request on Public Notice and allowing adjacent operators to comment on a proposed move prior to the relocation.³⁰ Although DIRECTV incorrectly asserts that the new rule "might not protect U.S. operators at adjacent orbital locations,"³¹ the existing and revised rule's requirement that a space station operate after the relocation both "within the technical parameters authorized and coordinated for the space station previously assigned to that location" obviates any concerns that adjacent operators will not be adequately protected.³²

³⁰ DIRECTV Comments at 8.

³¹ *Id.*

³² *FNPRM* at Appendix A, ¶ 11.

VI. THE COMMISSION SHOULD ADOPT THE REVISED SECTION 25.202(G) WITH INTELSAT'S PROPOSED MODIFICATIONS

The *FNPRM* proposes to amend Section 25.202(g) to allow operators to transmit telemetry, tracking, and command (“TT&C”) signals in portions other than at band edge.³³ No commenter opposed this adjustment.³⁴ Contrary to EchoStar’s assertions, there is no need to measure off-axis EIRP density for in-band TT&C or restrict TT&C transmissions to two-degree power limits.³⁵ Rather, as Intelsat suggested, the agency should permit TT&C transmissions anywhere in the band not only when they conform with existing power levels, but also when the transmissions have been coordinated with other operators within six degrees.³⁶ Intelsat’s proposed revision provides operators the maximum flexibility without raising interference concerns.

VII. THE COMMISSION SHOULD ADOPT INMARSAT'S PROPOSAL TO ALLOW A LONGER FIRST-COME, FIRST-SERVED FILING WINDOW

Intelsat supports Inmarsat’s proposal to allow a 45-day window for filing an application once an authorized slot becomes available again for licensing.³⁷ Intelsat agrees with Inmarsat that such a policy would “level the field” and better enable entities to submit applications under these circumstances.³⁸

³³ *FNPRM*, ¶ 187.

³⁴ Iridium supported the FCC’s Section 25.202(g) proposal. *See* Iridium Comments at 2-3.

³⁵ *See* EchoStar Comments at 63-64.

³⁶ *See* Intelsat Comments at 36.

³⁷ *See* Comments of Inmarsat, IB Docket No. 12-267 at 4 (filed Jan. 29, 2015).

³⁸ *Id.*

VIII. CONCLUSION

Intelsat requests that the Commission revise its Part 25 rules in accordance with Intelsat's initial comments and this reply.

Respectfully submitted,

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