In the Matter of
Comprehensive Review of Licensing and Operating Rules for Satellite Services
IB Docket No. 12-267

COMMENTS OF IRIDIUM CONSTELLATION LLC

Iridium Satellite LLC (“Iridium”) hereby comments on the Notice of Proposed Rulemaking in the above-captioned proceeding (the “NPRM”).¹ Iridium applauds the Commission’s recognition of the continuing evolution of satellite technology and services, and it wholeheartedly supports the FCC’s comprehensive effort to modernize and simplify the Part 25 rules. Iridium is participating in the comments of the Satellite Industry Association and also submitting these comments to highlight several issues that are of utmost importance.

First, Iridium opposes use of an autogrant licensing process for earth station applicants proposing to operate on Ka-band frequencies that are shared with Iridium or to operate on a secondary or non-conforming use basis. Second, Iridium supports the proposal to provide non-geostationary satellite orbit MSS licensees with greater flexibility to reposition their space stations without seeking additional Commission approval. Third, Iridium asks that if the version of Section 25.115(e) of the rules that is proposed in the NPRM is adopted, the Commission continue to evaluate case-by-case the technical sufficiency of proposals to operate on a secondary or non-conforming use basis, rather than by reference to service and technical rules that were adopted with primary services in mind. Finally, if increases in the number of

authorized blanket-licensed, mobile, and VSAT earth terminals are permitted on a notification basis under Section 25.118(a)(3) of the rules, Iridium asks that this procedure be limited to licensed operations for which there is a primary allocation.

I. THE FCC SHOULD NOT ESTABLISH AN AUTOGRANT PROCEDURE FOR GSO FSS EARTH STATIONS PROPOSING TO OPERATE IN IRIDIUM’S KA-BAND FEEDER LINKS OR TO OPERATE ON A SECONDARY OR NON-CONFORMING USE BASIS.

A. The Autogrant Procedure Should Be Limited to Routine Applications

As the Commission has recognized, autogrant procedures are best suited for earth station applications that are routine. An autogrant procedure makes sense only for applications that do not require additional review once the applications have been accepted for filing, and therefore can be granted automatically in advance of the time frame normally required to complete a review. Routine applications satisfy this standard; non-routine applications do not.

B. GSO FSS Earth Station Applications for Bands Shared with NGSO MSS Feeder Links Are Not Routine

The Commission’s rules mandate cooperation and coordination of geostationary (“GSO”) fixed satellite service (“FSS”) earth stations in the 29.25-29.5 GHz band, which is shared with non-geostationary (“NGSO”) mobile satellite service (“MSS”) feeder links. Iridium’s feeder links and telemetry, tracking, and command (“TT&C”) links operate in the uplink direction in a portion of the 29.25-29.5 GHz band.

---

2 See NPRM, ¶ 32 (“In public notices released in 1999 and 2000, the Commission announced an ‘autogrant’ procedure for ‘routine’ license applications for FSS earth stations that would operate in the conventional C-band (i.e., the 3700-4200 MHz downlink band and the 5925-6425 MHz uplink band) or conventional Ku-band (11.7-12.2 GHz downlink and 14.0-14.5 GHz uplink.’); NPRM, ¶ 34 (“We tentatively conclude that Section 25.115 should be changed to extend Form 312EZ and autogrant eligibility to routine applications for individual 20/30 GHz earth stations that would communicate via geostationary satellites previously coordinated with Federal government systems pursuant to Footnote US334.”).

3 See 47. C.F.R. § 25.203(k); 25.258.
Iridium’s feeder links and TT&C links provide essential communications for the Iridium MSS system. All Iridium user communications route through a gateway earth station, and the gateways transmit on feeder link frequencies in a portion of the 29.25-29.5 GHz band. In addition, Iridium utilizes the 29.25-29.5 GHz band for the uplink portion of the TT&C links, which are used to control and command the space stations. For those reasons, controlling and mitigating harmful interference from GSO FSS earth stations remains crucial for Iridium’s operations.

The Commission’s rules impose special requirements on applications for GSO FSS earth stations in the 29.25-29.5 GHz band. An applicant for such an earth station must demonstrate “that its proposed earth station will not cause unacceptable interference to any other satellite network that is authorized to operate in the same frequency band, or certify that the operations of its earth station shall conform to established coordination agreements between the operator(s) of the space station(s) with which the earth station is to communicate and the operator(s) of any other space station licensed to use the band.”

Because of these special requirements, processing of applications for GSO FSS earth stations in the 29.25-29.5 GHz band is not routine. Showings relating to unacceptable interference must be reviewed by an engineer at the Commission. Certifications as to compliance with coordination agreements must be evaluated by the other parties to the coordination agreements. As non-routine applications, license requests for GSO FSS earth stations in the 29.25-29.5 GHz band should be ineligible for autogrant procedures.

---

4 47 C.F.R. § 25.203(k).
5 Cf. NPRM, ¶ 34 (autogrant is not available “to applications not yet coordinated with government systems because we cannot be certain that such coordination would be successfully completed within 35 days of public notice date”).
C. GSO FSS Earth Station Applications for Operation on a Secondary or Non-Conforming Use Basis Are Not Routine

Autogrant procedures also should be inapplicable to applications proposing to operate GSO FSS earth stations on a secondary or non-conforming use basis. Such applications are inherently non-routine. Secondary and non-conforming operations must be evaluated on a case-by-case basis to determine whether harmful interference will be caused or received.

If autogrant procedures are adopted for GSO FSS earth station applications in the 20/30 GHz bands, therefore, the procedures should be limited to bands in which GSO FSS earth stations have a primary allocation. For the reasons discussed above, moreover, autogrant procedures should be inapplicable in the case of the shared 29.25-29.5 GHz band even though there is a primary GSO FSS allocation in the band.

II. IRIIDIUM SUPPORTS AMENDING SECTION 25.118 TO AFFORD NGSO MSS LICENSEES GREATER FLEXIBILITY TO REPOSITION SATELLITES WITHOUT SEEKING ADDITIONAL APPROVAL.

Iridium supports the Commission’s proposed rule change to allow NGSO licensees to reposition individual space stations without prior FCC approval.6 The FCC’s rules already permit an NGSO licensee to put an in-orbit spare satellite into service without prior approval provided that the number of authorized operating space stations is not exceeded.7 The relocation of mission operating satellites in a manner that is consistent with previously-authorized orbital planes should similarly be permitted so long as the NGSO licensee certifies that no increased interference will be caused and that no increased interference protection is sought. The proposed change to Section 25.118 of the FCC’s rules will serve the public interest by enabling greater

---

6 See NPRM, ¶ 81.
7 See 47 C.F.R. § 25.143(d).
flexibility for a satellite operator to best configure its operating satellites, such as when necessary to mitigate isolated anomalies.

III. SECTION 25.115(e) SHOULD BE LIMITED TO GSO FSS EARTH STATION APPLICATIONS IN PRIMARY BANDS.

Section 25.115(e) of the rules states that applicants for GSO earth stations operating in specified bands must provide the technical information described in Section 25.138 of the rules. In the version of Section 25.115(e) that appears in the NPRM, the Commission proposes that this requirement apply to applicants for GSO FSS earth stations operating in the 18.3-20.2 GHz and 28.35-30.0 GHz bands.8

The 18.3-20.2 GHz and 28.35-30.0 GHz bands, however, include frequencies for which there is a primary GSO FSS allocation as well as frequencies for which there is no primary GSO FSS allocation. Requiring that GSO FSS applicants provide Section 25.138 technical information in cases in which there is no primary allocation would be inappropriate. The technical sufficiency of proposals to operate on a secondary or non-conforming use basis needs to be evaluated case-by-case, and not by reference to service and technical rules that were adopted with primary services in mind. The scope of Section 25.115(e), therefore, should be limited to bands in which there is a primary GSO FSS allocation, i.e., 18.3-18.8, 19.7-20.2, 28.35-28.6, and 29.25-30 GHz.

---

8 See NPRM, Appendix A, Section 25.115(e).
IV. SECTION 25.118(a)(3) SHOULD BE LIMITED TO GSO FSS EARTH STATIONS IN PRIMARY BANDS.

Section 25.118 of the rules identifies minor modifications that may be made without prior FCC approval. One such minor modification, which is described in Section 25.118(a)(3), involves increases in the number of operating VSAT remote terminals.

In its comments submitted in response to the NPRM, the Satellite Industry Association, of which Iridium is a member, proposes that the Commission modify Section 25.118(a)(3) to permit increases without prior FCC approval in the number of authorized blanket-licensed, mobile, and VSAT earth terminals. SIA’s proposal is limited to primary bands, and the organization has taken no position as to what rule should apply in the case of operations on a secondary or non-conforming use basis.

Iridium is commenting separately to address the secondary/non-conforming use issue. Iridium believes that the minor modifications permitted by Section 25.118(a)(3) should be limited to licensed operations for which there is a primary allocation. Authorizations that have been issued on a secondary or non-conforming use basis for blanket-licensed, mobile, and VSAT earth terminals frequently are premised on an interference analysis that is tied to a maximum number of earth terminals. Given these circumstances, it would be inappropriate to increase the number of secondary or non-conforming use earth terminals above authorized levels without first providing a revised interference analysis, in a major modification application, that the Commission can review and interested parties can address.
V. CONCLUSION

Iridium supports the Commission’s effort to modernize Part 25. Iridium submits that the autogrant licensing process should not be available to earth station applicants proposing to operate on Ka-band frequencies that are shared with Iridium or to operate on a secondary or non-conforming use basis. Iridium supports amending Section 25.118 of the rules to provide NGSO MSS licensees with greater flexibility to implement system changes without seeking additional Commission approval. If Section 25.115(e) of the rules is revised in the manner proposed in the NPRM, the Commission should continue to evaluate case-by-case any proposals to operate on a secondary or non-conforming use basis. Finally, the Commission should not permit increases in the number of authorized blanket-licensed, mobile, and VSAT earth terminals to be made on a notification basis under Section 25.118(a)(3) of the rules for operations on a secondary or non-conforming use basis.

Respectfully submitted,

By: /s/ Donna Bethea Murphy
Donna Bethea Murphy
Vice President, Regulatory Engineering
Iridium Satellite LLC
1750 Tysons Boulevard
Suite 1400
McLean, VA 22102

January 14, 2013