

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

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

To: The Commission

REPLY COMMENTS OF INMARSAT

Inmarsat hereby replies to the comments filed in response to the above-captioned Notice of Proposed Rule Making (“NPRM”) in order to address the Commission’s proposals for improving and streamlining the Part 25 rules for satellite services.¹ Inmarsat submits this reply in order to emphasize the importance of the streamlining proposals in the overall proceeding, and to add additional support for particular proposals.

As an initial matter, Inmarsat is a member of two organizations that have already filed comments in this proceeding, the Satellite Industry Association (“SIA”) and the Global VSAT Forum (“GVF”).² Inmarsat was intricately involved with the development of the comments submitted by these industry organizations and hereby reiterates its support for the views expressed in their submissions. In particular, Inmarsat believes that the extensive comments submitted by the SIA will help to create a more efficient application and licensing process for

¹ *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Notice of Proposed Rulemaking, IB Docket No. 12-267, FCC 12-117 (released September 28, 2012). The deadline for reply comments on the NPRM was extended to February 13, 2013 by *Order*, DA 12-2046 (Int’l. Bur., released December 19, 2012).

² Comments of the Satellite Industry Association, IB Docket No. 12-267 (filed January 14, 2013) (“SIA Comments”) and Comments of the Global VSAT Forum, IB Docket No. 12-267 (filed January 14, 2013) (“GVF Comments”).

space and earth stations in the United States, more logically tie the Commission's activities with its responsibilities under the Communications Act of 1934 and the International Telecommunication Union Radio Regulations, and modernize the Part 25 rules in order to provide a more flexible framework for applicants and licensees in the years to come.

Inmarsat provides additional comments below to express support for comments filed by other commenters on specific issues.

I. Definitions - Permitted List

Inmarsat supports EchoStar's proposal to expand the definition of the Permitted Space Station List, including integration of the "Ka-band Permitted Space Station List," to include all foreign-licensed GSO space stations authorized to provide service in the United States.³ As EchoStar correctly points out, this would provide a one-stop place for all foreign-licensed satellites to be identified. This would also ease the regulatory burden on the Commission staff and simplify the process for identifying satellites on applications and authorizations for space and earth station operators.

II. Milestone Rules

Inmarsat agrees with the comments submitted by Boeing⁴ and Orbcomm⁵ addressing the current challenges for applicants and the Commission administering the evidentiary requirements under the Commission's milestone compliance rules. The current milestone review process is cumbersome and significantly slows the approval process. In addition, it can require significant Commission resources to administer, require submission of highly sensitive proprietary

³ Comments of EchoStar Corporation, IB Docket No. 12-267 (filed January 14, 2013), ("EchoStar Comments") at 4-5.

⁴ Comments of Boeing ("Boeing Comments").

⁵ Comments of Orbcomm Inc., IB Docket No. 12-267 (filed January 14, 2013) ("Orbcomm Comments") at 12.

information, and requires the maintenance of expensive construction bonds for significant periods of time while determinations are being made.

A. Critical Design Review

Critical design review (CDR) is one aspect of the milestone rules that seems to raise significant difficulties for applicants and satellite manufacturers who are required to produce the information, adding significant delay to the application process. In order to address some of these concerns, Boeing suggests that the current information request process be replaced by objective criteria that can be quickly reviewed and processed by the Commission.⁶ Inmarsat believes that Boeing's suggested evidence of (1) large payments, (2) affidavits from independent manufacturers, and (3) orders of long lead items could replace the current information request with a more concise template.

B. Replacement Space Stations

Inmarsat also supports Orbcomm's suggestion for eliminating milestones for replacement/replenishment satellites.⁷ This requirement does not make sense as a method for precluding warehousing of spectrum for systems that are already operational.

Inmarsat supports the development of a milestone process that is objective and streamlined. The laudable goals of preventing spectrum warehousing can be met by some of the proposals suggested in the comments cited above while at the same time reducing the financial burden on applicants and the evidentiary burden on applicants and the Commission.

⁶ Boeing Comments at 9.

⁷ Orbcomm Comments at 12-13.

III. Rules Relating to Applications and Licenses

A. Autogrant Should be extended to GSO FSS Earth Stations in the 20/30 GHz Band

Inmarsat joins EchoStar's proposal for extension of the autogrant procedures to applications for GSO FSS earth stations in the blanket-licensed 20/30 GHz bands (i.e., 28.35-28.6 GHz, 29.25-29.5 GHz, and 29.5-30 GHz) as these bands are already available for ubiquitous deployment of earth stations on a blanket-licensed basis.⁸ The autogrant procedure provides more than adequate regulatory oversight while advancing the goals of predictable and efficient licensing. Contrary to Iridium's assertions,⁹ as EchoStar points out, the compatibility analysis in GSO FSS applications for the 29.25-29.3 GHz band shared with NGSO MSS feeder links will provide more than adequate regulatory procedures and opportunity for opposition.¹⁰

B. Only One Launch and Service Commencement Certification Should Be Required Per Satellite

Inmarsat supports Intelsat's proposal that the Commission should only require one certification for each new satellite under current Section 25.121(d).¹¹ The two new certifications proposed in the NPRM would be duplicative and unnecessary.

C. Eliminate Form Schedule S in Section 25.114(c)

Inmarsat supports the comments of Intelsat and agrees that a thorough review of the usefulness of Schedule S is needed.¹² The software used for Schedule S is outdated and

⁸ EchoStar Comments at 6.

⁹ Comments of Iridium Constellation LLC, Docket No. 12-267 (filed January 14, 2013) ("Iridium Comments") at 2-3.

¹⁰ EchoStar Comments at 9.

¹¹ Intelsat Comments at 3-4.

extremely cumbersome. All of the information can be provided in narrative form in various parts of the application. Because so much information is required on a standard space station application (e.g., 50-100 pages or more), it has become extremely challenging to write applications and nearly impossible to ensure that the information provided in the narrative matches exactly the information provided in the Schedule S. The time required to develop an application and the opportunity for human error make it nearly impossible to avoid inadvertent errors that can lead to the requirement of additional staff clarification and even fear of dismissal in some cases. This is not a productive use of applicants' or the Commission's resources. If the Commission insists on having the information in tabular form, it should be in a modern software format and only required in one place in the application.

D. Section 25.114 “Applications for space station authorizations”

Inmarsat supports EchoStar's proposal for inclusion of the Commission's policy on alternative methods for satisfying the disclosure requirements in Section 25.114(d)(14)(i)-(iv) for non-U.S.-licensed space stations.¹³ Foreign-licensed applicants that can demonstrate that they are subject to direct and effective regulatory oversight by the operator's licensing authority will achieve the Commission's goals and reduce regulatory duplication. Once a foreign regulatory framework is determined to be acceptable, the Commission should publicly indicate that fact on its website or through some other means and relieve foreign-licensed operators of the responsibility for re-submitting such information. U.S. applicants should have a similar simplified certification process.

¹² Comments of Intelsat License LLC, IB Docket No. 12-267 (filed January 14, 2013) (“Intelsat Comments”) at 10. *See also*, EchoStar Comments at 7 calling for improvements to make the software more transparent and user friendly.

¹³ *See* Mitigation of Orbital Debris, *Second Report and Order*, 19 FCC Rcd. 11567, 11606 ¶ 95 (2004) (“*Orbital Debris Order*”).

E. Section 25.138 Should Apply generally to the 20/30 GHz bands

Inmarsat supports EchoStar's proposal that Section 25.138 should be conformed to Section 25.115 and that Section 25.138 should apply generally to GSO FSS earth stations in the 20/30 GHz bands.¹⁴

IV. Rules Relating to Technical Standards for Licensing Earth and Space Stations

A. "Off-axis EIRP envelopes for FSS earth station operations"

Inmarsat supports the proposal by EchoStar and Cobham that the applicable start angles of Sections 25.138(a) and 25.138(e) should be aligned to two degrees.¹⁵ Section 25.138(a) establishes that off-axis EIRP spectral density limits for 20/30 GHz GSO FSS earth station antenna have a two degree start angle, however, Section 25.138(e), which refers to Section 25.209 (a) and (b) masks for establishing receive earth station protection, have start angles of 1.5 and 1.8 degrees, respectively. Inmarsat recommends that this inconsistency be resolved by adding a note to Section 25.138(e) clarifying that for 20/30 GHz GSO FSS receive earth stations the Section 25.209 envelopes should apply for a starting angle of two degrees. Inmarsat also suggests that the Commission clarify that compliance with Section 25.138(a) for transmit 20/30 GHz GSO FSS earth stations is sufficient and that there is no additional requirement for these transmit earth stations to also meet the antenna gain patterns specified.

B. Orbital Debris Mitigation

As Orbcomm recognizes, orbital debris is critical issue, especially for satellite network operators.¹⁶ That is one of the main reasons that the industry took it upon itself to form and

¹⁴ EchoStar Comments at 1-13.

¹⁵ EchoStar Comments at 12-13; Comments of Cobham, Docket No. 12-267 (filed January 14, 2013) ("Cobham Comments") at 1.

¹⁶ Orbcomm Comments at 8.

operate the Space Data Association.¹⁷ Inmarsat also agrees with SIA that a comprehensive review of the orbital debris mitigation rules in Part 25 needs to be undertaken in a future phase of this proceeding.¹⁸

There are some proposals on orbital debris, however, that Inmarsat believes the Commission should adopted in this phase of the proceeding. Inmarsat agrees with Intelsat and supports the Commission's proposal to replace the existing narrative requirements for orbital debris mitigation disclosure with a more efficient certification process.¹⁹ As discussed above, Inmarsat also urges the Commission to codify its policy of comity towards other administrations' regulatory regimes that provide direct and effective oversight of foreign-licensed satellite network operators.

V. Additional Technical Changes

Inmarsat echoes the support from SIA, GVF and other commenters for the Commission's willingness to seek comment on technical rules and best practices developed in other countries.

A. Space Stations

As discussed in detail by several commenters, the Commission's data submission requirements for space station authorizations could be informed by the requirements in other countries with extensive commercial satellite operations. As suggested in the SIA comments, many other nations do not require as much information from space station applicants.²⁰ Many of the proposals for reducing the amount of information required in an application under Section

¹⁷ The Space Data Association (SDA) was formed in 2009 by Inmarsat, Intelsat and SES to share data. The SDA is a formal, non-profit association of commercial and government satellite operators, that supports the controlled, reliable and efficient sharing of data that is critical to the safety and integrity of satellite operations. <http://www.space-data.org/sda/>

¹⁸ SIA Comments at 69.

¹⁹ Intelsat Comments at 7.

²⁰ SIA Comments at 66.

25.114 echo this lighter touch approach and could significantly reduce the amount of information required by applicants and the resources required by the Commission to review and process that information. In addition to the space station application process, other administrations are now routinely reviewing their operators' orbital debris mitigation and post-mission disposal plans under rigorous frameworks developed with the same policy goals as the Commission. As pointed out by SIA, simpler showings under international standards or similar approaches are working in these other countries and Inmarsat encourages the Commission to examine these approaches as a possible model for streamlining in the United States.²¹

B. Earth Stations

Inmarsat is especially encouraged by the Commission's willingness to seek comment on alternative approaches for earth station licensing. Inmarsat strongly endorses the approaches advocated by SIA and GVF to simplify the licensing process for small earth stations, for all satellite services.²² In particular, eliminating the obligation to provide detailed earth station information (e.g., antenna model name and number, emission codes, bandwidth) and the number of user terminals,²³ could greatly simplify application processing and earth station licensing. Also, eliminating procedural and administrative requirements for new and modified earth stations that operate within a pre-determined technical envelope, as has been the system that has been in place in Europe for some time, and for terrestrial wireless operators in the United States, would significantly reduce the administrative burden for earth station applicants and the Commission, and improve the time to market for new and innovative devices for the public.

²¹ SIA Comments at 66-67.

²² SIA Comments at 67; GVF Comments at 2.

²³ Orbcomm Comments at 19.

More specifically, Inmarsat agrees with GVF²⁴ and urges the Commission to consider revisiting the Section 25.118 earth station license modification process, which seems outdated,²⁵ to examine whether it would be possible to develop a blanket licensing framework more similar to what has been adopted in the terrestrial mobile world. Specifically, Inmarsat would propose that the Commission consider adopting a system similar to those in place for terrestrial mobile operators in Sections 22 (850 MHz cellular), 24 (PCS), and 27 (CMRS). CMRS carriers are not required to add devices to their licenses or notify the Commission of the various models that have been authorized.²⁶

²⁴ GVF Comments at 5-6.

²⁵ At a minimum, Inmarsat urges the Commission to delete the outdated reference to 25.209.

²⁶ Section 22.927 of the FCC's rules governing cellular (850 MHz) operations states that mobile cellular stations are considered to be operating under the authorization of [the relevant] cellular system. This effectively is a blanket system authorization for cellular handsets and does not require the CMRS carrier to add them to its license or to notify the FCC of the various models authorized. While there does not appear to be a similar blanket licensing rule in either Part 24 (PCS) or Part 27 (CMRS) perhaps that is because the concept of a system blanket license without needing to modify is engrained and it is not necessary to codify.

VI. CONCLUSION

Inmarsat again applauds the Commission for undertaking this comprehensive review of Part 25 and respectfully requests that the Commission carefully review the proposals suggested by other commenters and additionally supported by this filing.

Respectfully submitted,

Inmarsat

By: _____ /s/

Diane Cornell
Vice President
Government Affairs
1101 Connecticut Ave., NW, Suite 1200
Washington, DC 20036
Tel. (202) 248-5155

Chris Murphy
Senior Director
Government Affairs
1101 Connecticut Ave., NW, Suite 1200
Washington, DC 20036
Tel. (202) 248-5155