

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

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

To: The Commission

**COMMENTS OF INMARSAT**

Inmarsat hereby submits comments in response to the Commission’s Further Notice of Proposed Rulemaking (FNPRM) in the above-referenced proceeding.

**I. INTRODUCTION**

Inmarsat appreciates the Commission’s willingness to continue the review of the Part 25 satellite and earth station licensing rules. The FNPRM is a comprehensive document and Inmarsat recognizes that it is challenging to undertake a review while at the same time continuing the day-to-day work of the Commission.<sup>1</sup> 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 are also filing comments in this proceeding, the Satellite Industry Association (“SIA”) and the Global VSAT Forum (“GVF”). Inmarsat was closely involved with the development of the comments submitted by these industry organizations and hereby reiterates its support for the views expressed in their submissions. Inmarsat is also looking forward to reviewing the comments submitted by other commenters and the opportunity to provide reply comments.

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<sup>1</sup> The FNPRM is a continuation of the work that was begun in 2012-2013. *Comprehensive Review of Licensing and Operating Rules for Satellite Service*, IB Docket No. 12-267, Report and Order, 28 FCC Rcd 12403 (2013)(2013 Report and Order).

As a general matter, Inmarsat urges the Commission to adopt proposals and modifications that will truly streamline the work of the Commission, thereby saving valuable Commission resources for more difficult and unusual situations while reducing the burdens on applicants and licensees. Inmarsat believes that simplification of the rules provides greater clarity for all and fosters introduction of new and innovative services to the public.

## **II. DISCUSSION**

### **a. Section 25.114 “Applications for space station authorizations”**

Inmarsat notes that one of the more burdensome processes in Part 25 is the space station application process. Many space station applications can be as long as one hundred pages of dense technical information. In some instances, applicants must develop detailed information about space networks using antiquated software and disclose what would otherwise be considered proprietary information, in order to file an application to get into the Commission’s first-come, first-served application processing queue.

As it did last year in the Commission’s *Process Reform*, Inmarsat urges the Commission to significantly reduce the information required to be filed in satellite applications. The Schedule S form requires far more information than is necessary to enable the review of the interference profile of a proposed satellite. In addition, the software is out of date and difficult to use, both from a user input and IT firewall standpoint. Loading and modifying input on Schedule S software is not only cumbersome and time consuming, it is also obsolete. 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. Inmarsat supports proposals to eliminate or modify significantly the Schedule S requirements.

Inmarsat also believes that there are certain principles that the Commission should consider adopting for maintaining existing and developing new requirements for space station applications. These principles are intended to reduce the burdens that currently exist for both the staff and the applicants.

First, to the extent possible, satellite application requirements that mirror the type of information provided to the ITU would enable operators to evaluate the interference environment and to coordinate operations while also ensuring compliance with the Commission's rules related to managing radio frequency emissions. The FCC should consider further reducing initial application requirements to the extent necessary to accomplish these two goals.

Second, the alternative means of demonstrating progress on satellite construction through a streamlined certification procedure, proposed in the SIA comments, would also reduce information requirements filed as part of contract and CDR submissions and protect highly sensitive and proprietary information regarding satellite technology. Inmarsat supports these proposals for streamlining the milestone and bond processes and looks forward to reviewing other proposals in the comments.

Third, Inmarsat encourages the Commission to consider adopting a system that would permit multiple authorizations for space stations at the same orbital location. Operators must consider a number of orbital locations to evaluate spectrum needs and coordination possibilities, among other things. The Commission should provide more flexibility to

operators to “queue up” behind authorized systems, so the limited resources can be put to use more efficiently. To a limited degree this possibility already exists, because “later in line” applications may remain pending until the “first in line” application is granted. Taking this to the next step, the FCC could also grant applications that are later in the queue, with such granted licenses being secondary to licenses at the same orbital location/frequency before them, and still subject to all applicable Commission requirements and obligations.

Finally, to “level the field” and better enable applications to be filed once an authorized slot becomes available again for licensing, the FCC should also consider providing a longer window for refiling, such as 45 days after an orbital location becomes available, and also making “recovered” slots periodically available at regular intervals—such as once a quarter. The current practice of opening a five-day window over a weekend, without a reasonable notice period (e.g., several weeks) to prepare an application, makes it difficult for potential applicants to anticipate when orbital positions will become available and prepare for the filing deadline.

#### **b. Other Comments Supplementing SIA’s Comments**

Inmarsat applauds the Commission for its thorough review of licensing rules for transmitting GSO FSS earth stations and its desire to align requirements across the different frequency bands and to streamline the earth station authorization process. Inmarsat fully supports the proposals in the SIA comments on these matters and provides some additional comment with respect to specific FCC proposals.

##### **i. Limits on Aggregate EIRP Density**

With regard to the  $10 \log N$  formula, Inmarsat emphasizes that the Commission’s proposal to redefine  $N$  would very seriously impact Ka-band services currently provided to U.S. consumers as well as the types of services that can be provided going forward. In an attempt to eliminate ambiguity that arguably does not exist, the Commission has proposed a

way forward that seems likely to cause more harm than good. Notably, the Commission has not identified any real problems arising from the use of the long-standing definition of N or the application of the rules as they have been interpreted and applied for many years. For these reasons, Inmarsat opposes the adoption of the new definition for N and supports the set of SIA proposals on this matter.

**ii. Skew Angle for Asymmetric Antennas**

Inmarsat supports the Commission’s proposal to adopt rules to clarify the requirement for asymmetrical antennas that are being deployed more widely to provide innovative broadband services to the public. Inmarsat encourages the Commission to adopt proposed rules, as outlined in the SIA comments, to appropriately take into account skew angles and facilitate licensing and deployment of these types of earth stations.

**iii. Cross-Polarization Isolation**

Inmarsat proposes that the Commission maintain Section 25.210(i)(1) that requires space station antennas used for FSS operation to provide cross-polarization isolation within the primary coverage area but relax the requirement from 30 dB to 25 dB. In certain cases maintaining the required cross-polarization isolation has been useful in facilitating coordination between satellite networks.

**iv. Sharing Between NGSO MSS Feeder Links and GSO FSS in the  
29.25-29.5 GHz Bands**

Section 25.258 of the Commission’s rules “Sharing between NGSO MSS feeder links and GSO FSS services in the 29.25-29.5 GHz bands” provides important provisions for the co-primary sharing between GSO FSS and NGSO MSS feeder links. Use of this band is critical for GSO FSS systems as it constitutes a quarter of the available uplink spectrum for GSO FSS use on a primary basis in the United States. Given this significance and the need to bring to market the important services provided by Ka-band GSO FSS networks, the

Commission should consider a means to expedite the required coordination. As the Commission is aware, the coordination required under 25.258 has taken significantly longer than what should be expected and in most instances has required intervention by Commission staff to reach resolution. Therefore, Inmarsat encourages the FCC to adopt a ‘shot clock’ approach to the required coordination discussions. Of course, the timing should be based on providing the parties sufficient time to exchange relevant information, meet to discuss technical analysis/details and carryout the coordination. Inmarsat suggests that one year is ample time for the Commission to provide, especially taking into account that further delay only results in delay of services to U.S. consumers. If the process is not completed within the relevant time period the Commission should become directly involved and bring the matter to a resolution.

**v. Section 25.131 “Filing requirements and registration for receive-only earth stations”**

Inmarsat strongly supports the Commission’s proposal and reasoning, based on an SIA suggestion, for amending 25.131(j) to allow unlicensed receive-only earth stations to receive signals from any non-U.S.-licensed space station that has been approved for U.S. market access, not just those included in the Permitted List. In addition, Inmarsat supports the Commission’s proposal, based on the SIA recommendation, that Section 25.131(b) be amended to enable operators of unlicensed receive-only earth stations to registered them for protection of reception of signals from space stations approved for market access that are not on the Permitted List, in bands where such protection is appropriate.

**vi. Section 25.129 “Equipment authorization for portable earth-station transceivers”**

Inmarsat supports the Commission’s proposal to delete the requirement for ‘portable’ earth station applicants to demonstrate compliance with Sections 25.204 as duplicative of the

same requirement to meet the limits in Section 2.1093(d) and to delete the requirement to meet Section 25.209's antenna performance standards for the reasons stated by the Commission in the FNPRM.

Inmarsat is open to the Commission's proposal to amend Section 25.129(c) to include a reference to Section 25.202(d) which prescribes a technical requirement for transmitting earth stations licensed under Part 25, including MSS earth stations, which can be portable (i.e., radiating structure would be within 20 cm of the operator's body when the transceiver is in operation), however, it is not clear exactly how this would apply or what additional information is necessary in light of the earth station application requirements that already exist in other sections referenced in the rule. Therefore, Inmarsat seeks additional information from the Commission before this new and potentially duplicative amendment is adopted.

**vii. Other Recommendations from the *Processing Reform Report***

Inmarsat also hopes that the Commission will consider, either as part of this proceeding or as part of ministerial changes, the following satellite-specific recommendations from the *Processing Reform Report*:

***Recommendation 5.11: Improve Access to Satellite Licensing, Orbital Location and Frequency Band Information***

All satellite application dismissal letters, public notices, and declaratory rulings are currently available on the old FCC International Bureau website, <http://transition.fcc.gov/ib/pdocs.html>. The International Bureau should work with OMD to ensure that these documents are migrated to the new FCC website. There are other web pages that compile documents related to satellite licensing that should also be migrated to the new FCC website.

In addition, the International Bureau should make orbital location and frequency band information more easily available. In order to identify existing opportunities to bring new spectrum and orbit resources into use, potential applicants need real-time, easy-to-access information about orbital locations, frequencies, polarization and coverage of space stations currently authorized by the FCC. For this requirement to be met, the International Bureau should consider the possibility of publishing on its website a summary of all orbital locations, frequencies, polarization and coverage of space stations currently authorized by the Commission.

The Commission's IBFS system contains the functionality to provide reports of all current authorizations including frequencies and orbital locations. These reports do not include, however, polarization and coverage of space stations currently authorized by the Commission. To provide this information in a timely and automated manner, IB may need to revise its data collection fields.

***Recommendation 5.12: Publish Explanatory Materials on Satellite Licensing***

The International Bureau should prepare materials to assist applicants in completing the licensing process. One possible approach is preparation of a primer that would be available on the Commission's website, reflecting the current state of the Part 25 rules. Another possible approach is preparation of lists of Frequently Asked Questions concerning earth station and space station licensing.

**III. CONCLUSION**

Inmarsat appreciates the opportunity to submit comments on this proceeding and applauds the Commission's forward thinking and efforts at modernizing the Part 25 rules. Inmarsat looks forward to continuing to participate in further discussions aimed at revamping Part 25.

Respectfully Submitted,

By: /s/\_\_\_\_\_

Christopher J. Murphy  
Vice President, Government Affairs  
Inmarsat  
1101 Connecticut Ave, NW  
Suite 1200  
Washington, D.C. 20036  
(202) 248-5158

Louis Rosa  
Regulatory Counsel, Government Affairs  
Inmarsat  
1101 Connecticut Ave, NW  
Suite 1200  
Washington, D.C. 20036  
(202) 248-5150

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