

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
ISAT US, Inc.)	File No. SES-MOD-20161130-00917
)	
Application to Modify Maritime Earth Station License)	Call Sign: E140029
)	

PETITION TO DENY OF IRIDIUM CONSTELLATION LLC

Iridium Constellation LLC (“Iridium”), pursuant to 47 C.F.R. § 25.154, requests that the Commission deny the above-referenced application (“Application”) of ISAT US, Inc. (“ISAT”).

I. INTRODUCTION AND SUMMARY

In the Application, ISAT seeks to modify its Fixed Satellite Service (“FSS”) maritime earth station license by adding the 29.1-29.5/19.3-19.7 GHz bands. ISAT proposes to operate in those bands on U.S.-flagged vessels in the Southern Atlantic Ocean near the coast of South Africa; earth stations on the vessels would transmit and receive signals from ISAT’s geostationary-satellite orbit (“GSO”) space station, Inmarsat 5F2.

The Commission should deny ISAT's Application because:

- ISAT's proposal to operate mobile earth stations in the 29.1-29.5/19.3-19.7 GHz bands is inconsistent with the Commission's band plan for those frequencies;
- ISAT has not justified operations that are inconsistent with the Commission's band plan; and
- ISAT's proposed operations are not coordinated with Iridium.

II. INTEREST OF IRIDIUM

Iridium operates a constellation of 66 non-geostationary satellite orbit ("NGSO"), mobile satellite service ("MSS") space stations in low earth orbit. Through its satellite constellation, the largest in the world, Iridium is able to deliver communication services to first responders, public safety personnel, the U.S. Department of Defense, border security officers, the aviation industry, and the energy sector in addition to providing essential backup communications across urban and rural areas.

The Commission has authorized Iridium to replace its initial constellation, in stages, with next generation space stations known as "Iridium NEXT."¹ On January 14, 2017, Iridium launched the first 10 of these replacement satellites, and Iridium is integrating the new satellites into its constellation. Once fully deployed, Iridium NEXT will enable new broadband multi-service capability while providing the technical flexibility to support innovative new services and technologies. As the Commission has

¹ *Application of Iridium Constellation LLC for Modification of License to Authorize a Second-Generation NGSO MSS Constellation*, Order and Authorization, 31 FCC Rcd 8675 (IB 2016).

stated, Iridium NEXT will “provide mobile voice and data services to end users on a network with improved voice quality and enhanced data transmission speeds.”²

Every user communication on the Iridium satellite system is routed through a gateway earth station. Iridium’s gateways operate on feeder link frequencies that include the 29.1-29.3 GHz and 19.4-19.6 GHz bands that ISAT proposes to use for maritime mobile earth stations. Iridium also employs these bands for the TT&C links that it uses to control and command its space stations.

III. ISAT’S PROPOSAL IS INCONSISTENT WITH THE COMMISSION’S BAND PLAN

The Commission has in force a band plan that governs operations in the Ka-band.³ The Commission adopted the band plan based on its determinations as to which services are compatible and which are incompatible.

The band plan makes no provision for mobile earth stations in the 29.1-29.5 GHz band or the 19.3-19.7 GHz band, and in the 29.1-29.25 GHz and 19.3-19.7 GHz bands, it does not even make provision for fixed GSO FSS earth stations. The lower portion of the 29.1-29.5 GHz band (i.e., 29.1-29.25 GHz) is designated for NGSO MSS feeder link stations and LMDS stations; the upper portion (i.e., 29.25-29.5 GHz) is designated for

² *Id.* at ¶ 1.

³ The Commission’s current Ka-band plan, updated to reflect all amendments, is shown in Appendix B to the Commission’s Notice of Proposed Rulemaking, *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed Satellite Service Systems and Related Matters*, FCC 16-170, IB Docket No. 16-408 (Dec. 15, 2016).

NGSO MSS feeder link stations and GSO FSS stations.⁴ The 19.3-19.7 GHz band is designated for NGSO MSS feeder link stations and Fixed Service stations.⁵

ISAT appears to acknowledge that its proposed operation of earth stations on U.S.-flagged ships is subject to the Commission's band plan.⁶ And as stated above, ISAT's proposed operations are inconsistent with the band plan. ISAT does not, however, request a waiver of the band plan.⁷ ISAT's Application, therefore, is facially deficient. For that reason alone, the Commission should deny the Application.

IV. ISAT HAS NOT JUSTIFIED OPERATIONS THAT ARE INCONSISTENT WITH THE COMMISSION'S BAND PLAN

Operations that are inconsistent with a band plan are considered a "non-conforming use." The proponent of a non-conforming use must demonstrate it will not interfere with authorized services and must accept any interference it will receive from authorized services.⁸

ISAT does not address in its Application the showing that applies to nonconforming uses, and it does not provide such a showing. ISAT never even acknowledges that it is proposing a non-conforming use.

⁴ *Id.*

⁵ *Id.*

⁶ See Application, Exhibit A, at 2-3. See also 47 U.S.C. § 301.

⁷ ISAT does seek a waiver of the U.S. Table of Frequency Allocations. See Application, Exhibit A, at 2.

⁸ See *Application of Fugro-Chance, Inc.*, Order and Authorization, 10 FCC Rcd 2860, ¶ 2 (IB 1995). See also *Hughes Network Systems, LLC*, Declaratory Ruling, 26 FCC Rcd 8521 & n. 1, ¶¶ 12-14 (IB 2011); *Boeing Company*, Order and Authorization, 16 FCC Rcd 5864, ¶¶ 8-9, 12 (IB and OET 2001).

Although ISAT requests a waiver of the U.S. Table of Frequency Allocations, moreover, the only support it offers for this request is a statement that a waiver “would allow US flagged vessels to benefit from broadband communications in a remote area of the South Atlantic Ocean where other means of communication are not readily available.”⁹ This statement is primarily factual and does not come to grips with the implications of a non-conforming use.

The failure to address the non-conforming use issue makes ISAT’s Application facially deficient for a second reason and furnishes an additional basis for denying the Application.

V. ISAT DID NOT COORDINATE ITS PROPOSED OPERATIONS WITH IRIDIUM

ISAT claims in its Application that it has completed coordination with Iridium and that the operations proposed in the Application are consistent with that agreement.¹⁰ However, this claim is unfounded. In fact, Iridium has no obligation to coordinate (and has not coordinated) services that are inconsistent with the FCC’s band plan.

⁹ Application, Exhibit A, at 2.

¹⁰ Application, Exhibit A, at 3.

Although ISAT has a coordination agreement with Iridium covering ISAT transmissions to and from the United States, the agreement is limited to a single fixed ISAT earth station located in Lino Lakes, Minnesota.¹¹ The agreement provides no authority for earth stations located on U.S.-flagged ships or for frequencies that are not designated for GSO FSS services.

Accordingly, ISAT's coordination agreement with Iridium is irrelevant to the operations proposed in ISAT's Application.

VI. CONCLUSION

For the reasons stated herein, ISAT's Application should be denied.

Respectfully submitted,

IRIDIUM CONSTELLATION LLC

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March 3, 2017

¹¹ *Application of Inmarsat Mobile Networks, Inc. to Operate a Fixed-Satellite Service Gateway Earth Station Facility in Lino Lakes, Minnesota with the Inmarsat-5 F2 Space Station, Order and Authorization and Declaratory Ruling, 30 FCC Rcd 2770 (IB and OET 2015); recon. granted in part and denied in part, In re Inmarsat Mobile Networks, Memorandum Order and Opinion, 30 FCC Rcd 7295 (IB 2015).*

DECLARATION OF MAUREEN C. MCLAUGHLIN

1. I am Vice President Public Policy for Iridium Constellation LLC.
2. I have reviewed the foregoing Petition to Deny of Iridium Constellation LLC ("Petition"). All statements made therein are true and correct to the best of my knowledge, information, and belief.

I declare under penalty of perjury that the foregoing is true and correct.

By: /s/Maureen C. McLaughlin

Date: March 3, 2017

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing **PETITION TO DENY OF IRIDIUM CONSTELLATION LLC** was sent by first class mail, postage prepaid, this 3rd day of March, 2017, to:

Giselle Creeser
1101 Connecticut Avenue, NW
Suite 1200
Washington, D.C. 20036

/s/ Katia Carty