

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

In the Matter of)
)
SES-17 S.à.r.l.) File No. SAT-PDR-20190305-00014
)
Petition for Declaratory Ruling)

COMMENTS OF IRIDIUM CONSTELLATION LLC

Iridium Constellation LLC (“Iridium”), pursuant to Section 25.154 of the Commission’s rules,¹ hereby submits these comments with respect to the portion of the above-referenced Petition for Declaratory Ruling (the “Petition”), filed by SES-17 S.à.r.l. (“SES”), in which SES requests U.S. market access for its use of the 29.1-29.25 GHz band.

In its Petition, SES requests U.S. market access to permit its gateway earth stations and user terminals to communicate with its SES-17 geostationary satellite orbit (“GSO”) Fixed-Satellite Service (“FSS”) space station in bands that include the 29.1-29.25 and 19.4-19.6 GHz bands.² Iridium uses these bands on a primary basis for feeder links that control its non-geostationary satellite orbit (“NGSO”) mobile-satellite service (“MSS”) satellites and connect its customers’ voice and data transmissions with the public switched telephone network and the Internet.³

¹ 47 C.F.R. § 25.154.

² Petition at 9.

³ The feeder links connect all of Iridium’s over one million subscribers. The 29.1-29.25 GHz band comprises 75% of the uplink portion of Iridium’s feeder link band, and the 19.4-19.6 GHz band comprises 100% of the downlink portion.

Because of the unique capabilities of the Iridium network, commercial, military, and civilian government users depend on Iridium for mission-critical communications needs. In addition to supporting the missions of the Department of Defense, Iridium supports the core commercial operations of large and economically significant industrial sectors, and a diverse set of civilian public safety functions, including the efforts of our first responders.

SES acknowledges that its proposed operations in the 29.1-29.25 and 19.4-19.6 GHz bands are non-conforming because they conflict with the U.S. Table of Allocations and with the Commission's Ka-band plan.⁴ If permitted, therefore, the operations would require waivers of the rules, which SES has requested, and would have to be on an unprotected, non-interference basis.⁵

But SES has provided no basis for evaluating the merits of these waiver requests. The technical elements of SES' filing are limited to SES' space station, SES-17. SES makes no showing as to the potential for its non-conforming gateway earth stations and user terminals to interfere with Iridium's feeder link operations. And it makes no showing as to the extent its non-conforming earth stations and user terminals might receive interference from Iridium's feeder link operations. Accordingly, the

⁴ Petition at 8-9.

⁵ *Id.*

Commission should reserve judgment on these issues until SES applies for earth station authority.

When SES does apply for earth station authority, its application will present matters of first impression. To date, the Commission has authorized only a single GSO FSS gateway earth station to operate in the United States in the 29.1-29.25 and 19.4-19.6 GHz bands, at a location at Lino Lakes, Minnesota.⁶ SES, on the other hand, intends to operate user terminals in the bands. Gateway earth stations and user terminals have distinct technical characteristics that would need to be considered.

As the International Bureau recognized in its Lino Lakes order, moreover, interference is cumulative.⁷ The Bureau has held, therefore, that Commission grants of authority for GSO FSS earth stations to use Iridium's feeder link band on a non-conforming basis must take into account the aggregate impact of existing interference and new interference.⁸ Accordingly, once SES applies for non-conforming earth station authority, at a minimum any interference analysis will need to take into account the combined effect of all of SES' newly contemplated operations plus the impact of previously-authorized operations at Lino Lakes.

⁶ *Inmarsat Mobile Networks, Inc., Application 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, DA 15-382 at ¶ 18 (IB rel. Mar 30, 2015).

⁷ *Id.*

⁸ *Id.*

CONCLUSION

It would be premature for the Commission to consider the extent to which SES' non-conforming earth stations would interfere with Iridium's feeder link operations or might receive interference from Iridium's feeder link operations. The Commission, therefore, should expressly reserve judgment on these issues when acting on SES' Petition. And when the issues are joined because SES files for earth station authority, the potential for cumulative interference should be taken into account.

Respectfully submitted,

IRIDIUM CONSTELLATION LLC

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May 6, 2019

DECLARATION OF MAUREEN C. MCLAUGHLIN

1. I am Vice President Public Policy for Iridium Constellation LLC.
2. I have reviewed the foregoing Comments of Iridium Constellation LLC (“Comments”). 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: May 6, 2019

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Comments of Iridium Constellation LLC were sent by first class mail, postage prepaid, this 6th day of May, 2019, to:

Karis Hastings
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/s/ Vicki Taylor