

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

In the Matter of	)	
	)	
<b>Inmarsat Hawaii Inc.</b>	)	File Nos. SES-LIC-20120426-00397
	)	SES-AMD-20120823-00781
	)	Call Sign E120072
Application for a License	)	
for a Gateway Earth Station	)	
to be Located in Lino Lakes, MN	)	

**REPLY OF IRIDIUM SATELLITE LLC**

On September 28, 2012, Iridium Satellite LLC (“Iridium”) filed a Petition to Deny in part the above-captioned gateway earth station application filed by Inmarsat Hawaii Inc. (collectively with its affiliates, “Inmarsat”). Various parties have filed comments in support of Inmarsat,<sup>1</sup> and on October 9, 2012, Inmarsat filed an Opposition to Iridium’s Petition to Deny. Iridium hereby replies to the comments that have been filed and to Inmarsat’s Opposition.

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<sup>1</sup> See Comments of ARINC Incorporated (filed Sept. 28, 2012); Comments of The Boeing Company (filed Sept. 28, 2012); Comments of Encompass Digital Media (filed Sept. 26, 2012); Comments of VT iDirect, Inc. (filed Sept. 27, 2012); Comments of Gogo LLC (filed Sept. 28, 2012); Comments of Honeywell (filed Sept. 27, 2012); Comments of American Airlines (filed Oct. 1, 2012); Comments of Skyware Global (filed Sept. 28, 2012); Comments of Globe Wireless LLC (filed Sept. 28, 2012); Comments of TracStar Systems Inc. (filed Sept. 28, 2012).

## I. INTRODUCTION AND SUMMARY

In its September 28 filing, Iridium asked that the Commission deny the portion of Inmarsat's application seeking authority to use the 29.1-29.25 GHz and 19.4-19.6 GHz bands for its GSO FSS system, known as Global XPress. Iridium opposed Inmarsat's proposal because it is inconsistent with the Commission Ka-band frequency plan, which designates the 29.1-29.25 GHz and 19.4-19.6 GHz bands for NGSO feeder links and LMDS systems, not GSO FSS systems. Iridium also noted that: (1) if Inmarsat were successful, other GSO FSS systems would seek access to the same 1,650 MHz of spectrum as Inmarsat, which would put additional pressure on the Commission to revisit its band plan without the benefit of a rulemaking; and (2) permitting GSO FSS systems to operate gateway earth stations and user terminals that transmit in the 29.1-29.25 GHz band would replicate in that band the interference issues that already have arisen in the adjacent 29.25-29.3 GHz band.

Inmarsat concedes in its Opposition that its proposal to use the 29.1-29.25 GHz and 19.4-19.6 GHz band for GSO FSS purposes conflicts with the Commission's frequency plan. Inmarsat seeks to be relieved of the frequency plan's requirements, however, based on: (1) the benefits associated with the services to be provided via the Global Xpress system, as reflected in the comments filed in this proceeding; (2) the limited impact its proposed Lino Lakes gateway earth station would have on the

Commission's frequency plan; and (3) cases in which the Commission previously has permitted deviations from the frequency plan on a non-conforming use basis.<sup>2</sup>

In this filing, Iridium replies to Inmarsat's arguments. Iridium shows that the benefits of Inmarsat's proposed services are irrelevant to the issues Iridium has raised, *i.e.*, whether using the 29.1-29.25 GHz and 19.4-19.6 GHz bands to provide the services would undermine the Commission's frequency plan and pose an interference threat to Iridium's operations. Iridium also demonstrates that Inmarsat has not responded meaningfully to Iridium's concerns, because Inmarsat does not take into account the cumulative impact of its proposal to use the 29.1-29.25 GHz and 19.4-19.6 GHz and similar proposals that inevitably would be filed by other GSO FSS operators. Finally, Iridium shows that the precedents relied upon by Inmarsat were based on facts that are distinguishable from Inmarsat's facts. For all of these reasons, the arguments made by Inmarsat should be rejected and Inmarsat's proposal to use the 29.1-29.25 GHz and 19.4-19.6 GHz bands should be denied.

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<sup>2</sup> Inmarsat also questions whether Iridium's Petition to Deny satisfies the requirements of Section 25.154(a)(4) of the Commission's rules given that the Petition to Deny was not supported by an affidavit. *See* Inmarsat Opposition at n. 3. No affidavit is required, however, because the Petition to Deny is based on facts as to which official notice can be taken (*i.e.*, the Ka-band frequency plan and the content of Inmarsat's application), and Section 25.154(a)(4) states that such facts need not be supported by an affidavit.

## II. THE COMMENTS FILED BY THIRD PARTIES LEAVE UNRESOLVED THE ISSUES RAISED BY IRIDIUM

Inmarsat's proposed gateway earth station, which is to be located in Lino Lakes, MN, will communicate with Inmarsat's Global Xpress system. Various third parties have filed comments in support of Inmarsat's Lino Lakes application. The third parties either intend to be Global Xpress customers or will supply components of the Global Xpress system.<sup>3</sup>

The comments focus on whether, as a general matter, the services Inmarsat intends to provide would be beneficial. The comments, however, do not address the issues associated with Inmarsat's proposed use of the 29.1-29.25 GHz and 19.4-19.6 GHz bands to provide the services. They are silent as to the fact that Inmarsat's proposal conflicts with the Commission's Ka-band frequency plan. They make no mention of the likelihood that, if Inmarsat's application were granted, other GSO FSS operators also would seek access to the 29.1-29.25 GHz and 19.4-19.6 GHz bands, putting additional pressure on the frequency plan. And they do not take into account the potential for replicating interference issues in the 29.1-29.25 GHz band that are before the Commission with respect to the adjacent 29.25-29.3 GHz band. The comments filed in this proceeding, therefore, have no bearing on the matters Iridium has raised.

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<sup>3</sup> See Inmarsat Opposition at 1.

### III. INMARSAT HAS NOT MEANINGFULLY ADDRESSED THE ISSUES RAISED BY IRIDIUM

As discussed in Iridium's Petition to Deny, the Commission's Ka-band frequency plan is a comprehensive approach that takes into account a host of competing concerns involving a multiplicity of uses and users. The Commission took into account, among other things, which uses should be permitted on a primary basis in particular portions of the Ka-band and which uses should be permitted on a secondary basis. Inmarsat Global Xpress system and other GSO FSS systems already have access to 3,350 of the 5,000 MHz in the Ka-band frequency plan. Inmarsat is seeking access to the remaining 1,650 MHz, including the 29.1-29.25 GHz and 19.4-19.6 GHz band segments used by Iridium that are designated for MSS feeder links.

Inmarsat does not dispute that its proposal conflicts with the Commission's Ka-band frequency plan. Inmarsat maintains, however, that the Commission should not be concerned with this conflict, because according to Inmarsat, operating a single gateway earth station at variance from the Commission's frequency plan will not undermine the frequency plan.<sup>4</sup> Based on this assertion, Inmarsat asks that the Commission disregard Iridium's frequency plan concerns.

Inmarsat has not meaningfully addressed the frequency plan issue. If Inmarsat's request to use the off-plan frequencies proposed in its application were granted, other GSO FSS operators inevitably would seek access to those frequencies, too. These GSO FSS operators could claim, as Inmarsat has, that the impact of each individual

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<sup>4</sup> See Inmarsat Opposition at 5-8.

application on the Ka-band frequency plan would be limited. In the aggregate, however, grant of these applications would eviscerate the frequency plan. A death from 1,000 cuts is still a death. For this reason, Inmarsat's request to use frequencies that the Commission has designated for services other than GSO FSS services has broad applicability, and should be considered, if at all, only in a rulemaking proceeding of general applicability.

A rulemaking also should be conducted if consideration is to be given to Inmarsat's plans for providing service in the 29.1- 29.3 GHz and 19.4- 19.6 GHz bands via earth stations on maritime and aeronautical mobile platforms. Inmarsat's application does not seek such authority at this time, but Inmarsat states in the application that it intends to use the Global Xpress system to provide maritime and aeronautical services.<sup>5</sup> The Ka-band frequency plan has no designation in the 29.1- 29.3 GHz and 19.4- 19.6 GHz bands for maritime and aeronautical satellite services, and these services pose special interference concerns for Iridium because they are ubiquitous and mobile. The Commission, therefore, should not entertain proposals to provide maritime and aeronautical services in the 29.1- 29.3 GHz and 19.4- 19.6 GHz bands without initiating a rulemaking proceeding.

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<sup>5</sup> See Application, Exhibit A, p. 3.

#### IV. THE PRECEDENTS RELIED UPON BY INMARSAT ARE INAPPOSITE

Inmarsat cites to a number of Commission decisions that it claims support its position. In each case, however, there is a critical distinction between the facts on which the Commission's decision was based and the facts that are presented by Inmarsat's Lino Lakes application.

Inmarsat relies on the fact that "the original band plan for the Ka band contemplated multiple satellite operators using the 29.1-29.5 GHz and 19.4-19.6 GHz band segments for gateway facilities on a shared basis."<sup>6</sup> But the "sharing" contemplated in the order was sharing of feeder link spectrum by multiple NGSO systems.<sup>7</sup> NGSO-to-NGSO sharing and NGSO-to-GSO sharing raises entirely different considerations, so the fact that NGSO-to-NGSO sharing was contemplated in the order cannot be used to support claim by Inmarsat, a GSO operator, that it should be permitted to share NGSO spectrum.

To the contrary, the frequency plan the Commission adopted in the order expressly prohibits GSO FSS use of Iridium's 29.1-29.25 GHz and 19.4-19.6 GHz spectrum on a shared basis. To the extent the order can be considered a precedent in this matter, therefore, it is a precedent that supports denying, not granting, Inmarsat's request for access to 29.1-29.25 GHz and 19.4-19.6 GHz.

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<sup>6</sup> Inmarsat Opposition at 8 & n. 21, citing *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, First Report and Order and Fourth Notice of Proposed Rulemaking, CC Docket No. 92-297, 11 FCC Rcd 19005 (1996) at ¶ 66.

<sup>7</sup> *Id.*

Inmarsat also relies on several cases in which the Commission, faced with no objections, permitted uses of the Ka-band that are not provided for in the Commission's frequency plan.<sup>8</sup> There is a world of difference, however, between proposals that are uncontested and proposals that are opposed by parties who have a primary allocation in the Ka-band frequency plan.

If a proposal to make an off-plan use of the Ka-band is uncontested, it is not unreasonable for the Commission to assume that the considerations which prompted it to exclude the proposed use from the frequency plan originally no longer pertain. If a proposal to make an off-plan use of the Ka-band is objected to by a party that has a primary allocation, on the other hand, it is fair to assume that the original considerations still pertain. If the original considerations still pertain, the appropriate course of action is to continue to enforce the frequency plan. The fact that off-plan uses of the Ka-band have been permitted on an uncontested basis, therefore, does not support Inmarsat's proposal, in the face of an objection from Iridium, to use 29.1-29.25 GHz and 19.4-19.6 GHz.

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<sup>8</sup> See Inmarsat Opposition at n. 18, citing O3b Limited, File No. SES-LIC-20100723-00952, Call Sign E100088 (granted Sept. 25, 2012) (allowing NGSO FSS earth station operations on a non-interference basis in the 17.8-18.3 GHz band, which is allocated only to terrestrial fixed services, and in the 18.3-18.6 GHz band, which is designated on a primary basis to GSO FSS) ("O3b Authorization"); Hughes Network Systems, LLC, File No. SAT-LOA-20111223-00248 (granted Aug. 3, 2012) (allowing GSO FSS operations in the 18.8-19.3 GHz band, which is allocated only for the NGSO FSS) ("Hughes Authorization"); ViaSat, Inc., File No. SAT-LOI-20080107-00006, as amended (granted Aug. 18, 2009) (allowing GSO FSS operations in the 18.8-19.3 GHz band, which is allocated only for the NGSO FSS) ("ViaSat Authorization"); O3b Authorization (allowing NGSO FSS operations in bands designated for GSO FSS and LMDS); Hughes Authorization (allowing GSO FSS operations in bands designated for NGSO FSS and LMDS); ViaSat Authorization (allowing GSO FSS operations in bands designated for NGSO FSS and LMDS).



Finally, Inmarsat relies on the Commission's actions, in two contested matters, permitting contactMEO and Northrop Grumman to make off-plan uses of the Ka-band.<sup>9</sup> The Commission's decisions in those cases, however, were based on the peculiar characteristics of satellites in highly elliptical orbit ("HEO"); these characteristics had not been taken into account when the Ka-band frequency plan was adopted.<sup>10</sup> The characteristics of the GSO FSS system Inmarsat will operate, by way of contrast, are precisely the type of characteristics the Commission had in mind when it adopted the Ka-band frequency plan. The contactMEO and Northrop Grumman precedents, therefore, are distinguishable.

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<sup>9</sup> See *Inmarsat Opposition* at n. 18, citing *Northrop Grumman Space & Missions Systems Corp.*, 24 FCC Rcd 2330 ¶¶ 74-75, 90 (2009) (allowing NGSO FSS operations in the 19.7-20.2 GHz band in which GSO FSS is designated primary, and allowing GSO FSS operations in the 18.8-19.3 GHz band, which is allocated only for NGSO FSS); *contactMEO Communications, LLC*, 21 FCC Rcd 4035 ¶¶ 25-26, 34 (2006) (allowing NGSO FSS operations in the 19.7-20.2 GHz band in which GSO FSS is designated primary, and allowing GSO FSS operations in the 18.8-19.3 GHz band, which is allocated only for NGSO FSS).

<sup>10</sup> See *contactMEO Communications, LLC*, 21 FCC Rcd 4035 at ¶ 34 (the Commission had declined to designate GSO FSS services in the 18.8-19.3 GHz band when it adopted the Ka-band frequency plan, because that designation would work only if NGSO receivers avoid pointing at the geostationary arc, and the rules permit NGSO receivers to point at the geostationary arc; HEO receivers, because they never point at the geostationary arc, are different); *id.* at n. 69 (the Commission had eliminated a secondary NGSO FSS frequency plan designation in the 19.7-20.2 GHz band in order to "lessen the potential for harmful interference to primary services"; *contactMEO's* HEO operations, however, "do not raise the concerns at issue when the Commission eliminated the secondary designations.").

## CONCLUSION

For the reasons stated herein and in Iridium's Petition to Deny, Inmarsat's request to use the 29.1-29.25 GHz and 19.4-19.6 GHz bands should be denied.

Respectfully submitted,

**IRIDIUM SATELLITE LLC**

By: /s/Donna Bethea Murphy  
Donna Bethea Murphy  
Vice President, Regulatory  
Engineering  
Iridium Satellite LLC  
1750 Tysons Boulevard  
Suite 1400  
McLean, VA 22102  
(703) 287-7400

October 16, 2012

## CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing **REPLY OF IRIDIUM SATELLITE LLC** was sent by electronic delivery, this 16th day of October, 2012, to each of the following:

Inmarsat Hawaii Inc.  
Diane J Cornell  
[diane\\_cornell@inmarsat.com](mailto:diane_cornell@inmarsat.com)

Inmarsat Hawaii Inc.  
Chris Murphy  
[Chris\\_murphy@inmarsat.com](mailto:Chris_murphy@inmarsat.com)

Latham & Watkins  
John P. Janka  
[john.janka@lw.com](mailto:john.janka@lw.com)

Latham & Watkins  
Elizabeth R. Park  
[Elizabeth.park@lw.com](mailto:Elizabeth.park@lw.com)

Globe Wireless LLC  
David B. Kagan  
President & CEO  
[David.Kagan@globewireless.com](mailto:David.Kagan@globewireless.com)

Chris Gray  
Vice President of Marketing and  
Business Development  
[Chris.Gray@globewireless.com](mailto:Chris.Gray@globewireless.com)

Gogo LLC  
William J. Gordon  
Vice President, Regulatory Affairs  
[Bgordon@gogoair.com](mailto:Bgordon@gogoair.com)

American Airlines  
Robert A. Wirick  
Managing Director, Regulatory and International Affairs  
Robert.Wirick@aa.com  
Will Ris  
[Will.Ris@aa.com](mailto:Will.Ris@aa.com)

Honeywell  
Chris Benich  
Vice President, Aerospace Regulatory Affairs  
[Chris.Benich@honeywell.com](mailto:Chris.Benich@honeywell.com)

Encompass Digital Media, Inc.  
Chris Weissinger  
[cweissinger@encompass-m.com](mailto:cweissinger@encompass-m.com)

VT iDirect, Inc.  
Kevin Steen  
VP Corporate Development  
Ksteen@idirect.net  
Cynthia Harty  
Vice President of Contracts  
[charty@idirect.net](mailto:charty@idirect.net)

Skyware Global  
Gopi Sundaram  
Vice President, Product Strategy  
[GopiSundaram@skywareglobal.com](mailto:GopiSundaram@skywareglobal.com)

The Boeing Company  
Audrey L. Allison  
Director, Frequency Management Services  
[Audrey.Allison@boeing.com](mailto:Audrey.Allison@boeing.com)

And Its Attorneys,

Bruce A. Olcott  
Squire Sanders (US) LLP  
[Bruce.Olcott@squiresanders.com](mailto:Bruce.Olcott@squiresanders.com)

TracStar Systems Inc., dba Cobham SATCOM  
Mike Gregg  
[Mike.Gregg@cobham.com](mailto:Mike.Gregg@cobham.com)

ARINC Incorporated  
John C. Smith  
Vice President-Law, Secretary and  
General Counsel  
[JSmith@arinc.com](mailto:JSmith@arinc.com)

And Its Attorneys,

Edward A. Yorkgitis, Jr.  
Kelley Drye & Warren LLP  
[CYorkgitis@KellyDrye.com](mailto:CYorkgitis@KellyDrye.com)

/s/ Joseph A. Godles  
Joseph A. Godles