

29 May 2018

**Ex Parte**

Marlene H. Dortch  
Secretary, Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

*Re:* Applications of O3b Limited, IBFS File Nos. SAT-MOD-20160624-00060, SAT-AMD-20161115-00116, SAT-AMD-20170301-00026, and SAT-AMD-20171109-00154

Dear Ms. Dortch:

On May 24, 2018, Maureen C. McLaughlin of Iridium Constellation LLC (“Iridium”), Brandon Hinton of Wiley Rein LLP, and Shiva Goel and the undersigned of Harris, Wiltshire & Grannis LLP met with Rachael Bender of the Chairman’s office and Erin McGrath of Commissioner O’Rielly’s office. Separately, Brandon Hinton, Shiva Goel, and I met with Umair Javed of Commissioner Rosenworcel’s office. In each meeting we discussed the draft order and declaratory ruling that would grant O3b Limited’s (“O3b”) request to modify its grant of U.S. market access.<sup>1</sup>

We explained that Iridium generally supports the Draft Order, and expressed appreciation for the prompt action taken on pending satellite applications over the past several years. We emphasized, however, that the grant of a waiver approving O3b’s belated amendment to add a non-conforming mobile-satellite service (“MSS”) designation to its application would be so without process and precedent that it would undermine the integrity of the Commission’s carefully crafted band plan, future NGSO processing rounds, and the rulemaking process generally. We therefore urged the Commission to conform the Draft Order to its Ka-band plan, which it can do without compromising O3b’s ability to provide broadband service or the Commission’s goal of encouraging nationwide broadband.

O3b filed the amendment at issue in November 2017, roughly one year after the cut-off date for the current processing round.<sup>2</sup> In that amendment, O3b said it would provide MSS in the 19.7-20.2 GHz and 29.5-30.0 GHz bands, even though the FCC’s band plan prohibits MSS operations in those bands. O3b then claimed that, because it said it would provide MSS in those bands, it also should be allowed to access the 19.4-19.6 GHz and 29.1-29.5 GHz bands, which for NGSO systems are limited exclusively to MSS feeder links. O3b thus attempted to bootstrap an unsupported, non-conforming MSS designation into access to MSS feeder-link spectrum, which

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<sup>1</sup> FCC Fact Sheet, Modification of U.S. Market Access for O3b Limited, Order and Declaratory Ruling, IBFS File Nos. SAT-MOD-20160624-00060, SAT-AMD-20161115-00116, SAT-AMD-20170301-00026, and SAT-AMD-20171109-00154, <https://docs.fcc.gov/public/attachments/DOC-350772A1.pdf> (“Draft Order”).

<sup>2</sup> See IBFS File No. SAT-AMD-20171109-00154.

would be shared with users that do conform to the band plan, including Iridium and GSO FSS and terrestrial operators.<sup>3</sup>

Accepting this amendment would make a mockery of the Commission's satellite licensing process. When O3b filed its initial application, it characterized its system as an NGSO FSS system. But in its amendment O3b claimed the system would also provide MSS service even though *it made no changes to the technical elements of the system it previously described as providing FSS*. It just rebranded itself by adding MSS designation, as if it made no technical difference whether a system is FSS or MSS. Granting the amendment under these circumstances would be arbitrary, and would invite other operators to engage in the same chicanery. The Commission cannot reasonably allow O3b to access MSS feeder-link spectrum based on an apparent ruse that it will provide MSS service.

It is, of course, theoretically possible that O3b will follow through and somehow provide MSS service even though it is building an FSS system. *The problem here is that the band plan prohibits it from providing MSS service in the spectrum it wants to use, and the Commission has not even begun to examine the effects of NGSO MSS operations in that spectrum.*

Commission precedent is clear: *the interference concerns raised by NGSO mobile operations, and the service rules necessary to manage them, should be examined in a rulemaking and not in a waiver so broadly applicable that it would have the same effect as an unstudied change in rules.* Just last year, the Commission completed a comprehensive review of licensing and service rules for NGSO FSS constellations precisely because of the challenges posed by NGSO system operations.<sup>4</sup> The same rulemaking procedure should apply to NGSO MSS operations, which only compound interference concerns, especially in the uplink direction.

Along the same lines, the Commission is in the midst of a lengthy and detailed rulemaking to evaluate mobile-terminal interference in the context of GSO systems communicating with earth stations in motion ("ESIMs").<sup>5</sup> Clearly, the authorization of NGSO mobile operations, which raise even more difficult spectrum sharing issues relative to GSO mobile operations, merit the same degree of seriousness and attention from the Commission. Perhaps that is why in the GSO ESIMs proceeding, the Commission has refused even to address NGSO ESIMs and has emphasized the need "to propose rules" for "ESIMs communicating with NGSO satellites" before issuing any new such authorizations.<sup>6</sup>

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<sup>3</sup> Attachment A, which was presented by Iridium at the meetings, illustrates the non-conforming nature of O3b's request.

<sup>4</sup> *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Further Notice of Proposed Rulemaking, IB Docket No. 16-408, 32 FCC Rcd. 7809 (2017).

<sup>5</sup> *Amendment of Parts 2 and 25 of the Commission's Rules to Facilitate the Use of Earth Stations in Motion Communicating with Geostationary Orbit Space Stations in Frequency Bands Allocated to the Fixed Satellite Service*, Notice of Proposed Rulemaking, IB Docket No. 17-95, 32 FCC Rcd. 4239 (2017).

<sup>6</sup> *Id.* at ¶ 2 n.4. Of course, NGSO MSS operations cover an even broader range of mobile services than do NGSO ESIMs – since the latter are limited to terminals on ships, planes, and vehicles.

The Draft Order attempts to minimize these concerns by stating that O3b’s mobile operations would be on a secondary, non-interference basis until new rules are adopted. But this assertion is meaningless in the real world. Without a rulemaking and service rules, however, *there is no guidance as to what constitutes unacceptable interference—and thus no meaningful protection for the primary licensees*. Indeed, there has been no examination of whether avoiding such interference is even technically feasible or on what basis an MSS system could share spectrum in these bands with FSS systems or with other MSS systems.

The Draft Order also states that O3b’s amendment “would not adversely affect other participants in the processing round, because . . . co-frequency operations with respect to all other participants in the processing round would be subject to the sharing rules in Section 25.261.”<sup>7</sup> This conclusion, too, is simply wrong. O3b has proposed both FSS *and* MSS operations in the 19.7-20.2 and 29.5-30.0 GHz bands. Section 25.261, on the other hand, is limited to sharing between multiple FSS systems. The absence of a rule addressing MSS sharing reinforces the need for a rulemaking.<sup>8</sup>

Finally, whatever O3b’s true intentions may be, one outcome remains certain. The Commission will have twisted its NGSO processing round rules to accommodate O3b, the impact of which will be felt in licensing proceedings far into the future. *Section 25.116 of the Commission’s rules precludes consideration of major amendments that, like O3b’s amendment, are filed after the cut-off date of a processing round.*<sup>9</sup> O3b’s amendment was filed about a year after the applicable cut-off date. And O3b’s amendment plainly qualifies as a major amendment.<sup>10</sup> It proposes a completely new, and non-conforming, radio service designation, and seeks co-primary access to new frequencies, thereby increasing the risk of interference to existing licensees.<sup>11</sup> As a result, the amendment cannot be considered as part of the existing processing round.

The Draft Order attempts to characterize O3b’s amendment as a minor one.<sup>12</sup> But that characterization cannot survive even the mildest scrutiny. According to the Draft Order, it does not matter whether O3b’s amendment would increase the risk of interference to Iridium or to other users of the NGSO MSS feeder-link bands, because Section 25.116 supposedly is intended to protect only “other NGSO systems under consideration in the processing round,” and not

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<sup>7</sup> Draft Order ¶ 39.

<sup>8</sup> 47 C.F.R. § 25.261.

<sup>9</sup> See 47 C.F.R. § 25.116(c) (“Any application for an NGSO-like satellite license . . . will be considered to be a newly filed application if it is amended by a major amendment . . . after a ‘cut-off’ date applicable to the application”).

<sup>10</sup> See Iridium Constellation LLC, Petition to Deny or Remove from Processing Round, IBFS File No. SAT-AMD-20171109-00154 (filed Dec. 26, 2017); Iridium Constellation LLC, Reply to Opposition to Petition to Deny or Remove from Processing Round, IBFS File No. SAT-AMD-20171109-00154 (filed Jan. 23, 2018).

<sup>11</sup> *Id.* at 2. See 47 C.F.R. § 25.116(b)&(b)(1) (“An amendment will be deemed to be a major amendment . . . [i]f the amendment increases the potential for interference, or changes the proposed frequencies or orbital locations to be used.”).

<sup>12</sup> Draft Order ¶¶ 38-39.

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existing licensees in frequencies proposed by the applicant.<sup>13</sup> But the Commission order cited in support of that proposition says exactly the opposite, clarifying that “a ‘major amendment’ is one that increases the potential for interference to other applicants *or licensees*.”<sup>14</sup>

The Draft Order’s revisionist interpretation of the Commission’s processing round rules is therefore irrational and inconsistent with Commission precedent. It is also short-sighted, as it would exclude the vast majority of spectrum licensees (i.e., all non-applicants) from important procedural protections just to grant one operator authority to operate in a manner that conflicts with the Commission’s band plan and raises serious technical issues that should not be resolved without the benefit of a rulemaking. Moreover, even assuming the interpretation were correct, the Draft Order is wrong to claim that there is no adverse effect on other applicants because O3b’s operations would be subject to Section 25.261.<sup>15</sup> As explained above, that rule governs only FSS, and not MSS, operations, and thus leaves no sharing rules in place with respect to O3b’s proposed MSS operations.

The Commission therefore should deny O3b’s belated and unsupported request to operate in the MSS, and to access the MSS feeder-link bands. At most, the Commission should grant O3b access only to those portions of the MSS feeder-link bands that actually include an allocation for NGSO FSS in the band plan, *i.e.*, 19.3-19.4 GHz and 19.6-19.7 GHz. That would leave O3b with access to 4100 of the 4700 MHz of Ka-band spectrum it has requested—and more than enough bandwidth to fulfill its broadband objectives. If O3b wishes to provide NGSO MSS service in the 19.7-20.2 GHz and 29.5-30.0 GHz bands, and to access the NGSO MSS feeder-link bands on that basis, it should petition for a rulemaking to examine the drastic changes to the Ka-band plan that would be necessary to accommodate the new operations proposed.

Sincerely,



Scott Blake Harris

*Counsel to Iridium Constellation LLC*

cc: meeting attendees

Attachment

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<sup>13</sup> *Id.* ¶ 39.

<sup>14</sup> *Amendment of the Commission’s Space Station Licensing Rules and Policies*, First Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10760, 10814 ¶ 136 (2003).

<sup>15</sup> *See* Draft Order ¶ 39.

# **ATTACHMENT**

## O3b's Amendment To Add a Non-Conforming MSS Designation

### DOWNLINK\*

<b>Ka-band Plan</b>	fss	GSO FSS ngso fss	GSO FSS	NGSO FSS gso fss	GSO FSS ngso fss NGSO MSS FL	NGSO MSS FL	GSO FSS ngso fss NGSO MSS FL	GSO FSS ngso FSS
<b>Total Megahertz</b>	500	300	200	500	100	200	100	500
<b>O3b Grant (w/o MSS Amendment)</b>	ngso fss	ngso fss		NGSO FSS	ngso fss		ngso fss	ngso FSS
<b>O3b Grant (w/ MSS Amendment)</b>	ngso fss	ngso fss		NGSO FSS	NGSO MSS FL	NGSO MSS FL	NGSO MSS FL	ngso FSS ngso MSS (non-conforming)
<b>Used by Iridium</b>						NGSO MSS FL		
	17.8	18.3	18.6	18.8	19.3	19.4	19.6	19.7
								20.2

### UPLINK\*

<b>Ka-band Plan</b>	fss	GSO FSS ngso fss	NGSO FSS gso fss	NGSO MSS FL	GSO FSS NGSO MSS FL GSO FSS NGSO MSS FL	GSO FSS ngso FSS
<b>Total Megahertz</b>	850	250	500	150	250	500
<b>O3b Grant (w/o MSS Amendment)</b>	ngso fss	ngso fss	NGSO FSS			ngso FSS
<b>O3b Grant (w/ MSS Amendment)</b>	ngso fss	ngso fss	NGSO FSS	NGSO MSS FL	NGSO MSS FL	ngso FSS ngso MSS (non-conforming)
<b>Used by Iridium</b>				NGSO MSS FL		
	27.5	28.35	28.6	29.1	29.25	29.5
						30.0

\* Secondary services in lowercase. Primary services capitalized. Terrestrial allocations/service designations omitted.