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January 27, 2014

**BY ELECTRONIC FILING**

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
The Portals Building  
445 12<sup>th</sup> Street, S.W.  
Room TW-A325  
Washington, D.C. 20554

**Re: Application of O3b Limited for an Earth Station License  
FCC File Nos. SES-LIC-20130618-00516,  
SES-AMD-20131122-01187  
Call Sign E130107**

Dear Ms. Dortch:

In the above-referenced application (the "Application"), O3b Limited ("O3b") requests a license to operate a satellite earth station in Bristow, Virginia. The earth station will communicate with O3b's non-geostationary ("NGSO") Fixed-Satellite Service ("FSS") satellite system. Under the Commission's Ka-band frequency plan,<sup>1</sup> NGSO FSS systems have primary status in the United States in some of the bands O3b proposes to use<sup>2</sup> and secondary or non-conforming status in other bands it proposes to use.<sup>3</sup>

On January 17, 2014, Hughes Network Systems, LLC ("HNS") and EchoStar Satellite Operating Corporation ("ESOC") (collectively, "EchoStar") jointly submitted a letter commenting on O3b's Application.<sup>4</sup> EchoStar does not object to a grant of O3b's Application, but requests

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<sup>1</sup> *In the Matter of 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*, 11 FCC Rcd. 19005, 19039, ¶159 (1996) ("Ka-band Frequency Plan Order").

<sup>2</sup> The Commission's Ka-band frequency plan specifies that NGSO satellite systems are primary in the 18.8-19.3 GHz and 28.6-29.1 GHz bands.

<sup>3</sup> O3b proposes to operate in the 17.8-18.3 and 18.3-18.6 GHz bands on a non-conforming basis and in the 27.6-28.35 and 28.35-28.4 GHz bands on a secondary basis.

<sup>4</sup> Letter from Jennifer A. Manner, Vice President, Regulatory Affairs, EchoStar Satellite Operating Company and Hughes Network Systems, LLC, to Marlene H. Dortch, Secretary, Federal Communications Commission (dated Jan. 17, 2014) (the "EchoStar Letter")

that two conditions attach to any grant. For the reasons stated below, O3b agrees with the first condition but opposes the second one.

The first condition EchoStar seeks would require that O3b not cause harmful interference to primary users, and also would require that O3b accept any harmful interference caused by primary users, in the bands in which O3b has secondary or non-conforming status. O3b has no objection to this condition. As EchoStar acknowledges, O3b already accepted the condition in its Application.<sup>5</sup>

O3b's system is designed to comply with this condition. O3b demonstrated in its Application how by observing the ITU's EFPD limits it will protect geostationary satellite orbit ("GSO") FSS systems that have primary status.<sup>6</sup> This protection is facilitated by the inherent angular separation between the O3b and geostationary orbits when viewed from the Earth at latitudes away from the equator.<sup>7</sup> EchoStar took no issue with O3b's showing that it can protect primary GSO FSS systems.

O3b also showed in its Application that it will protect terrestrial systems that have primary status. In the case of O3b's uplink frequencies, Comsearch sent prior notification letters to LMDS licensees that are within applicable coordination distances, and none of the licensees objected to O3b's proposed operations.<sup>8</sup> O3b also identified mitigation techniques it could use should issues with interference to LMDS arise in the future.<sup>9</sup> In the case of O3b's downlink frequencies, O3b demonstrated that it will meet the PFD limits at the Earth's surface prescribed by the ITU for the protection of terrestrial services.<sup>10</sup> EchoStar took no issue with O3b's LMDS/terrestrial interference showings, either.<sup>11</sup>

The second condition EchoStar seeks would require that O3b operate "on a non-harmful interference basis until coordination [with EchoStar] is concluded."<sup>12</sup> EchoStar does not state whether it wishes for this condition to apply solely in the bands in which O3b has secondary or non-conforming status, or also in the bands in which O3b has primary status. O3b will address both possibilities.

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<sup>5</sup> See O3b's Application, Legal Narrative at 8.

<sup>6</sup> See Legal Narrative at 4-5.

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

<sup>8</sup> See Legal Narrative at 4 and 28 GHz Frequency Coordination Report, by Comsearch (dated May 28, 2013).

<sup>9</sup> *Id.*

<sup>10</sup> See Legal Narrative at 5-6.

<sup>11</sup> EchoStar did recognize that, because of the large distances between O3b's Bristow, Virginia earth station location and the Wyoming, Arizona, Missouri, and California locations of the LMDS systems in which EchoStar has an interest, there is no likelihood of O3b interfering with EchoStar's LMDS operations. See EchoStar Letter at n. 3.

<sup>12</sup> EchoStar Letter at 3.

**Secondary or non-conforming bands.** It would be superfluous to require O3b to operate on a non-harmful interference basis pending coordination in the bands in which O3b has secondary or non-conforming status. By definition, O3b's operations in these bands already are on a non-harmful interference basis, without regard to whether O3b has – or has not – concluded a coordination agreement with EchoStar. O3b, moreover, has agreed to a condition on its license that would reiterate its need to operate on a non-harmful interference basis in these bands.

Requiring coordination in these bands also would be contrary to FCC requirements. The Commission's Ka-band frequency plan establishes the conditions under which portions of the Ka-band may be used in the United States.<sup>13</sup> In the bands in which O3b has secondary or non-conforming status, O3b is required to show – and did show – that it will not cause harmful interference to primary stations, and it must accept – and has agreed to accept – harmful interference caused by primary stations.<sup>14</sup> There is no requirement under the Commission's frequency plan, however, for O3b to coordinate with commercial GSO FSS systems.<sup>15</sup>

EchoStar's request that O3b be required to coordinate in these bands runs counter to the precedents established when EchoStar applied to use Ka-band frequencies on which NGSO FSS systems have primary status and GSO FSS systems have secondary or non-conforming status. On multiple occasions, an EchoStar company requested FCC authority to use these frequencies in the United States, based on a showing that it would not cause harmful interference to NGSO FSS systems and on an agreement to accept harmful interference caused by those systems.<sup>16</sup> EchoStar did not commit to coordinating with commercial NGSO FSS systems that use the band, and the FCC did not condition EchoStar's grants on coordinating with commercial NGSO FSS systems.

For all of these reasons, EchoStar's request for a non-harmful interference condition pending coordination should be rejected.

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<sup>13</sup> See *In the Matter of 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, Third Report and Order*, 12 FCC Rcd. 22310, 22326, ¶39 (1997).

<sup>14</sup> See Legal Narrative.

<sup>15</sup> Footnote US334 to the United States Table of Allocations requires that O3b coordinate with Federal systems operating in the 17.8-18.3, 18.3-18.6, and 18.8-19.3 GHz bands, and O3b has.

<sup>16</sup> See, e.g., Application of Hughes Network Systems, LLC, FCC File No. SAT-LOI-20111220-00242 (granted Aug. 1, 2012), at ¶4 of the related grant; Application of Hughes Network Systems, LLC, FCC File No. SAT-LOI-20110809-00148 (granted Jul 27, 2012).

**Primary bands.** There is no basis for requiring O3b to operate on a non-harmful interference basis pending coordination in the bands in which O3b has primary status. Under the Commission's Ka-band frequency plan, GSO FSS systems must protect NGSO FSS systems in these bands.<sup>17</sup> A condition that reduced O3b's primary status to secondary in the bands until O3b coordinated with EchoStar would turn the Commission's band plan on its head.

EchoStar asserts that the Commission must require O3b to coordinate with it based on what it claims are O3b's "obligations under its United Kingdom space station authorization."<sup>18</sup> If EchoStar believes there are UK authorization compliance issues, and O3b disputes that there are, then EchoStar should take up its concerns with UK authorities. O3b's operations in the United States are governed by U.S. requirements, as administered by the FCC, not those of the United Kingdom.

In a footnote, EchoStar suggests that it is Commission policy to condition operation of U.S. earth stations on compliance with UK domestic rules for satellite coordination.<sup>19</sup> The only source cited by EchoStar in the footnote, however, does not support this proposition. EchoStar cited a license for an HNS earth station that the Commission had originally approved to communicate with HNS' UK-authorized satellite, Jupiter 1 (formerly Spaceway 4). The Commission conditioned that Hughes earth station license on Hughes confirming that its satellite was a bona fide UK authorized satellite under the UK Outer Space Act.<sup>20</sup> The FCC's condition on the cited Hughes earth station license did not address any UK coordination requirements, and nothing about the FCC's condition supports EchoStar's claim that the Commission must, by virtue of UK domestic rules, require O3b to coordinate with EchoStar.

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<sup>17</sup> Ka-band Frequency Plan Order at ¶59.

<sup>18</sup> EchoStar Letter at p. 2.

<sup>19</sup> EchoStar Letter at n. 7.

<sup>20</sup> See SES-LIC-20111021-01243 (Call Sign E110149), condition 90024. Two years later, Hughes returned to the Commission to request authorization under the FCC's rules to launch and operate EchoStar XVII (formerly Jupiter 1) as a U.S. authorized satellite. See Application of Hughes Network Systems, LLC, FCC File No. SAT-LOA-20120424-00075 (granted Jun. 12, 2012).

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In view of the foregoing: (1) O3b's Application should be granted; (2) the first condition requested by EchoStar is acceptable as part of O3b's license; and (3) the second condition requested by EchoStar should not be part of O3b's license.

Respectfully submitted,

A handwritten signature in black ink that reads "Joslyn Read". The signature is written in a cursive style with a large, sweeping initial "J".

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cc: Jennifer A. Manner, EchoStar Satellite Operating Company and Hughes Network Systems, LLC