

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, DC 20554

In the Matter of )  
 )  
Hughes Network Systems, LLC ) File No. SAT-MOD-20190212-00011  
 ) Call Sign: S3017  
Application for Modification of )  
Authorization for the EchoStar XXIV Satellite )

**COMMENTS OF O3B LIMITED**

O3b Limited (“O3b”) hereby comments on the above-captioned application by Hughes Network Systems, LLC (“Hughes”) to modify its authorization to deploy and operate EchoStar XXIV, a geostationary orbit (“GSO”) fixed-satellite service (“FSS”) spacecraft.<sup>1</sup> Hughes seeks to expand its authorization to use additional Ka-band frequencies, 18.8-19.3 GHz and 28.6-29.1 GHz, in which non-geostationary (“NGSO”) satellite networks have sole primary status. O3b has a direct interest in the Modification, as it operates an NGSO Ka-band network authorized to serve the United States that relies on this spectrum.<sup>2</sup>

Under Commission precedent, any grant of the Modification must be conditioned to require Hughes to either complete coordination with NGSO systems or make a detailed technical showing of its ability to protect NGSO systems prior to the start of operation. As Hughes acknowledges, its proposed GSO operations in the 18.8-19.3 GHz and 28.6-29.1 GHz NGSO-primary bands must be “on a secondary (*i.e.*, unprotected, non-harmful interference) basis” with

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<sup>1</sup> Hughes Network Systems, LLC, File No. SAT-MOD-20190212-00011 (the “Modification”).

<sup>2</sup> See *O3b Limited*, Order and Declaratory Ruling, FCC 18-70 (rel. June 6, 2018).

respect to authorized NGSO networks.<sup>3</sup> Hughes describes the need to avoid in-line events with NGSO networks<sup>4</sup> and states that it will comply with its obligations as a secondary service by implementing “coordination mechanisms to avoid causing harmful interference to authorized NGSO FSS operations on these Ka-band frequencies.”<sup>5</sup> Hughes states that it “has in place coordination agreements with a number of authorized NGSO FSS operators” and “will continue to work with other authorized NGSO FSS operators to reach similar coordination or other arrangements to ensure no harmful interference to those systems.”<sup>6</sup> But Hughes makes no specific mention of the O3b system – the only currently operating NGSO network using these frequencies – and O3b is unaware of any proposals from Hughes regarding coordination of EchoStar XXIV with O3b.

The Commission has made clear that before a GSO satellite can commence operations using the NGSO-primary frequencies it must either complete coordination with NGSO networks or demonstrate its ability to protect such networks. Specifically, in authorizing the Galaxy 15R spacecraft to use the 18.8-19.3 GHz and 28.6-29.1 GHz bands on a secondary basis, the Commission imposed a condition designed to ensure NGSO operations would not be harmed:

No later than sixty days before the scheduled initial launch of each NGSO FSS satellite system licensed or granted market access in the United States to operate in the 18.8-19.3 GHz and 28.6-29.1 GHz frequency bands, Intelsat must either: (1) notify the Commission in writing when an agreement has been reached with the NGSO satellite system operator, or (2) seek and obtain the Commission’s approval of a modification of this license including detailed technical demonstrations of how Intelsat will protect the NGSO FSS satellite system. If neither condition is met, Intelsat must cease operations in the 18.8-

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<sup>3</sup> Modification, Exhibit 1 at 2.

<sup>4</sup> Modification, Attachment A at 5.

<sup>5</sup> Modification, Exhibit 1 at 2-3.

<sup>6</sup> Modification, Attachment A at 5.

19.3 GHz and 28.6-29.1 GHz frequency bands pursuant to this license until such time as compliance is demonstrated. With respect to any NGSO FSS satellite system licensed or granted market access in the United States that commences operations prior to the scheduled launch of Galaxy 15R, Intelsat must comply with either (1) or (2) above and must not commence operations in the 18.8-19.3 GHz and 28.6-29.1 GHz frequency bands pursuant to this license until such time as compliance is demonstrated.<sup>7</sup>

If the Commission grants the Modification, it must impose a comparable condition.

Because the O3b NGSO network is already in operation, Hughes must be required to complete coordination with O3b or make a detailed showing of how it will protect the O3b network through a further modification application before EchoStar XXIV can begin operating in the 18.8-19.3 GHz and 28.6-29.1 GHz bands.

Respectfully submitted,

**O3B LIMITED**

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<sup>7</sup> Intelsat License LLC, Stamp Grant, IBFS File Nos. SAT-LOA-20170524-00078 & SAT-AMD-20170613-00086 (reissued June 26, 2018), Attachment to Grant at 5, ¶ 19 (footnotes omitted).