



Federal Communications Commission
Washington, D.C. 20554

June 22, 2017

Karis Hastings
SatCom Law LLC
1317 F Street, NW
Washington, D.C. 20004

Re: O3b Limited, IBFS File No. SAT-AMD-20170301-00026 (Call Sign S2935)

Dear Ms. Hastings:

On March 1, 2017, O3b Limited (O3b) filed the above-captioned amendment to its pending petition for modification of its U.S. grant of market access in the 17.8-18.6 GHz, 18.8-19.3 GHz, 27.6-28.4 GHz and 28.6-29.1 GHz frequency bands.¹ O3b filed this amendment in response to the Satellite Policy Branch Public Notice establishing a processing round for NGSO-like operations in V-band frequencies.² Specifically, O3b's amendment requests U.S. market access in the 37.5-42.5 GHz, 47.2-50.2 GHz and 50.4-51.4 GHz frequency bands for 24 new satellites (referred to as O3bN), which were proposed in a previously filed application.³ To aid the Commission's evaluation of the amendment, please provide the following additional information:⁴

1. In accordance with section 25.114(d)(1), applicants are requested to provide an explanation of how the uplink frequency bands would be connected to the downlink frequency bands on their proposed satellite system.⁵ To better understand the beam and channel connections on O3b's satellite system, please supplement O3b's application with a showing (*e.g.* a strapping table, chart or spreadsheet) that clearly represents this information.
2. The "T_beams.pdf" file attached to the Schedule S form contains an antenna gain contour diagram of a receive beam rather than a transmit beam. Please provide the appropriate transmit antenna gain contour diagram to replace the file labeled "T_beams.pdf."
3. In reviewing the PFD analysis provided in Attachment A (pgs. 5-9), and running the calculations O3b presented to justify compliance with the PFD limits of section 25.208, we were unable to replicate the PFD values derived in O3b's analysis or listed in the Schedule S form. In particular, please explain how the PFD values of -120.5 dBW/m²/MHz and -115.5 dBW/m²/MHz, mentioned Attachment A (page 8), were derived.

¹ O3b Limited, IBFS File Nos. SAT-LOI-20141029-00118 and SAT-AMD-20150115-00004 (granted June 2, 2015). On June 24, 2016, O3b filed a request to modify its grant of U.S. market access to add eight satellites to its NGSO FSS constellation using the previously authorized Ka-band frequencies. IBFS File No. SAT-MOD-20160624-00060.

² See Satellite Policy Branch Information, Public Notice, DA 16-1244 (November 1, 2016) initiating a processing round for additional applications and petitions for operation in the 37.5-42.0 GHz, 47.2-50.2 GHz, and 50.4-51.4 GHz bands by NGSO-like satellite systems.

³ O3b Limited, IBFS File No. SAT-AMD-20161115-00116.


⁴ 47 CFR § 25.111(a).

⁵ 47 CFR § 25.114(d)(1).

4. O3b seeks U.S. market access to operate in the 42.0-42.5 GHz band. Even though there are no domestic PFD limits in this band in section 25.208 of the Commission's rules, operations in this band are subject to the international PFD limits provided in Article 21 of the ITU Radio Regulations. Please provide the appropriate PFD analysis, as well as detailed calculations, to justify compliance with PFD limits of Article 21.
5. The Schedule S information in the amendment application indicates that O3b's satellites will be operating in the 50.2-50.4 GHz band. However, use of this band is not mentioned in the Amendment or its Attachment A. Please clarify this discrepancy and correct the narrative or the Schedule S accordingly.

O3b must file a letter providing this information by **July 24, 2017**. Failure to do so may result in the dismissal of O3b's amendment pursuant to Section 25.112(c) of the Commission's rules, 47 CFR § 25.112(c).

Sincerely,


Jose P. Albuquerque
Chief, Satellite Division
International Bureau