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March 6, 2015

FILED ELECTRONICALLY

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

**Re: Ex Parte Filing of O3b Limited  
Use of Spectrum Bands Above 24 GHz For Mobile Radio Services  
GN Docket No. 14-177**

Dear Ms. Dortch:

O3b here offers clarifications with respect to the Reply Comments filed by SpaceX on February 18, 2015, in the Spectrum Frontiers Notice of Inquiry (“NOI”) proceeding.<sup>1</sup>

I. Introduction

We first note that SpaceX has addressed matters that are beyond the scope of the proceeding. SpaceX speaks of sharing between Ka-band satellite systems and terrestrial systems, which is the focus of the proceeding, and sharing between existing and future satellite systems, which is not the focus of the proceeding. The Commission has well-established rules and policies for NGSO satellite licensing, and any suggestion that these rules and policies be revisited is well beyond the scope of the proceeding.

SpaceX, moreover, has misstated how these rules and policies have been applied to O3b and what that means for future applicants. Specifically, clarification is needed regarding the ability of new entrants to be licensed in the non-geostationary orbit (“NGSO”) primary Ka-band spectrum in the U.S. (the 28.6-29.1 GHz and 18.8-19.3 GHz bands), and regarding O3b’s

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<sup>1</sup> See Reply Comments of SpaceX, GN Docket No. 14-177 (Feb. 18, 2015) (“SpaceX Reply Comments”).

authority to provide service in the U.S., which SpaceX mischaracterizes as “limited.”<sup>2</sup>

## II. New Entrants Already Have Access to NGSO Ka-band Spectrum in the United States

In its Reply Comments, SpaceX raised concerns that “further expansion” of O3b’s operations would be “afforded priority over or be allowed to limit or preclude new entrants.”<sup>3</sup> These concerns are apparently based on fear that SpaceX’s access to Ka-band NGSO spectrum in the U.S. for its future operations is somehow precluded by the existence of operational NGSO systems, and on a misapprehension of the Commission’s regulations that are the basis for O3b’s access to the NGSO Ka-band spectrum in the U.S. However, the FCC has already concluded that O3b’s satellite system provides opportunities for additional entrants to operate in the NGSO Ka-band frequencies.

Under Sections 25.137(c) and 25.157 of the Commission’s rules, applications for authority to communicate with a non-U.S.-licensed NGSO-like system (including requests for U.S. market access) are ordinarily processed under a “modified processing round” framework, which would use a band-splitting sharing mechanism to divide spectrum among competing applicants. The Commission, however, has waived the processing round requirement and the band segmentation requirement in multiple proceedings, including O3b’s application proceedings, when allowing access to the entire NGSO frequency band “will not preclude additional entry.”<sup>4</sup>

In granting market access to O3b, the FCC reiterated “the opportunities for additional entrants to operate in O3b Limited’s requested frequency bands.”<sup>5</sup> O3b has demonstrated that its system can share with other NGSO systems by relying on angular separation between orbital arcs, satellite diversity, and (as a last resort) band segmentation.<sup>6</sup> O3b has also shown that as

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<sup>2</sup> SpaceX only cites to O3b licenses issued by the Commission when referencing “limited Ka-band NGSO operations” in the U.S. Currently, there are no other NGSO satellite systems licensed by the Commission, or granted market access in the U.S., that operate within the NGSO Ka-band frequencies used by O3b.

<sup>3</sup> SpaceX Reply Comments, at 8.

<sup>4</sup> See O3b Limited, File No. SAT-LOI-20141029-00118 (granted Jan. 22, 2015) (“O3b PDR”).

<sup>5</sup> See O3b PDR; O3b Hawaii Gateway Earth Station License, FCC File No. SES-LIC-20100723-00952 (granted Sept. 25, 2012) (the “O3b Hawaii Gateway License”).

<sup>6</sup> See Application for Hawaii Gateway Earth Station, File No. SES-LIC-20100723-00952; O3b Petition for Declaratory Ruling, File No. SAT-LOI-20141029-00118 (granted Jan. 22, 2015).

more O3b satellites are launched, the ability to employ satellite diversity improves because more O3b satellites are visible simultaneously.<sup>7</sup> Based on these showings, the Commission granted O3b's market access applications without requiring a processing round or band segmentation, via waivers of Sections 25.137(c) and 25.157.<sup>8</sup>

Accordingly, potential new entrants, including SpaceX, already have access to Ka-band NGSO spectrum in the United States.

### III. O3b's Authority to Operate in the United States Is Not "Limited"

SpaceX appears to have conflated O3b's market access in the U.S. with O3b's processing round waivers. SpaceX states that "limited Ka-band NGSO operations have been permitted in the United States pursuant to waivers based on findings that these operations can accommodate future entrants."<sup>9</sup>

While it is true that the FCC found that O3b can accommodate future entrants, this finding in no way requires "limited Ka-band NGSO operations" by O3b. The services currently provided by O3b in the United States today have expanded beyond O3b's initial plan to serve areas that cannot be reached by fiber. The U.S. market segments addressed by O3b now include maritime as well as U.S. government services, for example.

O3b utilizes the U.S. market access approval received from the FCC to serve customers throughout the world and to develop new ways to serve various market segments. Many of O3b's customers in the Pacific Ocean Region are served via use of gateway earth stations in the U.S., in Haleiwa, Hawaii and Vernon, Texas. Using these and other gateway earth stations worldwide, O3b serves customers on six continents and is now the leading provider of satellite capacity in the Pacific Ocean Region – all in the Ka-band (27.6-28.4 GHz and 28.6-29.1 GHz uplink).<sup>10</sup>

Commercial take-up of O3b's fiber-speed satellite broadband has exceeded all expectations. For example, four operator customers (telecommunications and mobile operators)

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

<sup>8</sup> See O3b Hawaii Gateway License; O3b PDR.

<sup>9</sup> SpaceX Reply Comments, at 8.

<sup>10</sup> See Reply Comments of O3b Limited, GN Docket No. 14-177 (Feb. 17, 2015).

have contracted for significant additional capacity with O3b since the beginning of 2015. O3b is now planning expansions to its existing fleet through a procurement of new Ka-band satellites to be made during 2015 that will further improve the availability of advanced satellite-based services, speeds, coverage and spectral efficiency.

O3b is already using the Ka-band in the U.S. and worldwide to provide advanced broadband services at fiber-like speeds. As a start-up satellite system in its first years of service, O3b's innovative operations are anything but "limited," and the future looks very bright.

#### IV. Conclusion

O3b offers these clarifications for the record to ensure that SpaceX's inaccurate statements with regard to SpaceX's and O3b's market access in the U.S. are addressed.

Respectfully submitted,

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