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July 7, 2016

VIA ELECTRONIC FILING

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

Re: O3b Limited, Notice of *Ex Parte* Presentation
***Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, GN Docket No. 14-177, IB Docket Nos. 15-256 & 97-95; RM-11664; WT Docket No. 10-112**

Dear Ms. Dortch:

On July 6, 2016 Steve Collar, CEO of O3b Limited and the undersigned met with Erin McGrath, Legal Advisor to Commissioner Michael O'Reilly, and with Daudeline Meme, Legal Advisor to Commissioner Mignon Clyburn. Mr. Collar, the undersigned, and John Hane of Pillsbury Winthrop Shaw Pittman LLP, counsel to O3b, met separately with Brendan Carr, Legal Advisor to Commissioner Ajit Pai, and with Johanna Thomas, Legal Advisor and Commissioner Jessica Rosenworcel. In the meetings we reviewed O3b's position on issues in the above-captioned proceeding of particular importance to FSS operators generally and NGSO FSS operators in particular. Our discussion centered on issues involving the 27.5-28.35 GHz band (the "28 GHz band") and emphasized the following points:

- O3b has invested over $2 billion in its satellite system, invested further millions in U.S. gateway earth station facilities, raised $460 million for construction and launch of an additional eight satellites, and operates a multi-million dollar Network Operations Center in Prince William County (Virginia) that controls O3b's network communications. O3b has made these investments in reliance on the Commission's decision of two decades ago to treat Fixed Satellite Service ("FSS") as secondary with respect only to LMDS services, and to give licensing priority to FSS over all other services.

- As an enabler of 3G and 4G roll-out globally, O3b looks forward to supporting its customers as they introduce 5G services. However, the Commission is at risk of enacting constraints on FSS earth station siting that are unnecessary and overly limiting. There is no reason to exclude FSS from the many site categories proposed by Verizon and other 5G proponents because a reasonable sharing regime can be developed that is not unduly constraining on UMFU operations. A

more reasonable spectrum sharing regime would maximize spectrum efficiency on a local and national scale, and, in the medium to long term, would ensure that the majority of the public can access innovative services.[1]

- FSS satellites in the 28 GHz band must not be subject to uncontrolled skyward emissions from UMFU stations.[2] With unknown performance characteristics for a limitless number and range of 5G emitters, introduction of 5G into the 28 GHz band must be based on thorough studies in order to avoid harmful interference to satellite operations in the band. The Commission must be proactive in ensuring that terrestrial emissions do not interfere with FSS in the 28 GHz band. Harmful interference will not be prevented by simple monitoring of skyward terrestrial emissions from 5G emitters, nor remedied after millions of UMFU stations are deployed in the United States.

- Grandfathering existing and applied for earth stations is necessary but not sufficient. O3b must have reasonable access within the U.S. to build new earth stations as it expands its global satellite system. One site per county does not work: a single site may not meet the multiple considerations (particularly access to fiber) that multiple satellite operators must consider to vet suitable sites, and may very well be impossible to identify if certain proposed restrictions are adopted. There may not be a need for an earth station in every U.S. county, but what is needed is access to locations that meet criteria for effective performance of earth station operations. If the Commission adopts any siting preconditions, no further FSS/UMFU coordination should be required. Siting criteria must ensure that an FSS earth station may be sited when the criteria are met, and that the earth station, once built, can operate without the risk of later being forced to modify or cease operations.

- Anti-competitive, near universal bans on earth stations – e.g., on sites near roads, near >.1% of a census tract's population, or at commercial facilities on greater than one acre of real estate – must be rejected. Such proposals would discontinue existing service, and would restrict U.S.-military access domestically to frequencies used globally for high-throughput FSS connectivity. O3b is currently authorized to operate earth stations at several U.S. military bases, and serves vessels operating in U.S. waters and several U.S. ports. O3b services address the specific low latency, high-bandwidth, highly-flexible needs of the U.S. military, the U.S. cruise and offshore industries, and other large U.S. enterprise sectors, that will never be addressed by terrestrial wireless services. A rule that prohibits siting 28 GHz satellite earth stations in cruise ship ports would undermine service

[1] The Satellite Industry Association ("SIA") has proposed such criteria, based on a proposal by Verizon for protection of UMFU sites. *See* SIA June 22 Letter at 4-5. O3b offered further criteria relevant to the particular characteristics of its NGSO earth stations. *See* Letter from O3b to Secretary, FCC, GN Docket No. 14-177, et al., at 2 (filed 4 July, 2016).

[2] FSS operators have provided analysis on the potential for harmful interference from skyward terrestrial emissions in the 28 GHz band. *See* Letter from EchoStar Corporation, Inmarsat, Intelsat, O3b Limited, OneWeb, SES Americom Inc., and Viasat Inc., to Secretary, FCC, GN Docket No. 14-177, et al., at 1-2 (filed May 12, 2016) Attachment.

enjoyed by consumers today. Prohibiting these customer locations from accessing 28 GHz FSS satellites in the United States would set a bad precedent for any subsequent sharing scenarios, and is nothing less than an anti-competitive market carve-out.

- O3b recommended that UMFU performance milestones and build-out requirements incentivize timely, full use of UMFU license areas, and maximize spectrum use and coverage by permitting FSS use of unserved portions of license areas.[3] UMFU licensees who voluntarily accommodate new FSS earth stations should receive credit towards their performance requirements for those earth stations once built.

Please contact me if you have questions about this submission.

Respectfully submitted,

O3b Limited

/s/ Suzanne Malloy

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[3] O3b has filed additional recommendations with respect to performance requirements. *See* Letter from O3b to Secretary, FCC, GN Docket No. 14-177, et al., at 5 (filed 24 June, 2016).