

## REQUEST FOR SPECIAL TEMPORARY AUTHORITY

O3b Limited (“O3b”), pursuant to Section 25.120 of the Commission’s rules, respectfully requests special temporary authority (“STA”) to conduct telemetry, tracking and command (“TT&C”) in the manner described below, for the four new satellites that are described below (the “Four New Satellites”), from its Hawaii gateway earth station (the “Hawaii Gateway”), E100088, during the 30-day period between January 18, 2015, and February 19, 2015.

O3b was authorized to conduct TT&C with the Four New Satellites pursuant to an STA (the “First TT&C STA”), which runs through January 17, 2015, that added the Four New Satellites as points of communication for the Hawaii Gateway.<sup>1</sup> The First TT&C STA has enabled O3b to use its Hawaii Gateway to provide TT&C for the Four New Satellites while O3b conducts in-orbit testing of the satellites. (O3b used an earth station located in Greece to conduct Payload in-orbit testing.) O3b is filing a new STA request for authority to conduct TT&C from the Hawaii Gateway, rather than an extension of the First TT&C STA for such operations, due to an upcoming temporary reconfiguration of the O3b satellite system, as discussed below.

O3b operates a U.K.-authorized, non-geostationary orbit (“NGSO”) Fixed-Satellite Service (“FSS”) system in the Ka-band. O3b has twelve satellites in orbit: O3b’s first four satellites were launched in June 2013, and an additional four satellites were launched on July 10, 2014 (collectively, the “Eight Operating Satellites”). The Four New Satellites were launched on December 18, 2014, and they use the same orbital plane, altitude, frequencies, and satellite design as the Eight Operating Satellites.<sup>2</sup>

On October 29, 2014, O3b filed a Petition for Declaratory Ruling (“PDR”) seeking access to the U.S. market for its Four New Satellites.<sup>3</sup> Assuming the Commission issues a Declaratory Ruling, the earth stations the Commission has authorized to communicate with O3b’s Eight Operating Satellites also will have authority to communicate with O3b’s Four New Satellites. Until the Commission issues a Declaratory Ruling, however, O3b requires special temporary authority to conduct TT&C for the Four New Satellites.

In its PDR, O3b provided detailed information demonstrating that adding the Four New Satellites to O3b’s system would not create the potential for harmful interference to U.S.-licensed satellite and terrestrial systems. O3b made this showing in a legal narrative,<sup>4</sup> a technical statement,<sup>5</sup> and a Schedule

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<sup>1</sup> See FCC File No. SES-STA-20141203-00881.

<sup>2</sup> The Commission has authorized the Eight Operating Satellites to serve the United States by granting various earth station applications, including the application for O3b’s Hawaii Gateway, that specify O3b’s satellite system as a point of communication. The Commission also has granted O3b special temporary authority, and O3b has sought regular authority, for up to two of the Eight Operating Satellites to serve as spares, with the remaining satellites evenly distributed in O3b’s authorized orbital plane. See FCC File Nos. SES-STA-20140814-00656, SES-STA-20140814-00657, SES-STA-20140814-00658, SES-MOD-20140814-00652, SES-MOD-20140814-00654, SES-MOD-20140814-00655, and SES-AMD-20140814-00653.

<sup>3</sup> See FCC File No. SAT-LOI-20141029-00118 (“PDR”).

<sup>4</sup> See PDR at 6-10.

<sup>5</sup> See Attachment A to PDR at A.8.3 and A.8.4.

S.<sup>6</sup> The showing, which O3b hereby incorporates by reference, demonstrates that O3b can add four satellites with the same orbital plane, altitude, frequencies and satellite design as the Eight Operating Satellites without causing harmful interference.

During the period between January 25, 2015, and February 22, 2015, O3b intends to temporarily operate eight active satellites and four spare satellites in an “8+4” configuration. The spacing of the operational satellites in the orbital plane will mirror the spacing defined in the PDR (the “9+3” configuration) beginning February 22, 2015. Accordingly, O3b requests STA for the Hawaii Gateway to provide TT&C for the Four New Satellites: (1) in a configuration that is transitioning to an “8+4” configuration, during the period January 18, 2015-January 24, 2015; and (2) in an “8+4” configuration, during the period January 25, 2015-February 19, 2015.

The Schedule S accompanying the PDR defined a constellation of 12 satellites operating in a “9+3” configuration, which involves nine active operational satellites evenly spaced around the orbit with three in-orbit spare satellites located close to three of the nine operational satellites.<sup>7</sup> The demonstration in the PDR that O3b can add four satellites with the same orbital plane, altitude, frequencies and satellite design as the Eight Operating Satellites without causing harmful interference is as applicable to the “8+4” configuration proposed herein as it is to the “9+3” configuration described in the PDR. Grant of the STA, therefore, will not create the potential for harmful interference to U.S.-licensed satellite and terrestrial systems. In any event, O3b acknowledges that operations pursuant to the STA will be on a secondary, non-harmful interference basis.

## **Conclusion**

The requested STA will allow O3b to provide TT&C to the Four New Satellites, which is in the public interest because it will pave the way for the improved service, based on additional satellites, that is described in O3b’s PDR. Accordingly, and for good cause shown, O3b asks that its STA request be granted.

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<sup>6</sup> See Schedule S to PDR at S17.

<sup>7</sup> See Attachment A to PDR at A.2.