

## Request for Special Temporary Authority

O3b Limited (“O3b”), pursuant to Section 25.120 of the Commission’s rules, respectfully requests Special Temporary Authority (“STA”) for 180 days, commencing December 16, 2021, to allow its next generation non-geostationary orbit (“NGSO”) mPOWER satellites to communicate with gateway earth stations<sup>1</sup> located in Haleiwa, Hawaii<sup>2</sup> and Phoenix, Arizona<sup>3</sup> using Ka-band frequencies during the satellites’ launch and early orbit phase (“LEOP”) operations and to support the testing process.

O3b operates a U.K.-authorized Ka-band NGSO system that has been granted U.S. market access,<sup>4</sup> with 20 high-throughput, low-latency satellites currently in orbit. O3b is scheduled to launch the first three of its next generation mPOWER satellites in December 2021, and the next three in early 2022. The first three satellites will be launched from an insertion altitude of 300.3 km and the next three will be launched from 2,000.0 km. Once the satellites reach O3b’s authorized operational altitude, O3b will test the communications payload on each satellite.

O3b seeks an STA to allow communications with the mPOWER gateways for telemetry, tracking, and control during orbit raising, payload testing, on-orbit operations, and testing of the satellites at the final operational altitude. The mPOWER LEOP operations will be performed at the following frequencies: 29080.7 MHz, 29095.6 MHz, and 29110.6 MHz in the uplink, and 19280.07 MHz, 19295.01 MHz, and 19309.95 MHz in the downlink. O3b’s NGSO constellation is authorized to communicate in these bands. O3b will operate in accordance with its Market Access Grant.

In the extremely unlikely event that harmful interference should occur due to transmissions to or from its spacecraft, O3b will take all reasonable steps to eliminate the interference. Should an issue arise, O3b’s 24/7 point of contact information is set out below:

Name	Phone	Email
Payload Monitoring Operations Center	+1 800 772 2363	pmoc@ses.com
O3b Network Operations Center	+1 703 366 1500	O3bNOC@ses.com

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<sup>1</sup> The mPOWER gateway earth station applications are currently pending.

<sup>2</sup> O3b Limited, Call Sign E202133, File No. SES-LIC-20200721-00777.

<sup>3</sup> O3b Limited, Call Sign E210037, File No. SES-LIC-20210217-00350.

<sup>4</sup> See *O3b Limited*, Order and Declaratory Ruling, 33 FCC Rcd 5508 (2018) (“Market Access Grant”), available at <https://www.fcc.gov/document/commission-grants-o3b-modification-us-market-access>.

Grant of O3b's STA request will serve the public interest by allowing O3b to launch and test its mPOWER satellites, which will deliver satellite communication services to customers throughout the U.S. Granting this STA is also consistent with Commission precedent.<sup>5</sup>

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<sup>5</sup> The Satellite Division has previously granted special temporary authority for LEOP for NGSO space stations. *See, e.g.*, File Nos. SAT-STA-20170726-00109 & SAT-STA-20180724-00055 (granting 180-day STAs to Terra Bella for LEOPs); File No. SAT-STA-20190405-00023 (granting a 60-day STA to SpaceX for LEOPs and testing for its first tranche of Starlink satellites). While certain temporary post-launch operations are already permitted under Section 25.282 of the Commission's rules for geostationary orbit satellites, there is no similar rule automatically authorizing the temporary operations of NGSO satellites.