

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
[MCI Communications Services, LLC)
(Verizon)]) File No. SES-STA-_____
)
Request for Special Temporary Authority to)
Communicate with the O3b System to Provide)
Critical Connectivity Services in the Navajo Nation)

REQUEST OF VERIZON

MCI Communications Services, LLC (Verizon), pursuant to Section 25.120 of the Commission’s rules, hereby respectfully requests special temporary authority (“STA”) for a period of 60 days beginning no later than December 1, 2020, to operate two 2.4m AvL earth station antennas in Window Rock, Arizona (“WR 2.4m Earth Station”) that will communicate with O3b Limited’s (“O3b”) non-geostationary satellite orbit (“NGSO”) Fixed-Satellite Service (“FSS”) system, which is authorized to serve the U.S. market.¹ Verizon intends to file a request for permanent authorization at this location once the Comsearch frequency coordination report is finalized.

Public Interest Showing

The COVID-19 crisis has presented the Navajo Nation with unique telecommunications challenges, and access to connectivity services such as remote telehealth

¹ *O3b Limited*, Order and Declaratory Ruling, 33 FCC Rcd 5508 (2018) (“O3b Market Access Grant”).

and distance-learning is critical to maintaining safety during the pandemic.² Grant of this STA would align with the Commission’s clear intent to support and promote broadband access and support telehealth efforts relating to COVID-19 throughout the Navajo Nation.³ Additionally, granting this STA will serve the public interest because the WR 2.4m Earth Station will be used to augment an array of critical connectivity services for the Navajo Nation, such as distance learning, support for telemedicine operations, and fire and emergency situational awareness.⁴

² Christina Rodriguez, *Navajo Nation Reports 17 New COVID-19 Cases, 4 Additional Deaths*, KOB4 (Aug. 19, 2020), <https://www.kob.com/new-mexico-news/navajo-nation-reports-17-new-covid-19-cases-4-additional-deaths/5832710/>; *Navajo Nation Council Resolution CJY-67-20 broadband and telecommunications expenditures signed into law for \$53,224,989*, The 24TH Navajo Nation Council Office of the Speaker (August 17, 2020), [https://mcusercontent.com/3341677ced70eee20b6a79473/files/3d6d4f73-bad6-43ff-8053-99d8c99ee7f6/PDF Navajo Nation Council Resolution CJY 67 20 broadband and telecommunications expenditures signed into law for 53 224 989 PR.pdf?utm_source=PRESS+RELEASEs&utm_campaign=41db148074-EMAIL_CAMPAIGN_2020_08_17_09_42&utm_medium=email&utm_term=0_c3fb2c8cdc-41db148074-17163325](https://mcusercontent.com/3341677ced70eee20b6a79473/files/3d6d4f73-bad6-43ff-8053-99d8c99ee7f6/PDF%20Navajo%20Nation%20Council%20Resolution%20CJY%2067%20broadband%20and%20telecom%20munications%20expenditures%20signed%20into%20law%20for%2053%20224%20989%20PR.pdf?utm_source=PRESS+RELEASEs&utm_campaign=41db148074-EMAIL_CAMPAIGN_2020_08_17_09_42&utm_medium=email&utm_term=0_c3fb2c8cdc-41db148074-17163325).

³ “Through the Federal Communications Commission’s COVID-19 Telehealth Program ... the Navajo Nation Department of Health, based in Window Rock, AZ, was awarded \$954,990 to provide home healthcare and RPM services throughout the Navajo Nation.” Eric Wicklund, *Community Centers, Navajo Nation Get FCC Funding for Telehealth Services*, Telehealth News (May 6, 2020), <https://mhealthintelligence.com/news/community-centers-navajo-nation-get-fcc-funding-for-telehealth-services>; see also COVID-19 Telehealth Program, Final List of COVID-19 Telehealth Program Awardees (July 8, 2020), <https://www.fcc.gov/covid-19-telehealth-program>; FCC Grants Navajo Nation Temporary Spectrum Access During Pandemic (April 17, 2020), <https://www.fcc.gov/document/fcc-grants-navajo-nation-temporary-spectrum-access-during-pandemic>.

⁴ “[A] deal is underway with Verizon to bring internet, via satellite, to tribal members in every region. The nation spans across Utah, New Mexico and Arizona. Bringing internet to the entire nation will be good for economic recovery and create small business opportunities...Bringing widespread internet access will be good for future generations[.]” Christina Flores, *Lawmakers to give \$3.9 million in COVID-19 relief to internet for Navajo School Kids*, KUTV (Aug. 18, 2020), <https://kutv.com/news/local/lawmakers-to-give-39-million-in-covid-19-relief-to-internet-for-navajo-school-kids>.

Frequency Plan

The WR 2.4m Earth Station will communicate with O3b's NGSO system using the following frequencies:

- 27.6-28.4 GHz and 28.6-29.1 GHz (uplink)
- 17.8-18.6 GHz and 18.8-19.3 GHz (downlink)

The WR 2.4m Earth Station antennas will be mounted on fixed platforms.

Although the pointing angle of the antennas will change as O3b's in-orbit satellites are tracked, each platform will remain stationary. Verizon's proposed WR 2.4m Earth Station operations in shared bands are consistent with the Commission's rules and policies. Verizon addresses each of these bands below.

Uplink

27.6-28.35 GHz – Sharing with primary terrestrial stations

In the 27.6-28.35 GHz band, the Upper Microwave Flexible Use Service ("UMFUS") has a primary allocation, and FSS operations are permitted on a secondary basis. Pursuant to Section 25.136(a), an earth station licensee may be authorized to operate in this band without providing interference protection to future UMFUS stations if certain requirements are met.⁵

⁵ 47 C.F.R. § 25.136(a). See also *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014 (2016) at Appendix A.

Comsearch has sent a frequency coordination notice to all existing terrestrial licensees within the coordination contours of the WR 2.4m Earth Station site. Once the final report is issued, Verizon will file a permanent earth station license application with the Comsearch report attached as an exhibit. However, a search in the Commission's Universal Licensing System does not show any UMFUS operators in Apache county.

27.6-28.4 GHz - Sharing with primary GSO FSS operators

NGSO FSS systems are required to protect geostationary orbit ("GSO") FSS systems throughout the 27.6-28.4 GHz band. Both NGSO and GSO FSS systems are secondary to UMFUS in the 27.6-28.35 GHz band, but the Commission has also specified that NGSO FSS systems in this band must operate on an unprotected, non-interference basis with respect to GSO FSS networks.⁶ In the 28.35-28.4 GHz band, there is a primary allocation for GSO FSS systems and a secondary allocation for NGSO FSS systems.⁷

The Commission granted O3b U.S. market access in Ka-band uplink spectrum in which GSO FSS has priority status based on O3b's demonstration that its NGSO operations are not likely to cause harmful interference to GSO networks,⁸ and subject to conditions specifying that the O3b operations are not entitled to protection from interference caused by GSO

⁶ *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 7809 (2017) (the "NGSO Order") at 7817, ¶ 23 and Appendix B, Adopted Ka-band Plan.

⁷ *See id.*, Appendix B, Adopted Ka-band Plan.

⁸ *See, e.g.*, IBFS File No. SAT-AMD-20161115-00116 (the "O3b Amendment"), Technical Annex at 13-19.

systems.⁹ Verizon's request to operate the WR 2.4m Earth Station in the 27.6-28.4 GHz band segment is consistent with these provisions and other applicable Commission requirements.

Pursuant to Sections 25.115(f)(1) and 25.146(a)(2) of the Commission's rules, Verizon hereby certifies that the earth station operations proposed herein will comply with the applicable equivalent power flux-density ("EPFD") levels in Article 22, Section II, and Resolution 76 of the ITU Radio Regulations. The Commission has recognized that any NGSO system that complies with these international EPFD limits "is considered as having fulfilled its obligation . . . not to cause unacceptable interference to any GSO network."¹⁰ Moreover, Verizon will not claim protection from interference from U.S.-licensed GSO FSS networks in the 27.6-28.4 GHz spectrum.

Downlink

17.8-18.6 GHz – Sharing with primary FS and GSO FSS operators and with other NGSO operators

The 17.8-18.3 GHz band is allocated on a primary basis to FS and on a secondary basis to FSS.¹¹ The 18.3-18.6 GHz band is allocated in the United States on a primary basis to GSO FSS and on a secondary basis to NGSO FSS. O3b's space stations transmit in this band pursuant to the O3b Market Access Grant, and the operations of the space stations with the WR 2.4m Earth Station will comply with the conditions specified in that authorization.¹²

⁹ See O3b Market Access Grant, 33 FCC Rcd at 5514, ¶¶ 13-16 and 5525, ¶ 46.

¹⁰ NGSO Order, 32 FCC Rcd at 7820, ¶ 32 (footnote omitted). See also 47 C.F.R. § 25.289.

¹¹ NGSO Order, 32 FCC Rcd at 7812, ¶¶ 7-8, and 7850, Appendix B.

¹² O3b Market Access Grant, 33 FCC Rcd at 5525-26, ¶ 46.

Conclusion

The requested STA will allow Verizon to provide critical connectivity services throughout the Navajo Nation. Accordingly, and for good cause shown, Verizon respectfully requests that its STA be granted in time for it to commence operation under this 60-day STA on December 1, 2020.



Verizon Wireless

600 Hidden Ridge
Irving Texas

To Whom It May Concern,

Verizon has no objection to O3b Limited's notification of permanent operations in the 27.5-27.925 GHz and 27.925 - 28.350 GHz frequency bands, operating under the technical parameters set forth below, for service in Window Rock, Arizona for the period from December 1, 2020 (Estimated) through November 30, 2022.

- Coordinates: 35° 40' 29.6" N, 109° 03' 26.61" W
- Transmit: 27600-28400 MHz and 28600-29100 MHz
- Receive: 17800-18600 MHz and 18800-19300 MHz
- Antenna Size: 2.4m
- Antenna Make/Model: AvL 2470 2.4m
- Antenna Gain: Transmit 51 dBi at 18.5 GHz; 54.5 dBi at 28.3 GHz
- Emission Designators: 1M00G7D, 216MG7D
- Uplink EIRP (dBW): 70
- EIRP Density (dBW/4 KHz): 32; 23.2
- Power (W): 40
- Minimum Elevation Angle: 10 degrees east and west

Mary Nolan

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