Before the Federal Communications Commission Washington, DC 20554

In the Matter of

Globecomm License Sub LLC

Call Sign: E990402

File No. SES-MOD-_____

Application to Add the Eutelsat 65 West A Space Station as an Authorized Point of Communication and Add New Ku-Band Frequencies

APPLICATION OF GLOBECOMM LICENSE SUB LLC TO MODIFY EARTH STATION LICENSE

Globecomm License Sub LLC ("Globecomm"), pursuant to Section 25.117 of the rules of the Federal Communications Commission ("Commission" or "FCC"),¹ respectfully requests authority to modify its Hauppauge, New York AOT-10 Earth station license (call sign E990402)² to add the Eutelsat 65 West A ("E65WA") satellite as an authorized point of communication and add International Telecommunication Union ("ITU") Appendix 30B Ku-band frequencies at 10.7-10.95 GHz and 12.75-13.25 GHz. E65WA is a Brazilian-licensed geostationary satellite orbit ("GSO") satellite providing Fixed-Satellite Service ("FSS") from the nominal 65° W.L. orbital location.³ Adding E65WA as an authorized point of communication would serve the

¹ See 47 C.F.R. § 25.117.

² See Globecomm License Sub LLC, Radio Station Authorization, Call Sign E990402, File No. SES-MOD-20150626-00427 (granted Jan. 5, 2016).

³ The FCC has previously authorized the E65WA satellite to serve the United States using uplink frequencies in the 12.75-13.25 GHz band. *See* United Teleports Inc., Radio Station Authorization, Call Sign E160081, File No. SES-LIC-20160513-00427 (granted Aug. 5, 2016).

public interest by allowing Globecomm to provide international video distribution services to the Caribbean region.

I. <u>REQUEST TO COMMUNICATE WITH EUTELSAT 65 WEST A AND ADD</u> <u>NEW KU-BAND FREQUENCIES</u>

Globecomm requests authority to communicate with the E65WA satellite through its AOT-10 Earth station in Hauppauge, NY and authority to use the ITU Appendix 30B Ku-band frequencies at 10.7-10.95 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space). The FCC has previously authorized the E65WA satellite to provide uplink services in the United States using the 12.75-13.25 GHz band.⁴ In this application, Globecomm requests that the Commission grant the E65WA satellite U.S. market access to provide both transmit and receive services with Globecomm's licensed earth station with call sign E990402.

E65WA is a GSO FSS satellite licensed by Brazil and operated by Eutelsat do Brasil LTDA ("Eutelsat") at the nominal 65° W.L. orbital location.⁵ The satellite was launched in 2016 and can provide services using C-, Ka-, and Ku-band frequencies. In 2016, the United States signed an agreement with the Brazilian National Telecommunications Agency ("ANATEL") to include the United States in the E65WA satellite service area.⁶ This coordination agreement evidences compatibility with U.S. Appendix 30B filings as agreed upon by the United States and

⁴ *See* United Teleports Inc., Radio Station Authorization, Call Sign E160081, File No. SES-LIC-20160513-00427 (granted Aug. 5, 2016).

⁵ The E65WA satellite operates at 65.2° W.L., 0.2 degrees away from the STAR ONE C1 satellite operated by Star One at 65.0° W.L. Both satellites operate with an east-west station-keeping tolerance of ± 0.05 degrees, thereby eliminating the possibility of any volume overlap. There are no pending applications before the Commission requesting authorization to use an orbital location within ± 0.2 degrees of 65.2° W.L., and neither Globecomm nor Eutelsat are aware of any satellite with an overlapping station-keeping volume with the E65WA satellite that is the subject of an ITU filing and that is either in orbit or progressing towards launch.

⁶ See Technical Annex, Attachment D (citing ANATEL-FCC Agreement under Section 6.6 of Article 6 Appendix 30B, 800C2/SEB16174 (Apr. 27, 2016).

Brazil, and thus fulfills the demonstration requirement under Section 25.140(a)(3)(iv).⁷ Globecomm understands that this agreement does not guarantee U.S. market access and that Globecomm must obtain prior authorization from the Commission.

Globecomm's proposed operations are consistent with the United States Table of Frequency Allocations and similarly approved GSO FSS earth stations in the United States operating in ITU Appendix 30B frequency bands.⁸ The Table of Allocations permits FSS operations in the 10.7-10.95 GHz and 12.75-13.25 GHz bands on a co-primary basis with terrestrial fixed service ("FS") operations.⁹ In addition, the Table of Allocations requires GSO FSS operators using these frequencies to limit operations to international use only, comply with ITU Appendix 30B provisions, and coordinate with radio astronomy observatories operating in the 10.6-10.7 GHz band.¹⁰ Globecomm proposes to use the 10.7-10.95 GHz and 12.75-13.25 GHz band frequencies to support customers in the Caribbean, and therefore confirms that its proposed operations will be limited exclusively to international use. Globecomm further confirms and demonstrates in supporting materials that its proposed operations with the E65WA satellite will comply with the FCC's rules, including requirements to coordinate with co-primary FS licensees and protect radio astronomy observations in the adjacent bands from harmful interference, and ITU Appendix 30B provisions.

⁹ United States Table of Frequency Allocations, 47 C.F.R. § 2.106.

⁷ See 47 C.F.R. §25.140(a)(3)(iv).

⁸ See, e.g., *id.* (authorizing uplink Earth station operations with the E65WA satellite in the 12.75-13.25 GHz band); Intelsat License LLC, Radio Station Authorization, Call Sign E000063, File No. SES-MFS-20131111-00952 (granted Nov. 18, 2014) (authorizing gateway Earth station operations with Canadian-licensed satellites in the 12.75-13.25 GHz band); Intelsat License LLC, Radio Station Authorization, Call Sign E140121, File No. SES-LIC-20141124-00872 (granted Feb. 11, 2016) (authorizing gateway Earth station operations with the Intelsat 29E satellite in the 12.875-13.25 GHz band).

¹⁰ *Id.*, footnotes NG52, 5.441, US131, US211.

In support of its request, Globecomm submits technical information in FCC Form 312, Schedule B, Schedule S, and in narrative form, as contained in the attached Technical Annex. This supporting information demonstrates that Globecomm's Earth station operations will comply with the Table of Allocations, FCC rules, and the provisions of ITU Appendix 30B. It further demonstrates, pursuant to Section 25.137(d) of the FCC's rules, that the E65WA satellite has complied with all applicable Commission requirements for non-U.S. licensed satellites seeking authorization to serve the United States.¹¹ Because Brazil is a World Trade Organization member country, Globecomm is not required to demonstrate that U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services in Brazil pursuant to Section 25.137 of the FCC's rules.¹²

II. <u>PUBLIC INTEREST SHOWING</u>

Grant of this modification application is in the public interest because it will allow Globecomm to respond to growing customer demand in the Caribbean for FSS capacity to provide international video distribution services. Grant would also support U.S. service providers and facilitate distribution of U.S. programming in the international market. In addition, granting U.S. market access for the E65WA satellite would enhance competition in the satellite service marketplace.

Grant of this modification application will not result in increased risk of harmful interference. As noted above, Globecomm has coordinated operations with radio astronomy operations in the adjacent 10.6-10.7 GHz band and with co-primary FS operations.

¹¹ See 47 C.F.R. § 25.137(d). Globecomm notes that because the E65WA satellite is in orbit and currently operating, the FCC's rules relating to the posting of bond, milestones, and reporting are not applicable.

¹² See 47 C.F.R. § 25.137(a)(2).

Nevertheless, should its operations cause harmful interference, Globecomm will take all reasonable steps to eliminate such interference.

III. <u>REQUEST FOR WAIVER</u>

Globecomm requests waiver of Section 25.283(c) of the Commission's rules, which requires applicants to demonstrate that all stored energy will be removed at the spacecraft's end of life,¹³ with respect to residual helium that will remain on the E65WA satellite at end of life.

Under Section 1.3 of the FCC's rules, the Commission has authority to waive its rules "for good cause shown."¹⁴ Good cause exists if "special circumstances warrant a deviation from the general rule and such deviation will service the public interest" better than adherence to the general rule.¹⁵ In determining whether waiver is appropriate, the Commission should "take into account considerations of hardship, equity, or more effective implementation of overall policy."¹⁶ As shown below, there is good cause to waive Section 25.283(c).

Grant of the waiver is supported on grounds of hardship, as E65WA is an in-orbit satellite and design change cannot be accomplished at this time. Waiver is also appropriate in this case, because grant would not undermine the purpose of the rules, which is to reduce the risk of accidental explosion. Although the helium will be vented as part of the retirement procedures for the satellite, a regulator on the tanks will prevent complete expulsion of the helium. Once the inlet pressure drops below the set point of the regulator, it is impossible to continue to expel the helium.¹⁷ The E65WA propulsion subsystem design, namely the regulator and downstream

¹³ 47 C.F.R. § 25.283(c).

¹⁴ 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

¹⁵ Northeast Cellular Telephone Co. v. FCC, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

¹⁶ *WAIT Radio*, 418 F.2d at 1159.

¹⁷ The specification for the minimum inlet pressure below which that regulator cuts off the flow of helium is 400 psia. Based on that pressure, and assuming a temperature of 298K, the

check valve characteristics, will ensure that the minimum pressure in the three interconnected helium tanks (65 liters each) will be no higher than 1.6 psia (0.11 bar), which will be a fraction of the tanks' 4,000 psia maximum expected operating pressure.

FCC precedent supports waiver of Section 25.283(c). The Commission granted United Teleports Inc.'s request for waiver to permit operation with the E65WA satellite.¹⁸ The agency has also granted waiver for satellites with similar design limitations.¹⁹ For these reasons, the public interest would be served by waiver of the Section 25.283(c) requirements.

residual helium after depletion is estimated to be approximately 3.5 grams. *See* Technical Annex, § 8.2.

¹⁸ See United Teleports Inc. Section 1.65 Letter, Call Sign E160081, File No. SES-LIC-20160513-00427 (filed July 11, 2016); United Teleports Inc., Radio Station Authorization, Call Sign E160081, File No. SES-LIC-20160513-00427 (granted Aug. 5, 2016).

¹⁹ See Gogo LLC Section 1.65 Letter, Call Sign E120106, File No. SES-MFS-20151022-00735 (filed Mar. 14, 2016); Gogo LLC, Radio Station Authorization, Call Sign E120106, File No. SES-MFS-20151022-00735 (granted June 30, 2016).

IV. CONCLUSION

Globecomm respectfully requests that the Commission grant this application to modify its Hauppauge, New York AOT-10 Earth station license to authorize communications with the E65WA satellite and add new ITU Appendix 30B Ku-band frequencies at 10.7-10.95 GHz and 12.75-13.25 GHz.

Globecomm License Sub LLC

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