

TECHNICAL APPENDIX

AMC-18 RELOCATION TO 83.0° W.L.

1.0 Overall Description (§25.114(d)(1))

This technical appendix is submitted in support of the application of SES Americom, Inc. (“SES”) to relocate AMC-18 to 83.0° W.L. from its current orbital position of 139.0° W.L. SES provides here technical information relating to operation of AMC-18 at 83.0° W.L. as proposed. AMC-18 is equipped with twenty-four 36 MHz C-band transponders and has one C-band beam. At 83.0° W.L., the spacecraft’s C-band transponders will provide coverage of the continental United States and Canada.

2.0 Schedule S (§25.114(c))

The Schedule S database is included with this filing. Consistent with §25.114(c)(4)(vi)(A), the gain characteristics for the global horn antenna (“CMD”) and (“CTM”) are not provided in a GIMS-readable format with the Schedule S because the contour at 8 dB below peak of these beams falls entirely beyond the visible Earth.

3.0 Certification with respect to two degree spacing levels (§25.140(a))

SES certifies that the AMC-18 downlink EIRP density will not exceed 3 dBW/4kHz for digital transmissions or 8 dBW/4kHz for analog transmissions in the C-band unless higher levels are coordinated with the operators of authorized co-frequency space stations at assigned locations within six degrees of 83.0° W.L. and except as provided in §25.140(d). SES also certifies that the associated uplink EIRP density levels in the C-band will not exceed the applicable envelopes in §25.218 unless appropriately coordinated with operators of authorized co-frequency space stations at assigned locations within six degrees of 83.0° W.L. and except as provided in §25.140(d).

4.0 Mitigation of Orbital Debris (§25.114(d)(14))

The information required under §25.114(d)(14) of the Commission's Rules is already on file with the Commission and is incorporated by reference herein.¹ Updates to the information on file are provided below.

SES has separately requested Commission authority to relocate its AMC-6 satellite, which is currently assigned to 83.0° W.L., to 139.0° W.L., and intends to complete that relocation before beginning the drift of AMC-18. SES is not aware of any other FCC- or non-FCC licensed spacecraft that are operational or planned to be deployed at 83.0° W.L. or to nearby orbital locations such that there would be an overlap with the requested station-keeping volume of AMC-18.

¹ See File No. SAT-A/O-20171221-00174, Technical Appendix at 3-5; File No. SAT-PPL-20061006-00118, Technical Appendix Section 7.0.

DECLARATION

I, Frederic Portier, hereby certify under penalty of perjury that I am the technically qualified person responsible for preparation of the technical information contained in the foregoing exhibit; that I am familiar with the technical requirements of Part 25; and that I either prepared or reviewed the technical information contained in the exhibit and that it is complete and accurate to the best of my knowledge, information and belief.

/s/ *Frederic Portier*

Frederic Portier
Senior Manager, Spectrum Management and
Development
SES Americom, Inc.

Dated: June 15, 2020