

In the Matter of)
)
SES DTH DO BRASIL LTDA.) File No. SAT-PPL-_____
)
Request for U.S. Market Access for SES-14)

SES DTH do Brasil Ltda. (“SES DTH Brasil,” doing business as “SES”) hereby respectfully requests that the Commission authorize the Brazilian-licensed SES-14 spacecraft to serve the U.S. market from 47.5° W.L. At that location, SES-14 will supplement the C- and Ku-band operations of NSS-806. Specifically, SES requests that the Commission:

- ¹ In its recent decision revising the Part 25 rules, which will go into effect on September 19, 2016, the Commission expanded the Permitted List to encompass operations in extended C-band and extended Ku-band frequencies. *See Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, FCC 15-167, 30 FCC Rcd 14713 (2015) (“Part 25 Second Order”) at 14795-96, ¶¶ 248-251.

3. permit use of SES-14 capacity in the 12.2-12.45 GHz and 17.3-17.8 GHz Appendix 30 bands for FSS.²

Grant of the requested authority is consistent with Commission precedent and will serve the public interest by allowing SES to provide expanded service from 47.5° W.L. and to respond to customer demand for DTH capacity.

A completed FCC Form 312 is attached, along with technical materials on Schedule S³ and in narrative form pursuant to Section 25.114 of the Commission's rules. Launch of SES-14 is currently scheduled to occur in the fourth quarter of 2017, and SES seeks action on this petition consistent with that schedule.

I. BACKGROUND

New Skies Satellites B.V., an affiliate of SES DTH Brasil, currently operates the Netherlands-licensed NSS-806 spacecraft at 47.5° W.L. in accordance with International Telecommunication Union ("ITU") filings of the Brazilian Administration and has been granted U.S. market access authority for that spacecraft.⁴

² SES-14 will also operate in the following frequencies, but SES DTH Brasil is not requesting U.S. market access for these beams because they do not have U.S. coverage: 17.30-18.05 GHz over Western Europe, 18.55-20.20 GHz and 28.0-30.0 GHz via five steerable spot beams located over areas in South America and Western Europe, and a Ka-band beacon transmitted on the 20.199 GHz frequency, to be used by earth stations located in South America to track SES-14. A general description of these SES-14 payloads is included in the technical materials submitted with this application for informational purposes only.

³ In completing the Schedule S, SES has relied on the March 2014 Schedule S instructions. Consistent with those instructions, in cases where the Schedule S software requests information that space station applicants are no longer required to provide, SES has omitted data elements, or where necessary to permit validation of the Schedule S file, has entered a "1" as a placeholder. SES specifies that these "1" data entries are outside the scope of the certifications herein regarding accuracy of the information provided with this petition.

⁴ *New Skies Satellites B.V.*, Call Sign S2591, File No. SAT-MPL-2013090-00114, granted in part on Dec. 6, 2013 and in part on Feb. 4, 2014.

SES DTH Brasil obtained additional operating rights at the nominal 48° W.L. from the Brazilian administration in 2014 and will operate the SES-14 satellite pursuant to those rights. SES-14 is a high-throughput satellite (“HTS”) that will provide both spot beam and global beam coverage to support mobile aeronautical and maritime customers from the Americas to Europe and Africa. It will also provide transmission of video and narrowband to wideband digital services to customers in the eastern U.S., Central and South America, Europe and Africa. The following table compares the frequency bands on NSS-806 with the frequencies on SES-14 for which U.S. market access is sought.

Frequency Band	NSS-806	SES-14
Conventional C-band	3700-4200 MHz downlink; 5925-6425 MHz uplink	3700-4200 MHz downlink; 5925-6425 MHz uplink
Extended C-band	3600-3700 MHz downlink; 5850-5925 MHz uplink; 6491-6650 MHz uplink	3625-3700 GHz downlink; 5850-5925 GHz uplink
Conventional Ku-band	11.7-11.95 GHz downlink; 14.0-14.25 GHz uplink	11.7-12.2 GHz downlink; 14.00-14.5 GHz uplink
Extended Ku-band	Not on NSS-806	10.95-11.2 GHz downlink; 11.45-11.7 GHz downlink; 13.75-14.0 GHz uplink
Appendix 30/30A bands	Not on NSS-806	12.2-12.45 GHz downlink 17.30-17.80 GHz uplink

The majority of the frequencies on the SES-14 satellite will operate under ITU filings submitted by the Brazilian Administration on behalf of SES DTH Brasil. The only exceptions are the operations in the 12.20-12.45 GHz and 17.3-17.8 GHz bands, which will be conducted under an ITU filing submitted by The Netherlands. The specific filings are designated as follows and have been submitted to the ITU for coordination.

3625-3700, 3700-4200, 5850-5925 and 5925-6425 MHz 10.95-11.2, 11.45-11.7, 11.7-12.2, 13.75-14.0 and 14.0-14.5 GHz	ITU Network: B-SAT-1W-2 Published in Special Section CR/C/3732
12.2-12.45 and 17.3-17.8 GHz	ITU Network: NSS-BSS 47.5W Published as Special Sections AP30/E/610, AP30A/E/610, AP30-30A/E/612, AP30A/E/610 MOD-1 and AP30-30A/E/612 MOD-1.

II. AUTHORIZING SES-14 TO SERVE THE U.S. IS CONSISTENT WITH COMMISSION POLICIES AND THE PUBLIC INTEREST

SES is a leading provider of satellite communications services in the United States and around the world. The application to serve the U.S. using the proposed SES-14 satellite reflects SES's continuing commitment to meeting the existing and future needs of customers. Granting U.S. market access for SES-14 will enable SES to provide service continuity at the 47.5° W.L. orbital location and to introduce new capacity for the benefit of U.S. satellite service customers. Furthermore, grant of market access for SES-14 is consistent with the Commission's *DISCO II* policies.⁵

In the *DISCO II* proceeding, the Commission adopted policies for determining whether to permit foreign-licensed satellites to serve the U.S. market, and these standards are codified in Section 25.137 of the Commission's Rules.⁶ The Commission's policies are intended to ensure that entry by a foreign-licensed satellite will not distort competition in the U.S.⁷ The Commission also considers whether there are spectrum availability issues or concerns relating to national security, law enforcement, foreign policy or trade that would present an

⁵ See *Amendment of the Commission's Policies to Allow Non-U.S. Licensed Space Stations providing Domestic and International Service in the United States*, Report & Order, 12 FCC Rcd 24094 (1997) ("*DISCO II*").

⁶ 47 C.F.R. § 25.137.

⁷ *DISCO II* at ¶ 7.

obstacle to U.S. market access.⁸ The SES request to add SES-14 to the Permitted List in the conventional and extended C- and Ku-bands, authorize use of the satellite's other payloads consistent with the Commission's rules, and permit use of the spacecraft's conventional Ku-band capacity for DTH services fully complies with the Commission's market access requirements.

A. FSS Operations

In *DISCO II*, the Commission adopted a presumption that, with respect to services covered by the WTO agreement, entry into the U.S. market by entities licensed by WTO member countries will promote competition in the U.S. market.⁹ FSS operations except for DTH are covered by the WTO agreement.¹⁰ SES seeks authority to use SES-14 to provide FSS services to U.S. customers. Because Brazil, which is the licensing administration for SES-14, is a WTO-member country, the SES proposal to provide WTO-covered services is subject to the presumption in favor of entry described above.

Allowing SES to use SES-14 to offer FSS to, from, and within the U.S. will promote competition and is otherwise consistent with the *DISCO II* framework. Therefore, the Commission should add SES-14 to the Permitted List for services in the conventional and extended C- and Ku-bands.

Furthermore, the Commission applies the same framework that governs requests for addition to the Permitted List to petitions seeking U.S. market access for bands not included

⁸ See *id.* at ¶ 178.

⁹ *Id.* at ¶ 39.

¹⁰ *Id.* at ¶¶ 25 & 30.

in the Permitted List.¹¹ Accordingly, the Commission should also authorize SES-14 to offer FSS capacity in the United States using spectrum subject to Appendices 30 and 30A. SES recognizes that under the Commission’s rules, some of this spectrum is subject to specific requirements, including coordination with the National Telecommunication and Information Administration¹² and minimum earth station antenna size specifications.¹³ SES will conform to these requirements with respect to operations of SES-14.

B. DTH Operations

In *DISCO II*, the Commission adopted the “ECO-Sat” test for services such as DTH that are excluded from the U.S. commitments in the WTO Telecom Agreement.¹⁴ That test requires a determination whether U.S.-licensed satellites have “effective competitive opportunities” in the relevant foreign markets to provide analogous services.¹⁵ Under the Commission’s rules, the relevant foreign markets for this test are (i) the country in which the non-U.S.-licensed satellite is licensed; and (ii) the countries in which communications with U.S. earth stations will originate or terminate.¹⁶ To assess compliance with the ECO-Sat test, the Commission looks at whether there are *de jure* or *de facto* barriers to entry for U.S. satellite operators seeking to provide comparable services in the relevant foreign jurisdiction.¹⁷

¹¹ See *DISCO II* at ¶ 192.

¹² See 47 C.F.R. § 2.106, Footnote US337.

¹³ See 47 C.F.R. § 2.106, Footnote US356.

¹⁴ *DISCO II* at ¶ 98.

¹⁵ *Id.* at ¶ 99.

¹⁶ See 47 C.F.R. § 25.137(a).

¹⁷ *DISCO II* at ¶ 75.

In this instance, SES is seeking authority to use conventional Ku-band capacity on SES-14 to provide DTH services within the U.S. and between the U.S. and various countries in North, Central, and South America, and Europe that are listed in Annex 1 hereto. All of these countries satisfy the ECO-Sat test.

Brazil - Brazil, which is the licensing administration for SES-14, passes the ECO-Sat test. There are no *de jure* or *de facto* barriers in Brazil to U.S. satellite operators wishing to provide capacity for DTH service. The Satellite Division has previously found that the ECO-Sat test is satisfied for DTH with respect to Brazil.¹⁸

Caribbean, Central and South America - Mexico and Argentina pass the ECO-Sat test. The U.S. has entered into bilateral agreements with the governments of Mexico¹⁹ and Argentina²⁰ that permit U.S.-licensed satellites to provide FSS including DTH service in those countries provided that licensing and coordination conditions are met. Accordingly, the Satellite

¹⁸ See *Hispamar Satelites, S.A.*, Call Sign S2622, File No. SAT-MOD-20040628-00124, grant-stamped Aug. 26, 2004 (modifying the Permitted Space Station List entry for the Brazilian-licensed Amazonas-1 satellite to permit the provision of DTH service to, from, or within the U.S.); *Hispamar Satelites, S.A.*, Call Sign S2793, File Nos. SAT-PPL-20100506-00093 & SAT-APL-20101209-00257, grant-stamped Dec. 21, 2010; grant reissued Jan. 7, 2011 (same with respect to Amazonas-2). See also *New Skies Satellites N.V.*, Call Sign S2828, File No. SAT-PPL-20110620-00112, grant-stamped Mar. 15, 2012 (“SES-4 Grant”), Attachment at 1; *New Skies Satellites B.V.*, Call Sign S2950, File No. SAT-PPL-20160117-00005, grant-stamped June 23, 2016 (“SES-10 Grant”), Attachment at 1.

¹⁹ See Protocol Concerning the Transmission and Reception of Signals from Satellites for the Provision of Direct-to-Home Satellite Television Services in the United States of America and the United Mexican States, November 8, 1996.

²⁰ See Agreement Between the Government of the United States of America and the Government of the Argentine Republic Concerning the Provision of Satellite Facilities and the Transmission and Reception of Signals to and from Satellites for the Provision of Satellite Services to Users in the United States of America and the Republic of Argentina, June 5, 1998.

Division has previously found that provision of DTH capacity to Mexico and Argentina is consistent with *DISCO II*.²¹

With respect to the remaining countries located in North, Central and South America, the Satellite Division has previously found that the ECO-Sat test is satisfied for DTH: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama, Antigua and Barbuda, the Bahamas, Barbados, the Turks and Caicos Islands, Anguilla, Netherlands Antilles, Montserrat, Dominica, the Dominican Republic, Grenada, Guadeloupe, Martinique, Saint Martin, Saint Barthelemy, Haiti, Jamaica, St. Vincent and the Grenadines, St. Kitts and Nevis, St. Lucia, Trinidad and Tobago or U.K. Territories in the Caribbean, Colombia, Chile, Ecuador (including the Galapagos Islands), the Falkland Islands, French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay, and Venezuela.²²

Europe – The following countries are members of the European Union (“EU”) and the ECO-Sat test is met for each of them: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the U.K. As EU members, each country is subject to the EU directive specifying that “Member States shall ensure that any regulatory prohibition or restriction on the offer of space segment capacity to any authorised satellite earth station network

²¹ See *DISCO II*, 12 FCC Rcd at 24157 (there is no need for an inquiry into effective competitive opportunities where a bilateral agreement is in place with respect to the relevant service). See also *EchoStar Satellite LLC*, 21 FCC Rcd 4077, 4080 (Sat. Div. 2006) at ¶ 8 & n.20 (in light of U.S.-Mexico bilateral agreement, “no further market access analysis is required” under *DISCO II* in order to authorize U.S.-licensed earth stations to communicate with satellite operating under Mexican authority for DTH services); SES-4 Grant, Attachment at 1; SES-10 Grant, Attachment at 1.

²² See SES-10 Grant, Attachment at 1.

operator are abolished.”²³ Therefore, there are no *de jure* or *de facto* barriers in any of these markets to U.S. satellite operators wishing to provide capacity for DTH service.

In sum, U.S.-licensed operators have effective competitive opportunities to provide DTH transmission capacity in the countries listed in Annex 1. Thus, the ECO-Sat test is satisfied for both the home and route markets for DTH service by SES-14. Accordingly, SES respectfully requests that the Commission authorize the use of SES-14 for DTH services to, from, and within the U.S. and on the route markets addressed herein.

III. RULE WAIVERS ARE WARRANTED FOR SES-14

SES seeks limited waivers of the Commission’s rules in connection with the petition for SES-14 U.S. market access authority. Grant of these waivers is consistent with Commission policy:

The Commission may waive a rule for good cause shown. Waiver is appropriate if special circumstances warrant a deviation from the general rule and such deviation would better serve the public interest than would strict adherence to the general rule. Generally, the Commission may grant a waiver of its rules in a particular case if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest.²⁴

SES-14 substantially complies with the Commission’s rules, but certain waivers are necessary in light of the frequencies used and the technical characteristics of the spacecraft. The Commission has granted similar waivers in other cases. As shown below, SES-14 will

²³ Commission Directive 2002/77/EC, 16 September 2002 on competition in the markets for electronic communications networks and services, OJ L249, Article 7(1) at 21.

²⁴ *PanAmSat Licensee Corp.*, 17 FCC Rcd 10483, 10492 (Sat. Div. 2002) (footnotes omitted).

allow SES to continue and expand its services at the 47.5° W.L. orbital location, and grant of the requested waivers will therefore serve the public interest.

Section 2.106 and Footnotes US271 and NG52: The Table of Allocations in Section 2.106 and the associated footnotes include limitations on the use of some of the frequency bands that will be included on SES-14. SES seeks limited waivers of these restrictions as discussed below. Waivers of the Table of Allocations are generally granted “when there is little potential for interference into any service authorized under the Table of Frequency allocations and when the nonconforming operator accepts any interference from authorized services.”²⁵ The SES waiver requests meet this test.

First, SES seeks a waiver of Section 2.106 and footnote US271 to permit SES-14 to use the 12.2-12.45 GHz band for FSS downlinks and the 17.3-17.8 GHz band for FSS uplinks on an unprotected, non-interference basis in ITU Region 2, including the U.S. Grant of a waiver is consistent with Commission precedent. For example, in authorizing the Intelsat 29e spacecraft to provide FSS in the 12.2-12.5 GHz and 17.3-17.8 GHz frequency bands from the 50° W.L. location, the Commission noted that FSS operations in this spectrum conform to No. 5.492 of the ITU Radio Regulations and that the nearest U.S. BSS Plan entry was at the nominal 61.5° W.L. orbital location.²⁶ For SES-14 at 47.5° W.L., the nearest U.S. BSS Plan Assignment is also the 61.5° W.L. BSS cluster, at an even greater distance of 14 degrees. In addition, Intelsat 29e has authority to operate on a nonconforming basis in these frequency bands at 50° W.L. SES is

²⁵ See *The Boeing Company*, 16 FCC Rcd 22645 (IB & OET 2001) at 22651 & n.48 (citing cases).

²⁶ *Intelsat License LLC*, Call Sign S2913, File No. SAT-LOA-20130722-00097, grant stamped May 21, 2015 (“Intelsat 29e Grant”), Attachment to Grant at 5, ¶ 21. See also SES-10 Grant, Attachment at 2, ¶ 5 (authorizing SES-10 to use the 17.3-17.55 GHz frequency band for FSS at the 67° W.L. orbital location, 5.5 degrees from the nearest operational BSS feeder links at the nominal 61.5° W.L. location).

referencing in the attached Technical Appendix an MSPACE analysis demonstrating that the proposed SES-14 operations will not cause harmful interference to nearby BSS networks. Moreover, unlike the BSS downlink band where small earth station antennas are in operation, BSS feeder links are similar to other FSS operations using large earth station antennas that can share on a roughly two degree spacing basis. Thus, granting a waiver will not undermine Commission policy because BSS operations will be fully protected.

Second, SES seeks a waiver of footnote NG52 to permit the reception of U.S. domestic services in the 10.95-11.2 GHz and 11.45-11.7 GHz bands on an unprotected, non-interference basis vis-à-vis terrestrial fixed service (“FS”) networks. Footnote NG52 was intended to preserve access to the 10.7-11.7 GHz spectrum for FS stations by limiting FSS use of the band to international operations only.²⁷ The Commission has granted waivers of this limitation where the FSS applicant demonstrated that its transmissions would comply with pfd limits on the ground to protect FS operations and has committed to accepting any interference from existing or future FS networks.²⁸ As the Commission explained in a prior case granting an EchoStar entity a waiver of footnote NG104:

waiver of footnote NG 104 would not undermine the rule’s purpose because it involves only passive receive-only earth stations that are not capable of causing interference into FS stations operating in this band. Further, because, EchoStar has agreed to accept any level of interference from FS stations into its receive-only earth stations’ operations in the extended Ku-bands, FS operators will not be required to coordinate their station operations with the EchoStar receive-only earth stations’ operations. Under these circumstances, we determine that additional coordination burden would not be placed upon FS operators and that

²⁷ See 47 C.F.R § 2.106, Footnote NG52. This policy was previously codified in footnote NG104.

²⁸ See, e.g., SES-10 Grant, Attachment at 1-2, ¶ 3.

their ability to expand service in the future would not in any manner be restricted.²⁹

The SES request for authority to allow U.S. earth stations to receive domestic signals from SES-14 in the 10.95-11.2 GHz and 11.45-11.7 GHz bands on an unprotected basis fits squarely within this line of precedent. Accordingly, the Commission should conclude that grant of the requested waiver will serve the public interest.

Section 25.210(i)(1): SES also seeks any necessary waiver of Section 25.210(i)(1), which sets a 30 dB minimum for cross-polarization isolation performance in the primary coverage area of a satellite using FSS frequencies.³⁰ The design specification for SES-14 in the FSS frequency bands provides for a minimum cross-polarization isolation of 18 dB for the HTS spot beams area and 27 dB in the other coverage areas.

The Commission has determined that the FSS cross-polarization requirement is no longer necessary,³¹ and Section 25.210(i)(1) will therefore be deleted when the Part 25 Second Order takes effect on September 19, 2016.³² Moreover, the Commission has routinely granted waivers of Section 25.210(i)(1) based on a finding that the primary effect of any increased

²⁹ *EchoStar KuX Corp.*, 20 FCC Rcd 919, 923 (Sat. Div. 2004). *See also Intelsat North America LLC*, Call Sign S2817, File No. SAT-LOA-20101014-00219, grant-stamped July. 26, 2011, Attachment to Grant at 23, ¶¶ 7-9 (granting waiver of footnote NG104 to allow Intelsat 18 to provide domestic service in the 10.95-11.2 GHz and 11.45-11.7 GHz bands); *PanAmSat Licensee Corp.*, Call Sign S2381, File No. SAT-MOD-20060303-00019, grant-stamped Oct. 26, 2006, Attachment to Grant at 1-2, ¶¶ 1-4 (granting waiver of footnote NG104 to allow Galaxy 3C to provide domestic service in the 11.45-11.7 GHz band).

³⁰ 47 C.F.R. § 25.201(i)(1).

³¹ *See* Part 25 Second Order at ¶¶ 331-333.

³² *See Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, 81 Fed. Reg. 55315, Aug. 18, 2016.

interference is on the satellite operator itself,³³ which can manage the interference internally.

Accordingly, granting a waiver of the rule for SES-14 is consistent with applicable precedent.

IV. CONCLUSION

For the foregoing reasons, SES respectfully requests that the Commission: (i) add SES-14 to the Permitted List for FSS and TT&C operations in conventional and extended C- and Ku-band frequencies; (ii) authorize use of SES-14 conventional Ku-band capacity for DTH service within the United States and between the U.S. and the other markets identified herein; and (iii) permit use of the SES-14 capacity in the 12.2-12.45 GHz and 17.3-17.8 GHz Appendices 30 and 30A bands for FSS.

Respectfully submitted,

SES DTH BRASIL SATELLITES B.V.

By: /s/ Petra A. Vorwig

Of Counsel

Karis A. Hastings
SatCom Law LLC
1317 F Street, N.W., Suite 400
Washington, D.C. 20004
Tel: (202) 599-0975

Petra A. Vorwig
Senior Legal & Regulatory Counsel
for SES DTH Brasil Satellites B.V.
1129 20th Street N.W., Suite 1000
Washington, D.C. 20036

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³³ See, e.g., SES-4 Grant, Attachment at 2 (waiving Section 25.210(i) for SES-4 based on a finding that shortfalls in the cross-polarization isolation performance “will not produce a significant increase in interference, except to the space station itself, and will not adversely affect any other operator.”).

ANNEX 1: Route Markets for DTH

Central America:

1. Belize
2. Costa Rica
3. El Salvador
4. Guatemala
5. Honduras
6. Mexico
7. Nicaragua
8. Panama

Caribbean:

1. Antigua and Barbuda
2. Bahamas
3. Barbados
4. Bermuda
5. Cayman Islands, Turks and Caicos, British Virgin Islands, Anguilla, Montserrat (U.K.)
6. Dominica
7. Dominican Republic
8. Grenada
9. Guadeloupe, Martinique, Saint Martin, Saint Barthelemy (France)
10. Haiti
11. Jamaica
12. Netherlands Antilles (Netherlands)
13. St. Vincent and the Grenadines
14. St. Kitts and Nevis
15. St. Lucia
16. Trinidad and Tobago

South America:

1. Falkland Islands (UK)
2. Argentina
3. Bolivia
4. Brazil
5. Chile
6. Colombia
7. Ecuador (including Galapagos Islands)
8. French Guiana (France)
9. Guyana
10. Paraguay
11. Peru
12. Suriname
13. Uruguay
14. Venezuela

Europe

1. Austria
2. Belgium
3. Bulgaria
4. Croatia
5. Czech Republic
6. Denmark
7. Estonia
8. Finland
9. France
10. Germany
11. Greece
12. Hungary
13. Ireland
14. Italy

15. Latvia
16. Lithuania
17. Luxembourg
18. Malta
19. Netherlands
20. Poland
21. Portugal
22. Romania
23. Slovakia
24. Slovenia
25. Spain
26. Sweden
27. Switzerland
28. United Kingdom