

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

In the Matter of	)	
	)	
SES SATELLITES (GIBRALTAR) LTD.	)	File No. SAT-PPL-_____
	)	
Request for U.S. Market Access for SES-15	)	

PETITION

SES Satellites (Gibraltar) Ltd. (“SES Gibraltar,” doing business as “SES”) hereby respectfully requests that the Commission authorize the Gibraltar-licensed SES-15 spacecraft to serve the U.S. market from 129.15° W.L. At that location, SES-15 will replace the Ku-band capacity currently being provided using the U.S.-licensed AMC-1 satellite and will provide expanded service using additional frequency bands.

Specifically, SES requests that the Commission:

- 1) add SES-15 to the Commission’s Permitted Space Station List (“Permitted List”) for fixed-satellite service (“FSS”) and telemetry, tracking and control (“TT&C”) operations in the conventional Ku-band;
- 2) authorize use of SES-15 conventional Ku-band capacity for direct-to-home (“DTH”) service within the United States and between the U.S. and the other markets identified herein;
- 3) add SES-15 to the Commission’s Ka-band Permitted Space Station List (“Ka-band Permitted List”) for FSS operations in the 18.3-18.8 GHz; 19.7-20.2 GHz, 28.35-28.6 GHz, and 29.25-30 GHz bands; and
- 4) permit use of SES-15 extended Ku-band and Appendix 30B capacity in the 10.7-11.7 GHz frequencies and Ka-band capacity in the 27.5-28.35 GHz band for FSS subject to earth station-specific licensing.

Grant of the requested authority is consistent with Commission precedent and will serve the public interest by allowing SES to continue and expand its services from 129.15° W.L. and to respond to customer demand for DTH capacity.

A completed FCC Form 312 is attached, along with technical materials on Schedule S¹ and in narrative form pursuant to Section 25.114 of the Commission's rules. Construction of SES-15 began almost a year ago, and launch of the spacecraft is currently scheduled to occur in 2017. SES seeks action on this petition consistent with that schedule.

In addition to the frequency bands described above, SES-15 will carry a Wide Area Augmentation System ("WAAS") payload to support the U.S. Global Positioning System. SES is not seeking market access for the WAAS payload at this time, and instead will request such authority in a separate petition.²

I. BACKGROUND

SES Americom, an affiliate of SES Gibraltar, currently operates the AMC-1 spacecraft at 129.15° W.L. under U.S. license in accordance with International

¹ In completing the Schedule S, SES has relied on the most recent 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.

² SES had initially planned on including the WAAS payload in this petition and had entered some preliminary, partial information regarding that payload into the SES-15 Schedule S. Due to the limitations of the Schedule S software, SES was not able to delete this information relating to the WAAS payload from the Schedule S when it decided to address the WAAS payload in a separate market access petition. SES specifies that the information regarding the WAAS payload in the Schedule S attached hereto is outside the scope of the certifications herein regarding the accuracy of the technical information and compliance with applicable Commission requirements. SES will provide complete information and certifications regarding the WAAS payload in the Schedule S and other technical materials that will be filed with the separate WAAS market access petition.

Telecommunication Union (“ITU”) filings of the Gibraltar Regulatory Authority (“GRA”).³

AMC-1 provides a variety of high-quality video, broadband and data services to the North American market.

SES-15 will provide follow-on service at 129.15° W.L. As in the case of AMC-1, SES-15 will operate on a non-common carrier basis. In addition to the frequencies available on AMC-1, SES-15 is capable of operating in the extended Ku-band and certain Appendix 30B and Ka-band spectrum. The following table compares the frequency bands on AMC-1 with those on SES-15.

Frequency Band	AMC-1	SES-15
Conventional C-band	AMC-1 has a conventional C-band payload, but it is authorized only for limited TT&C operations in that spectrum at 129.15° W.L.	No C-band communications payload
Conventional Ku-band	11.7-12.2 GHz downlink; 14.0-14.5 GHz uplink	11.7-12.2 GHz downlink; 14.0-14.5 GHz uplink
Extended Ku-band	Not on AMC-1	10.95-11.2 GHz downlink; 11.45-11.7 GHz downlink
Appendix 30B spectrum	Not on AMC-1	10.7-10.95 GHz downlink; 11.2-11.45 GHz downlink
Ka-band	Not on AMC-1	18.3-18.8 GHz downlink; 19.7-20.2 GHz downlink; 27.5-28.6 GHz uplink; 29.25-30.0 GHz uplink

The above SES-15 frequencies will operate under ITU filings submitted by the Government of Gibraltar through the United Kingdom.

³ See *SES Americom, Inc.*, Call Sign S2445, File Nos. SAT-MOD-20140730-00089 & SAT-AMD-20150219-00006, grant-stamped May 28, 2015 (authorizing operation of AMC-1 at 129.15° W.L. in the conventional Ku-band).

II. AUTHORIZING SES-15 TO PROVIDE FSS AND DTH IN THE U.S. IS CONSISTENT WITH FCC 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-15 satellite reflects SES's continuing commitment to meeting the existing and future needs of customers. Granting U.S. market access for SES-15 will enable SES to provide service continuity at the 129.15° 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-15 is consistent with the Commission's *DISCO II* policies.⁴

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.⁵ The Commission's policies are intended to ensure that entry by a foreign-licensed satellite will not distort competition in the U.S.⁶ 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 obstacle to U.S. market access.⁷ SES's market access requests for SES-15 – to add SES-15 to the Permitted List in the conventional Ku-band and to the Ka-band Permitted List, authorize use of the satellite's other payloads for FSS consistent with the Commission's rules, and permit use of the spacecraft's conventional Ku-band capacity for DTH services – fully comply with the Commission's requirements.

⁴ 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*").

⁵ 47 C.F.R. § 25.137.

⁶ *DISCO II* at ¶ 7.

⁷ See *id.* at ¶ 178.

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.⁸ FSS operations except for DTH are covered by the WTO agreement.⁹

SES seeks authority to use SES-15 to provide FSS services to U.S. customers. Gibraltar, the licensing administration for SES-15, is a British Overseas Territory. The United Kingdom is responsible for the external relations of its territories, while each territory is responsible for its domestic law.¹⁰ Through the United Kingdom, Gibraltar is a WTO-member country. Accordingly, the SES proposal to provide WTO-covered services is subject to the presumption in favor of entry described above.

Allowing SES to use SES-15 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-15 to the Permitted List for services in the conventional Ku-band and to the Ka-band Permitted List for services in the 18.3-18.8 GHz, 19.7-20.2 GHz, 28.35-28.6 GHz, and 29.25-30 GHz bands.¹¹

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 other than the

⁸ *Id.* at ¶ 39.

⁹ *Id.* at ¶¶ 25 & 30.

¹⁰ Under the Colonial Laws Validity Act 1865 of the United Kingdom, the local legislative body of a British Overseas Territory is empowered to make laws for the “peace, order and good government” for that territory only, subject to a presumption that such laws cannot have extraterritorial effect.

¹¹ These frequencies are all eligible for inclusion on the Ka-band Permitted List. *See 2006 Biennial Regulatory Review – Revision of Part 25, Establishment of a Permitted List Procedure for Ka-band Space Stations*, Declaratory Order, 25 FCC Rcd 1542, 1542 n.1 (2010).

conventional Ku- and Ka-bands.¹² Accordingly, the Commission should also authorize SES-15 to offer FSS capacity in the United States using spectrum in the extended Ku-band (10.95-11.2 GHz and 11.45-11.7 GHz), Appendix 30B bands (10.7-10.95 GHz and 11.2-11.45 GHz), and the 27.5-28.35 GHz band subject to earth station-specific licensing.

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 Administration ("NTIA").¹³ SES will conform to these requirements with respect to operations of SES-15.

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

¹² See *DISCO II* at ¶ 192.

¹³ See 47 C.F.R. § 2.106, Footnote US334.

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-15 to provide DTH services within the U.S. and between the U.S. and various countries in North and Central America and the Caribbean that are listed in Annex 1 hereto. All of these countries satisfy the ECO-Sat test.

Gibraltar. Gibraltar, which is the licensing administration for SES-15, passes the ECO-Sat test. There are no *de jure* or *de facto* barriers in Gibraltar or the United Kingdom 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 Gibraltar and the United Kingdom.¹⁸

Mexico. Mexico passes the ECO-Sat test. The U.S. has entered into a bilateral agreement with the government of Mexico that permits U.S.-licensed satellites to provide FSS including DTH service in that country provided that licensing and coordination conditions are met.¹⁹ Accordingly, allowing SES-15 to provide DTH capacity to Mexico is consistent with *DISCO II*.²⁰

Netherlands Antilles, Guatemala, Honduras, Nicaragua and U.K. Territories in the Caribbean. The Satellite Division has previously found that the ECO-Sat test is satisfied for

¹⁸ See *SES Americom, Inc.*, Call Sign S2676, Consent to Assignment, File No. SAT-ASG-20080609-00120 (grant-stamped Aug. 6, 2008) (“AMC-21 Grant”), Attachment at 3.

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 *DISCO II* at ¶ 143 (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); *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.

DTH with respect to the Netherlands Antilles, Guatemala, Honduras, Nicaragua, Bermuda, the British Virgin Islands, and the Cayman Islands route markets.²¹

Other Central American Countries. There are no *de jure* or *de facto* barriers in Belize, Costa Rica, El Salvador, or Panama to U.S. satellite operators wishing to provide capacity for DTH service. None of these countries requires that a satellite be granted landing rights prior to commencing service. Furthermore, SES understands that video services are provided to customers using U.S.-licensed satellites in Costa Rica,²² El Salvador,²³ and Panama.²⁴

Other Caribbean Jurisdictions. There are no *de jure* or *de facto* barriers in Antigua and Barbuda, the Bahamas, Barbados, the Turks and Caicos Islands, Anguilla, 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, or Trinidad and Tobago to U.S. satellite operators wishing to provide capacity for DTH service. None of these countries requires that a satellite be granted landing rights prior to commencing service. The Turks and Caicos Islands, Anguilla, and Montserrat are off-shore territories of the United Kingdom; Guadeloupe, Martinique, and Saint Barthelemy are off-shore territories of France; and Saint Martin is divided into French and Netherlands territories. As such, these jurisdictions are subject to a European Union (“EU”) directive specifying that “Member States shall ensure that any regulatory prohibition or restriction on the offer of space segment capacity

²¹ See AMC-21 Grant, Attachment at 3; SES-4 Grant, Attachment at 1.

²² See <http://www.skycostarica.net/> (last visited Nov. 16, 2015).

²³ See <http://skyelsalvadortv.com/index.html> (last visited Nov. 16, 2015).

²⁴ See <http://www.sky.com.pa/> (last visited Dec. 23, 2015).

to any authorised satellite earth station network operator are abolished.”²⁵ Furthermore, SES understands that video services are currently provided to customers using U.S.-licensed satellites in the Dominican Republic²⁶ and in Barbados, Curacao, Jamaica and Trinidad & Tobago.²⁷

In sum, U.S.-licensed operators have effective competitive opportunities to provide DTH transmission capacity in Gibraltar and the other countries listed in Annex 1. Thus, the ECO-Sat test is satisfied for both the home and route markets for DTH service by SES-15. Accordingly, SES respectfully requests that the Commission authorize the use of SES-15 for DTH services to, from, and within the U.S. and on the route markets addressed herein.

III. RULE WAIVERS ARE WARRANTED FOR SES-15

SES seeks waivers of Commission rules in connection with the petition for SES-15 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.²⁸

SES-15 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-15 will

²⁵ 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.

²⁶ See http://s1.q4cdn.com/453653659/files/doc_financials/annual/2014/Directv_2014-Annual-Report_v001_b60c3u.pdf at 14.

²⁷ See <http://www.directvcaribbean.com/re/> (last visited Dec. 23, 2015).

²⁸ *PanAmSat Licensee Corp.*, 17 FCC Rcd 10483, 10492 (Sat. Div. 2002) (footnotes omitted).

allow SES to continue and expand its services at the 129.15° W.L. orbital location, and grant of the requested waivers will therefore serve the public interest.

Section 2.106, Footnote 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-15. SES seeks a waiver of footnote NG52 to permit the reception of U.S. domestic services in the 10.7-11.7 GHz bands on an unprotected, non-interference basis.

Footnote NG52 was intended to preserve access to the 10.7-11.7 GHz spectrum for terrestrial fixed service (“FS”) stations by limiting FSS use of the band to international operations only.²⁹ The Commission has granted waivers of this limitation where the FSS applicant demonstrated that its transmissions would comply with power-flux-density (“pfd”) limits on the ground to protect FS operations and has committed to accepting any interference from existing or future FS networks.³⁰ 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 their ability to expand service in the future would not in

²⁹ See 47 C.F.R § 2.106, Footnote NG52. This policy was previously codified in footnote NG104.

³⁰ See, e.g., *Intelsat License LLC*, Call Sign S2913, File Nos. SAT-LOA-20130722-00097 & SAT-AMD-20140718-00087, grant-stamped May 21, 2015 (“Intelsat 29e Grant”), Attachment to Grant at 4-5, ¶ 20.

any manner be restricted.³¹

The SES request for authority to allow U.S. earth stations to receive domestic signals from SES-15 in the 10.7-11.7 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 25.202(g): Section 25.202(g) requires that TT&C operations be conducted at the edges of the allocated bands.³² The Commission has explained that:

The purpose of this rule is to simplify the coordination process for satellite systems, to provide an incentive for an operator to maximize the efficiency of its system's TT&C operations, and to minimize the constraints placed on other satellite operations.³³

As shown in the Technical Appendix, the majority of the TT&C frequencies for SES-15 are located on the edges of the bands used for the satellite's communications operations.³⁴ However, in addition to the primary command carriers, SES-15 will also have the capability to operate with a command carrier at 13999 MHz, at the edge of a spectrum band that is not otherwise used on the satellite.

SES submits that this configuration conforms to Section 25.202(g), which does not require TT&C to be conducted in a space station's operating bands but simply in "either or

³¹ *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).

³² 47 C.F.R. § 25.202(g).

³³ *Orbcomm License Corp.*, 23 FCC Rcd 4804 at ¶ 20 (IB & OET 2008).

³⁴ Technical Appendix, Section 3.0.

both ends of the allocated bands for the service.”³⁵ The 13.75-14 GHz band is allocated for FSS service, and SES’s request for authority to perform TT&C at the edge of this band is therefore consistent with the plain language of Section 25.202(g).

SES is aware, however, that in some decisions the Commission has characterized Section 25.202(g) as requiring “FSS systems to operate their tracking, telemetry, and command (TT&C) links at the edges of the frequency bands *in which they are providing service*.”³⁶ Accordingly, SES requests grant of any necessary waiver of Section 25.202(g) to allow use of the 13999 MHz frequency in support of SES-15 TT&C operations.

Grant of a waiver will not undermine the objectives of the rule. The 13999 MHz command frequency is intended only for use as a back-up, and will not be in regular operation. No other satellite within two degrees of the nominal 129° W.L. orbital location currently operates in the 13.75-14 GHz band, so SES’s potential usage will not adversely affect other satellite operators. Accordingly, permitting use of the 13999 MHz command frequency will serve the public interest and will not adversely affect adjacent spacecraft, and a waiver of Section 25.202(g) is therefore warranted.

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.³⁷ As indicated in Schedule S, the minimum cross-polarization performance is below 30 dB for a number of the SES-15 communications payload beams.

³⁵ *DIRECTV Enterprises, LLC*, DA 06-1493, 21 FCC Rcd 8028 (Sat. Div. 2006) at ¶ 11.

³⁶ *See, e.g., Northrop Grumman Space & Mission Systems Corp.*, DA 09-428, 24 FCC Rcd 2330 (IB 2009) at ¶ 94 (emphasis added).

³⁷ 47 C.F.R. § 25.201(i)(1).

The Commission has recently determined that the FSS cross-polarization requirement is no longer necessary,³⁸ and Section 25.210(i)(1) will therefore be deleted when the Part 25 Second Order takes effect. Moreover, the Commission has routinely granted waivers of Section 25.210(i)(1) based on a finding that the primary effect of any increased interference is on the satellite operator itself,³⁹ which can manage the interference internally. SES confirms that the cross-polarization isolation performance of the SES-15 communications payload will not increase interference to adjacent satellites, and the self-interference impact will be managed by SES. Accordingly, if Section 25.210(i)(1) is still in effect when the Commission acts on this petition, granting a waiver of the rule for SES-15 is consistent with applicable precedent.

Sections 25.114(d)(14)(ii) and 25.283(c): These rules address requirements relating to venting stored energy sources at the spacecraft's end of life.⁴⁰ SES-15 is a Boeing 702SP model spacecraft, which relies on a Xenon Ion Propulsion System ("XIPS"). As described in more detail in the attached Technical Appendix, the Xenon tank on the spacecraft will be vented at the end of the satellite's operational life to a value well below 5% of the tank's rated pressure.⁴¹

Section 25.283(c) does not appear to apply to foreign-licensed spacecraft such as SES-15. By its terms, the rule governs only "space station licensee[s]," *i.e.*, operators of

³⁸ See *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, IB Dkt No. 12-267, FCC 15-167 (rel. Dec. 17, 2015) ("Part 25 Second Order") at §§ 331-333.

³⁹ 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.").

⁴⁰ Section 25.283(c) contains the substantive venting requirement, and Section 25.114(d)(14)(ii) requires applicants to submit information that addresses "whether stored energy will be removed at the spacecraft's end of life." 47 C.F.R. § 25.114(d)(14)(ii).

⁴¹ Technical Appendix, Section 9.2.

spacecraft licensed by the Commission, rather than spacecraft licensed by other Administrations that are seeking U.S. market access. Nevertheless, out of an abundance of caution, SES requests a waiver of Section 25.283(c), to the extent one is necessary. The Part 25 Second Order states that the Commission is modifying Section 25.283(c) to “permit a satellite to maintain *de minimis* propellant or pressurants upon disposal.”⁴² In adopting this change, the Commission specifically highlights Boeing’s statement that it is typical for a satellite to retain “residual pressure of less than five percent of the burst pressure of the vessel.”⁴³ As noted above, venting of the SES-15 Xenon tank will conform to this standard.

Even under the more restrictive text of Section 25.283(c) currently in effect, the Commission has granted waivers to permit launch and operation of spacecraft that do not allow for full venting of pressure vessels at end of life based on a finding that modifying the space station design after construction was under way would pose an undue hardship.⁴⁴ In addition, the Commission granted a waiver of Section 25.283(c) for the Satmex 9 satellite, which like SES-15 is a Boeing 702SP model spacecraft, relying on evidence showing that the remaining pressure in

⁴² Part 25 Second Order at ¶ 359. Notwithstanding this language, it appears that the changes to Section 25.283(c) intended by the Commission may have been inadvertently omitted from the appendix containing the revisions to specific rule sections. *See id.*, Appendix B.

⁴³ *Id.* at ¶ 358.

⁴⁴ *See, e.g., EchoStar Satellite Operating Corp.*, File No. SAT-LOA-20071221-00183, Call Sign S2746, grant-stamped Mar. 12, 2008, Attachment at ¶ 4 (granting a partial waiver of Section 25.283(c) for AMC-14, a Lockheed Martin A2100 model spacecraft, on grounds that requiring modification of satellite would present an undue hardship); *DIRECTV Enterprises LLC*, File No. SAT-LOA-20090807-00086, Call Sign S2797, grant-stamped Dec. 15, 2009, Attachment at ¶ 4 (same for DIRECTV 12, a Boeing 702 model spacecraft); *PanAmSat Licensee Corp.*, File Nos. SAT-MOD-20070207-00027, SAT-AMD-20070716-00102, Call Sign S2237, grant-stamped Oct. 4, 2007, Attachment at ¶ 7 (same for Intelsat 11, an Orbital Sciences Star model spacecraft).

the Xenon tank would be well below the tank's rated pressure.⁴⁵ The rationale in these decisions supports grant of any necessary waiver for SES-15.

IV. CONCLUSION

For the foregoing reasons, SES respectfully requests that the Commission: (i) add SES-15 to the Permitted List for FSS operations and TT&C in the conventional Ku-band, (ii) authorize use of SES-15 conventional Ku-band capacity for DTH service within the United States and between the U.S. and the other markets identified herein; (iii) add the Ka-band payload of SES-15 to the Ka-band Permitted List; and (iv) permit use of the SES-15 capacity in the extended Ku-band, Appendix 30B bands, and 27.5-28.35 GHz band for FSS subject to earth station-specific licensing.

Respectfully submitted,

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⁴⁵ *Satelites Mexicanos, S.A. de C.V.*, Call Sign S2926, File Nos. SAT-LOI-20140617-00070 & SAT-AMD-20141119-00123, grant-stamped Aug. 20, 2015, Attachment to Grant at 1-2.

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