

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

In the Matter of)	
)	
SES Americom, Inc.)	File No. SAT-AMD-2010_____
)	SAT-RPL-20100120-00014
Amendment to Application for)	Call Sign S2807
Authority to Launch and Operate a)	
Replacement Satellite at 101° W.L.)	

AMENDMENT

SES Americom, Inc. (“SES Americom,” doing business as “SES WORLD SKIES”),¹ hereby files an amendment to its above-captioned application for a spacecraft to replace AMC-4 at 101° W.L., to be designated SES-1 (the “SES-1 Application”). Specifically, the instant amendment provides technical information regarding the 17/24 GHz Broadcasting-Satellite Service (“BSS”) payload on SES-1. As SES WORLD SKIES has explained, it does not intend to use this payload at 101° W.L. and therefore is not seeking a Commission operating license for the payload.² The Commission has indicated, however, that SES WORLD SKIES must nevertheless seek construction and launch authority for this payload and must provide technical information about this payload.³ This Amendment provides that information. Because launch of the spacecraft is currently scheduled to occur on or about April 24, SES WORLD SKIES respectfully requests expedited action on the SES-1 Application as amended.

¹ On September 7, 2009, SES S.A. announced that the newly integrated operations of its two indirect subsidiaries, New Skies Satellites B.V. and SES Americom would be conducted under a single brand name, SES WORLD SKIES. The new brand name does not affect the underlying legal entities that hold Commission authorizations or U.S. market access rights.

² SES-1 Application, Narrative at 1 n.2.

³ See Letter of Robert G. Nelson, Chief, Satellite Division, International Bureau, Federal Communications Commission to Daniel C.H. Mah, Regulatory Counsel, SES Americom, Inc., dated March 2, 2010.

A completed FCC Form 312 is attached, and technical information relating to the 17/24 GHz payload is provided on Schedule S and in narrative form pursuant to Section 25.114 of the Commission's Rules. This information supplements the technical materials previously provided in the SES-1 Application, which remain unchanged and are incorporated by reference herein. SES WORLD SKIES also seeks any necessary waivers in connection with the construction and launch of the 17/24 GHz BSS payload.

SES WORLD SKIES will be separately filing a request for special temporary authority to conduct in-orbit testing of the communications payloads of SES-1, including the 17/24 GHz BSS payload, at 142° W.L. following the successful launch of the satellite. SES WORLD SKIES respectfully requests that any necessary waivers granted for the construction and launch of the satellite be extended to the planned operation of the payload at 142° W.L. for in-orbit testing purposes only.

INFORMATION REQUIRED BY SECTION 25.114(c)

The information required by Section 25.114(c) concerning the 17/24 GHz BSS payload is contained in the Schedule S database being submitted with this application. Where items have been left blank in the attached Schedule S, the relevant information was provided in the Schedule S attached to the SES-1 Application and is unchanged.

INFORMATION REQUIRED BY SECTION 25.114(d)

The information required by Section 25.114(d) concerning the 17/24 GHz BSS payload is contained herein and in the narrative Technical Appendix being submitted with this application.

WAIVER REQUESTS

As discussed above, SES WORLD SKIES does not seek a license to operate the SES-1 17/24 GHz BSS payload at the satellite's requested 101° W.L. orbital location, which is not at or near a location designated for 17/24 GHz BSS under the Commission's rules.⁴ Prior to deploying SES-1 to 101° W.L., SES WORLD SKIES intends to conduct in-orbit testing of the 17/24 GHz BSS payload at 142° W.L. solely for the purpose of allowing assessment of its technical performance. SES WORLD SKIES is not seeking authority to provide any service using the payload.

In these circumstances, SES WORLD SKIES believes that Commission requirements concerning performance bonds and full frequency reuse are not implicated by the proposed launch and testing of the SES-1 17/24 GHz BSS payload. Similarly, SES WORLD SKIES submits that Sections 25.140(b) and (c), which require submission of information regarding compatibility of a 17/24 GHz BSS space station with adjacent operators, are inapplicable here. Nevertheless, out of an abundance of caution, SES WORLD SKIES requests waivers of these rules to the extent necessary, as described in more detail below. SES WORLD SKIES also seeks a waiver of the specification for contour maps.

Grant of the requested 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

⁴ See 47 C.F.R. § 25.262(a); *Establishment of Policies and Service Rules for the Broadcasting-Satellite Service at the 17.3-17.7 GHz Frequency Band and at the 17.7-17.8 GHz Frequency Band Internationally, and at the 24.75-25.25 GHz Frequency Band for Fixed Satellite Services Providing Feeder Links to the Broadcasting-Satellite Service and for the Satellite Services Operating Bi-directionally in the 17.3-17.8 GHz Frequency Band*, Report & Order, FCC 07-76, 22 FCC Rcd 8842 (2007) at ¶ 73 & Appendix F.

would not undermine the policy objective of the rule in question and would otherwise serve the public interest.⁵

Section 25.165(a), Performance Bond: Section 25.165(a) generally requires that a performance bond be posted within 30 days of issuance of a satellite license, but exempts replacement satellites from this obligation.⁶ SES WORLD SKIES explained in the SES-1 application that SES-1 will operate at 101° W.L. only in C- and Ku-band frequencies for which AMC-4, the satellite it is replacing, is licensed, and is therefore not subject to a bond requirement.⁷

The presence of a 17/24 GHz BSS payload on the spacecraft should not alter that conclusion. Again, SES WORLD SKIES is not seeking authority to operate the 17/24 GHz BSS payload on SES-1 at 101° W.L., so SES-1 will be operating solely “in the same frequency bands” for which AMC-4 is authorized at that orbital location and will continue to be a “replacement satellite” for purposes of the Commission’s bond requirement.⁸

If the bond rule is deemed applicable here, a waiver is clearly appropriate. The Commission has observed that the bond deters “behavior like the warehousing and speculative pursuit of spectrum, which will delay service to the public when spectrum is scarce by excluding or delaying others from establishing satellite systems.”⁹ Because SES WORLD SKIES is not seeking an operating license in the 17/24 GHz BSS band, and because the 101° W.L. orbital location is not on or near the Appendix F grid for 17/24 GHz BSS licensing,¹⁰ the authorization

⁵ *PanAmSat Licensee Corp.*, 17 FCC Rcd 10483, 10492 (Sat. Div. 2002) (footnotes omitted).

⁶ 47 C.F.R. § 25.165(a).

⁷ SES-1 Application, Narrative at 3-4 & n.7.

⁸ *See* 47 C.F.R. § 25.165(e).

⁹ *Rainbow DBS Company LLC*, Memorandum Opinion and Order, FCC 07-11, 22 FCC Rcd 4272, 4274 (2007).

¹⁰ *See* 47 C.F.R. § 25.262(a).

for SES-1 will have no preclusive effect on deployment of 17/24 GHz BSS networks by other prospective operators.

Section 25.210(f), Full Frequency Reuse: Section 25.210(f) of the Commission's rules requires space stations using the 17/24 GHz BSS frequencies to "employ state-of-the-art full frequency reuse" through either orthogonal polarizations within the same beam or the use of multiple beams.¹¹ The SES-1 17/24 GHz BSS payload employs only a single polarization on the uplink and a single polarization on the downlink.

A waiver of the rule is consistent with Commission standards and would not undermine the purpose of the rule. The full frequency reuse requirement is intended to ensure efficient use of spectrum, but the Commission has waived the rule in a number of cases, including where permitting the non-compliant operations would not block deployment of a compliant spacecraft.¹² Because SES WORLD SKIES is not seeking an operating license for the SES-1 17/24 GHz BSS payload, and because 101° W.L. is not at or near an Appendix F orbital position for purposes of 17/24 GHz BSS licensing,¹³ grant of a waiver here will not block deployment of compliant 17/24 GHz BSS spacecraft and is therefore consistent with Commission precedent.

Sections 25.140(b) and (c), Interference Analysis: If SES WORLD SKIES were seeking authority to operate the SES-1 17/24 GHz BSS payload at the 101° W.L. orbital location, Sections 25.140(b) and (c) of the Commission's rules would require submission of an

¹¹ 47 C.F.R. § 25.210(f).

¹² See, e.g., *Columbia Communications Corporation*, Memorandum Opinion, Order and Authorization, 7 FCC Rcd 122, 123 (1991) (Commission views full frequency reuse waiver request favorably "as long as the non-compliant satellite is making some use of the orbit/spectrum resource which otherwise would not be used, and as long as such use does not preclude the use of the resource by a satellite which meets the Commission's full frequency reuse requirements.").

¹³ See 47 C.F.R. § 25.262(a).

interference analysis that takes into account the specific characteristics of the 17/24 GHz systems licensed to the orbital locations adjacent to 101° W.L. Specifically, because 101° W.L. is not an Appendix F location under Section 25.262(a), SES WORLD SKIES would be required to show that the SES-1 17/24 GHz BSS payload would not cause more interference into adjacent prior licensed satellites than would result if the payload were positioned at an Appendix F location.¹⁴ In its analysis and link budgets, SES WORLD SKIES would need to take into account the offsets of the adjacent satellites from Appendix F locations, as well as their licensed stationkeeping tolerances.¹⁵ SES WORLD SKIES would have to demonstrate that its 17/24 GHz BSS payload design was capable of operating with the 17/24 GHz BSS satellite networks with licenses at the locations adjacent to 101° W.L. on either side.¹⁶ SES WORLD SKIES would also need to justify a waiver of Section 25.262, which provides that 17/24 GHz BSS space stations must be positioned at or within one degree of an Appendix F location.¹⁷

Because no operating license is being sought here, these provisions are inapplicable on their face. For example, Section 25.140(b)(4) expressly refers to “an applicant for a *license to operate* a 17/24 GHz BSS space station.”¹⁸ SES WORLD SKIES is not requesting an operating license. Although subsection (6) of Section 25.140(b) is not explicitly limited to applicants for operating authority, the context makes clear that such a limitation should be implied. The rule is an adjunct to the showings described in the previous subsections, and

¹⁴ See 47 C.F.R. § 25.140(b)(4)(ii).

¹⁵ See 47 C.F.R. § 25.140(b)(6).

¹⁶ See 47 C.F.R. § 25.140(c).

¹⁷ See 47 C.F.R. § 25.262(a).

¹⁸ 47 C.F.R. § 25.140(b)(4) (emphasis added). The same qualifying phrase is found in subsections 3 of Section 25.140(b), which addresses situations in which an applicant is proposing to operate at an Appendix F location, and in subsection 5 of the rule, which applies if the applicant will be adjacent to a licensee at an offset location that is operating with full power and full interference protection. See 47 C.F.R. § 25.140(b)(3) & (5).

there is no purpose that would be served by imposing the subsection (6) requirements for an orbital location-specific analysis of link budgets on an applicant that does not propose to operate at the relevant orbital location and is therefore not required to present an interference analysis for that position. Section 25.140(c), which focuses on whether a satellite has been designed for compatibility with adjacent operations, is also limited by its terms to “[o]perators of satellite networks using 17/24 GHz BSS space stations.”¹⁹

Thus, SES WORLD SKIES does not view the requirements of Sections 25.140(b) and (c) as applicable with respect to this amendment. To the extent, however, that the Commission views these rules concerning the necessary interference analysis as applicable here, SES WORLD SKIES requests a waiver of the requirements. Grant of the waiver will not undermine the objective of the Commission’s rules to ensure compatible operation of 17/24 GHz BSS networks with adjacent systems. Because SES WORLD SKIES does not propose to operate the 17/24 GHz BSS payload of SES-1 at the 101° W.L. location, that payload cannot possibly cause harmful interference to adjacent 17/24 GHz licensees.

Requiring SES WORLD SKIES to go through the academic exercise of devising an interference analysis for hypothetical 17/24 GHz BSS operations at 101° W.L. under these circumstances would serve no meaningful purpose. The attached narrative Technical Appendix demonstrates that the SES-1 17/24 GHz BSS payload is capable of operating in a four-degree spacing environment at an Appendix F location, and that showing should be sufficient to allow the Commission to authorize the construction and launch of the payload. If it ever seeks to reposition SES-1 and pursue operating authority for the satellite’s 17/24 GHz BSS payload, SES WORLD SKIES will supplement that generic demonstration with an orbital location-specific

¹⁹ 47 C.F.R. § 25.140(c).

interference analysis reflecting the specific technical and stationkeeping characteristics of adjacent licensees. SES WORLD SKIES acknowledges that if the Commission views such future showing as unsatisfactory, it will not authorize operations using the 17/24 GHz payload, and SES WORLD SKIES accepts the risk that its request for operating authority would be dismissed or denied.

Section 25.114(d)(3), Contour Map Specifications: Section 25.114(d)(3)

provides that the space station antenna gain contours “should be plotted on an area map at 2 dB intervals down to 10 dB below the peak value of the parameter and at 5 dB intervals between 10 dB and 20 dB below the peak values.”²⁰ The maps in the attached Technical Appendix portray the -1, -2, -4, -6, -8, -10, and -12 dB contours but do not include a -15 or -20 dB contour because these contours are beyond the edge of the globe.

The Commission has routinely granted waivers of the contour map specification requirements where the information provided by the applicant sufficiently describes the space station’s antenna characteristics.²¹ Grant of a waiver here is consistent with this precedent.

PUBLIC INTEREST CONSIDERATIONS

SES WORLD SKIES has demonstrated that grant of authority for the proposed SES-1 satellite will enable SES WORLD SKIES to provide service continuity for C- and Ku-band users from 101° W.L. as contemplated by the Commission’s replacement expectancy policies for satellite operators.²² This compelling public interest is unaffected by the presence of the dormant 17/24 GHz BSS payload on the spacecraft. In addition, the grant of construction

²⁰ 47 C.F.R. § 25.114(d)(3).

²¹ See, e.g., *Intelsat North America LLC*, Stamp Grant, File No. SAT-LOA-20090410-00043, Call Sign S2789 (granted Nov. 25, 2009) (waiver of Section 25.114(d)(3) appropriate where technical materials provide “a sufficiently complete description of the transponder characteristics”).

²² SES-1 Application Narrative at 4-5.

and launch authority for the 17/24 GHz BSS payload will enable the company's technical personnel to perform testing and analysis of the payload (under separate Commission authority) at the spacecraft's in-orbit testing location. This, in turn, will assist SES WORLD SKIES in developing future 17/24 GHz BSS spacecraft that are capable of providing robust video programming and other services to customers throughout the U.S. and North America. Accordingly, SES WORLD SKIES submits that expeditious grant of the SES-1 Application as amended is in the public interest.

CONCLUSION

SES WORLD SKIES respectfully requests prompt Commission action on the SES-1 Application as amended herein.

Respectfully submitted,

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Dated: March 9, 2010