

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

In the Matter of	)	
	)	
SES AMERICOM, INC.	)	File No. SAT-STA-_____
	)	Call Sign S2134
Request for Special Temporary Authority to	)	
Operate AMC-2 C-Band Payload	)	

**REQUEST OF SES AMERICOM, INC.**

SES Americom, Inc. (“SES Americom,” doing business as “SES WORLD SKIES”<sup>1</sup>), hereby respectfully requests special temporary authority (“STA”) for a period of up to 30 days to operate the C-band frequencies (including the C-band TT&C frequencies) on the AMC-2 hybrid satellite with polarizations that are the opposite of what is specified in the current AMC-2 license. Grant of the requested STA will serve the public interest by facilitating possible use of the AMC-2 C-band payload in efforts to mitigate interference to the AMC-18 satellite as Galaxy 15 approaches and passes through the AMC-18 stationkeeping volume.

Earlier this year, the Commission granted SES WORLD SKIES’ application for modification of the AMC-2 license to reassign the spacecraft from the nominal 101° W.L. orbital location to 78.95° W.L.<sup>2</sup> In the AMC-2 Modification, SES WORLD SKIES specified that the polarizations of the C-band transponders and TT&C frequencies at 78.95° W.L. would be

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<sup>1</sup> SES WORLD SKIES is the commercial brand name for the integrated operations of two indirect subsidiaries of SES S.A.: SES Americom and New Skies Satellites B.V. (effective January 1, 2009). The brand name does not affect the underlying legal entities that hold Commission authorizations or U.S. market access rights.

<sup>2</sup> File No. SAT-MOD-20100324-00056, Call Sign S2134 (the “AMC-2 Modification”), grant-stamped June 21, 2010.

reversed from the polarizations used at 101° W.L.<sup>3</sup> Similarly, in the Schedule S supplied with the AMC-2 Modification, SES WORLD SKIES provided specific polarization information that likewise indicated that the C-band polarizations at 78.95° W.L. would be the opposite of those used at 101° W.L.<sup>4</sup>

The AMC-2 satellite is equipped with polarization switches that would permit SES WORLD SKIES to conform the C-band transponder and TT&C polarizations to those described in the AMC-2 Modification. However, SES WORLD SKIES is concerned that switching the polarization could disrupt the operations of the spacecraft. The polarization switches are potential single points of failure. If a switch were to fail in an “in-between” configuration, it could jeopardize the ability to use either polarization of C-band frequencies on the satellite.

As the Commission is aware, Galaxy 15 (licensed to PanAmSat Licensee Corp., call sign S2387) suffered an anomaly on or about April 5 and is drifting eastward in an uncontrolled manner with its payload active. Galaxy 15 is nearing AMC-18 (call sign S2713), a C-band satellite licensed to SES Satellites (Gibraltar) Limited (“SES Gibraltar”), a wholly-owned subsidiary of SES Americom. AMC-18 is Gibraltar-licensed and on the Commission’s Permitted Space Station List, authorized to serve the U.S. from 104.95° W.L. Galaxy 15 is expected to pass through AMC-18’s station-keeping box on or about November 24. Because Galaxy 15 operates on the same C-band frequencies as AMC-18, the potential for harmful interference into AMC-18 operations is significant as Galaxy 15 approaches.

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<sup>3</sup> See AMC-2 Modification, Technical Appendix at 2.

<sup>4</sup> AMC-2 Modification, Schedule S, Item S9.

To mitigate the interference risk, SES Gibraltar plans to maneuver AMC-18 within a larger stationkeeping volume to maintain a minimum distance between AMC-18 and Galaxy 15. During the time these maneuvers are taking place, AMC-18 customers may need to re-direct their transmissions to another spacecraft so that they can be relayed to AMC-18 using a ground antenna with a large diameter and advanced tracking capability. This double-hop approach will reduce the risk of interference, while avoiding the need for repointing the hundreds of antennas that receive signals from AMC-18.

SES WORLD SKIES anticipates that the AMC-2 C-band payload may be needed as a relay satellite for AMC-18 C-band traffic, as part of the interference mitigation measures relating to Galaxy 15's uncontrolled drift. In order to ensure that AMC-2 is available for this purpose and to mitigate the technical risk of a polarization switch failure, SES WORLD SKIES seeks temporary authority to operate the AMC-2 C-band payload and TT&C frequencies without switching the polarization from the configuration used on the satellite at 101° W.L. In all other respects, operation of the satellite will conform to the terms of the current AMC-2 license. Grant of the requested authority will serve the public interest by allowing use of AMC-2 to facilitate service continuity for customers of the AMC-18 spacecraft.

Operation of AMC-2 at 78.95° W.L. as proposed herein will not harm other operators. SES WORLD SKIES submitted an interference analysis with the AMC-2 Modification showing that its planned operations were compatible with adjacent satellites. The analysis did not rely on polarization diversity to reach this conclusion.<sup>5</sup> As a result, the proposed

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<sup>5</sup> AMC-2 Modification, Technical Appendix, Annex 3 at 33. As described in the interference analysis, polarization is primarily relevant only with respect to analog video channels, which are typically coordinated on a case-by-case basis. SES WORLD SKIES does not seek authority to use AMC-2 for analog video – the traffic being relayed to AMC-18 will consist solely of digital video and data.

operation during the period of the STA will be consistent with the assumptions underlying the interference analysis in the AMC-2 Modification and the conclusions of that analysis remain valid. In addition, AMC-2 operations under this STA will conform to the terms of existing and future coordination agreements applicable to its operations at the nominal 79° W.L. orbital location.<sup>6</sup>

For the foregoing reasons, SES WORLD SKIES seeks STA to permit temporary operation of the AMC-2 C-band payload and TT&C frequencies with polarizations that do not conform to the terms of its current license.

Respectfully submitted,

SES AMERICOM, INC.

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<sup>6</sup> SES WORLD SKIES notes that the Venesat-1 satellite operates at 78° W.L. under a Uruguayan ITU network filing that is lower in priority than the U.S. ITU filing at the nominal 79° W.L. location.