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

In the Matter of Application by	)	
SES AMERICOM, INC.	)	Call Sign E970336
For Special Temporary Authority to	)	
Communicate with QuetzSat-1 to Perform TT&C	)	
And In-Orbit Testing at 67.1° W.L.	)	

## REQUEST FOR SPECIAL TEMPORARY AUTHORITY

By this application, SES Americom, Inc. ("SES Americom") respectfully requests earth station special temporary authority ("STA") for a period of up to 30 days to permit earth station E970336 to communicate with the QuetzSat-1 spacecraft in order to provide Tracking, Telemetry and Command ("TT&C") and perform in-orbit testing ("IOT") at 67.1° W.L. QuetzSat-1 is a new Direct Broadcast Satellite ("DBS") spacecraft that will operate at the nominal 77° W.L. orbital location pursuant to Mexican authority granted to QuetzSat, S. de R.L. de C.V. ("QuetzSat"), a Mexican company. SES Americom requests: (1) authority to perform TT&C in order to position QuetzSat-1 at 67.1° W.L. following launch of the spacecraft; and (2) authority to perform TT&C and the proposed IOT with QuetzSat-1 while it is located at 67.1° W.L. SES Americom requests that the STA period begin twelve days following the launch of QuetzSat-1, which is currently scheduled for early September 2011.

SES Americom's E970336 earth station is currently licensed to operate in the DBS band. SES Americom is seeking authority to add QuetzSat-1 as a new point of communication on a temporary basis. The only technical parameters for the proposed operation of E970336 that differ from the current E970336 license are listed below.

.

<sup>&</sup>lt;sup>1</sup> See File No. SES-RWL-20070925-01321.

Full technical details regarding QuetzSat-1, including a completed Schedule S and a narrative technical appendix, are already on file with the Commission. Specifically, DISH Operating L.L.C. ("DISH"), which proposes to use QuetzSat-1 to provide DBS service to households in the U.S. and Mexico, has filed the required technical information regarding QuetzSat-1 in support of its application to modify its blanket earth station license to add QuetzSat-1 as a point of communications. SES Americom hereby incorporates those materials by reference.

The DISH QuetzSat-1 Application also includes a showing pursuant to the Commission's *DISCO II* framework<sup>3</sup> applicable to use of foreign-licensed spacecraft to serve the United States.<sup>4</sup> The instant STA request, however, does not seek authority to use QuetzSat-1 to offer service to U.S. customers. Instead, SES Americom seeks to use E970336 only for TT&C operations and to conduct IOT. Use of a U.S.-licensed earth station to communicate with a foreign-licensed satellite for TT&C and IOT purposes only does not raise the types of market access and competitive parity issues underlying the *DISCO II* framework. However, to the extent that the Commission believes that a DISCO II showing is required here, SES Americom incorporates by reference the showing provided in the DISH QuetzSat-1 Application.

Transmissions associated with TT&C and IOT of QuetzSat-1 will not cause harmful interference to the operations of any other spacecraft due to orbital angular separation, frequency diversity and/or geographically diverse beam coverage. SES Americom, on behalf of

<sup>2</sup> See DISH Operating L.L.C., File No. SES-MFS-20110707-00792 (Call Sign E090020) ("DISH QuetzSat-1 Application").

<sup>&</sup>lt;sup>3</sup> See Amendment of the Commission's Policies to Allow Non-U.S. Licensed Space Stations Providing Domestic and International Service in the United States, 12 FCC Rcd 24094, 24170-72 (1997) ("DISCO II").

<sup>&</sup>lt;sup>4</sup> See DISH QuetzSat-1 Application, Narrative at 6-7.

QuetzSat, has also successfully coordinated the proposed TT&C and IOT operations with potentially affected DBS operators consistent with industry practice.<sup>5</sup>

Grant of SES Americom's request to test QuetzSat-1 at the 67.1° W.L. orbital position is in the public interest. By testing QuetzSat-1 at this location, SES Americom will minimize the risk of interference and be able to ensure that QuetzSat-1 is fully operational before the satellite commences providing commercial services.

SES Americom seeks authority to communicate with QuetzSat-1 for purposes of TT&C and IOT subject to the following (or similar) conditions:

- (a) SES Americom will coordinate its drift and test operations with all potentially affected operating satellite networks.
- (b) During the drift of QuetzSat-1 to 67.1° W.L., communications with QuetzSat-1 will be in the designated TT&C frequencies only.
- (c) No harmful interference will be caused to any lawfully operating satellite network or radio communication system and SES Americom's operations will cease immediately upon notification of harmful interference. Further, SES Americom shall notify the Commission in writing that it has received such a notification within 14 days of receipt.
- (d) SES Americom will accept interference from any lawfully operating satellite network or radio communication system.
- (e) Testing authority is limited to the DBS frequencies at the 67.1° W.L. orbital location.
- (f) Communications with the QuetzSat-1 space station at 67.1° W.L. are limited to TT&C and in-orbit testing, and shall not include any provision of commercial services.
- (g) The authorization is subject to change in any of its terms or cancellation in its entirety at any time upon reasonable notice, but without hearing, if in the opinion of the Commission, circumstances require.
- (h) The temporary authority will commence 12 days after the QuetzSat-1 launch and terminate 30 days from that date.

3

<sup>&</sup>lt;sup>5</sup> Specifically, SES Americom has executed coordination agreements with DIRECTV, Telesat, and EchoStar in connection with the planned TT&C and IOT of QuetzSat-1.

SES Americom hereby certifies that no party to this application is subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862.

For the foregoing reasons, SES Americom respectfully requests special temporary authority to communicate with QuetzSat-1 for a period of up to 30 days, commencing 12 days after the launch of QuetzSat-1, in order to provide TT&C and perform in-orbit testing as described herein. Grant of the requested authority will permit testing of the spacecraft prior to commercial operation.

Respectfully submitted,

SES AMERICOM, INC.

By: /s/ Daniel C.H. Mah

Of Counsel
Karis A. Hastings
Hogan Lovells US LLP
555 Thirteenth Street, N.W.
Washington, D.C. 20004-1109

Tel: (202) 637-5600

Dated: July 29, 2011

Daniel C. H. Mah Regulatory Counsel SES Americom, Inc. Four Research Way Princeton, NJ 08540 **ATTACHMENT 1** 

This attachment provides information in support of the application of SES

Americom for earth station special temporary authority in connection with: (1) the proposed in-

orbit testing ("IOT") of the QuetzSat-1 spacecraft at 67.1° W.L.; and (2) Tracking, Telemetry,

and Command ("TT&C") to position QuetzSat-1 at 67.1° W.L.

The proposed IOT of QuetzSat-1 will involve verifying the performance

characteristics of the DBS transponders and antenna patterns and will utilize in some cases

saturating CW carriers in that band. The IOT will include the following tests: satellite power

amplifier transfer characteristics; satellite transponder characteristics; antenna mapping; and

EIRP and SFD, amplitude linearity, group delay amplitude response, polarization isolation, and

attenuator checks. The earth station utilized for the performance of the IOT will not exceed the

maximum output EIRP density specified in its license. The earth station has been coordinated

for an arc that includes 67.1° W.L.

**E970336 Technical Information** 

TT&C Emissions

Emission Designator: 1M00G7W

Max EIRP: 86.5 dBW

Max EIRP Density: 62.5 dBW/4kHz

Tx Frequency Range: 17300-17800 MHz Rx Frequency Range: 12200-12700 MHz

Polarization: Left and Right Circular

## **IOT Emissions**

Emission Designator: 1K00K3N

Max EIRP: 86.5 dBW

Max EIRP Density: 92.5 dBW/4kHz Tx Frequency Range: 17300-17800 MHz Rx Frequency Range: 12200-12700 MHz Polarization: Left and Right Circular

Emission Designator: NON

Max EIRP: 86.5 dBW

Max EIRP Density: 92.5 dBW/4kHz Tx Frequency Range: 17300-17800 MHz Rx Frequency Range: 12200-12700 MHz Polarization: Left and Right Circular

Emission Designator: 36M0G2F

Max EIRP: 86.5 dBW

Max EIRP Density: 47.0 dBW/4kHz Tx Frequency Range: 17300-17800 MHz Rx Frequency Range: 12200-12700 MHz Polarization: Left and Right Circular

Emission Designator: 36M0F3D

Max EIRP: 86.5 dBW

Max EIRP Density: 47.0 dBW/4kHz Tx Frequency Range: 17300-17800 MHz Rx Frequency Range: 12200-12700 MHz Polarization: Left and Right Circular