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

In the Matter of Application by)	
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SES AMERICOM, INC.)	Call Sign S2826
For Special Temporary Authority to)	_
Test SES-2 at 77.25° W.L.)	

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

By this application, SES Americom, Inc. ("SES Americom"), respectfully requests space station special temporary authority ("STA") to permit SES Americom to perform in-orbit testing ("IOT") of its SES-2 spacecraft at 77.25° W.L. Authority is sought for a period of up to 30 days, commencing twelve days following the launch of SES-2, which is currently scheduled to occur in early September 2011. Specifically, SES Americom requests:

(1) authority to perform telemetry, tracking and command ("TT&C") in order to position SES-2 at 77.25° W.L.; (2) authority to operate the TT&C and communications payloads of SES-2 at 77.25° W.L. during IOT; (3) authority to operate the C-band payload during IOT in order to test and download data from the Commercially Hosted Infrared Payload ("CHIRP") on the satellite, and (4) authority to perform TT&C in order to drift SES-2 to 87° W.L. following the completion of IOT.

SES Americom has a pending application for a Commission license to operate SES-2 at 87° W.L. in the conventional C- and Ku-bands to replace SES Americom's AMC-3 spacecraft. SES Americom requests authority to test the C- and Ku-band payloads of SES-2 at

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See SES Americom, Inc., File No. SAT-RPL-20110429-00082, Call Sign S2826 ("SES-2 Application"); amended, File No. SAT-AMD-20110613-00107; Report No. SAT-00788, *Public Notice: Policy Branch Information* (rel. June 24, 2011). The "conventional C-band" refers to the

77.25° W.L. and perform associated TT&C. In addition, SES Americom requests temporary authority to operate the C-band payload of the satellite to enable testing of and data download from CHIRP, a U.S. government payload hosted on the SES-2 spacecraft. As discussed below, temporary operation of SES-2 at 77.25° W.L. rather than 87° W.L. will permit testing to occur without disruption to existing customers at 87° W.L. and will not adversely affect the operation of any adjacent satellites.

Grant of STA Will Serve the Public Interest. Grant of SES Americom's request to test SES-2 at the 77.25° W.L. orbital position is in the public interest. By testing SES-2 at this location, SES Americom will minimize the risk of interference and be able to ensure that the C-band and Ku-band payloads on the SES-2 spacecraft are fully operational at the time it arrives at its final orbital location, thereby avoiding any interruption in service that otherwise might be associated with spacecraft testing. The public interest would also be served by enabling the U.S. government's experimental payload – CHIRP – to be tested and operated at 77.25° W.L.

No Harmful Interference to Other Spacecraft. The testing and temporary operation of SES-2 (including CHIRP) at 77.25° W.L. 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 is in the process of coordinating the proposed TT&C and IOT operations with other C- and Ku-band satellites positioned near 77.25° W.L., including Brasilsat B3, Simon Bolivar, Horizons 2, and EchoStar 8. In order to

3700-4200 MHz and 5925-6425 MHz frequencies. The "conventional Ku-band" refers to the 11.7-12.2 GHz and 14.0-14.5 GHz frequencies.

The TT&C frequencies for the SES-2 satellite are at the edges of the conventional C- and Ku-band. *See* SES-2 Application, Technical Narrative at 8.

See SES-2 Application, Technical Narrative at 21-22.

further avoid possible interference with nearby spacecraft, SES Americom intends to perform TT&C in the Ku-band during the IOT of SES-2. SES Americom also intends to use Ku-band TT&C frequencies to drift the spacecraft from 77.25° W.L. to 87° W.L.

No Harmful Interference to Terrestrial Services. Transmissions associated with IOT of SES-2 will not cause harmful interference to any co-primary terrestrial services in the conventional C-band. The C-band earth station to be used for in-orbit testing of the satellite has been coordinated to communicate with satellites in an arc that includes 77.25° W.L. The earth station will not exceed the maximum output EIRP density specified in its license. Some IOT procedures will require the satellite transponders to intermittently transmit a CW carrier for a short duration of time (less than five minutes) over a period of a couple of days. During such transmissions, the maximum satellite downlink PFD density is expected to exceed the PFD limits specified in Section 25.208(a), but only for the minimal amounts of time during IOT. The operation of the C-band frequencies for CHIRP testing will be at power levels that comply with the PFD limits specified in Section 25.208(a).

In addition, and in any event, SES Americom will conduct all IOT operations on a non-harmful interference basis, and will cease transmissions promptly in the event any harmful interference is caused by such operations.

Protective Conditions. SES Americom seeks authority to position and test SES-2 at 77.25° W.L., and to relocate the satellite to 87° W.L. once testing is completed, 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 SES-2 to 77.25° W.L., and during the drift from 77.25° W.L. to 87° W.L., only the TT&C payload of the SES-2 spacecraft will be operated.

- (c) No harmful interference will be caused to any lawfully operating satellite network or radio communication system and SES Americom 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 conventional C- and Ku-band frequencies at the 77.25° W.L. orbital location.
- (f) During in-orbit testing, SES Americom shall maintain the SES-2 space station within an east/west longitudinal station-keeping tolerance of ± 0.05 degrees of the ± 0.05 W.L. orbital location.
- (g) Operations of the SES-2 space station at 77.25° W.L. are limited to inorbit testing, and shall not include any provision of commercial services.
- (h) 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.
- (i) The temporary authority will commence 12 days after the SES- 2 launch and terminate 30 days from that date.
- (j) The 24/7 point of contact for SES Americom during IOT and drift maneuvers is Dave Westlund, (805) 217-4415, dave.westlund@ses.com.

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 position and test SES-2 at 77.25° W.L. for a period of up to 30 days, commencing twelve days following the launch of SES-2, and to relocate the spacecraft to 87° W.L. following the completion of in-orbit testing. Grant of the requested authority will permit testing of the spacecraft to occur without affecting services to customers and will permit a seamless transition of services. As noted above, SES Americom is preparing to launch SES-2 in early September 2011, and requests action on this application to accommodate that schedule.

Respectfully submitted,

SES AMERICOM, INC.

By: <u>/s/ Daniel C.H. Mah</u>

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