

March 10, 2003

Federal Communications Commission – International Bureau  
445 12th Street, S.W.  
Washington, D.C. 20554

Subject: Engineering Certification of SES Americom, Inc.

To whom it may concern:

This letter certifies that SES Americom, Inc. ("SES Americom") is aware that GTECH Corporation ("GTECH"), a customer of SES Americom's customer Hughes Network Systems ("HNS"), is seeking FCC authorization to operate on the SES Americom satellite AMC-4 at 101 degrees W.L. for the services as described below. SES has provided PanAmSat with a list of SES transponders currently assigned to support transmissions for these services.

SES Americom certifies that to the best of its knowledge, no satellite is in orbit less than two degrees away from the AMC-4 satellite, which is authorized to operate and is currently operating at 101 degrees W.L. in the geostationary earth orbit with coverage of the Continental United States ("CONUS"), Puerto Rico, and the United States Virgin Islands.

SES Americom understands that GTECH, will be deploying 75cm equivalent diameter transmit/receive remote terminals for its two-way VSAT service working with the hubs located at West Greenwich, RI and Austin, TX under the call signs E930182 and E970347. SES Americom understands that GTECH will also deploy 96cm transmit/receive remote terminals in the high rain or low spacecraft EIRP regions in the CONUS, Puerto Rico, and the United States Virgin Islands. These Ku-band terminals will transmit to and receive from the above referenced SES satellite.

The 75cm equivalent diameter terminal is 89 by 62 cm elliptical-aperture antennas having the same transmit gain as a 75 cm equivalent circular-aperture Channel Master antenna. These antennas generally exhibit their non-compliance in the region from 1.25 to 1.73 degrees off axis from maximum gain in the transmit band, due to the width of their main gain lobe. They are compliant with the side lobe pattern requirements specified in Section 25.209 of the

Commission's Rules in the plane of the geostationary satellite orbit as it appears at the particular earth station location for off-axis angles starting at 1.73 degrees in the transmit band. These antennas are to be installed with a nominal pointing accuracy of less than or equal to 0.30 degrees and will operate at a maximum input power density at the antenna waveguide flange of -14.8 dBW/4 kHz, compliant with the -14.0 dBW/4 kHz FCC maximum for 2-degree compliant systems and routine licensing<sup>1</sup>.

The second terminal size is a 96 cm circular-aperture Channel Master antenna. These antennas generally exhibit their non-compliance in the region from 1.25 to 1.72 degrees off axis from maximum gain in the transmit band, due to the width of their main gain lobe. They are compliant with the side lobe pattern requirements specified in Section 25.209 of the Commission's Rules in the plane of the geostationary satellite orbit as it appears at the particular earth station location for off-axis angles starting at 1.72 degrees in the transmit band. These antennas are to be installed with a nominal pointing accuracy of less than or equal to 0.32 degrees and will operate at a maximum input power density at the antenna waveguide flange of -14.8 dBW/4 kHz, compliant with the -14.0 dBW/4 kHz FCC maximum for 2-degree compliant systems and routine licensing.

Also, in order to prevent unacceptable interference into adjacent satellites, SES and GTECH acknowledge that these antennas (75cm equivalent diameter and 96 cm circular-aperture) will be installed by professional installer and aligned with the intended satellite to less than or equal to the tolerance as stated in this letter. Further, compliance with the technical, operational and performance requirements of Part 25 of the FCC rules and any requirements set forth in the licenses granted by the FCC for these sub-meter Channel Master antennas.

SES and GTECH acknowledge that the use of the Channel Master non-conforming antennas will not cause unacceptable interference into adjacent satellites in accordance with the FCC's 2-degree spacing policy and will accept interference from adjacent satellites to the degree to which harmful interference would not be expected to be caused to an earth station employing an antenna conforming to the reference patterns defined in § 25.209 of the FCC rules.

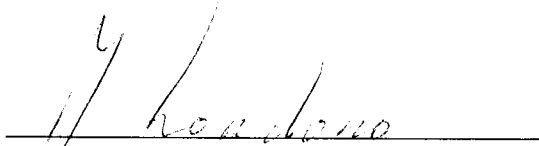
Furthermore, should other satellites be positioned at the aforementioned orbital location, the transponder assignments coordinated pursuant to this letter will remain the same. SES Americom will promptly provide PanAmSat with relevant information for any new transponders used for service to GTECH, a customer of SES Americom's customer HNS, for

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<sup>1</sup> 47 CFR § 25.134

purposes of inter-system coordination, which will be operated on a non-conforming basis with respect to the FCC part 25 rules.

Sincerely,



Jaime Londono  
Satellite Market Development, Director  
SES Americom, Inc.

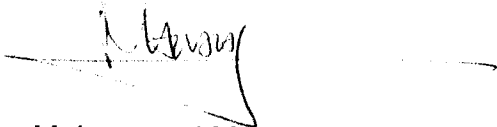
*Agreement and acceptance of GTECH:*



[Name] ~~Thomas J. Grier~~  
[Title] VP  
GTECH Corporation

*Acceptance by PanAmSat:*

PanAmSat agrees to the use of the above Channel Master 75cm equivalent diameter and 96cm antennas with their respective azimuth angle alignment tolerances toward AMC-4 and the power density levels into the antenna flange as stated in this letter, with respect to Galaxy satellite transponders that are within +/- 6 degrees orbital spacing from AMC-4 at 101 degrees W.L.



Mohammad Marashi  
Vice President  
Customer Support Engineering  
PanAmSat Corporation