

May 18, 2005

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

Subject: Engineering Certification of SES Americom

To whom it may concern:

This letter certifies that SES Americom Inc. ("SES") is aware of the application filed by General Dynamics C4 Systems, Inc ("GD"), to access SES satellites AMC-9 at 83 degrees W.L. licensed by the Federal Communications Commission ("FCC"), using Ku-band transmit/receive antennas that are not strictly compliant with the FCC 2-degree spacing requirements for off-axis sidelobe gain. The SES AMC-9 satellite provides coverage of the Continental United States (CONUS) from its orbital location at 83 degrees W.L. Within the +/- 6 degrees orbital arc from AMC-9¹, SES Americom owns and operates the following satellites:

- AMC-5 at 79 degrees W.L.
- AMC-16 at 85 degrees W.L. (operations to begin in the near-term)
- AMC-3 at 87 degrees W.L.

SES Americom understands that GD will be deploying an antenna manufactured by GD/VertexRSI, Model S825-1100 in a transmit/receive transportable remote terminals with a 60cm circular aperture. The proposed antennas are not compliant with the FCC part 25 rules. These antennas exhibit their non-compliance in the region from 1.0 to 3.0 degrees off axis from maximum gain in the transmit band, due to the width of their main gain lobe. The amount of non-compliance is 8 dB in this range of off-axis angle. The terminals are compliant with the side lobe pattern requirements specified in Section 25.209 of the Commission's Rules for off-axis angles starting at 3.0 degrees in the transmit band. The off-axis EIRP values generated by the terminal in the transmit band are reduced to that of a compliant antenna by decreasing the antenna flange power spectral density² from -14 dBW/4KHz to -29.3 dBW/4KHz.

These antennas are equipped with tracking systems which results in a pointing accuracy of less than or equal to +/- 0.20 degrees. The maximum input power density

¹ There are no operational satellites at this time at 77 degrees W.L., and 81 degrees W.L. There is no operational satellite at 89 degrees W.L. also, but IA-8 is expected to be operational at this orbital location on or after August 1, 2005.

² 47 CFR § 25.134

5/18/2005

at the antenna waveguide flange of -29.3 dBW/4 kHz stated above includes margin for a pointing error of ± 0.20 degrees. Additionally, the terminal has a built-in feature of stopping uplink transmission if the pointing error accidentally exceeds ± 0.2 degrees.

Furthermore, in order to prevent unacceptable interference into adjacent satellites, SES and GD acknowledge that these antennas will be operated in 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 the above GD/VertexRSI antenna. SES and GD acknowledge that the use of the GD/VertexRSI 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 at the same levels as that of an earth station employing an antenna conforming to the reference patterns defined in § 25.209 of the FCC rules.

SES Americom will do any inter-system coordination required within the satellites operated by SES Americom. In the event that new satellites become operational at orbital locations 77 degrees W.L. and 81 degrees W.L., SES Americom will do the necessary inter-system coordination with the new satellites.

Sincerely,


Krish Jonnalagadda
Satellite Market Development, Manager
SES Americom

Acceptance by GD:

GD testifies that the information provided to SES Americom and reflected in this Affidavit is true and accurate to the best of GD's knowledge.


General Dynamic C4 Systems

By: TIMOTHY M. SMEETS

Its: VICE PRESIDENT