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May 25, 2010

BY HAND DELIVERY

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

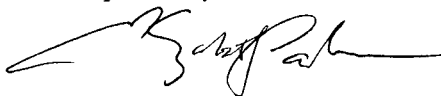
Re: Supplement to ViaSat, Inc. Earth Station Application File Nos. SES-MFS-20090624-00789; SES-AFS-20091117-01463 (Call Sign E050318)

Dear Ms. Dortch:

ViaSat, Inc. ("ViaSat") submits the enclosed satellite coordination letter to supplement the above-referenced earth station application. The coordination letter is for the GE International Holdings satellite, GE-23 at 172° E.L. and covers the VR-12 antenna that ViaSat proposes to add in the pending application. The application already includes a coordination for the GE-23 satellite covering the currently authorized antenna.

If you should have any questions regarding this submission, please contact the undersigned.

Respectfully submitted,



Elizabeth R. Park

Enclosure

cc: Kathryn Medley (electronic copy)
Trang Nguyen (electronic copy)
Jeanette Spriggs (electronic copy)



GE
Satellite

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27 April 2007

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

Subject: Engineering Certification of GE International Holdings.

To Whom It May Concern:

This letter certifies that GE International Holdings ("SAT-GE") is aware that ViaSat, Inc. ("ViaSat") has been granted authority to operate a transmit/receive steerable antenna for aeronautical mobile-satellite services (AMSS), under Federal Communications Commission ("FCC") Grant Call Sign E050318 (FCC File No. SES-LIC-20051028-01494, as amended (FCC File No. SES-AMD-20060314-00440, and SES-AMD-20070309-00325), for using fixed-satellite service frequencies pursuant to ITU RR 5.504A, on a non-conforming, non-interference basis. ViaSat is seeking FCC authorization to utilize the SAT-GE satellite GE-23 at 172 degrees E.L. licensed by the FCC and also seeks to add a new antenna type.

SAT-GE understands that, as described in ViaSat's application, ViaSat proposes to add a new antenna type that is very similar to the currently authorized antenna. The transmit/receive reflector antenna is an aircraft earth station steerable antenna manufactured by ViaSat. The aperture dimensions of the reflector antenna are 29.2 cm by 29.2 cm with a transmit gain of 31.83 dBi at 14.25 GHz and a receive gain of 29.62 dBi at 11.95 GHz. These antennas will actively point to the intended satellite using a method resistant to capturing and tracking adjacent satellites per ITU-R M.1643.

When communicating with the GE-23 satellite, ViaSat will operate its reflector antenna within the 14.2 -14.5 GHz FSS uplink band, 11.4 - 11.7 GHz FSS downlink band with a maximum e.i.r.p. of 39.5 dBW, and a corresponding maximum power spectral density at the antenna flange of -31.87 dBW/4 kHz. The sub-meter antenna is a non-conforming antenna because the off-axis gain exceeds the §25.209 antenna performance standard by 10.25 dB in the main-lobe region. ViaSat will reduce the effective power spectral density into each individual antenna flange such that the aggregate reduction in power density will equal 10.25 dB. Thus, the network aggregate antenna flange density will be -24.25 dBW/4 kHz, which is 10.25 dB below the limit of -14.0 dBW/4 kHz provided in the FCC's rules. The nominal individual antenna flange density will be -34.64 dBW/4 kHz. ViaSat will operate using direct sequence spread spectrum so that the aggregate off-axis e.i.r.p. transmissions, from all co-frequency AES terminals within the footprint of the satellite, are always equal to or less than that of routinely authorized VSAT transmissions. Specifically, ViaSat will



operate its system so that the co-frequency aggregate off axis e.i.r.p from all AES antenna transmissions towards the intended geostationary satellite shall not exceed:

Angle off-axis	Maximum e.i.r.p. in any 4 kHz band
$1.25^\circ \leq \theta \leq 7.0^\circ$	$15 - 25 \log \theta$ dBW -
$7.0^\circ < \theta \leq 9.2^\circ$	6 dBW
$9.2^\circ < \theta \leq 48^\circ$	$18 - 25 \log \theta$ dBW
$48^\circ < \theta \leq 180^\circ$	-24 dBW

The forward downlink (hub to AES) maximum EIRP will be compliant with the levels coordinated with adjacent satellites.

ViaSat will maintain the forward downlink EIRP density and the aggregate off-axis EIRP values, by maintaining tight control of the system operation, which includes:

- 1) Maintaining antenna pointing to the intended satellite in a manner consistent with ITU-R M.1643;
- 2) network management that inhibits transmission within 1 second of receive link loss from same transponder;
- 3) fault detection system that terminates transmissions when out of tolerance conditions (including the antenna pointing error) are detected;
- 4) continuous monitoring/oversight by ground network operations center; and
- 5) the continuous monitoring of the number of simultaneous co-frequency transmissions made by the remote terminals, and thereby the resulting aggregate return-uplink EIRP. The congestion control algorithm manages and controls both the aggregate EIRP and the CDMA multiple access to maintain the aggregate off-axis EIRP density to within prescribed limits.

SAT-GE acknowledges that the use of the above referenced transmit/receive reflector antenna by ViaSat, installed and operated in accordance with the above conditions, is within the levels coordinated with the adjacent satellite operators and should not cause unacceptable interference into adjacent satellites operating in accordance with FCC's 2-degree spacing policy. If the FCC authorizes the operations proposed by ViaSat in the Application, SAT-GE will include the antenna, as described above, in all future satellite network coordinations. ViaSat shall comply with all such coordination agreements reached by the satellite operators.

In order to prevent unacceptable interference into adjacent satellites, SAT-GE has been informed and ViaSat acknowledges that the antennas will be installed and operated in accordance with the above conditions and/or any other operational requirements specified in the FCC authority granted to ViaSat. Furthermore, ViaSat agrees that it 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 Section 25.209 of FCC rules. If the use of this antenna should cause unacceptable interference into other systems, ViaSat has agreed that it will terminate transmissions immediately upon notice from the affected parties.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Vince Walisko'.

Vince Walisko
VP, Engineering
SAT-GE

Date: 29 April 2010



Acceptance by ViaSat:

ViaSat testifies that the information provided to Intelsat and reflected in this affidavit letter is true and accurate to the best of ViaSat's knowledge.

Daryl T. Hunter

Daryl T. Hunter, P.E. Director,
Regulatory Affairs ViaSat, Inc.

Date: 29 April, 2010

Acceptance by Intelsat:

INTELSAT agrees to operation of the above-described AMSS terminals by ViaSat, with the technical parameters described herein, with respect to its satellites currently operational or to be operated in the future within $\pm 6^\circ$ of the orbital location 172° E.L.

Jose Albuquerque

Jose Albuquerque
Senior Director, Spectrum Engineering
Intelsat

Date: 29 April 2010