

January 6, 2009

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

**Re: Supplemental Engineering Certification of SES Americom, Inc.**

To Whom It May Concern:

This letter supplements the certification letter dated June 6, 2008 ("June 6<sup>th</sup> Letter") previously provided in connection with the application of Row 44, Inc. ("Row 44") for authority to operate, on a non-conforming, non-harmful-interference basis, transmit/receive antennas for aeronautical mobile-satellite services ("AMSS") using fixed-satellite service ("FSS") frequencies in the Ku-band, including capacity on SES Americom's AMC-9 satellite at 83° W.L. and its AMC-2 satellite at 101° W.L. In the June 6<sup>th</sup> Letter, SES Americom noted that the AeroSat antenna to be used by Row 44 "operates under gimballed motor control to orient the antenna in azimuth, elevation and polarization and achieves a  $\pm 0.2$  degree pointing accuracy during active tracking of the intended satellite." June 6<sup>th</sup> Letter at 1. This letter provides a supplemental certification that the conclusions contained in the June 6<sup>th</sup> Letter regarding this aspect of Row 44's proposed operations continue to be valid.

In particular, SES Americom and Intelsat, which is the only other Ku-band FSS geostationary satellite operator within six degrees of either 83° W.L. or 101° W.L., are familiar both with the techniques and details concerning antenna pointing, alignment and transmission shut-off that Row 44 has described to the Commission in connection with its application,<sup>1</sup> and with the analysis thereof provided by ViaSat, Inc.<sup>2</sup> We have reviewed

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<sup>1</sup> See FCC File No. SES-LIC-20080508-00570 -- Row 44 Opposition to ViaSat, Inc.'s Petition to Deny (July 23, 2008); Opposition of Row 44, Inc. to Supplement to Petition to Deny (October 23, 2008); Row 44 *Ex Parte* Letter (November 26, 2008).

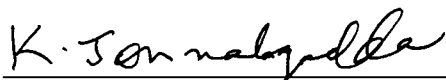
<sup>2</sup> See FCC File No. SES-LIC-20080508-00570 -- Petition to Deny of ViaSat, Inc. (June 27, 2008); Reply of ViaSat, Inc. (August 7, 2008); ViaSat *Ex Parte* Letter (October 2, 2008); Supplement to Petition to Deny of ViaSat, Inc. (October 10, 2008); Reply to Opposition to Supplement of ViaSat, Inc. (November 4, 2008); ViaSat *Ex Parte* Letter (November 10, 2008); ViaSat *Ex Parte* Letter (December 8, 2008).

the antenna control mechanisms outlined by Row 44, and agree that, under the conditions described by Row 44, the proposed antenna will operate in compliance with the Commission's two-degree spacing requirements, including the pointing accuracy and shutdown requirements of Section 25.222(a) of the Commission's Rules that apply to mobile Earth stations on vessels. *See* 47 C.F.R. § 25.222(a). The foregoing determination notwithstanding, SES Americom believes that it is appropriate for the FCC to authorize Row 44's proposed STA operation on an interim basis, allowing an opportunity to evaluate actual operational data obtained to verify performance. Row 44 shall share test data with Intelsat, SES and Echostar so that a determination can be made on the efficacy of the Row 44 system to resolve adjacent satellite interference issues.

Row 44 has affirmed that the operating envelope is predicted forward, such that almost any possible transmission that would potentially occur outside the envelope will actually be detected before it occurs, prompting a shut down of transmission before the envelope is exceeded. Row 44 has stated that the worst-case scenario would be where the aircraft is at the edge of the envelope and accelerates outside of the envelope just after the inertial reference unit sends the current position. In the event of an instantaneous jump in acceleration from 0 to 30 deg/sec<sup>2</sup>, Row 44 reports that the transmission shutdown would occur within 0.02 degrees of the envelope boundary, and that this would result in no harmful interference to adjacent satellites.

SES Americom and Intelsat also note that, pursuant to the amendment filed August 19, 2008 (FCC File No. SES-AMD-20080819-01074), the original Row 44 proposal has been modified slightly, such that Row 44 will operate its antenna with a reduced maximum EIRP of 38.6 dBW. Row 44 has affirmed that the AeroSat antenna will operate in the 14.05-14.47 GHz band with a maximum EIRP density of 14.6 dBW in any 4 kHz band of the uplink spectrum.

Sincerely,




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Krish Jonnalagadda  
Satellite Marketing Development, Manager  
SES Americom, Inc.

FCC International Bureau  
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Acceptance by Row 44, Inc.:

Row 44 affirms that the information provided to SES Americom and reflected in the June 6<sup>th</sup> Letter and this supplement are true and accurate to the best of Row 44's knowledge, information and belief, and that it shall comply with all relevant SES Americom coordination agreements, as provided in the June 6<sup>th</sup> Letter.

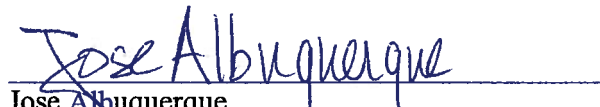


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John Guidon  
President & CEO  
Row 44, Inc.

Acceptance by Intelsat:

Intelsat agrees to operation of the above antenna with the technical parameters described herein and in the June 6<sup>th</sup> Letter with respect to Galaxy 28 at 89° W.L., which operates within six degrees of AMC-9 at 83° W.L., and with respect to Galaxy 3C at 95° W.L., Galaxy 19 at 97° W.L. and Galaxy 16 at 99° W.L., which each operate within six degrees of AMC-2 at 101° W.L.



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Jose Albuquerque  
Senior Director, Spectrum Engineering  
Intelsat