

June 5, 2008

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

Re: Engineering Certification of Intelsat

To Whom It May Concern:

This letter certifies that Intelsat is aware that Row 44, Inc. ("Row 44") is seeking a blanket authorization from the Federal Communications Commission ("FCC") 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 pursuant to ITU RR 5.504A. Row 44 is seeking an FCC authorization to utilize Intelsat's Horizons 1 satellites at 127° W.L.

Intelsat understands that Row 44's transmit/receive antenna is an AMSS steerable antenna manufactured by Aerosat Corporation designed to provide bi-directional broadband services to aircraft in flight. It supports reception and transmission in the 11.7-12.2 GHz /14.0-14.5 GHz band respectively, with independent linear polarized array antennas to and from a geostationary satellite in space. The antenna is a 64-element phased array that is 7" in height with an antenna face that is 24.375". The antenna 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. The antenna complies with Section 25.209 of the FCC's Rules with respect to the off-axis co-polarization gain in the plane of the geostationary satellite orbit and to the off-axis cross polarization gain, provided the skew angle (i.e., the angle between the antenna azimuth plane and the direction along the GSO at the corresponding satellite location) does not exceed 25°. The actual skew angle is constantly monitored by the antenna control system and the aircraft transmitter will be muted in the event that this skew angle of 25° is exceeded.

When communicating with the Horizons 1 satellite, Row 44 will operate its antenna within the 14.0-14.5 GHz FSS uplink band and the 11.7-12.2 GHz FSS downlink band with a maximum equivalent isotropically radiated power (EIRP) of 40.6 dBW. At the maximum power the associated power spectral density at the antenna flange is -14 dBW/4kHz and is compliant with FCC rules.

2008

Intelsat further accepts that the forward downlink (hub<sup>1</sup> to AES) maximum EIRP density is 13 dBW/4 kHz, which is routinely used at 2-degree spacing without causing unacceptable interference to adjacent satellite operators. Row 44 will maintain the forward downlink EIRP density and the off-axis EIRP spectral density by tight control of system operation that includes:

- 1) maintaining rms pointing error to be  $\leq 0.2$  degrees, relative to the intended satellite;
- 2) fault detection that terminates transmissions when out of tolerance conditions (including the antenna pointing error) are detected; and
- 3) continuous monitoring/oversight by ground network operations center (NOC).

Intelsat acknowledges that the use of the above referenced transmit/receive antenna by Row 44, installed and operated in accordance with the above conditions should not cause unacceptable interference into adjacent satellites operating in accordance with FCC's two-degree spacing policy, and is consistent with existing coordination agreements with all adjacent satellite operators. Intelsat itself operates two satellites with Ku-band capacity within six degrees of Horizons 1 (Galaxy 10R at 123° W.L. and Galaxy 27 at 129° W.L.). If the FCC authorizes the operations proposed by Row 44 in its application, Intelsat will include the antenna, as described above, in all future satellite network coordinations with other adjacent satellite operators. Row 44 shall comply with all such coordination agreements reached by the satellite operators.

In order to prevent unacceptable interference into adjacent satellites, Intelsat has been informed, and Row 44 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 license ultimately granted to Row 44. If the use of this

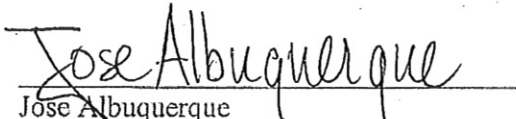
---

<sup>1</sup> The hub stations being used for this service are licensed to HNS License Sub LLC under Call Signs E000166 and E940460.

*207*

antenna should cause unacceptable interference into other systems, Row 44 has agreed that it will terminate transmissions immediately upon notice from the affected parties.

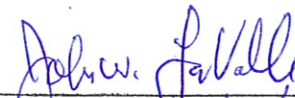
Sincerely,

  
\_\_\_\_\_  
Jose Albuquerque  
Senior Director, Spectrum Engineering  
Intelsat, LLC

5 June 2008

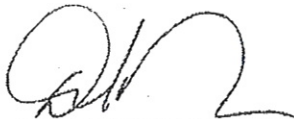
Acceptance by Row 44, Inc.:

Row 44 affirms that the information provided to Intelsat and reflected in this coordination letter is true and accurate to the best of Row 44's knowledge, information and belief, and that it shall comply with all relevant Intelsat coordination agreements, as provided herein.

  
\_\_\_\_\_  
John Guidon *John LaVall*  
President & CEO *COO & CFO*  
Row 44, Inc.

Acceptance by Echostar Corporation:

Echostar Corporation agrees to operation of the above antenna with the technical parameters described herein with respect to its Echostar 9 satellite at 121° W.L., which operates within six degrees of Intelsat's Horizons 1 satellite at 127° W.L.

  
\_\_\_\_\_  
5 JUNE 2008  
David Bair  
Senior Vice President  
Space Programs and Operations  
Echostar Satellite Corporation

HNS is working with Row 44, Inc. to test remote aeronautical Earth station equipment operating in conjunction with a Hub antenna (Call Sign E940460 in North Las Vegas, Nevada) licensed to HNS.