



ORIGINAL

January 21, 2009

Via Hand Delivery

Mr. James Burtle
Chief, Experimental Licensing Branch
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

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JAN 21 2009

Federal Communications Commission
Bureau / Office

**Re: Lockheed Martin Corporation
File No. 0234-EX-RR-2008**

Dear Mr. Burtle:

On December 16, 2008, SkyTerra Subsidiary LLC ("SkyTerra"), the licensee of AMSC-1 and SkyTerra-1 (formerly MSV-1), United States satellites licensed by the Commission to provide Mobile Satellite Service ("MSS") in the L band, filed a letter with the Office of Engineering and Technology ("OET") requesting the imposition of license conditions on the above-referenced renewal application of Lockheed Martin Corporation ("Applicant"), which seeks, *inter alia*, to transmit on frequencies authorized and operationally in use by SkyTerra's MSS satellite networks. On January 13, 2009, Applicant filed a letter opposing SkyTerra's request. Applicant's letter, however, does nothing to rebut the conclusion that its proposed testing presents a risk of interference to SkyTerra's MSS satellite networks.

Rather than addressing the technical basis of SkyTerra's objection to the application, Applicant argues simply that because no interference has been reported since the inception of its tests in 2004, "there is no reason to expect that interference would occur in the future." See Letter to James Burtle from Jennifer Warren, at 1 (January 13, 2009). Applicant's conclusory response, however, begs the question of whether proper steps are being taken to mitigate the potential for interference or whether interference has occurred but not been properly attributed and reported.

A technical review of Applicant's proposed tests readily highlights the risk of interference to SkyTerra. Applicant's proposed transmissions have an ERP of 316 Watts (25 dBW), which is more than 10 dB greater than the ERP of SkyTerra's mobile terminals. Applicant's transmitted signal has a 21 MHz bandwidth, and if the power were uniformly distributed across that bandwidth, then the power density may be relatively low. However, Applicant's transmitted signal is a FM video signal that tends to concentrate most of the power in a small portion of the overall bandwidth depending on the video signal, and to have concentrations of power at certain frequencies related to the vertical and horizontal synchronization pulses. Moreover, there is nothing in the renewal application or the original

SkyTerra LP

10802 Parkridge Boulevard, Reston, VA 20191-4334

T: +1 703 390 2700

www.skyterra.com



application to indicate that there are mitigating factors to consider, which would reduce the power radiated toward SkyTerra's satellites.

For these reasons, SkyTerra requests that the OET impose the following license condition on any authorization issued to the Applicant with respect to the above-referenced application:¹

SkyTerra Subsidiary LLC and its joint venture partner, SkyTerra (Canada) Inc., operate geostationary satellites between 101° W.L. and 107.3° W.L. in the 1626.5 – 1660.5 MHz band. For our present satellites, MSAT-1 and MSAT-2, in any direction between those longitudes and within 6° north or south of the geostationary arc, the composite EIRP density from the experimental transmitters shall not exceed -15 dBW/4 kHz. For our new satellites, which will be operational in 2010, the composite EIRP density from the experimental transmitters shall not exceed -30 dBW/kHz within 6° north or south of the geostationary arc between 101°W and 107.3°W.

Also, OET should require that the Applicant notify SkyTerra prior to commencing experimental operations and provide SkyTerra with a point of contact for this purpose.²

¹ The condition proposed in this letter provides further clarification regarding the relevant frequency bands and applicable limits, which depend on whether the current or next-generation satellites are in operation.

² In its letter, Applicant acknowledges that it will cease operation immediately if transmissions conducted under any license cause harmful interference to SkyTerra, as required by the Commission's rules. *See* Letter to James Burtle from Jennifer Warren, at 1 (January 13, 2009).



Please contact the undersigned with any questions.



Jennifer A. Manner

Vice President, Regulatory Affairs

SKYTERRA SUBSIDIARY LLC

10802 Parkridge Boulevard

Reston, Virginia 20191

(703) 390-2700



CERTIFICATE OF SERVICE

I, Jennifer A. Manner, hereby certify that on this 21st day of January 2009, I served a true copy of the foregoing by first-class United States mail, postage prepaid, upon the following:

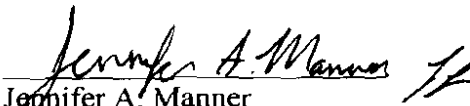
Ira Keltz*
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

James Burtle*
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

John Kennedy*
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Claude E. Wells
Lockheed Martin Corporation
195 Chesapeake Park Plaza
P.O. Box 4906
Baltimore, MD 21220

Jennifer A. Warren
Lockheed Martin Corporation
1550 Crystal Drive
Suite 300
Arlington, VA 22202


Jennifer A. Manner

*By hand delivery