MSV
Mobile Satellite Ventures LP

inmarsat

April 28, 2008

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

Re: Northrop Grumman Space & Mission Systems Corp.
File No. 0182-EX-PL-2008

Dear Mr. Burtle:

The above-referenced application by Northrop Grumman Space & Mission Systems Corp. ("Applicant") seeks an experimental license for a period of one year to transmit Continuous Wave ("CW") test signals at certain specified frequencies throughout the 20 – 3000 MHz band from a fixed position, ground-based emitter to receivers located on aircraft flown at altitudes of 30,000 feet or less. The test frequencies include L-band frequencies authorized for and operationally in use by Mobile Satellite Ventures Subsidiary LLC ("MSV") and Inmarsat (1525-1544/1545-1559 MHz (downlink) and 1626.5-1645.5/1646.5-1660.5 MHz (uplink)).[1] MSV is the licensee of AMSC-1 and MSV-1, United States satellites licensed by the Commission to provide Mobile Satellite Service ("MSS") in the L band, and provides, *inter alia*, critical communications services to public safety users. Inmarsat is the operator of several satellites that provide service to earth stations licensed by the Commission to provide MSS in the L band, and also provides critical communications to public safety users as well as safety of life services.

Based on a technical review of the application, the proposed testing appears to present a risk of interference to MSV's and Inmarsat's MSS satellite networks. The EIRP of test signals is 24.5 dBW, and that level is much higher than the EIRP of typical MSV and Inmarsat mobile terminals (MSV terminals have a 16 dBW maximum EIRP; Inmarsat terminal EIRPs range from around 0 dBW upwards, with most terminal types operating at less than 15 dBW EIRP). Therefore, on the L-band uplink frequency proposed by the Applicant, there is a risk of interference to MSV and Inmarsat signals at the receiver on the satellite. On the L-band downlink frequencies, there is a risk of interference to MSV and Inmarsat mobile terminal receivers in the vicinity of the Applicant's transmitter. The risk of interference is increased by the 30 meter height above ground of the antenna. MSV and Inmarsat recognize that the duty cycle of the interfering signal is less than 4%, however the EIRP of the signal is high and may

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1 The relevant L-band frequencies specified in the application are 1535.70, 1556.30, 1641.40 MHz. Additionally, Applicant has requested that it be assigned a replacement, adjacent frequency for any specified frequency that is denied or excluded.

cause interference at significant distances from the transmitters. Accordingly, MSV and Inmarsat request that the Office of Engineering and Technology ("OET") deny the application with respect to all L-band frequencies that are authorized for use by MSV and Inmarsat. Moreover, if the Applicant's transmissions cause harmful interference, the Applicant must immediately cease such transmissions, as required by the Commission's rules. *See* 47 C.F.R. § 5.85(c) (grant of all experimental authorizations conditioned on not causing any harmful interference); 47 C.F.R. § 5.111(a)(2) (licensee must cease transmissions if harmful interference to an established radio service develops). In this regard, OET should require that the Applicant notify MSV and Inmarsat prior to commencing experimental operations and provide MSV and Inmarsat with a point of contact.

Please contact the undersigned with any questions.

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CERTIFICATE OF SERVICE

I, Jennifer A. Manner, hereby certify that on this April 28, 2008, I served a true copy of the foregoing by first-class United States mail, postage prepaid, upon the following:

James Burtle*
Office of Engineering and Technology
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Jennifer A. Manner

*By hand delivery