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555 Eleventh Street, N.W., Suite 1000
Washington, D.C. 20004-1304
Tel: (202) 637-2200 Fax: (202) 637-2201
www.lw.com

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January 17, 2003

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

RECEIVED

JAN 17 2003

Re: ***Ex Parte Presentation:***
IB Docket No. 01-185;
File No. SAT-ASG-20010302-00017 et al.;
File No. SES-ASG-20010116-00099 et al.

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Dear Ms. Dortch:

This letter is written on behalf of Inmarsat Ventures plc as a response to the January 13, 2003 *ex parte* submission of Mobile Satellite Ventures (“MSV”). On December 20, 2002, Inmarsat objected to MSV’s last minute request to expand the scope of this proceeding to include the grant of ATC authority in connection with MSV’s current satellite system. Among other things, Inmarsat explained that there was no technical analysis in the record that would support such a grant of authority. Twenty-three days later, MSV provides the first statements about how it would implement ATC in conjunction with its existing satellite system.

MSV’s latest *ex parte* submission claims that ATC operations, in conjunction with MSV’s current MSS satellite operations, will not require any more spectrum than MSV currently uses for MSS-only operations. In fact, MSV states that the level of self-interference from ATC into its current satellite system would be even lower than would be the case with its next-generation satellite system. Such conclusions are not justified by the material included in the *ex parte* submission, nor by any other information previously submitted by MSV.

A clear understanding of this issue is important in order to implement the Commission’s uncontested proposal in paragraph 49 of the NPRM that “any additional spectrum requirements generated by terrestrial services should not be a factor for consideration in the annual coordination review” under the Mexico City MOU, which governs use of the L-band over North America.

There are several omissions and inconsistencies in MSV’s *ex parte* that cast grave doubt on the MSV assertion that it will not require additional L-band spectrum to implement ATC in conjunction with its current satellite system. In the very limited time available to Inmarsat to respond to this late submission of MSV, Inmarsat has identified the following specific problems:

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1. Inmarsat has previously submitted a detailed analysis (May 21, 2002 *ex parte*) demonstrating that, in the case of ATC operating in conjunction with the next-generation MSV satellite, large parts, if not all, of the MSV ATC service area will have no free spectrum available to it. This will mean that MSV will be obliged to request additional spectrum during the international ITU coordination process just in order to satisfy its proposed terrestrial system, and that would violate the international treaty obligations of the U.S.

2. Although a detailed analysis is not possible in the limited time available, the same principles apply for a situation where the current generation MSV satellite operates alongside an ATC system. The -10 dB gain contour of the AMSC-I beams extend well into the adjacent beam areas and thus would preclude co-channel ATC operation to only very small parts, if any, of the adjacent beams. This, coupled with the frequency reuse applied by the current generation MSV satellite, would lead to areas where no MSS spectrum is available for reuse by ATC in the same way as Inmarsat demonstrated in its May 21 *ex parte* would be the case for the next generation MSV satellite. This problem is exacerbated by the fact that one of the AMSC-I beams has been deactivated due to degraded performance. The only way around this would be for MSV to intentionally implement a very inefficient channel-beam plan on its existing spacecraft simply to accommodate the ATC system. Such a course of action by MSV---retaining access to L-band spectrum for non-MSS use---would contravene the Mexico City MOU and therefore should not be permitted.

3. The uplink analysis of MSV assumes an average MSV satellite antenna gain of 29 dBi. First, it is inappropriate to use the average gain since satellite gain contours are expressed relative to the peak gain. Secondly, even accounting for the fact that the peak gain is higher than the average, the 29 dBi gain appears inconsistent with (lower than) the AMSC-I satellite design, as proposed in 1992, where a peak gain of 36 dBi is quoted¹, and is also inconsistent with data submitted in the ITU frequency coordination process. This parameter is important as it directly impacts the level of self-interference into MSV's AMSC-I satellite. By using what appears to be an artificially low gain value here, MSV is significantly understating the real level of the self-interference from ATC. This calls into question MSV's claimed ATC capacity, and thereby further supports the likelihood that MSV will require access to additional L-band spectrum as a result of its ATC operations.

4. In addition to the above, Inmarsat does not agree with many of the other assumptions used by MSV when calculating ATC interference to both the MSV and Inmarsat satellite uplinks, as explained in detail in Inmarsat's previous submissions on this subject. These include the assumed values for the following parameters: Average Shielding, Average Power Reduction due to Closed-Loop Power Control, Average Power Reduction due to Variable Rate Vocoder, Average Polarization Isolation and Voice Activity Factor. If realistic values for these parameters are assumed then the required satellite antenna isolation will become significantly

¹ See *id.*

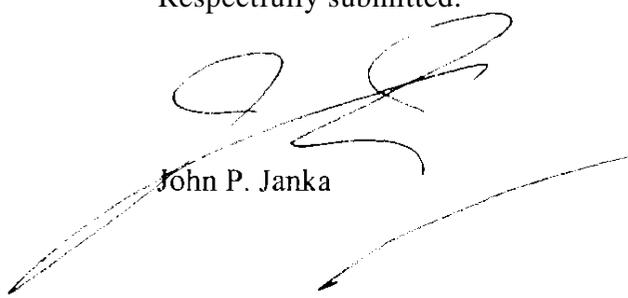
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greater than the 10 dB assumed by MSV, and consequently the areas where no MSS spectrum is available for reuse by the MSV ATC system become considerably larger.

An original and five copies are enclosed

Respectfully submitted.



John P. Janka

cc:

Bryan Tramont
John Branscome
Paul Margie
Sam Fedcr
Barry Ohlson
Ed Thomas
Bruce Franca
Lisa Gaisford

Bob Eckert
Rick Engelman
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Breck Blalock
Ron Repasi
Paul Locke
Trey Hanbury