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MSV
Mobile Satellite Ventures

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

January 21, 2003

Via Electronic Filing and Hand Delivery
Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Mobile Satellite Ventures Subsidiary LLC
Ex Parte Presentation
IB Docket No. 01-185 (Electronic Filing)
File No. SAT-ASC-20010302-00017 et al. (Hand Delivery)

Dear Ms. Dottch:

Peter Karabinis and Lon Levin of Mobile Satellite Ventures Subsidiary LLC ("MSV") and Bruce Jacobs of Shaw Pittman LLP, on behalf of MSV, met today with Breck Blalock, Robert Eckert, Rick Engelman, Bruce Franca, Trey Hanbury, Paul Locke, and Ron Repasi. MSV articulated the following positions:

1. The threshold for unacceptable Interference to Inmarsat should not be set any lower than a 6 percent increase in Inmarsat's noise floor. Below this threshold, the ITU rules do not even consider coordination between satellite systems to be necessary. In practice in the L-band, the coordination agreements have been based on a great deal higher potential increase in each satellite system's noise floor. The Canadian COMTEK study shares the view that a significantly greater than six percent increase in the noise floor should be acceptable. COMTEK Associates Inc., "Final Report Prepared for Industry Canada: Use of Mobile Satellite Spectrum to Provide Complementary Terrestrial Mobile Service to Improve Satellite Coverage," (November 5, 2002), Section 2.9.1 (p 21). MSV's analysis shows that in the worst co-channel case in which there is only 20 dB of isolation between an Inmarsat-4 satellite beam and MSV's system, the rise in the noise floor would be only 3.37 percent.

2. The uplink interference analysis should take account of the antenna patterns of mobile terminal equipment and the randomness of their orientation with respect to any satellite. Typical terrestrial wireless handsets use antennas with a doughnut-shaped pattern that will produce, on the average, substantially less than maximum power in the direction of any satellite, In fact such antennas have a null in the direction of their axis. *See* "Effects on Portable Antennas of the Presence of a Person." IEEE Transactions on Antennas and Propagation, Vol. 41, No. 6, June 1993. As such, a mobile that is specified to radiate a maximum of 0 dBW EIRP, will not do so in all directions. Given a large number of randomly distributed mobiles, the aggregate radiated power in any given direction will be approximately 3 dB less than maximum. This

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effect is different from body shielding, as the cited paper indicates, and is present with or without the human body in proximity to the mobile.

3. Any order should make clear the extent to which limits on MSV's deployment of ATC are based on a specific worst-case co-channel analysis. The order should not restrict MSV's non-co-channel operations, since it has been amply demonstrated that the increase in the noise floor to Inmarsat is trivial in the case of adjacent channel interference. The order also should make clear what showing by MSV will be sufficient to convince the Commission to relax its co-channel restrictions, since MSV has shown that the increase in Inmarsat's noise floor diminishes substantially as isolation between the systems increases.

Very truly yours,

Peter D. Karabinis, Ph.D.
Vice President and Chief Technical Officer

Lon C. Levin
Vice President

cc: Chairman Michael Powell
Commissioner Kathleen Q. Abernathy
Commissioner Michael J. Copps
Commissioner Kevin J. Martin
Commissioner Jonathan S. Adelstein
Bryan Tramont
Sam Feder
Paul Margie
Jennifer Manner
Barry Ohlson
Bruce Franca
Rick Engelman
Chris Murphy
Ron Repasi
Breck Blalock
Paul Locke
Trey Hanbury
Robert Eckert
John Janka, Counsel for Inmarsat (via e-mail)