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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Via Hand Delivery
Ms. Marlene H. Dortch
Secretary
Federal Communications Commission

Re: Ex Parte Presentation
IB Docket No. 01-185, Flexibility for Delivery of Communications by
Mobile Satellite Service Providers in the 2 GHz Band, the L-Band,
and the 1.6/2.4 GHz band;
File No. SAT-ASG-20010302-00017 et al., Application of Mobile
Satellite Ventures Subsidiary LLC to Launch and Operate a Next-
Generation Satellite System

Dear Ms. Dortch:

Mobile Satellite Ventures Subsidiary LLC ("MSV") hereby files an original and four (4) copies of the attached paper entitled "Analysis of Out-of-Channel Emission Levels of MSV's Base Stations Relative to Safety and Rescue (SAR) Receivers" for inclusion in the record of the above-captioned proceedings.

Very truly yours,



David S. Konczal

cc: Paul Locke

ORIGINAL

**ANALYSIS OF OUT-OF-CHANNEL EMISSION
LEVELS OF MSV's BASE STATIONS RELATIVE
TO SAFETY AND RESCUE (SAR) RECEIVERS**

October 25, 2002



Mobile Satellite Ventures LP

10802 Parkridge Boulevard
Reston, Virginia 20191
USA

ORIGINAL

Based on the inputs that MSV has received from Ericsson, the Out-of-Channel Emissions (OOCE) level of MSV's ancillary terrestrial base stations (relative to the in-channel carrier level) is expected to be less than, or equal to, -61 dBc/MHz, per carrier. The table below illustrates that as long as a Search and Rescue (**SAR**) receiver site is at least 5 km away from a MSV base station, the interference produced by that base station will be below the maximum allowed level, satisfying $I/N \leq -9$ dB. The analysis takes into account the antenna down-tilt configuration of the base station (10 dB EIRP reduction in the direction of the horizon relative to antenna bore-sight) and assumes Walfisch-Ikegami line-of-sight propagation.

We understand that there are relatively few SAR receive sites that are likely to be within several kilometers of MSV's base stations. Based on this analysis, **we** would expect to be able to coordinate the operation of those base stations using one or more of the following approaches:

- 1) Judicious antenna pointing to further reduce the EIRP that **is** launched in the direction of the **SAR** receiver.
- 2) Inclusion of a notch filter in the transmitter of a base station to further reduce the OOCE in the **SAR** band.

Calculation of Potential Interference from MSV's

SAR LEO LUT:		
$G/T =$	dB	4
$G_r =$	dB_i	21
LUT Noise Temperature T =	dBK	23
Boltzman's Constant k =	dBW/Hz-K	-228.6
kT = No =	dBW/Hz	-205.6
Maximum Allowable Interference to Noise Ratio I/N =		
	dB	-9
Max I_o at LUT receiver =	dBW/Hz	-214.6
MSV BTS:		
BTS Peak EIRP =	dBW	19.1
BTS Peak EIRP toward Horizon	dBW	9.1
Voice Activity Factor & Closed Loop Power Control	dB	-10
Carriers per Base Station Sector		3
Effective EIRP	dBW	3.9
Out-of-Channel Emissions =	dBc/MHz	-61
Out-of-Channel Emissions Density I_o =	dBW/Hz	-117.1
Net Isolation Required =	dB	124.5
Frequency =		
	MHz	1545
Walfisch-Ikegami Line-of-sight (LOS) Distance =		
	km	5.0