

such allocations occur, and the Commission makes those frequencies available for System X and/or System Y feeder links then System X and/or System Y will migrate their feeder link operations out of the lower Transit Band, and ORBCOMM and Starsys will migrate their feeder link operations into the lower Transit Band.

E-SAT Spectrum Use Plan

Uplink 148-150 MHz Band

E-SAT will use a Direct Sequence Spread Spectrum technique over a 1.4 MHz bandwidth. This band will be from 148.450-149.900 MHz.

Downlink 137-138 MHz Band

This link will be a Direct Sequence Spread Spectrum technique over a 1 MHz bandwidth. This band will be from 137-138 MHz.

Interference

1. Narrowband users

E-SAT's power flux density (pfd) in both the space-to-Earth and Earth-to-space directions will be below the receive threshold of narrowband users of the band. Because E-SAT will operate with a pfd of $-158 \text{ dBW/m}^2/4\text{kHz}$ (downlink-measured on the ground), and $-161 \text{ dBW/m}^2/4\text{kHz}$ (uplink - measured in space), narrowband users of the band will not be able to detect the E-SAT signal.

2. Spread-spectrum users

E-SAT will use an opposite circular polarization from Starsys and will use different CDMA code strings to allow co-frequency sharing. In the case of the uplink, E-SAT's center frequency (149.175) will be offset from the center frequency of Starsys. E-SAT will pick a code set that is orthogonal to that used by Starsys in both uplink and downlink.

E-SAT will not operate co-frequency with S-80.

Concerns have been raised that E-SAT's use of uplink frequencies (148.905 to 149.900 MHz) may effect the operation of some DCAAS systems utilized by TDMA/FDMA operators. Several operators have proposed a DCAAS design, not yet operable, which E-SAT has addressed with several possible solutions. E-SAT will continue coordination with these operators as they complete their monitor design characteristics.

CERTIFICATE OF SERVICE

I, Peter A. Batacan, hereby certify that on this 5th day of August 1997, I caused copies of the foregoing **Ex Parte Presentation of Final Analysis, Inc. in IB Docket No. 96-220** to be served on the parties listed below via First-Class mail, postage prepaid. Those parties marked by an asterisk were served via hand delivery.

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