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December 4, 1996

EX PARTE

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington, DC 20554

RE: Amendment of the Commission's Rules to Provide for Unlicensed
NII/SUPERNet Operations in the 5 GHz Frequency Range
(ET Docket No. 96-102)

Dear Mr. Caton:

On Tuesday, December 3, 1996, Kathleen Abernathy and I, on behalf of AirTouch Communications; Bill Wallace and Dave Weinreich, on behalf of Global Star; Cheryl Tritt, Charles Kennedy, Kumar Singarajah, on behalf of ICO; and Nancy Thompson, Sam Nyuen, and Jeff Binkes, on behalf of Comsat met with Ruth Milkman, Tom Tycz, Damon Ladson, and Joseph Heaps to discuss issues relating to this proceeding and he requested the attached. Please associate the attached material with the above-referenced proceeding.

Two copies of this notice are being submitted to the Secretary of the FCC in accordance with Section 1.1206(a)(1) of the Commission's Rules.

Please stamp and return the provided copy to confirm your receipt. Please contact me at 202-293-4957 should you have any questions or require additional information concerning this matter.

Sincerely,

Donna L. Bethea

Attachment

cc: Joseph Heaps
Damon Ladson
Ruth Milkman
Tom Tycz

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**Amendment of the Commission's Rules to Provide for
Unlicensed NII/SUPERNet Operations
in the 5 GHz Frequency Range**

(ET DOCKET NO. 96-102)

December 3, 1996

AirTouch Comm.
Comsat
Globalstar
ICO

Background on MSS

- June 1991 Globalstar Submits Mobile Satellite Service (MSS) Applications.
- WARC - 1992 The US Achieves International Allocation of MSS Service Link Spectrum in the 2 GHz Band.
- Early 1993 The FCC and Industry Begin Working Toward the International Allocation of MSS Feeder Link Spectrum.
- The FCC Begins the Licensing Process for the Big Leo Service Link Spectrum; Feeder Link Spectrum Awaits International Allocation.
- May 1995 WinForum and Apple Petition the FCC for a Rulemaking to Allocate the 5 GHz Band and Adopt Service Rules for a Shared Unlicensed Personal Radio Network.
- WRC - 95 The US Industry and Government are Successful in Winning a Global Primary Allocation of MSS Feeder Link Spectrum in the 5091-5250 MHz Band.

NPRM Proposal

- Allocation of 350 MHz of the 5 GHz Band to Support the Operation of Unlicensed, Short-Range, High Speed Wireless Communications.
- Adoption of a “Safe Harbor” Rule for Part 15 Devices.
- Adoption of a 100 mW EIRP Limit.
- Listen Before Talk Protocol

MSS Concerns

- Deployment of MSS Systems are near completion
 - Most design parameters have been finalized
 - Significant changes are not feasible

- Key parameters of SUPERNet devices must be established to limit the potential for interference into NGSO MSS feeder links

- Proposed “safe harbor” rule inconsistent with Telecommunications Act and does not ensure protection against harmful interference for licensed users by unlicensed devices

Proposed Solution

IN THE 5150 - 5250 MHz Band:

- EIRP (Peak) Spectral Density: 100 mW per 10 MHz
For any channel bandwidth, limit maximum burst-peak transmit EIRP to 10 dBm/MHz
- NO Outdoor Use
Device to disable transmissions or switch over to non cochannel frequency band when a portable unit is unable to decode a signal from an indoor fixed access point

Inter-building fixed point-to-point or point-to-multipoint links prohibited

Long Term Implications for MSS

Second Generation MSS Systems will likely be more sensitive to interference

Trend toward smaller gateway antennas

More sensitive satellite front ends

Implications of future MLS use of the band

Proposed Solution

Limit Aggregate EIRP density emissions from the Earth's surface to 10 dBW/MHz

This corresponds to a power flux density of -124dBW/MHz/m^2 , at an altitude of 1414 km

Proposed Part 15 Regulatory Provision

(to avoid non-NII//SUPERNet use of the Spectrum)

Keep restricted bandwidth in Section 15.205(a) to “4.5-5.25 Ghz” and add a footnote which reads:

This restriction is limited to the band 4.5-5.15 GHz for NII/SUPERNet devices operating in accordance with Subpart E

International Situation

European Situation:

- CEPT ERC has adopted an ERC Decision on October'96 on designation of spectrum for Hiperlan Type 1 use in the 5150-5250 MHz band and additionally at a national level in the 5250-5300 MHz band.
- CEPT ERC is developing a draft ERC Decision on Approval Regulations for Hiperlan in the above bands. This pending Decision will specify the spectrum management parameters (for example EIRP limits) to be adopted by individual CEPT Administrations as part of the national licensing requirements. MSS proponents have indicated that no outdoor use should be authorized in the 5150-5250 MHz range. The CEPT process will NOT conclude on this draft Decision until second quarter 1997.