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October 7, 1994

EX PARTE

Mr. William Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D. C. 20554

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OCT 7 1994

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Re: GEN Docket No. 90-314

Dear Mr. Caton:

AirTouch Communications ("AirTouch") has reviewed the proposal of ArrayComm, Inc. entitled Broadband PCS Radio Frequency Emissions Proposal, Revision 1.4.3., by R. Roy and M. Goldberg, filed with the Commission on May 9, 1994 and resubmitted July 24, 1994 as an exhibit to their Petition for Further Reconsideration and Request for Clarification. Although AirTouch did not file formal comments in response to the Petition, AirTouch submits this Ex Parte in support of the rule changes proposed by ArrayComm.

As set forth in ArrayComm's Petition, increased PCS base station power levels alone do not fully achieve the Commission's objectives of spectral efficiency, public safety and interference management. Specifically, the concepts of peak directional radiated power and average radiated power from PCS base stations should be incorporated into the rules to accommodate the use of "smart antennas" that selectively direct RF energy toward intended receivers. As the Commission has recognized, the use of high-gain directional antennas offers an effective and efficient means of increasing coverage area, greatly improving the overall economics of a PCS system.

Additionally, by providing for power limits in terms of watts per channel rather than per unit of bandwidth, the rules encourage narrower channels and thus favor TDMA rather than CDMA technologies. Such a result is inconsistent with the Commission intent to adopt technology-neutral operating rules, and it also limits licensee flexibility.

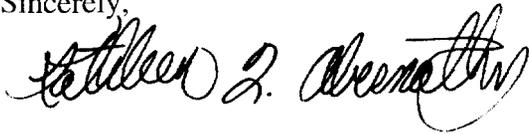
At a minimum, AirTouch supports the clarification sought by ArrayComm that the power limits adopted apply to individual base stations without regard to the number of radio transceivers employed at each base station, the power amplifiers and antenna elements

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(active or passive) to which each transceiver is connected, or the channels in which each transmitter is allowed to transmit. This interpretation will facilitate the use of multiple transmitter, multiple antenna element base stations.

In summary, AirTouch urges the Commission to reconsider its power limitations and adopt ArrayComm's proposal to use average carrier power flux density with peak limitations (temporal and spatial) rather than radiated carrier power alone. Power limits should apply equitably regardless of the air interface employed, and should accommodate new directional antennas with multiple transmitting elements per channel.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathleen Q. Abernathy". The signature is fluid and cursive, with the first name being the most prominent.

Kathleen Q. Abernathy

cc: Richard B. Engleman