

Exhibit I

Research and experimentation in time division duplex high-speed data transmission.

A single channel is to be used for transmission of 25.6 kbps data in a semi-duplex mode for communication primarily from fixed locations to hand held receivers. This program is related to the Pioneer's preference granted Mobile Technologies to develop a PCS system in the 940 band and is described more fully in their proposal.

The objectives are to investigate propagation models, including simulcast performance, to test and confirm coverage predictions from such models, to develop protocols for handling the high-speed data both to the hand-held units and from them, encompassing slotted ALOHA and other approaches to contention resolution, and finally to determine the desired performance specifications of both fixed and mobile RF portions of the system.

Current approaches to data transmission typically utilize a single FSK carrier operating the PA in class C or higher modes. Part of the investigation entails mixing four FSK subcarrier into a single PA and minimizing the harmful effects, primarily IM, of such mixing.