

Interstate Mobilephone Service, Inc.
Application for Experimental License
FCC Form 442
Item 10
Exhibit 1

Explanation of Proposal

Interstate Mobilephone Service, Inc. ("IMS"), requests an experimental license to conduct tests in the 1850-1990 MHz band within a 50 km radius of a designated point in Kirkland, Washington. The specific purpose of the test will be to evaluate the propagation of signals in the emerging technologies band which will lead to the development of equipment for and design of broadband PCS systems for which its sister company, AT&T Wireless PCS Inc., is authorized.

In this proposed experiment, IMS will use two vans each of which is equipped with signal generation equipment more fully described in the 442 Form to which this exhibit is attached. The vans are also equipped with variable height masts which can be used to mount antennas. However, in certain circumstances as more specifically described in Exhibit 2, other antenna structures will, from time to time, be utilized. By using the vans and antenna structures, IMS will obtain real-world propagation results for wideband technology to be deployed for broadband PCS systems which will serve to bring the benefits of PCS services to subscribers at the earliest possible time. Accordingly, grant of the instant application for an experimental authorization will serve the public interest, convenience and necessity.

Antenna Structure Information

As noted in Exhibit 1, the tests to be conducted under the proposed experimental authorization will be performed by using mobile vans each of which will be equipped with signal generation equipment. Tests to be conducted may use one or more of the following antenna configurations:

- (1) the transmit antenna will be mounted on a variable height mast mounted on a test van or directly on the ground, in which case it will extend no more than six meters above the ground;
- (2) the transmit antenna will be mounted on top of a building, in which case it will extend no more than six meters above the top of the building; and,
- (3) where no appropriate building or similar structure is available, the transmit antenna will be mounted on a variable height mast capable of antenna heights up to a maximum of 140 feet AAT.

In case no nearby natural terrain features or buildings of the sort identified in Section 17.14(a) of the Commission's rules would afford shielding to avoid any potential adverse impact on air navigation, and for the period during which the tests are conducted, the test antenna site(s) shall be selected to ensure that the height of the antenna is not greater than an imaginary surface extending outward and upward at any of the following slopes:

- (1) 100 to 1 for a horizontal distance of 6.1 km (20,000 feet) from the nearest point of the nearest runway of any airport that is either operated by an armed force of the U.S. or is available for public use and is listed in the Airport Directory of the current Airman's Information Manual, or is under construction and may become operational during the period of the subject test, and which has

at least one runway more than 0.98 km (3,200) feet in actual length, excluding heliports, and;

(2) 50 to 1 for a horizontal distance of 3.05 km (10,000 feet) from the nearest point of the nearest runway of any airport that it either operated by an armed force of the U.S. or is available for public use and is listed in the Airport Directory of the current Airman's Information Manual, or is under construction and may become operational during the period of the subject test, and which has at least one runway more than 0.98 km (3,200 feet) in actual length, excluding heliports, and;

(3) 25 to 1 for a horizontal distance of 1.52 km (5,000 feet) from the nearest point of the nearest runway of any airport that is either operated by an armed force of the U.S. or is available for public use and is listed in the Airport Directory of the current Airman's Information Manual, or is under construction and may become operational during the period of the subject test.