AT&T Labs
Application for Experimental License
FCC Form 442

Explanation of Experiment and Additional Information

AT&T Labs, part of AT&T Corp., supports AT&T Corp and its subsidiaries in a variety of research and experimental programs. With regard to the instant application, AT&T Labs is specifically supporting AT&T Wireless in a program of ongoing research to investigate technologies for advanced wireless systems.

The instant application seeks authority to allow AT&T Labs to conduct tests to develop capacity enhancements for IS-136 technology, including but not limited to, testing smart antennas and interference suppression. In addition, this application seeks authority to test advanced antenna techniques for diversity, interference suppression, equalization and higher data rates for EDGE technology. AT&T Labs will use the authorization to conduct propagation channel characterization and modeling for future services and to test advanced high-speed wireless packet data services.

To properly assess the viability of these techniques, field experiments in an actual wide-area mobile environment must be performed.

To ensure that tests conducted are meaningful, AT&T Labs has selected the 2110-2200 MHz band. It proposes to use a wide variety of mission types including NON, 30K0D7W, 200KD7W, 800KD2D, 1M60D2D, 12M0A7W, 12M0F9W and 12M0G9W.

Most tests will be conducted from a fixed base station located at AT&T Labs, 200 S. Laurel Avenue, Middleton, NJ (40-8-38 N. Lat./74-24-11 W. Long.) and will consist of 5 mobile units generally operating within an 18 km radius of the base station transmitter. However, the application seeks authority to operate in North and Central New Jersey from time to time and to conducts some testing in the city of Newark, NJ.

The antennas will be mounted on 2 arms of a proposed 18 meter tower which will be located on top of AT&T's 5 story building. The antennas will be mounted close to the 18 meter level. One will be pointed 65 degrees east of Geodetic North and one will be pointed 300 degrees east of Geodetic North. Though antennas will be mounted more than 6 meters above the top of the building, AT&T Labs has determined that the proposed tower does not require notification to the FAA. In all situations concerning this application and any tests conducted pursuant to the experimental authorization sought, AT&T Labs will ensure that antennas are mounted such that no hazard to air navigation is implicated and appropriate notifications will be made to the FAA, to the extent necessary.

Questions, communications and copies of all authorizations should be directed to David Jatlow, counsel for AT&T Labs. Phone: (202) 416-6540; e-mail david.jatlow@youngjat.com