STATEMENT OF EXPERIMENTATION PROPOSAL

The tests to be conducted under this experimental license are intended to establish the performance characteristics of various terrestrial microwave point-to-point antennas currently in production by different manufacturers. The antenna testing will evaluate both mechanical and electrical performance, including gain, beamwidth and discrimination in an outdoor environment of roof-top and tower deployments. Conformance with manufacturer stated Radiation Pattern Envelope (RPE) and FCC standard A and B requirements will be measured. Tests will measure if significant deviations from manufacturer stated RPE and other characteristics are possible from near-field and other environmental factors in typical deployments.

Testing will involve establishing a point-to-point link on a short path between two transmit sites with antennas bore-sighted towards each other. Then one side of the link will be operated in receive only mode with its transmitter shut off. The antenna at this site can then be rotated off its boresight orientation to measure its discrimination pattern. The radio transceivers that can be used in this testing are not unique, however we currently plan to use Ceragon 1500p equipment.

The data collected from these experiments can be used to improve the accuracy of interference analysis during microwave point-to-point frequency co-ordination studies. Results from these tests will also assist AT&T in antenna selection for various commercial microwave radio deployments.