Exhibit 1

(In Response to Item #4 Particulars of Operation)

The applicant GTE Laboratories Incorporated request authorization to conduct experimental research and testing in various frequency bands for the purpose of characterizing signal propagation and performance as described herein:

Experimental Overview

In order to better meet the growing public demand for wireless communication networks, GTE Laboratories Inc. (GTE Labs) proposes to conduct a series of experimental RF propagation and performance test for the frequencies listed within this request (refer Item #4 FCC form 442). GTE Labs' objective is to develop reliable system design techniques and applications for evolving services like Wireless Local Loop. The research to be conducted will apply to those conventional frequency bands currently allocated for Cellular, PCS, MMDS, and LMDS services.

Upon grant of this experimental authorization GTE Labs will construct RF Test Beds to conduct evaluation test and system performance measurements of commercially available wireless vendor equipment being considered for deployment within GTE's domestic telecommunications network. GTE Labs is extremely interested in characterizing RF propagation channels for both narrow band and wide band applications as they would apply in a wireless local loop deployment scenario. GTE Labs has developed the tools required to perform the aforementioned test and experiments, gather the statistical information to improve its accuracy of modeling a given RF propagation channel.

The designated test bed area will be within a 35 miles radius of GTE Laboratories Incorporated's headquarters located at 40 Sylvan Road in Waltham, MA extending to designated and various wireless local loop subscriber locations. All the frequency bands will be analyzed and prior coordinated with the regional licensee where required pursuant to the Commissions' rules, GTE's objective is to ensure a non-interfering RF environment during the periods of active system testing.

Wireless Local Loop Test Bed

Fixed wireless local loop service featuring both high quality voice and high speed data is a requirement for future alternative to ***wireline*** telecommunications services. To successfully deploy this type of wireless service, a very accurate RF path loss prediction and modeling tool is essential to the detailed planning cycle. GTE Labs' will be employing such a tool in its evaluation of propagation characteristics of fixed wireless local loop equipment operating in the

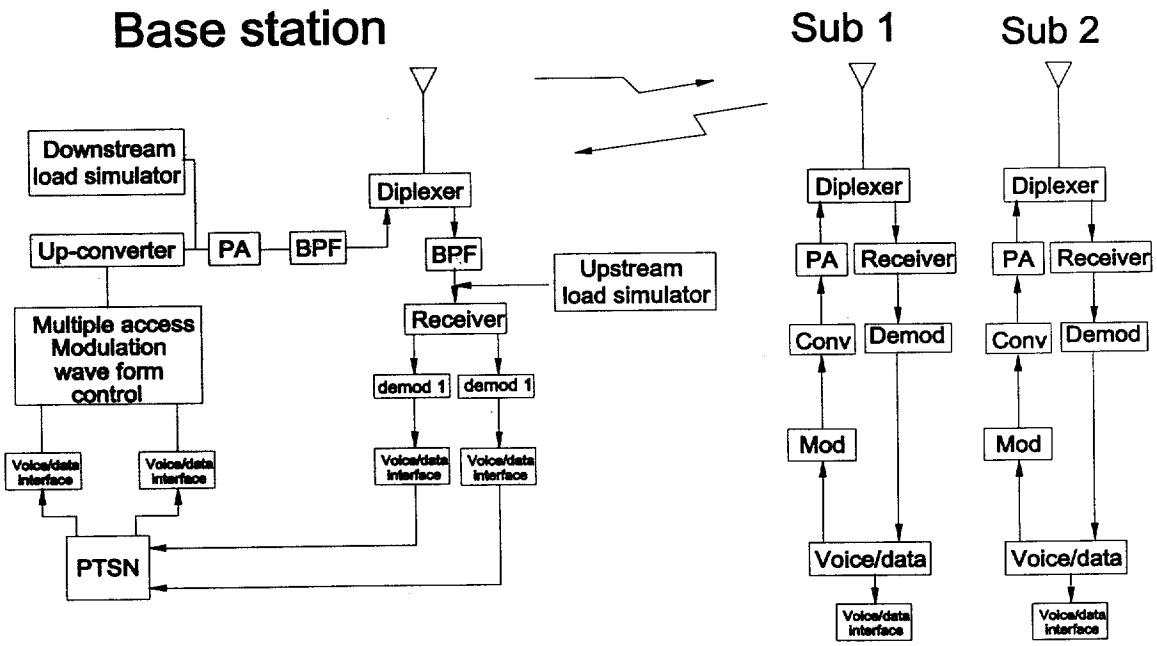
Cont: Exhibit # 1 Experimental Overview
GTE Laboratories Incorporated

Cellular, PCS, MMDS, and LMDS frequency bands. Concurrently the industry standard access technologies of CDMA and TDMA will be evaluated for performance relative to voice and data quality contributions and the following modulating waveforms known as DQPSK, OFDM, 16-QAM, and 64-QAM will be used and evaluated during the same experimental period. Refer to Figure 1 **"General Wireless Local Loop System Test Bed"** and Table 1 **"Estimated Link Budgets for Wireless Local Loop Experiments".**

Cont: Exhibit #1
GTE Laboratories Incorporated

Figure 1

General Wireless Local Loop System Test Bed



Cont: Exhibit #1
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Table 2

Estimated Link Budgets for Wireless Local Loop Experiments

Quantity	1900 MHz	2500 MHz	5800 MHz	28000 MHz
Thermal noise, dBm/Hz	-174	-174	-174	-174
BW, MHz	6	6	6	6
BW, dB	67.8	67.8	67.8	67.8
Noise figure, dB	3	3	5	8
Noise floor, dBm	-103.2	-103.2	-101.2	-98.2
Min C/N, dB	25	25	25	25
Receiving ant gain, dB	20	24	24	34
Required received power, dBm	-98.2	-102,2	-100.2	-107.2
Max distance, miles	40	30	10	5
Path loss, dB	134	134	132	139
Margin, dB	10	10	10	10
Required EIRP, dBm	46	42	42	42
Required EIRP, watts	40	16	16	16

Exhibit 2
(In Response to Items 4 (E), (F), and (G) on form 442)

The Emission Type, Modulating Signal and Necessary Bandwidth will be addressed simultanously within this exhibit. It is the intention of GTE Laboratories to test the performance of the following different modulating formats as follows: QPSK, 16-QAM, 32-QAM, 64-QAM, 128-QAM, and 256-QAM. The data rate employed will be commensurate with the bandwidth requested.

Emission Type (Item 4E): For fequencies 824-944 Mhz, 1850-1990 MHz , 2150-2162 & 2500-2700 MHz, 5725-5850 MHz, and 27,000-32,000 MHz.
The carrier will be modulated in a selected modulation format by using a data sequence or digitized voice or both at a data rate commensurate with bandwidth requested.

Modulation Signal (Item 4F): For same frequencies shown in Item 4E above.
The Modulating signal will be 3.125Mb/sec to 50Mb/sec bit rate, either a digital voice, or a data sequence, or both at a data rate that is commensurate with the bandwidth requested and modulation format used.

Necessary Bandwidth (Item 4G): For the same frequencies shown in Item 4E above.
The necessary bandwidth required for this experimental license is equal to two times the modulating signal which will typically be 2*3.125Mb/sec=6.25MHz up to 2*50Mb/sec=100MHz.

The frequencies and operational specifications described herein will feature four to eight low power subscriber terminals designated to communicate with its base station. The subscriber transceiver may be located either on a mobile van parked in different locations or on a "test subcribers" roof to simulate residential fixed service. Ideally we will be transmitting to various assigned subcriber locations within a 35 miles radius of GTE Laboratories Incorporated headquarters at 40 Sylvan Road, Waltham, MA.

Exhibit 3
(In response to items 5 (a) and (b) on form 442)

Directional Antennas:

The use of directional antennas and their effect on signal propogation, and multipath will be investigated. The maximum *effective radiated power (ERP)* from the antenna will be kept to within the limits as specified in item 4 (c) of our form 442. The most appropriate gain and beam width will be investigated, and their effects on system performance will be recorded.

Some of the proposed antenna types per frequency band being investigated are listed below:

Directional Antenna for 824-944 MHz

Model: ASPG 962G	10dB Gain with a 52° Half Power Beamwidth (43° Vertical BW)

Directional Antenna for 1850-1990MHz

Model: APV 194615, Celwave	11.2 - 14.6 dB Gain with a 46°-110° Half Power Beamwidth (14° Vertical BW)

Directional Antenna for 2150-2162 and 2500-2700 MHz

Model: 998-21.5/26 Comm. Energy Corp	16.0 dB Gain with a 26° Half Power Beamwidth (21.5° E-plane BW)

Cont: Exhibit 3
GTE Laboratories Incorporated

Directional Antenna for 5725-5850 MHz

Model: HRN-V-5-15-90, Radio Waves	15 dB Gain with 90° Half Power Beamwidth (9° Vertical BW)

Directional Antenna for 27000-32000 MHz

Model: BCA 90° Andrew Sector Antenna	21 dB Gain with 90° Half Power Beamwidth (3 ° Vertical BW)

Exhibit 4
(In response to items 10 (a), (b), and (c) on form 442)

Item 10(a)-Description and Theory of Operation

GTE Laboratories Incorporated with its technical resources are involved in the evaluation of various wireless technologies being considered for domestic deployment as a suitable alternative for wireline (copper wire) facilities within GTE's nationwide network. The technologies being considered for evaluation are essentially commercially available products currently deployed as either mobile systems or international wireless systems, now being retooled (modified) for US domestic markets.

GTE is extremely interested in validating the performance specifications of several products as viable wireless alternatives for its suburban and rural residential markets. Wireless Local Loop technology featuring high quality voice, data, and video capabilities have become "table stakes" in to days telecommunications industry. By granting this request for an experimental license the Commission will serve the public interest by permitting GTE Laboratories Incorporated to perform vital system performance test, gather essential data to model and design optimal wireless systems, and ensure the continued efficient use of valuable RF spectrum is maximized.

The equipment to be used in this experimental process, excluding the antenna configurations listed in Exhibit #3, are listed below:

1. Comwave SD1500 Transmitter
2. Dudley Lab TWT Amplifier
3. MPD Power Amplifier 1850-1965 MHz
4. MPD LWA 8689-25/15302 869-894 MHz Power Amplifier

This operation will consist of extensive experimental propagation measurements to be made at various fixed geographical locations to obtain the data required for proper characterization of residential wireless communications services. The collected data will then be processed using signal processing software so that RF coverage predictions, recommendations, and /or conclusions can be made as to the

performance of the proposed wireless local loop systems. The proposed test bed environment will permit testing relative to fixed geographic locations, climate and seasonal changes, multiple frequency bands, and various signal modulation schemes.

Item 10(b)-Objective

GTE Laboratories Incorporated seeks to validate the performance of various Wireless Local Loop system architectures under a variety of controlled RF test bed conditions. The information gathered will allow GTE Corporation and its operating entities the opportunity to develop standardized engineering application guidelines based on the measured RF propagation data and system performance test results. Immense strides in research and technology development by wireless system manufactures, requires the need to upgrade GTE's design procedures based on new systems, their applications, and data gathered as proposed herein.

Item 10(c)-Contribution

GTE Laboratories Incorporated is conducting this proposed research with reasonable promise of contribution regarding validation of technological development, application of real world telecommunications demands, and in a residential subscriber test bed environment. Recognizing that to days wireline (copper facilities) deployment is being stressed by increasing customer demand for increased through put of voice, data, and video, GTE's plans to employ those same conditions in its evaluation and testing of various systems in authorized and allocated FCC specified frequency. Consistent with this effort is the opportunity to measure field-strength and multipath fading statistics under realistic conditions.

Exhibit 5
(In Response to Item 15(e) Height of Antenna)

Antennas to be deployed in the fixed locations scenario will be approximately 10 to 12 meters in height but will not exceed 13 meters above the ground level. A communications vans with a periscope type mast and antenna attachment will be the primary configuration used to replicate residential subscriber locations in and around the area designated in Item 5(c) of this application. In order to properly investigate the propagation environment as a function of residential antenna heights it will be necessary to vary the antenna heights, thus the need and advantage of the periscope mast.

This antenna placement configuration will not constitute a hazard and no Federal Aviation Administration clearance is required. Shown below in Figure 1 is a typical vertical profile of the proposed antenna and the associated test bed heights.

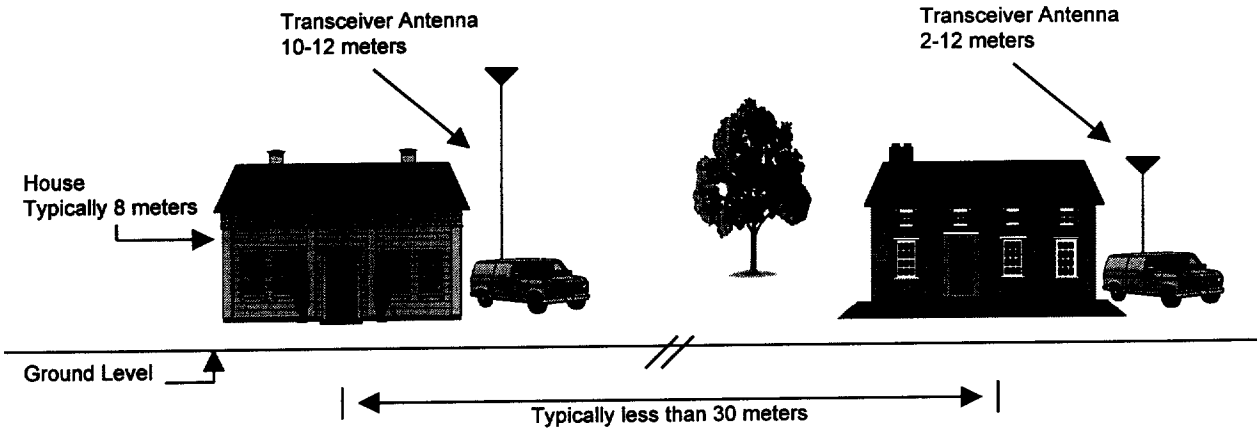

Figure 1 Profile of the proposed propagation measurements showing the proposed antenna heights (2-12 meters) and the expected proximity of the neighboring structures.