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 tests for the frequencies listed within this modification request (refer Item #4 FCC form 442) and within our original license. GTE Lab's objective is to develop reliable system design techniques and applications for evolving services like Wireless Local Loop and Metropolitan Area Networks (MAN). The research to be conducted will apply to those conventional frequency bands currently allocated for Cellular, PCS, MMDS, and LMDS and other frequencies listed in Item #4.

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 Lab'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 Testbed

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 Cellular, PCS , MMDS, and LMDS frequency bands and those frequencies with potential for application within a MAN. 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

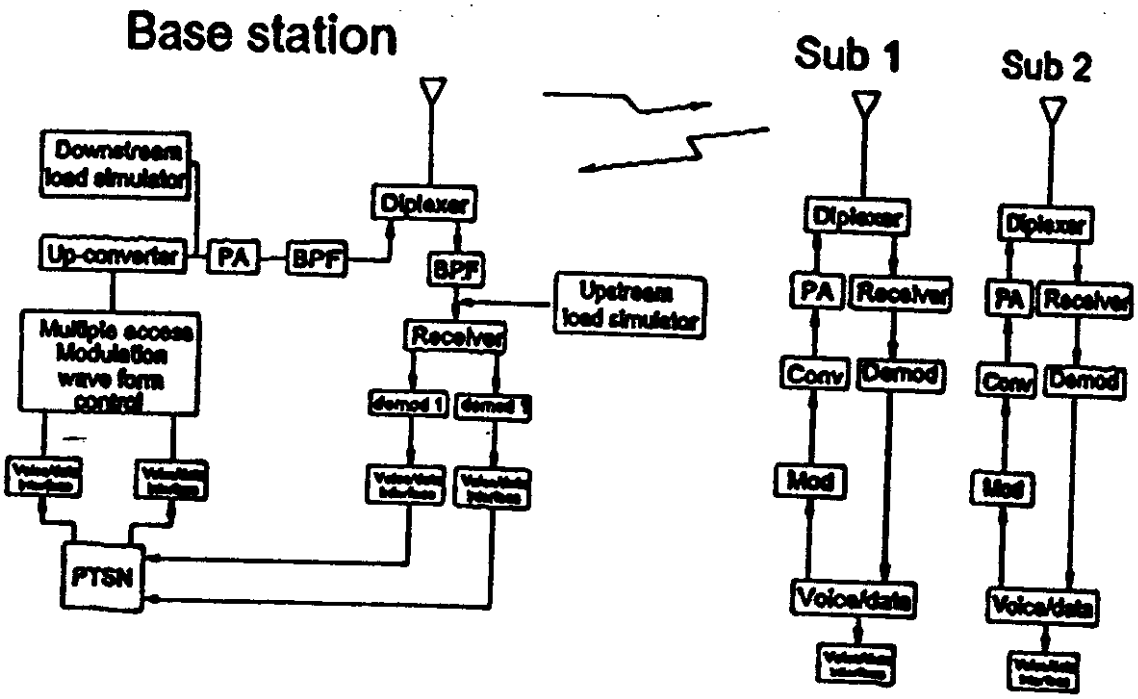

Exhibit 2
(In Response to Item #4 (E), (F), and (G) on form 442)

The Emission Type, Modulating Signal, and Necessary Bandwidth will be addressed simultaneously within this exhibit. It is the intention of GTE Labs 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 frequencies 10150-10650 MHz, 21200-23600 MHz, 24500-27000 MHz , 3700-39500 MHz, and 59000-64000 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 4 MB/sec to 150 Mb/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 the experimental license is equal to two times the modulating signal which will typically be 2*4Mb/sec = 8 MHz up to 2*150 Mb/sec = 300 MHz.

The frequencies and operational specifications described herein will feature 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 subscribers" roof to simulate residential fixed service. Ideally we will be transmitting to various assigned subscriber locations within a 35 miles radius of GTE Labs Headquarters at 40 Sylvan Road, Waltham, MA.

Cont: Exhibit #1
GTE Laboratories Incorporated

Table 2

Estimated Link Budgets for Wireless Local Loop Experiments

Quantity	10500 MHz	23000 MHz	26000 MHz	38000 MHz	60000 MHz
Thermal Noise,dBm/Hz	-174	-174	-174	-174	-174
BW, MHz	8	50	50	50	300
BW, dB	69	77	77	77	85
Noise Figure, dB	7.5	6.5	7.0	8.0	6.0
Noise Floor, dBm	-97.5	-90.5	-90.0	-89.0	-83.0
Min C/N, dB	25	25	25	25	25
Receive Ant. Gain, dB	27	40.3	41.0	44.0	37
Required received power, dBm	-99.5	-105.8	-106	-108	-95
Max distance, miles	10	5	5	5	0.6
Path loss, dB	137	138	139	142.4	134*
Margin, dB	10	10	10	10	10
Required EIRP, dBm	47.5	42.2	43	44.4	49
Required EIRP, watts	56	16.6	20	27.5	79.4

* includes 6dB for atmospheric attenuation

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 propagation, 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 10500-10650 MHz

Model: PRO-10-001, PROCOM 27 dBd gain, vertical w/6 degree BW

Directional Antenna for 21200-23600 MHz

Model:WIN-123 (integrated ant.), WinNet 40.3 dB gain, vertical w/3 degree BW

Directional Antenna for 24500-27000 MHz

Model:WIN-126 (integrated ant.), WinNet 41.0 dB gain, vertical w/2.5 degree BW

Directional Antenna for 37000-39500 MHz

Model:WIN-138 (integrated ant.), WinNet 44.0 dB gain, vertical w/1.6 degree BW

Directional Antenna for 59000-64000 MHz

Model:GigaLink (integrated ant.), Harmonix 37 dB gain, vertical w/3 degree BW

Exhibit 4
(In Response to Item #10 (a), (b), and (c) on form 442)

Item 10(a)-Description and Theory of Operation

GTE Labs 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 today's telecommunications industry. By granting this request for an experimental license the Commission will serve the public interest by permitting GTE Labs 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. Alcatel SR2810A radio
2. WinNet, Win-123,126,&138 radios
3. Harmonix GigaLink radio

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 Labs 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 Labs 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 today's wireline (copper facilities) deployment is being stressed by increase customer demand for increased throughput 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 van 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.