

EXHIBIT 1
Attachment to Item No. 5
Application for Experimental License
Microwave Data Systems

Location of Testing

Microwave Data Systems' plant is located in Rochester, New York. The geographic coordinates of this facility are 43° 07' 06" North Latitude, 77° 36' 43" West Longitude.(NAD 27). Our expectation is that the majority of testing will occur within an 80 kilometer radius of this location. All equipment is of the fixed type, so the installations would be considered as being fixed-temporary, or, in a sense, mobile (land station).

An important minority of testing will take place at so-called "beta sites" located at various locations within the Continental United States. These sites are provided by current and potential customers as a way for Microwave Data Systems to evaluate the suitability of our developmental radios in actual field installations. The beta sites also provide valuable field experience in a variety of physical and electrical environments, and with a variety of propagation conditions.

Although beta sites are not, in general, owned by Microwave Data Systems, the equipment that will be tested under the requested Experimental License at these sites will be owned and controlled by Microwave Data Systems. No equipment will be offered for sale to customers prior to receiving FCC Type Acceptance for that equipment.

In view of the forgoing, Microwave Data Systems is requesting that this Experimental License be valid for operation at any location within the Continental United States.

EXHIBIT 2
Attachment to Item No. 10
Application for Experimental License
Microwave Data Systems

Purpose of License and Program of Experimentation

The purpose of this Experimental License will be to test new radio technology being developed for applications both in the USA and overseas. The technology replaces much of the analog circuitry and components used in current production radios with software processing incorporated in digital signal processors (DSPs). This technology holds the promise of better spectrum utilization because of the DSP's flexibility in implementing filtering and in shaping of the baseband digital signal. In addition, various algorithms can be incorporated to accommodate squelch, dynamic noise reduction, and other techniques.

While extensive use of laboratory testing and computer simulation indicates that these will be significant contributions to the state of the radio art, it is essential that radios incorporating these techniques be tested in real-world, over-the-air, situations. The radios in question are the first that Microwave Data Systems has built to operate in a 200 MHz environment. Our objective is to validate the designs under a variety of real-world installation conditions.

The techniques used are described in detail in our application for Certification of the MDS 2710D Data Transceiver, FCC ID E5MDS2710D.

EXHIBIT 3
Attachment to Item No. 14
Application for Experimental License
Microwave Data Systems

Station Identification

The radio equipment which will be tested under this license is designed for data telemetry applications. As such, there is no provision for station identification, as none is required under the Rules under which the equipment would operate once FCC Certified.

Therefore, Microwave Data Systems requests that operation under the license be specifically exempted from the requirement for station identification contained in § 5.115, and that the license be so endorsed.

EXHIBIT 4
Attachment to Item No. 15
Application for Experimental License
Microwave Data Systems

Antenna Location

In the primary area of experimental operation, at Microwave Data Systems' plant and surrounding locations, antennas will be mounted on existing buildings, or on existing masts on buildings. The height of the antenna will not exceed 6 meters above the existing structure. In some cases, the antenna may be mounted on existing radio towers. In such cases, the antenna will not exceed the height of the existing tower.

It is likewise expected that antennas at "beta site" locations will be mounted on existing buildings, or on existing masts on buildings. The height of the antenna will not exceed 6 meters above the existing structure. In some cases, the antenna may be mounted on existing radio towers. In such cases, the antenna will not exceed the height of the existing tower.

However, should a situation arise where the antenna needs to be more than 6 meters above a building or existing structure, or exceed the height of an existing radio tower, Microwave Data Systems will investigate the distance to the nearest aircraft landing area and will coordinate with the FCC District Engineer-in-Charge prior to making such an installation.