

EXHIBIT 1
FCC FORM 442
U S WEST Communications, Inc.

Particulars of Operation

In response to FCC Form 442, item 4 and pursuant to Section 5.202 of the Commission's Rules, U S WEST Communications, Inc. ("U S WEST") proposes to conduct testing of recent advances in Local Multipoint Distribution Service ("LMDS") technology and to evaluate recently-developed equipment produced by a number of different potential vendors. U S WEST is currently assessing the system architectures, hardware and associated system cost elements of a number of selected LMDS equipment manufacturers whose equipment prototypes have not yet been type accepted pursuant to the Commission's equipment authorization requirements. The proposed testing will be performed by U S WEST's technical staff which is qualified to conduct such testing and has, in fact, previously conducted LMDS experiments (as is mentioned in Exhibit 3 below). As such, U S WEST is eligible to hold an experimental authorization pursuant to Section 5.201(a) of the Commission's Rules.

The proposed testing will use the following technical parameters:

- (A) The proposed tests will be conducted with 27500-28350 MHz (LMDS A Block)¹ or 31,000-31,075 MHz and 31,225-31,300 MHz bands (LMDS B Block) frequency bands.
- (B) The maximum RF output at the transmitter is 22.5 dBm.
- (C) Maximum effective radiated power (ERP) from antenna is 33.9 dBm. 2.5 ✓
- (D) The ERP is MEAN.
- (E) The emission type for all frequencies is 21MOG7W.
- (F) Modulation characteristics: The maximum speed of keying in baud 15.5 Mbaud/sec downstream, 1.95 Mbaud/sec upstream.
- (G) The necessary bandwidth for downstream (hub to subscriber) transmissions is 21 MHz channel spacing, which was determined pursuant to Section 2.202 of the Commission's Rules using a roll-off factor 0.35. For upstream (subscriber to hub) transmissions, 3.5 MHz channel spacing was determined using a roll-off factor of 0.3.

¹While the Commission has also allocated the 29,100-29,250 MHz and 31,075-31,225 MHz bands to the LMDS Block A (subject to certain restrictions and band sharing requirements), U S WEST does not propose to conduct tests in these bands. For purposes of this application, Block A will refer only to the 27,500-28,350 MHz band.

EXHIBIT 2
FCC FORM 442
U S WEST Communications, Inc.

Location of Proposed Testing

In response to FCC Form 442, item 5, U S WEST Communications, Inc. ("U S WEST") proposes to test numerous Local Multipoint Distribution Service ("LMDS") system configurations consisting of single hubs and associated nodes at various fixed locations using the LMDS Block A (27,500-28,350 MHz) and Block B (31,000-31,075 MHz, and 31,225-31,300 MHz) frequencies. Inasmuch as LMDS transmission technology may be operationally sensitive to certain climatological and topographical factors, U S WEST respectfully requests statewide experimental authority within each of the 14 states in which its corporate parent, U S WEST, Inc., provides landline telephone service, namely: Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. U S WEST requests this authority in order to test and evaluate LMDS technology under a wide variety of actual market operating conditions. Prior to testing in using either the Block A or Block B frequencies, U S WEST shall comply with the construction, notification and coordination requirements of Sections 101.61(c)(10), 101.103(g) and 101.1009 of the Commission's Rules and all similar requirements that would otherwise apply to licensees seeking to construct LMDS facilities using type accepted equipment.

EXHIBIT 3
FCC FORM 442
U S WEST Communications, Inc.

Description of Proposed Testing and Research

In response to FCC Form 442, item 10, U S WEST Communications, Inc. ("U S WEST") notes that it was the high bidder for numerous B Block (31 GHz) licenses in the Commission's recently-concluded Local Multipoint Distribution Service ("LMDS") auction. Further, as the Commission is aware, during 1995, U S WEST conducted a field trial of 28 GHz LMDS equipment under a developmental license (KAQ85) in Phoenix, Arizona and in 1996 in Boulder, Colorado under an experimental license (KA2XBJ). These trials were successful and answered many questions regarding propagation, line of sight characteristics, interference and other technical concerns. However, in the past two years following the conclusion of U S WEST's previous tests, advancements have been made in LMDS technology and more manufacturers have begun focusing their attention on LMDS.

Accordingly, the purpose of the experimental program proposed herein is to further test the operational characteristics and capabilities of next generation LMDS transmission equipment. To the extent that much of this equipment is in the prototype stage, and has not been type-accepted, it is hoped that this course of experimentation will lead to the development and production of future, type-accepted equipment. *See* 47 C.F.R. § 5.202(g).

In light of the foregoing, U S WEST seeks experimental authority to test equipment in LMDS frequency bands consistent with the following objectives:

1. Development of statistics for line-of sight (LOS) path availability.
 - (a) Single cell systems.
 - (b) Multi-cell systems.
 - (c) Various transmitter, receiver heights.
2. Assessment of propagation characteristics at 28 GHz and projections of propagation characteristics at 31 GHz.
 - (a) Basic RF characteristics, including path loss and polarization isolation.
 - (b) Fading, multipath, rain, snow, and other phenomena.
 - (c) Analog versus digital modulation techniques.
3. Characterization of interference effects.
 - (a) Multi-cell interference.
 - (b) Multi-sector interference.
4. Evaluation of system performance in various service set configurations and with various system and peripheral hardware.

5. Development of LMDS design concepts and service delivery issues.
6. Research into issues of service reliability and quality of equipment.
7. Studies of customer acceptance of LMDS technology.

As mentioned elsewhere in this application, U S WEST is currently assessing the system architecture, hardware and associated system elements of various equipment manufacturers. The objective of the experimental program described herein is to accumulate technical and operational data the aim of accelerating development of LMDS equipment that can be operated in the LMDS B Blocks under a myriad of deployment configurations.

U S WEST's proposed experiments will be conducted in full coordination with authorized users in order to prevent any harmful interference. U S WEST will immediately discontinue experimental activity whenever such activity causes harmful interference to current or future authorized primary users. Inasmuch as significant work remains to identify the ideal system architectures, equipment characteristics and deployment strategies for 28 and 31 GHz LMDS. Accordingly, U S WEST seeks experimental authority for a two year period (throughout the 14 states in which its corporate parent, U S WEST, Inc., provides landline telephone service) so that it may complete the program of experimentation described herein.