

**FCC Form 442
Experimental Radio Service
U S WEST Communications, Inc.**

**EXHIBIT 1
RESPONSE TO FCC FORM 442 ITEM NOS. 5, 10, 15**

Research was initiated pursuant to an experimental radio STA (file no. S-2134-EX-95, call sign KS2XAB).

Proposed Program of Research and Experimentation

The proposed program, which is discussed in detail below, has been established in order for applicant to perform a limited set of field measurements in selected PCS bands relating to the development of a broadband PCS system within applicant's fourteen state operating region.

At the outset, applicant emphasizes that it is seeking Part 5 experimental authority in order to take field calibration measurements and develop accurate cell site designs in selected areas of its fourteen state region. The testing could take eighteen months to complete.

U S WEST Communications (USWC) plans to conduct the tests in selected Basic Trading Areas ("BTAs") within its fourteen state region (Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming).

Testing Plan

A testing system will generally be comprised of one temporarily-fixed transmitter and truck mounted antenna, and one vehicle-installed mobile receiver with a data acquisition unit (see Exhibits 2 and 3 for more detailed information on the antennas and transmitters). However, in some instances, two transmitters may be operated simultaneously for co-channel interference analyses. Within the selected BTAs, applicant intends to measure propagation at sites selected using a computer modeling tool. The number of theoretical sites will be determined by computer modeling of the system design of each BTA. USWC will conduct field measurements in approximately one-half of the theoretical sites generated by the system design modeling program.

Generally, one to two measurements will be taken at each test site. The tests will be conducted in the following manner: The temporarily fixed transmitter(s) will send digital plot signals to the receiver as it is moving around in a particular BTA. The receiver will be used to collect path loss data correlated to location. The field data collected will be used to calibrate the RF design. This will allow optimization of the coverage model for each area rather than using a worst case assumption for the entire 14 state region. Such an optimization process can result in fewer cell sites and lower initial deployment costs. USWC will include the number of sites tested during each report period in its submissions to the FCC.

As indicated at item 4, the transmitters will operate at a maximum r.f. output power of 10 watts (with a maximum ERP of 100 watts). With regard to location information (item 5), the transmitters will be truck mounted and therefore operate as temporary-fixed facilities, while the receiver will be mobile (vehicle mounted). No more than two transmitters will be operated simultaneously at any given time within a BTA. Each test will consist of intermittent transmissions made over a 24-48 hour period. No market studies will be performed.

As indicated in item 15, the overall height above ground to the tip of an antenna will be 30 meters. Because the antenna/transmitter will extend more than 6 meters above ground, applicant will determine if FAA notification is required prior to setting up the proposed system for testing. If notification is required, applicant will obtain any necessary clearance or ensure that clearance has already been obtained.

Objectives/Contributions to the Radio Art

As discussed above, applicant seeks to perform field calibration measurements relating to the development of a broadband PCS system within its 14 state region. The measurements will enable applicant to develop accurate cell site designs. That is, the field data will be used to calibrate the selected RF design software on a BTA-specific basis. This will allow optimization of the coverage model for each area rather than using a worst case assumption for the entire 14 state region. Such an optimization process can result in fewer cell sites and lower initial deployment costs.

Frequency Coordination

The frequencies and power information associated with the proposed system are set forth in item 4 of the attached FCC Form 442. Specifically, all transmitters will operate on frequencies listed in item 4. The specific frequencies used will depend upon availability at the particular time of testing. In this regard, applicant will use Comsearch spectrum analysis equipment to frequency coordinate spectrum usage and locate available frequencies in the band. All operations will be coordinated with existing point-to-point microwave and other users in the selected frequency band including licensed PCS operators. A 24 hour contact number will be provided to the designated representative of any users within the coordination contours of the test transmitters. Applicant will not test in a frequency band after a PCS license has been granted for that frequency band. Applicant will cease testing immediately if it results in interference.

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EXHIBIT 2
RESPONSE TO FCC FORM 442 ITEM NO. 6

Measurements will be taken using standard PCS antennas including both omnidirectional antennas with gains of 8-13 dBi and sector antennas with gains of 16-18 dBi. All antennas will be vertically polarized. That is, the orientation of all antennas in the vertical plane will be 0 degrees

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**EXHIBIT 3
RESPONSE TO FCC FORM 442 ITEM NO. 13**

Each test transmitter will be comprised of a laboratory grade signal generator and power amplifier from one or more manufacturers, such as Hewlett-Packard. The equipment is not yet type accepted. As stated in Exhibit 1, no more than two transmitters will be used in a BTA at any given time.