

 Southwestern Bell Technology Resources

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

September 17, 1993

Dr. Thomas P. Stanley, Chief Engineer
Federal Communications Commission
2025 M Street, NW
Washington, DC 20554

Re: Southwestern Bell Technology Resources, Inc.
Call Sign KM2XBI
File Number: 3037-EX-PL-92
Quarterly Progress Report Number Five

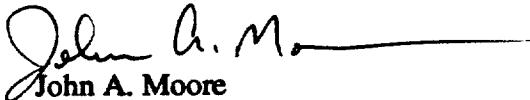
Dear Dr. Stanley:

In accordance with the Federal Rules and Regulations Part 5, Section 5.204(b), attached please find the fifth quarterly progress report for Southwestern Bell Technology Resources, Inc. in connection with our personal/wireless communications testbed in St. Louis, Missouri.

The main objective in our St. Louis testbed is to verify performance of the emerging wireless communications systems and technologies prior to integration into one of Southwestern Bell Corporation's business units. Attached we are reporting our progress and test results in the area of personal communications systems.

Please direct any inquiries to me at 314-529-7567.

Sincerely,


John A. Moore
Director, Wireless Communications

Attachment

**FCC Quarterly Progress Report Number Five (5)
in Connection with Personal/Wireless Communications
Testbeds in St. Louis, Missouri**

Conducted by Southwestern Bell Technology Resources, Inc.

September 17, 1993

**Authorized by FCC Experimental License
Call Sign KM2XBI, File Number 3037-EX-PL-92**

PCS TESTBED PROGRESS

The following summarizes the results of tests and progress in the area of wireless drop and wireless business systems. The results are to be used in assessing the introduction of personal communications networks and services, as well as for the PCN/PCS technology and system selections. For further information on SBC's view of PCS/PCN, and background on Wireless Drop and PBX/Centrex, please consult our first quarterly report filed with the FCC on September 19, 1992.

The wireless drop testbed will investigate the technologies and operational requirements involved in replacing the copper drop wire with radio. Some of the major issues are: voice quality, reliability, economics, transparency to existing CPE, propagation in a suburban microcellular environment, powering, capacity, spectral efficiency, and Operations, Administration, Maintenance and Provisioning (OAM&P).

A contract has been negotiated with a radio system vendor to supply equipment for the wireless local loop testbed in St. Louis. As part of this contract, prototype equipment in the 1.9 GHz band will be supplied by the end of September for functional and quality testing. The parameters of the system are as following:

radio port Tx freq.	1949-1979 MHz
radio port Rx freq.	1899-1929 MHz
channel spacing	400 MHz
transmit power	200 mW (peak)
modulation	4QAM
access method	TDM/TDMA/FDD

The testbed area will be examined to ascertain the existence of free channels in the 1850-1990 MHz band. A measurement method using the knowledge of POFM links in the vicinity of the testbed area, will be used. Tentative microcell radio port locations have been identified and the area has been examined for facilities layout. After the arrival of the equipment, propagation testing will commence to finalize the planned locations of the radio ports and fixed access units which will be received in early 1994.

Further propagation testing will be performed to characterize the environment, and quantify the effects of foliage on 1.9 GHz propagation. A selected group of Southwestern Bell employees will use this equipment for their local phone service throughout the remainder of 1994. The testbed participants have been selected and meetings have been held to acquaint them with the project.

During the trial period, the quality, reliability, and transparency of the application of radio to the local loop will be tested. Operating characteristics, statistics, and interfaces will also be tested. A major goal of the testbed is to demonstrate the ability of the wireless local loop system to operate within the framework of the telephone company's Operations, Administration, Maintenance, and Provisioning (OAM&P) systems and processes.