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**Southwestern Bell
Technology Resources**

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DEPT. OF
ENGINEERING
AND TECHNOLOGY

September 19, 1995

Mr. Richard M. Smith
Chief - Office of Engineering and Technology
Federal Communications Commission
2000 M Street, NW
Room 480
Washington, DC 20554

Re: Southwestern Bell Technology Resources, Inc.
Call Sign KM2XBI
File Number: 4703-EX-ML-95 (expansion/continuation of 3037-EX-PL-92)
Quarterly Progress Report Number Thirteen

Dear Mr. Smith:

In accordance with the Federal Rules and Regulations Part 5, Section 5.204(b), attached please find quarterly progress report number thirteen 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 wireless local loop and propagation testing in Little Rock, AR. prior to PCS deployment.

Please direct any inquiries to me at 512-372-5810.

Sincerely,

John A. Moore
Director, Wireless Communications

Attachment

**FCC Quarterly Progress Report Number Thirteen (13) in
Connection with Personal/Wireless Communications
Testbeds**

Conducted by Southwestern Bell Technology Resources, Inc.

September 19, 1995

**Authorized by FCC Experimental License
Call Sign KM2XBI, File Number 4703-EX-ML-95
(expansion/continuation of 3037-EX-PL-92)**

1.0 Introduction

This report describes progress in the Wireless Local Loop experimental testbed during the period from June 19 through September 19, 1995. It also includes a report on propagation testing conducted in Little Rock, AR. in conjunction with SBC's preparation for PCS deployment in the Little Rock MTA.

2.0 Wireless Local Loop Progress

The wireless local loop (WLL) testbed consists of a deployment of PACS technology in west St. Louis County, Mo. A single Radio Port Control Unit (RPCU) controls five (5) Radio Ports (RP) which communicate with thirteen (13) Wireless Fixed Access Units (WFAUs) mounted at the homes of the test participants. The participants in the test are all Southwestern Bell Telephone Company (SWBT) employees. The goal of the project is determine the viability of providing basic POTS telephone service via low-power radio. The wireline drop and the wireless drop of each participant are run into an A/B switch controlled from our Portable Communications Laboratory (PCL). During the test, the participants are switched between wireline and wireless service without their knowledge, thus implementing a single blind test. The equipment is in the field and the test is in progress.

During the past quarter the participants have continued to use the wireless local loop service. There have been a number of problems with the equipment which have reduced the amount of time spent on the wireless system. However, preliminary feedback indicates that the voice quality has been judged to be equivalent to wireline and all transparency features built into the trial equipment have been successfully implemented. Unfortunately, due to certain facets of the prototype equipment design, the test can no longer be considered blind. There is a noticeable delay in attaining initial dialtone and when a participant goes back on hook and then wishes to make another call, they must wait several seconds before getting dial tone. This is readily apparent to the participants and indicates that they are using the wireless system. Several of the participants have been permanently set to wireline and technical tests will continue with their wireless equipment still in place. The remaining participants will continue to use the wireless system and provide their feedback on voice quality and feature transparency issues. It is anticipated that the testbed will operate through the month of November.

3.0 1.9 GHz Testing in Little Rock Arkansas

On September 6th and 7th, 1995, Southwestern Bell Technology Resources conducted propagation testing in the downtown Little Rock area. The purpose of this testing is to examine propagation characteristics in the natural terrain found in the Little Rock area.

The transmit testing was conducted from 1111 W. Capitol Ave, a 10 story Southwestern Bell Telephone Building. A directional antenna was used with an ERP of 100 Watts. Prior to this study, Southwestern Bell commissioned Micronet Communications, Inc. (Plano TX) to perform a frequency survey to find a non-interfering transmit frequency within the 1850-1990 MHz band. The results of this study and the parameters of our testing are outlined below:

Transmit Frequency: 1961.000 MHz CW
Max. Transmit Power 35.1 dBm Tx Power into 14 dB Gain Antenna

Prior to transmission, the Engineer-in-Charge at the regional FCC office (New Orleans) was notified of our testing. Future transmit testing in Little Rock is anticipated.

The data recorded from this testing is currently undergoing data reduction and analysis and results are not yet available. Future quarterly reports will share results of this testing.