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October 29, 1999

Via Hand Delivery

Mr. James Burtle
Chief, Experimental Licensing Branch
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Winstar Wireless Inc.; Section 5.204 Progress Report
Call Sign KS2XFT
File No. 5012-EX-RR-1998

Dear Sir or Madam:

Pursuant to Section 5.204 of the Commission's Rules, Winstar Wireless, Inc. ("Winstar") hereby submits a progress report on the results of its Experimental Program operated under Call Sign KS2XFT, pursuant to subsections 5.202 (f), (i) & (j). Winstar's nationwide Experimental License was originally granted by the Commission in two parts. (on January 31, 1996, and March 19, 1996), and was renewed effective April 1, 1998 with an expiration date of December 31, 1999.

In its initial request for Experimental Authority, Winstar proposed to conduct a program of experimentation and demonstration of the capabilities of point-to-point transmissions in the 38 GHz band (38.6-40.0 GHz). During the initial license period, Winstar utilized its nationwide Experimental Authority to test deployment of its 38 GHz point-to-point fixed microwave services to customers throughout the country in a variety of deployment scenarios. These tests typically lasted for a duration of 3 months or less, at which time the equipment was removed. Winstar currently provides facilities-based wireless telecommunications services in 31 of the top U.S. markets and additional services to the top 60 U.S. markets pursuant to the company's permanent 38 GHz licenses. Winstar believes that it has and will continue to develop the market and applications in the 38 GHz band by using its Experimental Authority to study and test operations in new market areas and varied deployment scenarios.

Winstar Communications, Inc.

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Since the renewal of Winstar's Experimental license, the company has utilized its Experimental Authority to demonstrate and test the capabilities of a new multiple access scheme based on Point-to-Multipoint ("PMP") 38 GHz microwave radio technology. This wireless ATM technology can deliver multimedia services allowing high speed packet access, voice, and video. Winstar has used these tests to gauge the capabilities of ATM switching at hub locations. This has set the stage for introduction of new products and services to existing and potential customers of Winstar.

In test cases, the network configuration enabled Winstar to serve many customers' buildings from centrally located hubs. Customer calls were then routed to other buildings within a serving hub or at other buildings served by other hubs. The hubs are interconnected with an ATM based Metropolitan Area Network architecture. Winstar completed extensive testing to validate the system's performance, test functional requirements, and evaluate technical feasibility. The process involved various tests as follows:

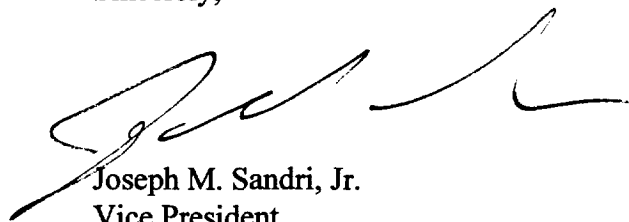
- Network and Link Reliability
- Spectrum and Modulation Efficiency
- Spectrum Efficiency and Support for Multi-Sector, Multi-Channel cells
- Transmission Quality and Availability
- Data, Video, and Voice traffic handling (in TDM and ATM formats)
- User and Network Interfaces
- Network Management

The results of testing the PMP equipment using Winstar's Experimental License demonstrated that increased spectrum efficiency could be achieved using higher order modulation schema and improvements in overall system gain. Spectrum efficiency allowed higher capacity to be delivered through multi-sector, multi-channel cells supporting overall data rates of several gigabits per second. In addition, the testing demonstrated significant operational efficiencies, which will allow for quick deployment and delivery of services at a building. In addition, service provisioning and configuration changes were managed remotely via software definable attributes that are downloaded through the network to subscriber terminals at customer premises. The tests demonstrated the feasibility of offering a complete suite of services -- voice, data, and video.

The results of testing successfully demonstrated Winstar's convergence capability for delivery of telecommunications services using this innovative PMP technology. These efficiency enhancements and product innovations well serve the public interest. Winstar therefore plans to request a five-year renewal of its Experimental License before its current expiration on December 31, 1999, so that additional critical testing of this 38 GHz PMP technology may continue.

Winstar has consistently utilized Commission-approved equipment and standard operating and engineering practices when operating under its Experimental License. Winstar has received no reports of interference with existing licensed operations and has no adverse incidents to report. As a pioneer in broadband fixed wireless access applications, Winstar will continue to test antenna and transmitter concepts and low cost user terminals for a variety of applications. These tests require careful and extensive tests in order to develop hardware/software deployment designs for low cost consumer equipment. Such testing allows Winstar to bring voice, high-speed data, Internet and video-services to consumers on a cost effective basis. These broadband services are often faster, cheaper and better than those provided by incumbents. Winstar submits that continued operations under its Experimental Authority will serve the public interest, convenience and necessity.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Sandri, Jr.", written in a cursive style.

Joseph M. Sandri, Jr.
Vice President
and Regulatory Counsel