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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
PACTEL PAGING)
)
Request for a Pioneer's)
Preference Respecting Advanced)
Architecture Paging Services)

ET Docket No. 92-100
Preference No. PP-98

To: The Chief, Office of Engineering and Technology

SUPPLEMENT TO
REQUEST FOR PIONEER'S PREFERENCE

PacTel Paging ("PacTel"), by its attorneys, hereby supplements its Request for a Pioneer's Preference in the licensing process for the 930-931 Mhz band based upon its work in the development of Advanced Architecture Paging ("AAP") service. The following is respectfully shown:

I. BACKGROUND

Various petitions for rulemaking have been filed requesting the opening of the 930-931 Mhz paging reserve band for narrow-band paging, messaging and/or data services. See Public Notice, Mimeo No. 22914, released April 30, 1992. One such request is PacTel's Petition for Rulemaking (RM-7979) which proposes a one-way "advanced architecture paging service" that provides a technologically enhanced messaging platform for the

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provision of a wide array of one-way services including alpha numeric messaging, facsimile, video, digitized voice and data services.

PacTel's AAP petition and associated request for a pioneer's preference are an outgrowth of the experimental testing being conducted by PacTel's affiliate, Telesis Technologies Laboratory, Inc. ("TTL"), pursuant to authority granted by the Commission in File Nos. 1658 through 1662-EX-PL-90.^{1/} The experimental program culminated in PacTel's submissions to the Commission of its AAP Petition for Rulemaking and the associated Request for Pioneer's Preference on August 2, 1991. Both submissions are hereby incorporated by reference, as is the experimental license report that was filed on April 14, 1992, to report on the AAP tests.

II. THE BASIS FOR THIS SUPPLEMENT

The purpose of this supplement is to update the Commission on the latest phase of AAP testing and to advise the Commission of a new phase of the AAP experimentation that is under consideration.

A major focus of PacTel's program of experimentation for AAP has been to determine the maximum baud rates that can be

^{1/} The experimental authorization originally was granted to PacTel's parent, the Pacific Telesis Group, and then transferred to the company's research and development subsidiary, TTL. See FCC File No. 1934-EX-TC-91.

successfully employed in a simulcast paging environment. As a point of reference, the ERMES standard is based upon 3150 baud. As baud rates increase, coding schemes with enhanced error correction must be developed to maintain service reliability. PacTel has discerned that the simulcast boundary for near term development is between 3200 and 6400 baud. PacTel is seeking to demonstrate in its experimental program the feasibility of a 4800 baud operation in a dense simulcast environment. This will represent approximately a 30% increase in capacity over existing standards which, by some estimates, would permit 1.2 million 10-digit numeric subscribers to be served on a single paging channel, assuming 4 level FSK.

The new phase of tests has to do with studying alternate modulation techniques to further advance the capabilities of messaging service. The experimental program that is underway enables TTL to test a variety of modulation techniques including analog FM, Time Division Multiple Access ("TDMA"), Frequency Division Multiple Access ("FDMA") and narrowband (1 MHz) Code Division Multiple Access ("CDMA"). To date, experimentation respecting AAP has been confined principally to digital FSK. PacTel is now studying the possibility of utilizing QAM, Orthogonal Frequency Division Multiplex and narrowband CDMA techniques to further enhance the technology platform that has been proposed for AAP.

The purpose of the additional experimentation will be to determine whether the use of any of these advanced modulation

techniques offers further improvements in terms of capacity, signal robustness, error correction, resistance to interference and fading, and the ability of the platform to support enhanced services.

The pursuit of these new avenues of experimentation is at the planning stage, and PacTel is not in a position to predict the course that the experimentation will take or the likelihood that the results will ultimately form the basis of a licensing scheme. PacTel hopes to be in a position to report on the results of its analysis in the course of the rulemaking proceeding which is to be conducted to make the 930-931 MHz band available for advanced massaging service applications. However, in view of the deadline established by the Commission for the submission of pioneer preference requests, PacTel felt it was necessary and appropriate to mention this aspect of the company's continuing program of experimentation.

Respectfully submitted,

PACTEL PAGING

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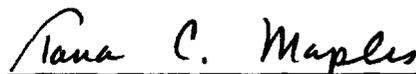
CERTIFICATE OF SERVICE

I, Tana C. Maples, hereby certify that a copy of the foregoing **SUPPLEMENT TO REQUEST FOR PIONEER'S PREFERENCE** has been sent by United States mail, first class and postage prepaid, to the following on the 1st day of June, 1992:

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