COMMUNICATIONS TECHNOLOGIES, INC.
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CLARENCE M. BEVERAGE
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CONSULTANT
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~ *Via Hand Delivery* ~

December 4, 1998

Ms. Magalie Roman Salas
Secretary
FEDERAL COMMUNICATIONS COMMISSION
The Portals
445 12th Street, SW
Washington, DC 20554
PHONE: (202) 418-0300

RE: MM DOCKET NO. 98-93

Dear Ms. Salas:

Please find attached the original and four (4) copies of Reply Comments by Communications Technologies, Inc. in the above noted matter. A separate copy is enclosed to be date stamped and returned to the our firm.

Sincerely,

Clarence M. Beverage
CMB/es

fc: Salas.2lt

No. of Copies rec'd 0+4
List ABCDE

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
1998 Biennial Regulatory Review -- Streamlining of Radio Technical Rules in Parts 73 and 74 of the Commission's Rules	)	MM Docket No. 98-93

REPLY COMMENTS OF COMMUNICATIONS TECHNOLOGIES, INC.

Communications Technologies, Inc. (**"CTI"**) hereby submits its Reply Comments in response to the Notice of Proposed Rulemaking ("NPRM") in the above reference proceeding, adopted June 11, 1998 and released June 15, 1998. **CTI's** Comments supported implementation of the proposed Point-To-Point Prediction Methodology ("PTP") but withheld comment on the exact methodology. The purpose of the instant Reply Comments is to address the PTP proposal more fully.

PTP COMMENT ANALYSIS

Several Comments filed in this proceeding specifically addressed the PTP prediction model and are discussed as follows:

Hatfield & Dawson Consulting Engineers, LLC. This firm points out two areas which **CTI** sees as important to obtain better model output results. First, a terrain data sample interval of 0.1 kM is supported rather than a coarser 0.4 kM sample interval. Second, 3 second terrain data should be the least acceptable resolution used. It should be clear in a Rule implementation that more accurate data, such as that being currently released by the USGS from 7 ½ minute topographical maps, is always acceptable as long as the source is properly documented.

It is noted that use of a terrain database of no less than 3 second resolution was proposed in Comments by *duTreil, Lundin & Rackley, Inc.*

V Soft Communications, Broadcast Communications Software and Engineering Consulting. V Soft points out that a problem exists in the version of the PTP method downloaded from the FCC web site. This problem is described as a curve fitting problem which gives an unjustifiable distance to contour under some conditions. This is clearly a problem of relatively simple magnitude that should be fixed.

A number of commenting parties, such as *Silverado Broadcasting* and *Sound of Life, Inc.*, supported the PTP method as a way to take into account terrain features not currently accounted for by use of the 2-10 mile AAT and propagation curves.

National Association of Broadcasters ("NAB"). NAB opposes the PTP method on the basis of analyzing standard deviation along the entire length of a radial. **CTI** does not believe that this is an appropriate analysis methodology nor does **CTI** agree with the NAB conclusion.

Radiosoft Corporation has implemented the FCC PTP method in its ComStudy software package. **CTI** has employed this software to compare PTP results with signal levels calculated with the Longley-Rice model and the standard FCC propagation curves. Good correlation between the Longley-Rice and PTP model has been noted in situations where the model should be used - terrain obstructions of significant height, ten miles or more from the transmitter site. One example of good correlation between the PTP method and Longley-Rice method can be seen on the attached map for KZOL, Santa Cruz, California. This map also depicts the significant over shoot associated with the current FCC F(50,50) curves when compared to the PTP and Longley-Rice models.

CONCLUSION

In calculation tests run by **CTI**, overall good correlation exists between the PTP and Longley-Rice methods. Other commenting parties have suggested methods to improve the accuracy of the model which are supported by **CTI** as discussed herein.

Reading between the lines, it is suspected that some of the commenting parties are uncomfortable with the PTP model because they see it as taking away their ability to submit specialized engineering showings. **CTI's** belief is that the PTP method is being proposed as a standardized method to be used, when appropriate, as set forth in the PRM. **CTI** is of the belief that the availability of the PTP tool will not preclude the submission of specialized engineering showings on the rare occasions that they are necessary.

Respectfully Submitted,

Communications Technologies, Inc.

Dated 12-3-98

By: _____

Clarence M. Beverage

By: _____

Laura M. Mizrahi

Communications Technologies, Inc.

P.O. Box 1130

Marlton, NJ 08053

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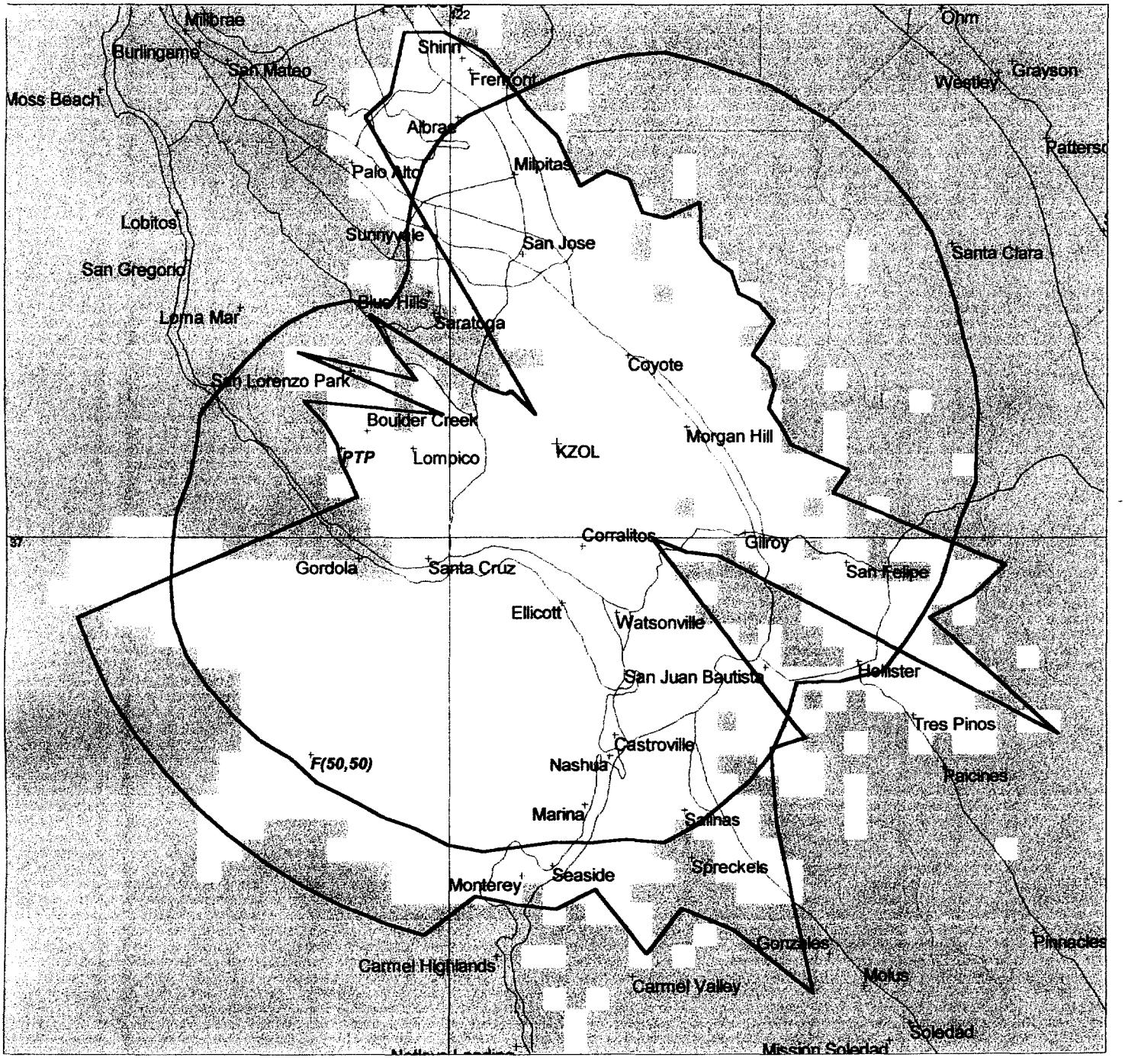
COMPARISON OF F(50,50), PTP & LONGLEY RICE 60 dBu FOR KZOL



Communications Technologies, Inc. Marlton, NJ 08053

Scale 1:750000 NBS 101 Svc K=1.33 25 Km

FM Service — County Borders — Highways — State Borders — Lat-Lon Grids

100 - 60 dBu < 60 dBu