



ADCOMM ENGINEERING COMPANY

Communications Consulting Engineers

October 16, 2002

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street S.W.
Washington, D.C. 20554

Re: WT Docket No. 02-55
Ex Parte Presentation
Reference: Ex parte presentation by Southern Communications Services, Inc.
Friday, October 11, 2002

Dear Ms. Dortch:

This letter provides additional clarification regarding comments made by Southern Communications Services, Inc. (Southern) referencing the ADCOMM Engineering Company report dated August 29, 2002 and filed in this docket by Nextel Communications, Inc. on September 6, 2002. As one of the participants in the testing and as the Registered Professional Engineer signing the report, I feel additional clarification may be needed to make sure the results and recommendation of the report are not misrepresented.

The well documented interference problems resulting in WT Docket No. 02-55 do not need to be repeated here. However, several users of the Motorola MTS2000 portable radio noticed this particular model radio seemed to have more difficulty operating in the presence of other strong in-band signals which created IM interference in the radio's receiver than did other models from the same manufacturer and radio equipment from other manufacturers operating in similar RF environments. The MTS2000 is a very popular radio with many government agencies. Several different tests were run over the last several years in an attempt to identify which radios performed better in a high RF environment. I believe most of this information is not part of the WT 02-55 record. Because varying methods were used to make the measurements and because one user (City of Portland) had developed a modification to improve the MTS2000 performance, King County, Washington and two wireless carriers worked together to measure the MTS2000 radio in a laboratory environment. The goal of these measurements was as follows:

1. Determine and document the performance of the MTS2000.
2. Determine if the use of a digital-signal modulated carrier resulted in different interference performance than with analog-signal modulated carrier.
3. Evaluate the suggested modifications to the radio.

4. Determine what testing is required to adequately measure the radios performance in a high RF environment.

The report discusses the results of the testing and recommendations are made in my cover letter to Mr. Kevin Kearns at King County.

This testing resulted in the following conclusions:

1. The Motorola MTS2000 showed anomalous operation in moderately high RF environments. This resulted in apparent poor receiver intermodulation performance in one area of the receiver's operational window. The manufacturer proposed receiver modifications, corrected the anomalous operation *but did not improve the basic receiver specification or operation at either higher or lower RF levels.*
2. The three possible modifications to the radio receiver worked equally well.
3. The industry standard testing (EIA/TIA 603A) procedure does not adequately define the operation of the radio under test in medium to high RF levels. The procedure only tests radio performance at the specified basic sensitivity.

The two major summary conclusions from the testing are the MTS2000 exhibited anomalous operation which was corrected by the manufacturer recommended modification and the industry standard testing is not adequate to describe how the radios operate in medium and high RF environments. We believe additional testing and analysis should be done to determine if the manufacturing community's decisions about receiver performance, radio size, cost, and battery life tradeoffs reflect the true needs of the public safety community in today's evolving RF environment.

Sincerely,



Joe P. Blaschka, Jr., P.E.
Adcomm Engineering Company