

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Revision of the Commission's Rules) CC Docket No. 94-102
To Ensure Compatibility with)
Enhanced 911 Emergency Calling Systems)
)

COMMENTS OF AIRTOUCH COMMUNICATIONS, INC.

AirTouch Communications, Inc. ("AirTouch") hereby submits its comments in response to the wireless 911 "strongest signal" proposal filed by the Ad Hoc Alliance for Public Access to 911 ("Alliance") on September 17, 1998.¹ AirTouch is a CMRS provider with interests in cellular, paging, PCS and mobile satellite services, both domestic and international.

INTRODUCTION

In the *E911 Second NPRM*, the FCC sought comment regarding an Alliance proposal to require all 911 calls to be sent to the cellular system with the strongest control channel signal.² The Wireless E911 Implementation Ad Hoc Committee ("WEIAD")³ was unable to

¹ See Public Notice, *Wireless 911 "Strongest Signal" Proposal Filed by Ad Hoc Alliance for Public Access to 911*, CC Docket No. 94-102, (rel. Sept. 22, 1998) ("Notice").

² *Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 18676 at ¶¶ 144-148 (1996) ("E911 Second NPRM").

³ WEIAD is composed of representatives from the wireless industry, the public safety community and consumer groups, including the Cellular Telecommunications Industry Association ("CTIA"), Personal Communications Industry Association ("PCIA"),

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reach consensus regarding the Alliance proposal. The wireless industry and public safety members of WEIAD expressed concern that the strongest signal proposal might not be desirable or feasible from a technical point of view and proposed that the appropriate Standards Development Organization expeditiously consider the Alliance proposal.⁴ The Alliance did not agree with this recommendation.⁵

The Alliance recently submitted a revised proposal for transmission of 911 calls.

Under this revised proposal, for all new analog handsets, the Commission would require that

if the signal from the user's provider is "inadequate" at the time a 911 call is placed through the use of an analog cellular handset, then the handset must have the capability to select automatically the strongest available compatible channel of communication for purposes of completing the 911 call.⁶

Based on an Alliance-commissioned report by the Trott Communications Group ("Trott Report"), the Alliance also proposes a minimum level of handset signal strength deemed necessary for "good" communication, specifically, -80 dBm.⁷

Association of Public-Safety Communications Officials-International, Inc. ("APCO"), National Emergency Number Association ("NENA"), National Association of State Nine One One Administrators ("NASNA"), and the Alliance.

⁴ Report of CTIA, PCIA, APCO, NENA, NASNA and Alliance, filed on Jan. 30. 1998 at Appendix A.

⁵ *Id.*

⁶ Notice at 1.

⁷ Alliance *ex parte* at 1.

I. THE REVISED ALLIANCE PROPOSAL CONTINUES TO REQUIRE CONSIDERATION AND EVALUATION BY THE APPROPRIATE STANDARDS DEVELOPMENT ORGANIZATION BEFORE IT CAN BE ADOPTED BY THE COMMISSION

When the Alliance offered its strongest signal proposal as a means to ensure the completion of 911 calls, the wireless industry and public safety communities concluded that the best path forward was to submit the proposal to the appropriate Standards Development Organization for comprehensive evaluation and debate to determine the feasibility and efficacy of the proposal. Although the Alliance did not concur with this decision, clearly, a majority of WEIAD believed that an extensive review of the proposal by technical experts was necessary before the merits of the Alliance proposal could be determined.

The revised proposal submitted by the Alliance is no different. It too requires comprehensive consideration before a decision can be reached regarding its efficacy. APCO, NASNA and NENA all concur that the revised Alliance proposal continues to suffer from "some significant technical problems,"⁸ and therefore do not support the revised proposal. Moreover, all three organizations urge the Commission to "charge appropriate technical bodies (*e.g.*, Telecommunications Industry Association standards committee TR-45) with the task of determining the parameters of adequate communication."⁹

The Commission should not substitute its judgment for the consensus position reached by the wireless industry, public safety and consumer groups that comprise the majority of WEIAD. Instead, consistent with these groups' recommendation regarding the

⁸ Letter from James R. Hobson, Counsel for NENA, to William E. Kennard, dated Sept. 22, 1998; Letter from Jack Keating, President, APCO, and James Beutelspacher, President, NASNA, to William E. Kennard, dated Sept. 21, 1998.

⁹ *Id.*

Alliance's initial strongest signal proposal, the Commission should require the Alliance proposal to be evaluated by the appropriate Standards Development Organization before taking any action on the proposal.

II. THE CONCLUSIONS IN THE TROTT REPORT ARE INSUFFICIENTLY SUPPORTED

The Trott Report reaches three conclusions regarding coverage area, minimum level of signal strength at the cellular handset necessary for "good" communications and cost and effort required for manufacturers to design and install a threshold signal strength "gate." The conclusions reached in the Trott Report are insufficiently supported and therefore cannot be relied upon to form the basis of the Commission's decision on the Alliance's proposal.

In support of the conclusions reached in the Trott Report, the authors rely extensively on the work of Dr. William C.Y. Lee, a preeminent scholar and authority in the mobile telecommunications arena.¹⁰ Dr. Lee is the Vice President and Chief Scientist for AirTouch. Dr. Lee reviewed the Trott Report and believes that the report contains several analytical errors that call into question the report's conclusions.

For instance, Dr. Lee concludes that the 9 dB margin added in the Trott Report to compensate for attenuation from automobiles, buildings and Raleigh fading is not justified. Because the channel selection process being proposed is based on the signal actually received in the portable phone, losses due to signal attenuation should not be taken into account when determining an adequate signal level. As proposed, the receiver would compare the actual received signal to a pre-determined signal level, if the received signal level is above this

¹⁰ See generally Trott Report.

threshold it does not matter whether it arrived after being attenuated through a building or not. Thus no adjustment for attenuation is justified in defining an adequate signal level. This is only one example of the discrepancies that Dr. Lee found in the Trott Report.

Dr. Lee's initial review of the Trott Report highlights the differing views industry experts may have regarding the Alliance proposal. In light of these differing views, the Trott Report alone cannot be considered the definitive analysis of the strongest signal proposal. Instead, the proposal is more appropriately referred to a Standards Development Organization for consideration and review.

Similarly, the Trott Report provides an insufficient basis for its conclusion that new analog handsets can be easily and inexpensively modified to include a threshold signal strength gauge. Only handset manufacturers are in a position to assess the ease and expense of implementing such a gauge. The Trott Report contains no evidence that handset manufacturers were even consulted before the report's conclusions were reached. This blatant omission necessarily calls into question the report's conclusions in this regard.

For these reasons, the Trott Report should not be the sole technical analysis relied upon in the Commission's consideration of this matter. Comprehensive industry review is clearly required.

CONCLUSION

AirTouch recognizes the important role that mobile phones and a reliable E911 service can fill in providing access to emergency services. The record in this proceeding, however, is insufficient to support adoption of the Alliance's strongest signal proposal. Before the Alliance or any other technical proposal to implement E911 service is adopted, it

must be fully evaluated and tested by the appropriate Standards Development Organization.
Only after such thorough investigation will the FCC be able to evaluate the efficacy of the
proposal and determine whether its adoption is in the public interest.

Respectfully submitted,

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