

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

In the Matter of)	
)	
Report on Technical and Operational Wireless E911 Issues)	WT Docket No. 02-46
)	

To: The Wireless Telecommunications Bureau

REPLY COMMENTS

Rural Cellular Association (“RCA”)¹, by its attorneys, respectfully submits these Reply Comments in response to the invitation of the Wireless Telecommunications Bureau (“the Bureau”)² to reply to Comments filed on the Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services by Dale N. Hatfield (“Hatfield Report” or “Report”). The Report was filed on October 15, 2002 with the Federal Communications Commission (“FCC” or “Commission”), and Comments were submitted by November 15, 2002. The focus of inquiry of the Hatfield Report is the future of wireless enhanced 911 (“E911”) deployment and steps that might be taken to overcome obstacles and accelerate deployment.³

1 RCA is an association representing the interests of small and rural wireless licensees providing commercial services to subscribers throughout the nation. Its member companies provide service in more than 135 rural and small metropolitan markets where approximately 14.6 million people reside. RCA was formed in 1993 to address the distinctive issues facing wireless service providers.

2 *Wireless Telecommunications Bureau Seeks Comment on Report on Technical and Operational Wireless E911 Issues, Public Notice*, WT Docket No. 02-46, DA 02-2666, released October 16, 2002.

3 *Wireless Telecommunications Bureau Announces Details of Inquiry on Technical and Operational Wireless E911 Issues, Public Notice*, WT Docket No. 02-46, DA 02-523, released March 5, 2002.

I. Introduction

The proceedings surrounding the Hatfield Report represent a collaborative effort by the Commission, scholars, vendors, public safety personnel and providers of Commercial Mobile Radio Service (“CMRS”) to determine the effectiveness of implementation of the requirements of E911, focusing upon provision of Phase II location services. The report identifies obstacles to deployment encountered universally and specifically by small and rural carriers. Commenting parties have added to the collection of experiences and have made suggestions for improving deployment. RCA will respond herein to the Comments generally and to some of the Comments individually.

II. Rural Areas Present Distinct Challenges to E911 Phase II Implementation

The Hatfield Report acknowledges, and Commenters substantiate that obstacles to fulfilling the FCC’s E911 requirements in rural areas are unique. They deserve to be addressed by revised regulations, relaxed standards, lengthened deadlines for deployment and new sources of funding. The existing technology for Phase II location is impractical for use in rural areas. Well summarized in the comments of PetroCom License Corporation is the circumstance that network-based solutions involving Time Difference of Arrival (“TDOA”) and Angle of Arrival (“AOA”) are not conducive to the linear, dispersed base station arrangement of rural systems, and rural carriers are not able to average accuracy results with urban areas. As pointed out by Rural Cellular Corporation, handset-based solutions are impractical because rural subscribers want to keep their handsets. Rural churn rates are low, making a 95% handset penetration rate almost impossible to attain by December 31, 2005.

At the same time rural carriers are disadvantaged at recovering costs from a smaller subscriber base. They cannot afford to add base stations solely to assist triangulation methods for

location accuracy, or to provide new phase II capable handsets free to subscribers. Leasing and zoning problems increasingly make a scarce resource of base station towers, and handsets are not even available for the TDMA and analog systems in use in many rural areas. RCA members should be able to maintain the option of choosing whether to deploy a network-based or handset-based solution, but at present neither solution works well in rural areas to satisfy the FCC's requirements.

As part of a plan to enable rural carriers to implement Phase II services, RCA supports the suggestion of the Rural Telecommunications Group that the FCC develop an accuracy standard that can be reasonably achieved by rural carriers. In rural areas the accuracy standard can be substantially lower than it is in urban areas, and safety personnel will still have as good or better a chance of locating the caller. Revised accuracy requirements for both network-based and handset-based technologies in rural areas should be adopted by the Commission, after verifying suitable product availability, so that rural operators can attain Phase II compliance.⁴

Relaxation of the accuracy standard will not fully cure the problems described in the Hatfield Report. Phase II implementation remains disproportionately expensive for rural carriers. Network solutions require additional base stations, some of which will require new tower construction, and many of which will not produce new revenues for the carrier. Lead time for tower construction alone can be two years, as mentioned in some of the Comments. Handset solutions, even if they become affordable by small carriers, will take time to implant in rural systems where car phone installations and older handsets are common. (In fact those car phones with external antennas and higher transmitting power are often preferred for the superior clarity and reliability they offer when

⁴ FCC Rule Section 20.18(b)(1) presently sets forth a standard for Phase II location accuracy and reliability of 100 meters for 67 percent of calls and 300 meters for 95 percent of calls for network-based technologies. 47 C.F.R. §20.18(b)(1).

compared to the newer portable handsets.) For these reasons, extended deadlines are necessary for many rural carriers to implement Phase II E911.

Because many of the root challenges faced by rural carriers in implementing Phase II services are economic in nature, RCA supports the contention of the Rural Telecommunications Group that Congress and the FCC should adopt a funding mechanism for rural Phase II E911. Existing funding mechanisms for Public Safety Answering Points (“PSAPs”) are insufficient to cover the all of the costs of E911. Tandler Cellular, Inc., which works with PSAPs to implement location technology, informs the Commission in its Comments that PSAPs are funded by bake sales and fish fries. Such voluntary fund raising at the local level is insufficient to pay for the sophisticated equipment and training integral to Phase II E911 services.

Even in states where there is an E911 reimbursement program for CMRS carriers, small carriers cannot recover their E911 costs. For example, a member of RCA operates in Michigan, which imposes a surcharge of \$0.55 per month per subscriber, of which \$0.25 goes into a fund for reimbursement of the subscriber’s carrier. The carrier is eligible to be reimbursed for only as much money as its subscribers contribute to the fund. Since the program was initiated in 1999, a carrier serving 25,000 subscribers would have built up an “account” of \$225,000, woefully short of the cost of E911 implementation. In fact, the reimbursement funds contributed monthly by the carrier’s subscribers would not even cover the carrier’s cost of monthly maintenance of its E911 system. While larger carriers can raise more money because they have more subscribers, small carriers are in a self-perpetuating spiral of financial loss.

Commenters agree that rural PSAPs and rural carriers face parallel cost challenges, including higher expenses, lower access to funds and less purchasing power than their urban counterparts. It

has been noted that rural carriers are already struggling to implement unfunded mandates such as CALEA, number portability and 911 text telephone capability, which can cost as much to the small carrier as to the large carrier, but with fewer subscribers from whom to recoup. Creation of a source of government funding for E911 would therefore be a timely and appropriate catalyst to the availability of E911 services in rural areas.

In its comments Verizon suggests the use of general tax revenues for E911 funding. RCA can support that proposition. RCA joins Verizon and Rural Cellular Corporation, certainly, in opposing surcharges on wireless customers, which inflate prices and lower demand, and which are often misdirected by government officials to unrelated projects, as discussed in the Hatfield Report.⁵

Government funding of rural E911 will require federal oversight, but funding will be required if implementation of E911 services by rural carriers and rural PSAPs is to occur at the pace set by the Commission.

III. New Governmental Entities Are Not Essential to Oversight of Wireless E911

The Hatfield Report proposes creation of a regulatory body that would serve as a project manager for implementation of wireless E911, perhaps within the Department of Homeland Security. RCA agrees with the Cellular Telecommunications & Internet Association (“CTIA”) and others who commented that there is neither time nor necessity to create a new national office. Like Commenter Frederick Griffin, P.C., RCA generally opposes creation of new levels of state, regional and local government, preferring that E911 stakeholders stay focused and utilize the talents and resources of existing organizations such as the National Emergency Number Association (“NENA”), the Association of Public Safety Communications Officials (“APCO”) and the National

5 *Hatfield Report*, Section 3.4.1 – PSAP Readiness – Description of Issue.

Association of State Nine One One Administrators (“NASNA”), the Alliance for Telecommunications Industry Solutions (“ATIS”), the Emergency Services Interconnection Forum (“ESIF”) and the Telecommunications Industry Association (“TIA”). While NENA, APCO and NASNA filed Comments in favor of establishing a national 911 program office and a clearinghouse to collect, store and disseminate E911 status information, RCA believes that a new federal office within the Executive Branch is not essential to this objective. RCA is also concerned with the creation of an advisory committee, which may eventually interpret its mission to be to create new E911 requirements, such as E911 for Personal Digital Assistants (“PDAs”), Voice Over Internet Protocol (“VOIP”) and vehicular telematics. RCA supports TIA’s preference for industry-led efforts to advance the deployment of E911 services, both for wireless phones and for non-traditional devices.

If nevertheless the Commission decides it is best to create a new national office or advisory committee, RCA heartily agrees with the National Telecommunications Cooperative Association that such body should include rural participants to represent and advance the interests of small and rural carriers, including wireless carriers.

IV. Improved Wireless E911 Features Will Evolve in Response to Market Demand

RCA agrees with Sprint Communications, Inc. that it is better for the FCC to assert its own authority as issues arise, rather than wait for a new agency to take over supervision of wireless E911 implementation. In doing so the FCC should focus on implementation of Phase II services, and not become distracted by committee building or by pressure to create new carrier obligations such as finding ways to locate non-service initialized or stolen phones and providing Z coordinates and

billing address information. Likewise, T-Mobile USA, Inc. asserts that the Commission should focus on deployment of Phase I and Phase II E911, and not add new obligations related to testing, routing or communication of uncertainty and confidence data.

As noted by AT&T Wireless Services, Inc., it is only wireless carriers who carry the burden of regulatory compliance. It is inappropriate to enforce standards or new features on a complex set of players, of whom only one is subject to FCC rules. Most recently, the FCC retained the option of imposing detailed obligations on local exchange carriers, through rulemaking proceedings, to ensure that they meet their obligations to provide nondiscriminatory access to, and interconnection with, their networks for the provision of 911 and E911 services to wireless callers.⁶ Even so, the brunt of the FCC's powers of enforcement of E911 remains against wireless carriers.

A fairer approach would be for the FCC to usher implementation of Phase I and Phase II E911 services, and then refrain from imposing upon carriers additional requirements. As suggested in the Comments of TruePosition, Inc., public demand for enhanced 911 services will drive the provision of improved services, even in rural areas. As consumers become aware of the benefits offered by wireless E911 systems, they may be willing to subscribe to advanced features, obviating the need for government oversight and funding.

V. Voluntary Testing and Compliance Standards Should be Adopted

RCA agrees with T-Mobile USA, Inc. which says that requiring new standardized testing procedures at this late date will delay implementation and testing currently taking place. The guidelines within Office of Engineering and Technology Bulletin 71 ("OET 71") provide a flexible

⁶ Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Order on Reconsideration*, released November 26, 2002 (*City of Richardson*), at ¶ 25.

framework for accuracy testing methods and procedures. To make them more specific or mandatory would interfere with ongoing efforts for compliance. T-Mobile USA, Inc. goes on to assert that formal testing and certification would be expensive and time consuming, and would cause delay; there has been no allegation of bad faith or unsound practices in the wireless carrier industry's internal testing methods; and it has not been shown that a single, standardized testing regime is even feasible given the variety of networks and technologies being deployed.

Indeed, in its *Order on Reconsideration, City of Richardson*, the Commission expressly denied requests that it adopt a standardized interface for the connection between the carrier's Mobile Positioning Center (MPC) and the Automatic Location Identification (ALI) database. The Commission reaffirmed that do so would constitute micromanagement at variance with its general policy of declining to dictate technical standards for the implementation of Phases I and I of E911 service.⁷ The Commission again concluded that it would be counterproductive for the Commission to dictate technical solutions best evaluated by the parties.⁸

It is therefore in keeping with the Commission's principles that standardized testing procedures and certification programs not be imposed upon carriers or other E911 participants. RCA agrees with Motorola that the FCC should allow the industry to devise common technology test plans, potentially tied to particular air interfaces or local solutions. The "Open Mobile Alliance," composed of Motorola and other manufacturers, has developed a standardized procedure for testing new wireless model handsets. RCA agrees that the Commission could support such an industry consensus as a safe harbor for the accuracy verification for handsets.

7 Id., at ¶ 26.

8 Id., at ¶ 27.

Existing support organizations, including TIA's Standards and Technology Department, can circulate testing formats for informal certification of compliance among parties serving a particular area. Incorporating the guidelines of OET 71, industry groups can address issues of coverage, proper routing, acceptable timing, call completion, geographical averaging and delivery of accurate location data. They can evaluate technologies and algorithms, create databases to relate access point identifiers with geographical positions, and study translations of space coordinates to floor, office and apartment numbers, the need for which is identified in the Comments of pulver.com. Formal testing under the supervision of governmental entities is not required.

VI. Conclusion

RCA appreciates the opportunity to participate in the FCC's consideration of the Hatfield Report. RCA agrees with Rural Cellular Corporation, which concludes that the Hatfield Report should be the foundation for the Commission's adoption of revised regulations for rural CMRS service providers. The timelines for implementation must be extended, the accuracy standards must be relaxed, and government funding is needed to compensate rural carriers for the burden not faced by nationwide carriers. Creation of new governmental agencies will not assist rural carriers in meeting the E911 requirements, but will only add another layer of complexity to the process. Formal testing and certification standards are also likely to get in the way of the relationship between rural carriers and rural PSAPs. RCA views as appropriate the recent clarification by the Commission that the carrier and the PSAP may mutually agree to tailor implementation process to their specific situations.⁹ An attitude of congenial coordination of local E911 implementation will best advance E911 deployment in rural areas.

9 Id., at ¶ 29.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Loren Costantino, an employee in the law offices of Lukas, Nace, Gutierrez & Sachs, Chartered, do hereby certify that I have on this 3rd day of December, 2002, sent by hand-delivery, a copy of the foregoing REPLY COMMENTS to the following:

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