

**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

COMMENTS

Rural Cellular Corporation and its affiliates (collectively “RCC”)¹, by its attorneys, respectfully submit these comments in response to the invitation of the Wireless Telecommunications Bureau (“the Bureau”)² to comment on the Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services by Dale N. Hatfield (“Hatfield Report” or “Report”) filed on October 15, 2002 with the Federal Communications Commission (“FCC” or “Commission”). The focus of inquiry of the Hatfield Report is “the future of wireless E911 deployment and steps that might be taken to overcome or minimize them.”³

I. The Hatfield Report Identifies Obstacles Faced by Rural Carriers

Providers of Commercial Mobile Radio Service (“CMRS”) to rural and small city markets

1 The following companies which are wholly-owned subsidiaries of Rural Cellular Corporation and are authorized by the FCC to provide broadband Commercial Mobile Radio Service: MRCC, Inc., New Hampshire Wireless, LLC, RCC Atlantic, Inc., RCC Holdings, Inc., RCC Minnesota, Inc., Saco River Communications Corporation, SRCL Holding Company, Inc. and TLA Spectrum, L.L.C.

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.

are challenged to satisfy the requirements of E911, particularly the Phase II location requirements. RCC is beginning to experience the obstacles discussed in the Report.⁴ For example, as a carrier that has chosen a network-based solution for implementation of E911 Phase II location services, RCC is experiencing difficulty in meeting the FCC's existing accuracy standards.⁵ Similarly to situations noted in the Hatfield Report, RCC's rural base stations are not densely spaced and are often linear in layout. While the cell configuration provides excellent coverage to small population centers and highways, it does not accommodate existing triangulation techniques for locating the exact physical position of a mobile phone user making an emergency call. RCC concurs with the Hatfield Report that adding base stations to support E911 Phase II is uneconomical. As a matter of fact, it can also be almost impossible to build new base stations in areas of environmental concern, historic sensitivity and other places with restrictive zoning policies. Meanwhile, a mobile phone caller located very near one of RCC's active base stations may receive no signal at all from two other RCC base stations, confirming a point made in the Hatfield Report that the location techniques invented to date are not very reliable in rural areas.

The Hatfield Report also noted that rural carriers are more dependent upon analog and TDMA technology for which vendor support is diminishing, and that small carriers have less purchasing power than larger carriers in acquiring necessary handsets and equipment. RCC has been the recipient of limited FCC relief alleviating some of these concerns. RCC's implementation deadline for Phase II service has been extended by the FCC's action taken in response to individual carrier petitions.⁶ Nevertheless, RCC is challenged to contend with the additional obstacles to

4 *Hatfield Report*, Section 3.2.2 - Findings.

5 FCC Rule Section 20.18(b)(1) 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).

6 *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling*

compliance described in the Report.

As mentioned, one of RCC's major impediments to Phase II implementation will be compliance with the existing accuracy standards. Not only is triangulation more difficult to accomplish with fewer cells, but the percentage-based accuracy requirements are very difficult for a rural carrier to meet. It is easier to meet the accuracy requirements when a portion of a carrier's system contains an area of densely arranged base stations. That area will help to increase the average accuracy for the system overall, pursuant to the guidelines provided in Office of Engineering and Technology Bulletin 71 ("OET 71"). RCC has no such densely constructed areas. RCC and other rural carriers are likely to not meet the minimum requirements. The FCC should amend the accuracy standards to a level reasonably attainable by rural carriers using network-based solutions to implement Phase II E911.

In the *E911 Small Carriers Order*, at ¶41, the Commission discussed a revised accuracy standard set forth by Edge Wireless. The Commission proposed to address the matter in a separate order. The Commission should take the opportunity to address the matter for the benefit of all non-nationwide wireless carriers, incorporating the findings of the Hatfield Report. A standardized revision of the accuracy standards would assist small carriers to comply with Phase II location requirements, and not be excluded from compliance because of the rural nature of their service areas.

Likewise, as mentioned in the Hatfield Report, implementation of a handset-based solution falls hard upon carriers whose churn is lower, and whose customers are less inclined to purchase expensive new handsets. RCC is such a carrier, with rural customers who are content with their service and not interested in purchasing handsets unnecessarily. They are reticent to acquire new units that may soon become obsolete due to improvements in Phase II location techniques or other

technological developments. Yet the expense of assuming the responsibility of handset replacements is not a financially viable option for small, rural carriers such as RCC. A network-based solution is obviously the best approach for RCC's Phase II implementation, but the FCC must make it attainable by relaxing the accuracy standards for rural carriers.

II. Public and Private Cooperation Is Required for a Seamless E911 System

The Hatfield Report observes complexities at every dimension of the deployment of Phase II wireless E911. It finds that “an unusually high degree of coordination and cooperation among public and private entities will be required” to realize Congress’ vision of a reliable and seamless E911 system.⁷ RCC agrees with this finding. When Congress passed the E911 Act⁸ to address the importance of 911 to the safety of life and property, issues of homeland security had not yet become visibly crucial. Since September 11, 2001, the need to establish reliable emergency services has become a national priority. The Hatfield report emphasizes that the nature of the network architecture and industry structure choices being made are so critical as to justify increased FCC oversight of the rollout of wireless E911 services in the U.S.⁹ The Report encourages the Commission to establish an entity to be charged with responsibility for overall system engineering and testing, and to create a standardized technical framework for wireless E911.¹⁰ It is also recommended that an entity be created and charged with the role of project manager, perhaps on a voluntary basis at the state level, in cooperation with other federal regulatory agencies such as FEMA, USDOJ, USDOT and the Department of Homeland Security. A national level clearinghouse

7 *Hatfield Report*, Section 2.3 – Overall Status of Wireless E911.

8 *Wireless Communications and Public Safety Act of 1999*, Pub. L. No. 106-81, enacted October 26, 1999, 113 Stat. 1286.

9 *Hatfield Report*, Section 3.2.3 - Recommendations.

10 *Hatfield Report*, Section 3.3.2.3 - Recommendations.

is suggested to be established to collect, store and disseminate status information of wireless E911, such as information on ILEC and PSAP readiness and wireless carrier First Office Application status and other information on the nation's progress toward establishing a seamless, ubiquitous, reliable wireless E911 network.¹¹

RCC supports the intent of these initiatives. RCC can verify that E911 implementation is much faster and efficient in locales where the public safety personnel are well educated on E911 systems and are represented by a composite group or individual representative, and where information is shared in a free and congenial manner. However, RCC opposes any proposal to fund new offices or oversight personnel by additional surcharges on wireless system operators or users. Wireless carriers are already straining to meet unfunded federal mandates, including: E911 Phase I implementation, E911 Phase II implementation, 911 text telephone ("TTY") capability requirements, Communications Assistance of Law Enforcement Act ("CALEA") core electronic surveillance capability requirements, CALEA six missing technical capability (punch list) requirements, and CALEA packet mode communications capability requirements. Additional listening capabilities are going to be imposed by federal legislation intended to fight the national war on terror, and the Hatfield Report itself describes growing calls for additional mandatory E911 features in its discussion of requirements "creep."¹² Already the wireless industry is overtaxed. And already have funds raised for E911 been misdirected by governments seeking to shore up budget shortfalls.¹³ The Commission and new oversight entities should take the advice of the Hatfield Report and "avoid the addition of new requirements during this critical stage of the

11 *Hatfield Report*, Section 3.3.3.3 - Recommendations.

12 *Hatfield Report*, Section 4.3 – Accommodating New Requirements and Requirements "Creep".

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

rollout...”¹⁴ RCC urges that this directive should include avoiding imposition of new fees on wireless users and carriers.

III. Testing and Compliance Standards Should Be Clarified

A recurring theme in the Hatfield report is that because of the deadlines imposed by the FCC, the emphasis in development of E911 services has shifted from selection of a position location technology to actual implementation and deployment. Compliance testing and certification issues remain unresolved. The Hatfield Report identifies three areas of ambiguity: a) lack of a standardized method of satisfying the testing and compliance guidelines contemplated by the FCC’s OET 71, b) uncertainty over the interaction between delay and accuracy of position determination, and c) uncertainty regarding the geographic area over which accuracy measurements can be averaged, *i.e.*, PSAP service area or carrier service area. As a remedy the Report encourages the Commission to provide additional guidance with regard to the “delay versus accuracy” and “geographical averaging” issues. RCC agrees that this guidance be incorporated into a new voluntary, industry-wide testing and certification program as discussed in the Hatfield Report.¹⁵

III. Conclusion

RCC appreciates the FCC’s action in soliciting the Hatfield Report. The Report provides a valuable overview of E911 implementation and a framework for dialogue among service providers, safety officials and state and federal governmental agencies. RCC urges the Commission to recognize particularly the comments the Report provides with regard to implementation of Phase II services in rural areas, especially in meeting the location accuracy requirements. The Hatfield Report provides a basis upon which the Commission can justify a system of relief for rural carriers. Relief can be designed to advance Phase II services in rural areas without placing rural carriers in

14 *Hatfield Report*, , Section 4.3 – Accommodating New Requirements and Requirements “Creep”.

jeopardy of rule violations and forfeitures due to the unavoidable obstacles inherent to rural operations. Most importantly, the Hatfield Report should be the foundation for the Commission's adoption of achievable accuracy standards for rural CMRS service providers

Respectfully submitted,

RURAL CELLULAR CORPORATION

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