

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

In the Matter of)	
)	
Commission Announces Details of Inquiry On Technical and Operational Wireless E911 Issues)	WT Docket No. 02-46
)	
)	

COMMENTS OF PETROCOM LICENSE CORPORATION

PetroCom License Corporation (“PetroCom”), by its attorneys, and pursuant to the invitation extended by the Federal Communications Commission (“FCC” or “Commission”) in its Public Notice of October 16, 2002,^{1/} hereby submits its comments on “A Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services” prepared by Dale N. Hatfield (“Hatfield”) for the FCC (“Hatfield Report”).

I. INTRODUCTION

PetroCom^{2/} is a full-service telecommunications and network solutions company serving the business community, with particular emphasis in the energy industry. Headquartered in New Orleans, Louisiana (with offices in Lafayette, LA and Houston, TX) and founded in 1983, PetroCom was the first offshore cellular network in the world. What began as a single cell site off the coast of Galveston, Texas in 1986 quickly grew into a 95,000-square mile satellite-based cellular network in the Gulf of Mexico (the “Gulf”), reaching from Brownsville, Texas to Mobile, Alabama. In addition to its cellular operations, PetroCom built and maintains a C-band

^{1/} Public Notice, “Wireless Telecommunications Bureau Seeks Comment on Report on Technical and Operational Wireless E911 Issues,” DA 01-2666, rel. October 16, 2002.

satellite network, which routes traffic back to its New Orleans switch and teleport facility. In 1995, PetroCom took this satellite expertise, commercialized it, and today operates one of the industry's largest, most respected, Very Small Aperture Terminal (VSAT) network, with over 100 active remotes.

As PetroCom has notified the FCC, it intends to employ a network-based Phase II location technology using a combination of Time Difference of Arrival (“TDOA”) and Angle of Arrival (“AOA”) technology position determining equipment. Unlike land-based cellular systems, cellular operations in the Gulf must necessarily cover a small population over a very large expanse of territory; as noted above, PetroCom’s service area is approximately 95,000 square miles. Presently, PetroCom routes wireless 911 calls from the Gulf to the Coast Guard United States Search and Rescue Operations in New Orleans, Louisiana, which screens the calls and acts as a Public Safety Answering Point (“PSAP”).

The majority of PetroCom’s customers operate from fixed locations on oil platforms. Unlike the typical land-based wireless customer, a wireless customer on an oil platform can rely on, and will use, other emergency and safety systems, including company microwave systems, private radio systems, UHF/VHF and single side band systems. In addition, all oil production and service companies have emergency operating procedures and survival training. To date, PetroCom has not received any requests for Phase II service from the Coast Guard or any other PSAP.

^{2/} PetroCom provides service to the public through its affiliate, Petroleum Communications, Inc. For ease of reference, both PetroCom License Corporation and Petroleum Communications, Inc. are referenced herein as PetroCom.

On November 20, 2001, the FCC announced that Hatfield would lead an inquiry of technical and operational issues affecting deployment of wireless E911 services.^{3/} The Hatfield Report was released on October 15, 2002 and addresses many issues that currently affect the deployment of E911 service. The Hatfield Report describes, in a generally accurate manner, the state of E911 deployment and makes certain valid suggestions regarding future E911 operational efforts. The Hatfield Report recognizes, as the Commission already has,^{4/} the differences in Phase II E911 implementation between small and large carriers.^{5/} PetroCom believes that the FCC should, based on the factors cited in the Hatfield Report, further extend the Phase II E911 implementation deadline established in the Stay Order for Tier III carriers. Accordingly, PetroCom is pleased to have the following opportunity to submit the following comments related to matters that affect E911 implementation for Tier III carriers that are addressed in the Hatfield Report.

II. COMMENTS

The Hatfield Report correctly points to a number of technical and operational problems for small rural carriers, but declines to discuss these issues in detail because, as it notes, in the period between Hatfield's meetings with carriers and the release of the Hatfield Report, the FCC adopted the Stay Order.^{6/} In referencing the Stay Order, the Hatfield Report, at least implicitly, suggests that the additional 13-month period provided to Tier III carriers is sufficient to meet the

^{3/} News Release, "FCC Announces Dale Hatfield to Lead Inquiry of Technical and Operational Issues Affecting Deployment of Wireless Enhanced 911 Services," rel. Nov. 20, 2001.

^{4/} See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Order to Stay, FCC 02-210, rel. July 26, 2002 ("Stay Order").

^{5/} Dale N. Hatfield, A Report on Technical and Operational Issues Impacting The Provision of Wireless Enhanced 911 Services at 12 (rel. Oct. 15, 2002).

ability of small and rural carriers to implement E911 Phase II services. As the Hatfield Report recognizes, however, the Stay Order was based principally on the deployment problems attributable to third party vendors. Because the FCC has failed to take into account other problems that relate to the implementation of E911 Phase II services by Tier III carriers, some of which are specifically noted in the Hatfield Report, PetroCom urges the FCC to further extend the Phase II E911 implementation deadline established in the Stay Order.

For example, the Hatfield Report notes the implementation difficulties often caused by the size of base station coverage areas in Tier III carriers' systems.^{7/} PetroCom's 95,000-square mile service territory and the non-standard configuration of its base stations makes triangulation, critical to the provision of location information using network-based solutions, very difficult. As the Hatfield Report correctly concludes, these circumstances often result in the provision of weaker signals that lead to reduced location accuracy. To enhance accuracy over their large coverage areas, rural wireless carriers would have to add a significant number of towers and equipment, at an enormous expense. This problem would be particularly acute for PetroCom, which generally can locate base stations only on drilling and production platforms. Because these platforms are not uniformly spaced, PetroCom has little flexibility to install the additional base stations that will allow it to meet the Commission's E911 Phase II requirements.

Although large coverage areas are not unique to non-nationwide carriers, as the Hatfield Report notes, non-nationwide rural carriers like PetroCom do not have the luxury to average the accuracy results in small areas with fewer bases station with urban/suburban areas that contain a

^{6/} Id.

^{7/} Id.

larger concentration of base stations to enhance accuracy.^{8/} Thus, non-nationwide carriers are at a disadvantage in comparison with nationwide carriers in demonstrating that their systems satisfy the Commission's accuracy requirements. Nor do rural carriers have the ability to spread their E911 costs over many markets, or the purchasing power to ensure the rapid delivery of equipment necessary to deploy E911 services.^{9/} These carriers, like PetroCom, also tend to operate with analog or TDMA technologies, for which vendors are providing less support.

In addition, leasing and zoning issues may affect the ability of non-nationwide Tier III carriers to meet the E911 Phase II deployment deadlines. Installing additional antennas and equipment may require tower modifications, lease modifications, and negotiations and zoning approvals, all of which present the potential to delay E911 deployment consistent with the Commission's E911 Phase II deadlines. As noted above, for PetroCom, the problems associated with the installation of additional antennas and modifying existing towers is particularly severe, because of the location of its antennas and towers on drilling platforms.

All of these factors have produced faster E911 deployment for nationwide carriers than for small, rural carriers. The Hatfield Report confirms this point by noting that the initial discovery, development, and evaluation phase of locating mobile units seems largely complete, and that the focus of E911 has turned to implementation for nationwide carriers. By contrast, Tier III carriers are still at the beginning stages of E911 deployment. For these reasons, the Commission should grant an additional stay of the E911 Phase II deployment deadlines for non-nationwide carriers. PetroCom does not propose a date certain to which the current Phase II deployment capabilities should be delayed, but one possible benchmark would be the date by which small and rural carriers can deploy their wireless E911 systems with minimal need for

^{8/} Id.

custom tailoring and reduced risk of technical and operational incompatibilities (i.e., on a “plug and play” basis).^{10/} In any event, PetroCom recommends that the FCC undertake a more complete analysis of the appropriate deadline, based on the issues raised in the Hatfield Report and elsewhere.

III. CONCLUSION

PetroCom hereby respectfully submits the foregoing comments and asks the FCC to proceed in a manner consistent with the views expressed herein.

Respectfully submitted,

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^{9/} Id.

^{10/} See id. at 26 (noting that one goal of carriers is to reach the stage “where the implementation of wireless E911 in a given area would become essentially a routine event”).