

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Wireless E911 Location Accuracy Requirements)	PS Docket No. 07-114
)	
Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems)	CC Docket No. 94-102
)	
Association of Public-Safety Communications Officials-International, Inc.) Request for Declaratory Ruling)	
)	
911 Requirements for IP-Enabled Service Providers)	WC Docket No. 05-196
)	

Reply Comments of Missouri RSA # 5 Partnership d/b/a Chariton Valley Wireless Services

Missouri RSA #5 Partnership d/b/a Chariton Valley Wireless Services

(“Chariton”), by its attorneys, hereby submits its reply comments in response to various comments filed with the Federal Communications Commission (“FCC” or “Commission”) regarding the FCC’s June 1, 2007 Notice of Proposed Rulemaking in the above-captioned proceedings.¹ Specifically, Chariton files in support of the comments filed by the Rural Telecommunications Group (“RTG”) and the proposals contained therein.

¹ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, *Association of Public-Safety Communications Officials-International, Inc. Request for Declaratory Ruling*, *911 Requirements for IP-Enabled Service Providers*, WC Docket No. 05-196, Notice of Proposed Rulemaking (rel. June 1, 2007) (“E911 Accuracy NPRM”). The comments to which Chariton responds herein address the issues raised in Section III.B of the E911 Accuracy NPRM.

As a provider of commercial mobile radio service (“CMRS”) in a rural area, Chariton has firsthand experience with the difficulties involved with the provision of Phase II enhanced 911 (“E911”) service in rural settings, and Chariton appreciates the opportunity to advise the Commission of its views on the current E911 location accuracy standards. As discussed herein, Chariton urges the Commission to modify its accuracy requirements as proposed by RTG to make them achievable based on current technology.

Chariton is a Tier III cellular carrier providing service in rural Missouri. Chariton serves many dispersed customers and very few population centers. Chariton deploys a network-based solution to provide Phase II E911 on its time division multiple access (“TDMA”) and Global System for Mobile Communications (“GSM”) system.

As discussed in the comments submitted by RTG and others, the current E911 accuracy requirements are often not achievable in rural environments by wireless carriers deploying a network-based Phase II solution, absent extraordinary expenditures, and the unavailability of a handset-based solution for GSM leaves GSM carriers with no choice but to rely on a network-based solution. In implementing its Phase II solution at each of its existing cell sites, Chariton conducted various tests which revealed accuracy results which, despite costly upgrades to its network and cell sites, fell far short of the FCC’s standards for network-based technologies set forth in Section 20.18(h)(1) of the Commission’s rules. Chariton has determined that in order to allow for the triangulation of widely dispersed cell sites necessary to meet the Commission’s accuracy requirements, it will need to construct a substantial number of additional cell sites. Such sites will have to be constructed at great expense, and solely for the purpose of allowing for the necessary triangulation to improve location accuracy to the point where FCC accuracy

standards are met. Specifically, Chariton will need to deploy “sector” technology on each of its 27 existing cell sites, as well as construct *an additional 40 to 50 cell sites*, thus potentially effectively *doubling* the size of its network for no commercial purpose, but solely in an attempt to achieve the accuracy mandated by Section 20.18(h)(1). At a cost of approximately \$40,000 per site for sectorization, and approximately \$250,000 for the construction of each fully equipped cell site, the cost of compliance is crippling for a small rural carrier such as Chariton. In the absence of cost recovery provisions,² many wireless carriers face the choice between noncompliance or bankruptcy, the latter of which will cause much greater harm to public safety than failure to comply with an accuracy mandate that can only be met through buildout of virtually an entire new network.³ It is for these reasons that the Network Reliability and Interoperability Council (“NRIC”), the FCC’s expert advisory body on E911 issues, has recommended that carriers such as Chariton that have too few contiguous cell sites or have cell sites that are geographically dispersed in a manner that prevents reliable triangulation, “make a

² If the FCC were to reinstitute cost recovery for E911, rural carriers such as Chariton could at least take the technically possible, if economically dubious, steps of constructing large numbers of location-only cell sites. *See* Comments of Elaine Seeman, attaching the following law journal article: Holloway, J.E., Seeman, E.D., O’Hara, M.T., & Forst, A., *Regulation and Public Policy in the Full Deployment of the Enhanced Emergency Call System (E-911) and their Influence on Wireless Cellular and Other Technologies*, Boston University Journal of Science and Technology Law, Vol. 12:93 at 122 (“the FCC may need to rethink cost recovery or funding for some regions of the country.”)

³ As the Rural Cellular Association notes in its comments, “The single most important public safety tool offered by wireless carriers in rural America is voice service availability. It would be highly counterproductive to adopt aggressive location accuracy requirements that in turn cause small carriers to pull back on service availability in their attempts to comply.” Comments of Rural Cellular Association at p. 3 (“RCA Comments”). Indeed, not only could the retention and/or adoption of unachievable location accuracy requirements cause small rural carriers to pull back on service, it could deter all carriers from building out their networks to provide service to rural areas where it would be too difficult to meet location accuracy standards.

commercially reasonable effort to provide the best service possible without extraordinary efforts.”⁴ Even should carriers go to the “extraordinary efforts” of building numerous location-only cell sites, it is far from clear that the addition of such sites will ensure the provision of the currently mandated level of accuracy.⁵

Because of the inability of many wireless GSM carriers to comply with the Commission’s current accuracy requirements without going to “extraordinary efforts” and expense, Chariton strongly supports the RTG proposal to mandate a handset-based solution.⁶ Such action, by creating a market for location-capable GSM handsets, will spur handset manufacturers to quickly develop such handsets. While the accuracy achievable by such handsets is unknown until they are developed and tested, the record

⁴ NRIC FOCUS GROUP 1A, Near Term Issues for Emergency/E9-1-1 Services, Final Report, December 16, 2005 at p. 21 (“*NRIC Final Report*”). See also NRIC FOCUS GROUP 1A, Near Term Issues for Emergency/E9-1-1 Services, Report #1-Revised, February 15, 2005 (“*NRIC Revised Report #1*”). NRIC has recognized, and recommended that the Commission recognize, that a reasonable accuracy requirement for Tier III carriers does not require such carriers to make “extraordinary efforts” that go beyond reasonable efforts to provide the best service possible such as deploying state-of-the-art location accuracy equipment at each existing cell site. See also Comments of MetroPCS Communications, Inc. at p. 6 (a carrier “should not be required to build out additional facilities, undertake a complete overhaul of its entire network, or redeploy a different E911 solution for the sole purpose of improving compliance with E-911.”) (“*MetroPCS Comments*”).

⁵ See *MetroPCS Comments* at pp. 8-9. MetroPCS notes that “the ability of handsets to receive signals from three or more towers can be adversely affected by the same factors that interfere with a handset’s line-of-sight to a GPS satellite, such as urban development or dense deforestation”, concluding that “[i]t is, therefore, far from clear that a requirement to deploy additional towers solely to improve triangulation capabilities would be effective, even if a carrier could justify the massive capital expenditures entailed by such a requirement and could overcome other hurdles, such as convincing local zoning and historic preservation authorities [such as San Francisco, which requires a showing that the new site will provide enhanced service area coverage] to approve towers that would not add any commercially-needed capacity to the carrier’s network.”

⁶ See generally Comments of the Rural Telecommunications Group, Inc. (“*RTG Comments*”); See also Comments of Corr Wireless Communications, LLC at pp. 3-4 (proposing a requirement that A-GPS technology be incorporated into all new user handsets).

contains substantial evidence suggesting that the location accuracy achievable by such handsets will be substantially greater than the accuracy currently achievable by GSM network-based solutions. The transition period and application of the NRIC-based accuracy standards during such transition proposed by RTG will allow GSM carriers sufficient time to transition to a handset-based solution, while holding them to a standard of accuracy during the transition that is both technically and economically achievable.⁷

Chariton agrees with the many commenters which have urged the Commission to convene an industry group to develop a technically and economically achievable consensus standard for location accuracy.⁸ Even public safety representatives believe that adopting a location accuracy standard prior to real world testing is premature.⁹

The Commission's recently adopted order requiring wireless carriers to meet Phase II requirements at the PSAP level¹⁰ highlights the need for the Commission to adopt the measures proposed by RTG. With carriers unable to meet the existing location accuracy requirements, there is no reasonable expectation that carriers will be able to

⁷ Many commenters have noted the need to base any accuracy requirements on technical and economic feasibility. *See, e.g.,* RCA Comments at p. 5 (“Imposition of a uniform, technology-neutral, requirement for location accuracy of both handset-based and network-based location systems must be predicated on ability to comply both technically and financially.”).

⁸ *See, e.g.,* RTG Comments at p. 10 (recommending the establishment of an industry group comprised of representatives from a diverse range of carriers, manufacturers and the public safety community to develop a technically and economically achievable consensus standard for location accuracy, and citing to industrywide support expressed in comments in the first part of this proceeding). Support for such a group was echoed by numerous commenters in the second phase of this proceeding. *See, e.g.,* Comments of CTIA – The Wireless Association®; Comments of Motorola, Inc.

⁹ Comments of NENA at pp. 6-7 (“we believe it premature to propose different standards until we know more about the chances for carrier compliance with the current requirements in the real world.”)

¹⁰ *FCC Clarifies Geographic Area Over Which Wireless Carriers Must Meet Enhanced 911 Location Accuracy Requirements*, FCC News Release, September 11, 2007.

meet the more stringent requirements just adopted by the Commission. For these reasons, Chariton fully supports RTG's recommendation that the Commission defer enforcement of its location accuracy requirements pending the outcome of this proceeding.¹¹

For the foregoing reasons, Chariton respectfully requests that the Commission adopt the RTG proposal and otherwise act in accordance with the views expressed herein.

Respectfully submitted,

**MISSOURI RSA #5 PARTNERSHIP
d/b/a CHARITON VALLEY WIRELESS
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Date: September 18, 2007

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¹¹ See also RCA Comments at 3-4 (“Without full knowledge of what the new location accuracy standards will require, determining an appropriate timeframe in advance is highly speculative if not out and out impossible.”)