RURAL TELECOMMUNICATIONS GROUP

advocate of rural wireless telecommunications providers

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To: **Office of the Secretary**
Federal Communications Commission

From: **Caressa D. Bennet, General Counsel**

Date: **April 30, 2003**

Re: ***Ex Parte* Presentation – April 29, 2003**

WT Docket No. 94-102

On April 29, 2003, Caressa D. Bennet, representing the Rural Telecommunications Group ("RTG"), presented at the Federal Communication Commission's ("FCC" or "Commission") Enhanced 911 ("E911) Initiative. Specifically, Ms. Bennet presented the following facts:

The FCC requires wireless telecommunications providers to implement E911 in their service areas. For "Phase II" Emergency 911, these carriers must locate a wireless caller making an emergency call within approximately 300 meters for a network based solution and within 150 meters for a handset-based solution 95 % of the time. Much more accurate standards are necessary 67% of the time.[1]

MYTH #1: Rural carriers are dragging their feet on implementing E911.

REALITY #1: E911 capabilities for wireless services are of paramount importance for rural carriers and their customers. The ability to locate a wireless caller should be available to all citizens of the country, both urban and rural. Even with their limited resources and smaller customer bases, rural carriers are currently implementing E911 to the best of their ability.

However, E911 deployment obstacles are greater in rural areas. The state of current wireless location technology depends upon the ability to triangulate the location of a transmitted signal

1 For network-based technologies: 100 meters for 67% of the calls and 300 meters for 95% of the calls. For handset-based technologies: 50 meters for 67% of the calls and 150 meters for 95% of the calls. For the remaining 5% of the calls, the rules only require that location estimates be provided with no specified level of accuracy. (47 CFR §20.18 (h)).

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from various receiving sites.2 In dense urban and suburban areas, wireless carriers operate numerous cell sites to meet their service demands. This density of cell sites most times provides a sufficient number of triangulation points to locate the handset within the prescribed standards. However, in rural areas, there are not always enough cell sites to serve as triangulation points, making it difficult or impossible to achieve the FCC's required level of accuracy. Fortunately, the time it takes an emergency responder to locate a victim and transport for treatment will not be significantly increased in a rural area if the E911 location information is, e.g., within 500 meters instead of the required 100 meters, because rural areas are generally open, without crowded streets and giant office or apartment building complexes. Unfortunately, the FCC's rules do not recognize this fact.

MYTH #2: E911 technology is affordable to implement and going down in price.

REALITY #2: While the large, nationwide carriers have helped create the economies of scale that drive equipment costs down, FCC-mandated demand keeps prices higher than they should be. Further, rural markets are more costly to serve since rural carriers do not have sizeable customer bases through which they can spread their costs of E911 deployment.

MYTH #3: E911 location accuracy requirements are the same for urban and rural carriers.

REALITY #3: While the location accuracy standard is the same, it must be remembered that bigger carriers get to <u>average</u> this standard throughout their respective service territories. Accuracy requirements are stated in terms of the percentage of calls which must locate a caller to within the specified distance. On a nationwide basis, the vast majority of 911 calls are placed in urban areas. Accordingly, large carriers with licensed service areas that include major metropolitan areas as well as rural areas can meet the requisite accuracy requirements by relying on the fact that 95 percent of their E911 calls are likely to be placed within the urban areas where they have sufficient cell site density to achieve the requisite level of accuracy. For such large carriers, Phase II accuracy levels need not be met in the rural areas they serve. In sharp contrast, rural carriers must meet the full accuracy requirements based upon rural-only E911 calls. In other words, rural carriers must effectively meet a more exacting accuracy standard due to their inability to average their performance over urban areas as carriers serving both urban and rural areas can do.

MYTH #4: Rural-only carriers who have deployed a network-based solution using TDOA will be in compliance with the FCC's rules.

REALITY # 4: Vendors who sell TDOA equipment are using weighted statistical probability to predict where emergency calls are likely to be made. In a rural area where 19 calls may occur in a year, it would take only 1 call to occur outside of the probability predicted by the model to put the carrier in violation of the rule. Using weighted statistical probability to demonstrate potential compliance does not keep a carrier who falls outside of the accuracy requirement from being

2 This is true not only for network-based technologies but also for handset-based technologies that rely upon network assistance when the handset is not within "view" of a GPS satellite.

fined for failure to comply. Also, it is very likely that a rural carrier could be in compliance one day and out of compliance another day, depending on the location and volume of calls.

THE EQUITABLE SOLUTION

The FCC should forbear from enforcing its E911 accuracy rules in rural areas where the rural carrier has deployed E911 technology using its existing antenna systems at every existing cell site in or around the service area where a public safety entity has requested E911 service. Rural carriers are not seeking to delay deployment of E911. Rather, they are seeking to accelerate the deployment of meaningful enhanced 911 service to rural Americans without being hindered by the prohibitive expense of attempting to meet unnecessarily stringent accuracy and reliability standards for the environments in which they operate.

Otherwise, we fear that if rural carriers are required to achieve the same accuracy standards as carriers serving urban areas, the costs will force many to limit their coverage area to more populated areas in order to ensure that their regulatory obligations are met, thereby denying E911 service to the most remote and least populated portions of their service territory. There can be no dispute that any 911 service, and certainly the E911 service that would be provided under this proposed solution, is better than no service at all.

If you have any questions regarding this filing, please communicate directly with the undersigned.

Sincerely,

/s/

Caressa D. Bennet
General Counsel, Rural Telecommunications Group

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