

Ex Parte Comments

Ex Partes	Abbreviation
Association of Public-Safety Communications Officials-International, Inc.	APCO
AT&T Inc.	AT&T
GCI Communications Corp	GCI
National Emergency Number Association	NENA
SouthernLINC Wireless	SouthernLINC
Sprint Nextel	Sprint Nextel
T-Mobile USA, Inc.	T-Mobile
Verizon Wireless	Verizon Wireless

List of Commenters to *Second Bureau Public Notice*

Comments	Abbreviation
AT&T Inc.	AT&T
Blooston Rural Carriers	Blooston
CTIA – The Wireless Association	CTIA
GCI Communication Corp.	GCI
Intrado Inc.	Intrado
L. Robert Kimball and Associates	L. Robert Kimball
National Emergency Number Association	NENA
Pennsylvania Chapter, APCO	Pennsylvania Chapter, APCO
Polaris Wireless, Inc.	Polaris
Rural Cellular Association	RCA
Rural Telecommunications Group	RTG
S5 Wireless, Inc.	S5
Sprint Nextel Corporation	Sprint Nextel
Telecommunications Systems, Inc.	Telecommunications Systems
T-Mobile USA, Inc.	T-Mobile

Reply Comments

Replies	Abbreviation
Association of Public-Safety Communications Officials-International, Inc.	APCO
AT&T Inc.	AT&T
Blooston Rural Carriers	Blooston
EmFinders, Inc.	EmFinders
National Emergency Number Association	NENA
National Telecommunications Cooperative Association	NTCA
Polaris Wireless, Inc.	Polaris
Rosum Corporation	Rosum
Rural Cellular Association	RCA
Rural Telecommunications Group	RTG
SouthernLINC Wireless	SouthernLINC

Sprint Nextel	Sprint Nextel
T-Mobile USA, Inc.	T-Mobile
TruePosition, Inc.	TruePosition
Verizon Wireless	Verizon Wireless

Ex Parte Comments

Ex Partes	Abbreviation
Association of Public-Safety Communications Officials-International, Inc.	APCO
Andrew LLC, a CommScope Company	Andrew LLC
AT&T Inc.	AT&T
Commlabs, Inc.	Commlabs
GCI Communications Corp.	GCI
Intrado Inc.	Intrado
National Emergency Number Association	NENA
Polaris Wireless, Inc.	Polaris
Rural Cellular Association	RCA
SouthernLINC Wireless	SouthernLINC
Sprint Nextel	Sprint Nextel
T-Mobile USA, Inc.	T-Mobile
TruePosition, Inc.	TruePosition
Verizon Wireless	Verizon Wireless
Vonage Holdings Corp.	Vonage

APPENDIX B**Final Regulatory Flexibility Analysis**

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA)¹⁵¹ an Initial Regulatory Flexibility Analysis (IRFA) was included in the *Public Notice* in PS Docket No. 07-114 (*Notice*).¹⁵² The Commission sought written public comment on the proposals in these dockets, including comment on the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.¹⁵³

A. Need for, and Objectives of, the Proposed Rules

2. In the *Notice*, we sought comment on how to best ensure that public safety answering points (PSAPs) receive location information that is as accurate as possible for all wireless E911 calls. The objective was to ensure that PSAPs receive reliable and accurate location information irrespective of the location of the caller or the technology that may be used.

3. The Second Report and Order adopts rules to best ensure that public safety answering points (PSAPs) receive location information that is as accurate as possible for all wireless E911 calls. The Commission requires that Commercial Mobile Radio Service (CMRS) carriers comply with section 20.18(h) of the Commission's rules at the county-level or PSAP-level service area and adopts interim benchmarks to achieve this level of compliance. Specifically, the Order adopts rules requiring network-based technologies to provide location accuracy of 100 meters for 67 percent of calls in 60 percent of counties or PSAP service areas one year from the effective date of the Order; in 70 percent of counties or PSAP service areas three years from the Order; and in 100 percent of counties or PSAP service areas within five years of the effective date of the Order. Additionally, network-based technologies must meet the 300 meter/90 percent standard in 60 percent of counties or PSAP service areas within three years of the effective date of the Order; in 70 percent of counties or PSAP service areas within five years of the Order; and in 85 percent of counties or PSAP service areas within eight years of the Order. Accuracy data from both network-based solutions and handset-based technologies may be blended to measure compliance. Additionally, carriers are allowed to exclude particular counties, or portions of counties, where triangulation is not technically possible.

4. The Order also adopts rules requiring handset-based technologies to meet the 50 meters/67 percent standard and 150 meters/80 percent standard two years from the effective date of the Order, allowing carriers to exclude up to 15 percent of counties or PSAP areas from the 150 meter requirement based upon heavy forestation. Handset-based technologies must meet the 50 meters/67 percent standard and 150 meters/90 percent standard within eight years of the Order, allowing for 15 percent exclusions in heavily forested areas.

5. Finally, the Order adopts rules requiring carriers to provide confidence and uncertainty data on a per-call basis upon the request of a PSAP two years after the effective date of the Order.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

6. RCA states that “[t]he Commission fails to comply with Regulatory Flexibility Act requirements in its IRFA...the Commission cannot point to any ‘small business alternatives’ that it has

¹⁵¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

¹⁵² See Comment Sought on Proposals Regarding Service Rules for Wireless Enhanced 911 Phase II Location Accuracy and Reliability, PS Docket 07-114, *Public Notice*, 23 FCC Rcd 13797 (PSHSB Sept. 22, 2008) (*Notice*).

¹⁵³ See 5 U.S.C. § 604.

considered or that it has provided to commenters to consider in reaching its proposed approach.”¹⁵⁴

7. SouthernLINC proposes certain “alternative approaches” that it states “alleviate any potential burdens on small entities.”¹⁵⁵

8. GCI argues in an *ex parte* that, “because the adoption of the AT&T Proposal without adjustment will have a significant negative impact on Tier III carriers...the Commission must provide adjustments that respond to the challenges of these providers and the areas they serve.”¹⁵⁶

9. No commenter provided a quantification of the cost of meeting the requirements adopted in this order. In response to the issues raised by public comments, we concluded that the proposed timeframes, limitations, and exemptions provided carriers, including small businesses, with a sufficient measure of flexibility to account for technical and cost-related concerns. The rule changes we have adopted effectively relax the existing handset-based requirements by immediately reducing, for two years after the effective date, the 150 meter requirement from 95 percent of all calls to 80 percent of all calls. Moreover, even after eight years, the 150 meter requirement rises only to 90 percent. Finally, financial considerations, among others, will be taken into account should a service provider request waiver relief. As noted in the Second Report and Order, in the event that small entities face unique circumstances that restrict their ability to comply with the Commission’s rules, these will be addressed through the waiver process. We have determined that the final rules adopt the best alternatives for promoting accurate location accuracy data.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Would Apply

10. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules.¹⁵⁷ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹⁵⁸ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.¹⁵⁹ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).¹⁶⁰

11. Nationwide, there are a total of approximately 22.4 million small businesses, according to SBA data.¹⁶¹ A “small organization” is generally “any not-for-profit enterprise which is independently

¹⁵⁴ RCA Reply Comments to Bureau Public Notice at 20-21.

¹⁵⁵ SouthernLINC Reply Comments to Bureau Public Notice at 11.

¹⁵⁶ Letter from Tina Pidgeon, Vice-President, Federal Regulatory Affairs, and Brian M. Lowinger, Director, Federal Regulatory Affairs, GCI Communications Corp., to Marlene H. Dortch, Secretary, FCC, filed on December 9, 2008 at 3.

¹⁵⁷ 5 U.S.C. §§ 603(b)(3), 604(a)(3).

¹⁵⁸ 5 U.S.C. § 601(6).

¹⁵⁹ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such terms which are appropriate to the activities of the agency and publishes such definitions(s) in the Federal Register.”

¹⁶⁰ 15 U.S.C. § 632.

¹⁶¹ See SBA, Programs and Services, SBA Pamphlet No. CO-0028, at page 40 (July 2002).

owned and operated and is not dominant in its field.”¹⁶² Nationwide, as of 2002, there were approximately 1.6 million small organizations.¹⁶³ The term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”¹⁶⁴ Census Bureau data for 2002 indicate that there were 87,525 local governmental jurisdictions in the United States.¹⁶⁵ We estimate that, of this total, 84,377 entities were “small governmental jurisdictions.”¹⁶⁶ Thus, we estimate that most governmental jurisdictions are small.

1. Telecommunications Service Entities

a. Wireless Telecommunications Service Providers

12. Pursuant to 47 C.F.R. § 20.18(a), the Commission’s 911 Service requirements are only applicable to Commercial Mobile Radio Service (CMRS) “[providers], excluding mobile satellite service operators, to the extent that they: (1) Offer real-time, two way switched voice service that is interconnected with the public switched network; and (2) Utilize an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls. These requirements are applicable to entities that offer voice service to consumers by purchasing airtime or capacity at wholesale rates from CMRS licensees.”

13. Below, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated.

14. *Wireless Telecommunications Carriers (except Satellite)*. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category. Prior to that time, such firms were within the now-superseded categories of “Paging” and “Cellular and Other Wireless Telecommunications.” Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior categories and associated data. For the category of Paging, data for 2002 show that there were 807 firms that operated for the entire year. Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more. For the category of Cellular and Other Wireless Telecommunications, data for 2002 show that there were 1,397 firms that operated for the entire year. Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more. Thus, we estimate that the majority of wireless firms are small.

15. *Wireless Service Providers*. The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of “Paging” and “Cellular and Other

¹⁶² 5 U.S.C. § 601(4).

¹⁶³ Independent Sector, *The New Nonprofit Almanac & Desk Reference* (2002).

¹⁶⁴ 5 U.S.C. § 601(5).

¹⁶⁵ U.S. Census Bureau, *Statistical Abstract of the United States: 2006*, Section 8, page 272, Table 415.

¹⁶⁶ We assume that the villages, school districts, and special districts are small, and total 48,558. See U.S. Census Bureau, *Statistical Abstract of the United States: 2006*, section 8, page 273, Table 417. For 2002, Census Bureau data indicate that the total number of county, municipal, and township governments nationwide was 38,967, of which 35,819 were small. *Id.*

Wireless Telecommunications." Under both categories, the SBA deems a wireless business to be small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that there were 807 firms in this category that operated for the entire year. Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more. Thus, under this category and associated small business size standard, the majority of firms can be considered small. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year. Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more. Thus, under this second category and size standard, the majority of firms can, again, be considered small.

16. *Incumbent LECs.* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent LECs. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 1,311 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,311 carriers, an estimated 1,024 have 1,500 or fewer employees and 287 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our action.

17. *Competitive LECs, Competitive Access Providers (CAPs), "Shared-Tenant Service Providers," and "Other Local Service Providers."* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 1,005 carriers have reported that they are engaged in the provision of either competitive access provider services or competitive LEC services. Of these 1,005 carriers, an estimated 918 have 1,500 or fewer employees and 87 have more than 1,500 employees. In addition, 16 carriers have reported that they are "Shared-Tenant Service Providers," and all 16 are estimated to have 1,500 or fewer employees. In addition, 89 carriers have reported that they are "Other Local Service Providers," and all 89, have 1,500 or fewer employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, "Shared-Tenant Service Providers," and "Other Local Service Providers" are small entities.

18. *Broadband Personal Communications Service.* The broadband Personal Communications Service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission has created a small business size standard for Blocks C and F as an entity that has average gross revenues of less than \$40 million in the three previous calendar years. For Block F, an additional small business size standard for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years. These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA. No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the C Block auctions. A total of 93 "small" and "very small" business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F. In 1999, the Commission reaucted 155 C, D, E, and F Block licenses; there were 113 small business winning bidders.

19. In 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction 35. Of the 35 winning bidders in this auction, 29 qualified as "small" or "very small" businesses. Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. In 2005, the Commission completed an auction of 188 C block licenses and 21 F block licenses in Auction 58. There were 24

winning bidders for 217 licenses. Of the 24 winning bidders, 16 claimed small business status and won 156 licenses. In 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction 71. Of the 14 winning bidders, six were designated entities. In 2008, the Commission completed an auction of 20 Broadband PCS licenses in the C, D, E and F block licenses in Auction 78.

20. *Narrowband Personal Communications Service.* In 1994, the Commission conducted an auction for Narrowband PCS licenses. A second auction was also conducted later in 1994. For purposes of the first two Narrowband PCS auctions, “small businesses” were entities with average gross revenues for the prior three calendar years of \$40 million or less. Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses. To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the Narrowband PCS Second Report and Order. A “small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million. A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million. The SBA has approved these small business size standards. A third auction was conducted in 2001. Here, five bidders won 317 (Metropolitan Trading Areas and nationwide) licenses. Three of these claimed status as a small or very small entity and won 311 licenses.

21. *Specialized Mobile Radio.* The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years. The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years. The SBA has approved these small business size standards for the 900 MHz Service. The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR was completed in 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels was conducted in 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band. A second auction for the 800 MHz band was conducted in 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.

22. The auction of the 1,050 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the \$15 million size standard. In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded. Of the 22 winning bidders, 19 claimed “small business” status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

23. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1500 or fewer employees. We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is approved by the SBA.

24. *AWS Services (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)).* For the AWS-1 bands, the Commission has defined a “small business” as an entity with average

annual gross revenues for the preceding three years not exceeding \$40 million, and a “very small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million. For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.

25. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service. A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (“BETRS”). In the present context, we will use the SBA’s small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.¹⁶⁷ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

26. *Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses in the 2305-2320 MHz and 2345-2360 MHz bands. The Commission defined “small business” for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years. The SBA has approved these definitions. The Commission auctioned geographic area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

27. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz Band. The Commission has not developed a definition of small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite). This category provides that a small business is a wireless company employing no more than 1,500 persons. The Commission estimates that most such licensees are small businesses under the SBA’s small business standard.

28. *220 MHz Radio Service – Phase II Licensees.* The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is a new service, and is subject to spectrum auctions. In the 220 MHz Third Report and Order, the Commission adopted a small business size standard for defining “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments. This small business standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years. The SBA has approved these small size standards. Auctions of Phase II licenses commenced on and closed in 1998. In the first auction, 908 licenses were auctioned in three different sized geographic areas: three nationwide licenses, 30 Regional

¹⁶⁷ NAICS Code 51210.

Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won 373 licenses in the first 220 MHz auction. A second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses. A third auction included four licenses: 2 BEA licenses and 2 EAG licenses in the 220 MHz Service. No small or very small business won any of these licenses. In 2007, the Commission conducted a fourth auction of the 220 MHz licenses. Bidding credits were offered to small businesses. A bidder with attributed average annual gross revenues that exceeded \$3 million and did not exceed \$15 million for the preceding three years (“small business”) received a 25 percent discount on its winning bid. A bidder with attributed average annual gross revenues that did not exceed \$3 million for the preceding three years received a 35 percent discount on its winning bid (“very small business”). Auction 72, which offered 94 Phase II 220 MHz Service licenses, concluded in 2007. In this auction, five winning bidders won a total of 76 licenses. Two winning bidders identified themselves as very small businesses won 56 of the 76 licenses. One of the winning bidders that identified themselves as a small business won 5 of the 76 licenses won.

29. *700 MHz Guard Band Licenses.* In the 700 MHz Guard Band Order, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments. A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years. SBA approval of these definitions is not required. In 2000, the Commission conducted an auction of 52 Major Economic Area (“MEA”) licenses. Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced and closed in 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.

30. *Upper 700 MHz Band Licenses.* In the 700 MHz Second Report and Order, the Commission revised its rules regarding Upper 700 MHz licenses. On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block. The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) and winning five licenses.

31. *Lower 700 MHz Band Licenses.* The Commission adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits. The Commission has defined a small business as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years. A very small business is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years. Additionally, the Lower 700 MHz Band has a third category of small business status that may be claimed for Metropolitan/Rural Service Area (MSA/RSA) licenses. The third category is entrepreneur, which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA has approved these small size standards. An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses. A second auction commenced on May 28, 2003, and closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 CMA

licenses. Seventeen winning bidders claimed small or very small business status and won sixty licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.

32. *Offshore Radiotelephone Service.* This service operates on several ultra high frequencies (“UHF”) television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico. There is presently 1 licensee in this service. We do not have information whether that licensee would qualify as small under the SBA’s small business size standard for Wireless Telecommunications Carriers (except Satellite) services. Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.

33. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services (PCS), and specialized mobile radio (SMR) telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite). Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees. According to Trends in Telephone Service data, 434 carriers reported that they were engaged in wireless telephony. Of these, an estimated 222 have 1,500 or fewer employees and 212 have more than 1,500 employees. We have estimated that 222 of these are small under the SBA small business size standard.

34. *Satellite Telecommunications and All Other Telecommunications.* These two economic census categories address the satellite industry. The first category has a small business size standard of \$13.5 million or less in average annual receipts, under SBA rules.¹⁶⁸ The second has a size standard of \$23.5 million or less in annual receipts.¹⁶⁹ The most current Census Bureau data in this context, however, are from the (last) economic census of 2002, and we will use those figures to gauge the prevalence of small businesses in these categories.

35. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.” For this category, Census Bureau data for 2002 show that there were a total of 371 firms that operated for the entire year. Of this total, 307 firms had annual receipts of under \$10 million, and 26 firms had receipts of \$10 million to \$24,999,999. Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

36. The second category of All Other Telecommunications comprises, inter alia, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.” For this category, Census Bureau data for 2002 show that there were a total of 332 firms that operated for the entire year. Of this total, 303 firms had annual receipts of under \$10 million and 15 firms had annual receipts of \$10 million to \$24,999,999. Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

37. *Computer Systems Design and Related Services.* This industry comprises establishments primarily engaged in providing expertise in the field of information technologies through one or more of the following activities: (1) writing, modifying, testing, and supporting software to meet the needs of a particular customer; (2) planning and designing computer systems that integrate computer hardware,

¹⁶⁸ NAICS Code 517410.

¹⁶⁹ NAICS Code 517919.

software, and communication technologies; (3) on-site management and operation of clients' computer systems and/or data processing facilities; and (4) other professional and technical computer-related advice and services.

b. Wireline Carriers and Service Providers

38. We have included small incumbent local exchange carriers (LECs) in this present RFA analysis. As noted above, a "small business" under the RFA is one that, inter alia, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees) and "is not dominant in its field of operation." The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope. We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

39. *Incumbent LECs.* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent LECs. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 1,311 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,311 carriers, an estimated 1,024 have 1,500 or fewer employees and 287 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our action.

40. *Competitive LECs, Competitive Access Providers (CAPs), "Shared-Tenant Service Providers," and "Other Local Service Providers."* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 1,005 carriers have reported that they are engaged in the provision of either competitive access provider services or competitive LEC services. Of these 1,005 carriers, an estimated 918 have 1,500 or fewer employees and 87 have more than 1,500 employees. In addition, 16 carriers have reported that they are "Shared-Tenant Service Providers," and all 16 are estimated to have 1,500 or fewer employees. In addition, 89 carriers have reported that they are "Other Local Service Providers," and all 89, have 1,500 or fewer employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, "Shared-Tenant Service Providers," and "Other Local Service Providers" are small entities.

c. Equipment Manufacturers

41. *Wireless Communications Equipment Manufacturing.* The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment."¹⁷⁰ The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.¹⁷¹ According to Census Bureau data for 2002, there were a total of

¹⁷⁰ U.S. Census Bureau, 2002 NAICS Definitions, "334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing"; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

¹⁷¹ 13 C.F.R. § 121.201, NAICS code 334220.

1,041 establishments in this category that operated for the entire year.¹⁷² Of this total, 1,010 had employment of under 500, and an additional 13 had employment of 500 to 999.¹⁷³ Thus, under this size standard, the majority of firms can be considered small.

42. *Semiconductor and Related Device Manufacturing.* These establishments manufacture “computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, optical, or magnetic/optical media.”¹⁷⁴ The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees.¹⁷⁵ According to Census Bureau data for 1997, there were 1,082 establishments in this category that operated for the entire year.¹⁷⁶ Of these, 987 had employment of under 500, and 52 establishments had employment of 500 to 999.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

43. In the Second Report and Order we require the provision of confidence and uncertainty data by carriers on a per call basis upon PSAP request beginning two years after the effective date of the order. Additionally, carriers must submit a list of specific counties or portions of counties where they utilize exclusions within 90 days following approval from the Office of Management and Budget for the related information collection. Some carriers may have to revise their internal recordkeeping procedures to comply with the Order’s requirements, although the Order imposes no specific requirements in this regard.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

44. The RFA requires an agency to describe any significant, specifically small business alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) and exemption from coverage of the rule, or any part thereof, for small entities.”¹⁷⁷

45. In the *Notice*, the Commission specifically considered the impact of potential revisions to the wireless E911 accuracy rules on small entities. The *Notice* asked whether certain classes of carriers

¹⁷² U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334220 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 2002, which was 929.

¹⁷³ *Id.* An additional 18 establishments had employment of 1,000 or more.

¹⁷⁴ U.S. Census Bureau, “2002 NAICS Definitions: 334413 Semiconductor and Related Device Manufacturing” (Feb. 2004) <www.census.gov>.

¹⁷⁵ 13 C.F.R. § 121.201, NAICS code 334413.

¹⁷⁶ U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Semiconductor and Related Device Manufacturing,” Table 4, NAICS code 334413 (issued July 1999).

¹⁷⁷ 5 U.S.C. §§ 603(c)(1)-(c)(4).

and/or rural networks should be held to a uniform standard of accuracy if the Commission were to adopt one, and if so, by what date they should be required to come into compliance with a more stringent, uniform accuracy requirement.¹⁷⁸ The questions posed in the *Notice* enabled the Commission to assess whether similar concessions to small entities were warranted with respect to wireless E911 accuracy requirements.

46. The Commission has determined that the benefits of requiring all CMRS carriers to comply with the requirements of Section 20.18(h) at the county or PSAP service area level far outweigh any burdens associated with implementing these requirements. E911 represents a significant and valuable investment that enables emergency responders to reach the site of an emergency as quickly as possible. We acknowledge that compliance with the rule adopted in the order may impose cost burdens on small entities. However, given the great public interest benefits of the rules, we find that the public interest benefits outweigh the economic burdens of providing greater location accuracy. Furthermore, the order gives an ample amount of time – five years for network-based solutions and eight years for handset-based solutions - to come into compliance with section 20.18(h) at the county or PSAP level, in part because we have taken into account the specific economic and technological concerns that small entities face. We considered the alternative of requiring a shorter timeframe for compliance; however, the adopted timeframes were the best possible balance between the need for accurate location data and the economic and technological concerns of carriers. We also allowed for carriers to make exceptions for areas that lack triangulation ability and those that are heavily forested. This should allow smaller carriers the ability to mitigate any negative economic impacts that might affect their ability to comply in all areas that they serve.

47. Additionally, by allowing the option for carriers to comply at either the county or PSAP level, we permit carriers to take into account natural and network topographies (such as foliage levels, terrain, cell site density, etc.) and the respective impact of their location technologies choices. Therefore, permitting carriers the option to choose between PSAP-level compliance and county-level compliance maximizes the ability of carriers to use current technology to meet the location accuracy standard of section 20.18(h), further lessening the burden on small entities.

48. We addressed alternative rules in the Second Report and Order, and determined that the benefits afforded by the adoption of these rules would not be achieved under any alternatives rules. The rules adopted in the Second Report and Order include compliance timeframes, limitations and exemptions that will allow carriers a measure of flexibility to account for technical and cost-related concerns.¹⁷⁹

49. Finally, in the event that small entities face unique circumstances with regard to these rules, such entities may request waiver relief from the Commission. Accordingly, we find that we have discharged our duty to consider the burdens imposed on small entities.

50. **Report to Congress:** The Commission will send a copy of the Second Report and Order, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act.¹⁸⁰ In addition, the Commission will send a copy of the Second Report and Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Second Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.¹⁸¹

¹⁷⁸ See Notice at 6 ¶ 13.

¹⁷⁹ See discussion at ¶¶ 25-27.

¹⁸⁰ See 5 U.S.C. § 801(a)(1)(A).

¹⁸¹ See 5 U.S.C. § 604(b).

APPENDIX C**Final Rules**

Part 20 of the Code of Federal Regulations is amended as follows:

PART 20 – COMMERCIAL MOBILE RADIO SERVICES

- 2. The authority for Part 20 remains unchanged.**
 - 3. Section 20.18(h) is amended to read as follows:**
- * * *

(h) *Phase II accuracy.* Licensees subject to this section shall comply with the following standards for Phase II location accuracy and reliability, to be tested and measured either at the county or at the PSAP service area geographic level, based on outdoor measurements only:

(1) Network-Based Technologies:

(A) 100 meters for 67 percent of calls, consistent with the following benchmarks:

(i) One year from [effective date of the Order], carriers shall comply with this standard in 60 percent of counties or PSAP service areas. These counties or PSAP service areas must cover at least 70 percent of the population covered by the carrier across its entire network. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either (1) network-based accuracy data, or (2) blended reporting as provided in paragraph (h)(1)(D) of this section.

(ii) Three years from [effective date of the Order], carriers shall comply with this standard in 70 percent of counties or PSAP service areas. These counties or PSAP service areas must cover at least 80 percent of the population covered by the carrier across its entire network. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either (1) network-based accuracy data, or (2) blended reporting as provided in paragraph (h)(1)(D) of this section.

(iii) Five years from [effective date of the Order], carriers shall comply with this standard in 100% of counties or PSAP service areas covered by the carrier. Compliance will be measured on a per-county or per-PSAP basis, using, at the carrier's election, either (1) network-based accuracy data, (2) blended reporting as provided in paragraph (h)(1)(D) of this section, or (3) handset-based accuracy data as provided in paragraph (h)(1)(E) of this section.

(B) 300 meters for 90 percent of calls, consistent with the following benchmarks:

(i) Three years from [effective date of the Order], carriers shall comply with this standard in 60 percent of counties or PSAP service areas. These counties or PSAP service areas must cover at least 70 percent of the population covered by the carrier across its entire network. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either (1) network-based accuracy data, or (2) blended reporting as provided in paragraph (h)(1)(D) of this section.

(ii) Five years from [effective date of the Order], carriers shall comply in 70 percent of counties or PSAP service areas. These counties or PSAP service areas must cover at least 80 percent of the population covered by the carrier across its entire network. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either (1) network-based accuracy data, or (2) blended reporting as provided in paragraph (h)(1)(D) of this section.

(iii) Eight years from [effective date of the Order], carriers shall comply in 85 percent of counties or PSAP service areas. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either (1) network-based accuracy data, (2) blended reporting as provided in paragraph (h)(1)(D) of this section, or (3) handset-based accuracy data as provided in paragraph (h)(1)(E) of this section.

(C) County-level or PSAP-level location accuracy standards for network-based technologies will be applicable to those counties or PSAP service areas, on an individual basis, in which a network-based carrier has deployed Phase II in at least one cell site located within a county's or PSAP service area's boundary. Compliance with the requirements of paragraph (h)(1)(A) and paragraph (h)(1)(B) of this section shall be measured and reported independently.

(D) Accuracy data from both network-based solutions and handset-based solutions may be blended to measure compliance with the accuracy requirements of paragraph (h)(1)(A)(i)-(iii) and paragraph (h)(1)(B)(i)-(iii) of this section. Such blending shall be based on weighting accuracy data in the ratio of assisted GPS ("A-GPS") handsets to non-A-GPS handsets in the carrier's subscriber base. The weighting ratio shall be applied to the accuracy data from each solution and measured against the network-based accuracy requirements of paragraph (h)(1) of this section.

(E) A carrier may rely solely on handset-based accuracy data in any county or PSAP service area if at least 85 percent of its subscribers, network-wide, use A-GPS handsets, or if it offers A-GPS handsets to subscribers in that county or PSAP service area at no cost to the subscriber.

(F) A carrier may exclude from compliance particular counties, or portions of counties, where triangulation is not technically possible, such as locations where at least three cell sites are not sufficiently visible to a handset. Carriers must file a list of the specific counties or portions of counties where they are utilizing this exclusion within 90 days following approval from the Office of Management and Budget for the related information collection. This list must be submitted electronically into PS Docket No. 07-114, and copies must be sent to the National Emergency Number Association, the Association of Public-Safety Communications Officials-International, and the National Association of State 9-1-1 Administrators. Further, carriers must submit in the same manner any changes to their exclusion lists within thirty days of discovering such changes. This exclusion will sunset on [8 years after effective date].

(2) Handset-Based Technologies:

(A) Two years from [effective date of the Order], 50 meters for 67 percent of calls, and 150 meters for 80 percent of calls, on a per-county or per-PSAP basis. However, a carrier may exclude up to 15 percent of counties or PSAP service areas from the 150 meter requirement based upon heavy forestation that limits handset-based technology accuracy in those counties or PSAP service areas.

(B) Eight years from [effective date of the Order], 50 meters for 67 percent of calls, and 150 meters for 90 percent of calls, on a per-county or per-PSAP basis. However, a carrier may exclude up to 15 percent of counties or PSAP service areas from the 150 meter requirement based upon heavy forestation that limits handset-based technology accuracy in those counties or PSAP service areas. Carriers must file a list of the specific counties or PSAP service areas where they are utilizing this

exclusion within 90 days following approval from the Office of Management and Budget for the related information collection. This list must be submitted electronically into PS Docket No. 07-114, and copies must be sent to the National Emergency Number Association, the Association of Public-Safety Communications Officials-International, and the National Association of State 9-1-1 Administrators. Further, carriers must submit in the same manner any changes to their exclusion lists within thirty days of discovering such changes.

(3) Confidence and Uncertainty Data: Two years after [effective date of the Order], all carriers subject to this section shall be required to provide confidence and uncertainty data on a per-call basis upon the request of a PSAP. Once a carrier has established baseline confidence and uncertainty levels in a county or PSAP service area, ongoing accuracy shall be monitored based on the trending of uncertainty data and additional testing shall not be required. All entities responsible for transporting confidence and uncertainty between wireless carriers and PSAPs, including LECs, CLECs, owners of E911 networks, and emergency service providers (collectively, System Service Providers (SSPs)) must implement any modifications that will enable the transmission of confidence and uncertainty data provided by wireless carriers to the requesting PSAP. If an SSP does not pass confidence and uncertainty data to PSAPs, the SSP has the burden of proving that it is technically infeasible for it to provide such data.

**STATEMENT OF
CHAIRMAN JULIUS GENACHOWSKI**

RE: Wireless E911 Location Accuracy Requirements, Second Report and Order, PS Docket No. 07-114.

When Americans call 9-1-1 from their landlines, first responders receive location information that's accurate more than 98% of the time. When Americans call 9-1-1 from their mobile phones, first responders are about 50% less likely to receive precise information about your location. Fifty percent.

The inaccuracy is not just a few feet, but up to one or two miles—and sometimes no location information at all.

Meanwhile, more and more 9-1-1 calls are being made from mobile phones – over 425,000 mobile 9-1-1 calls every day, and rising.

What does that mean in practical terms?

Yesterday, I had a chance to visit with the men and women who answer 9-1-1 calls at the McConnell Public Safety Operations Center in Fairfax, Virginia – and I saw, up close, the challenge of dealing with increasingly mobile 9-1-1 calls.

The Officers I met with said that when they don't receive accurate location data as part of a wireless 9-1-1 call, it can cost the first responders six minutes in delay trying to locate the caller. Sometimes more. Precious minutes that can be the difference between life and death.

Now, mobile telephones play a vital and positive role in our emergency safety system. Mobile phones let people call 9-1-1 from places where there are no landlines readily available, enhancing public safety.

And like any new technology, they create new issues, like distracted driving and the location-accuracy issue we are tackling today.

The order we adopt today makes location-accuracy requirements more stringent for wireless service providers. This will give first responders a better chance at locating callers much faster. It will enhance the public's safety.

And we have more work to do. Our *Further Notice* launches an inquiry on how to improve *indoor* location accuracy, and our *NOI* accelerates our work on how new and developing broadband technologies can help Americans reach 9-1-1 wherever they may be.

Our actions today fulfill another recommendation of the National Broadband Plan.

One final point on mobile 9-1-1 location accuracy. When I was in Fairfax yesterday, the public safety officers described ways that people can help first responders, and themselves, when they are making 9-1-1 calls from mobile phones.

Try to pay attention to landmarks, and mile markers on highways for example; remember the floor you're on in a tall building.

I have instructed our Public Safety and Consumer Bureaus to develop, together with the public

safety community, a fact sheet for consumers with helpful information on mobile 9-1-1 calls. We will soon have this on our website and work together with the public safety community on ways to pursue this education initiative – to help mobile 9-1-1 callers better and more quickly locate them in times of emergency.

I thank the staff for its great and ongoing work in this area. I look forward to continuing to work very closely with the public safety community, wireless service providers, and consumer advocates to continue to harness technology to improve the 9-1-1 service.

**STATEMENT OF
COMMISSIONER MICHAEL J. COPPS**

RE: Wireless E911 Location Accuracy Requirements, Second Report and Order, PS Docket No. 07-114.

I welcome these steps forward as we work to enhance the safety of the American people—always Job One for the FCC. Enhanced 911 saves lives. Experience has shown us that. The steps we take today will further improve the ability of first responders accurately to locate wireless E911 callers in emergencies. We do so based on a solid record and with a practical approach that relies on currently available technologies. More importantly, our actions reflect a general consensus among important E911 stakeholders—including the Association of Public-Safety Communications Officials and the National Emergency Number Association—on how to get this job done. So it's action time and today we take action.

We have come a good long distance since I came to the agency in 2001. I arrived at a time when carriers were regularly missing deadlines for deploying E911, manufacturers were failing to make equipment and software available quickly enough, and technology was still pretty basic. The Commission has been generally aggressive in recent years in encouraging all stakeholders and players to push the envelope and accomplish what needs to be accomplished to make Enhanced E911 a reality. With life-critical technology like E911, we must always do better than “business as usual.” We must make the extra effort, expend the necessary resources and keep the objective front-and-center. With the consensus adopted in today's Order, I think we are clearly on the right road.

While I support today's decision, including its recognition of the unique challenges facing rural and remote communities, I remain worried. We allow, for example, network-based carriers to exclude from location accuracy compliance those counties where triangulation is not technically feasible. I understand that the technology and infrastructure in a given area today may not allow a carrier to comply with the specific location accuracy targets we require. That said, locating emergency callers living in rural America is no less important than locating emergency callers in other parts of the country. I expect carriers, even in those areas excluded from location accuracy compliance, to take every step technologically possible to maximize location accuracy for E911 calls and to do it with the sense of urgency that the safety of the people compels. We must never lose sight of this particular challenge as we move forward with implementation of the National Broadband Plan and work to expand wireless infrastructure in rural America. More towers mean not only more broadband, but can also mean more accurate E911 . . . and more lives saved. I am pleased we recognize that rural Americans cannot be left in the lurch going forward. By setting a sunset date for the location accuracy exclusion, we encourage carriers and manufacturers to expand A-GPS handsets in their subscriber base, which will make the network-based exclusion unnecessary in the long term.

Today we also launch a separate and much-needed examination into the next phase of wireless E911 location accuracy and reliability. With the explosion of wireless usage, devices and applications, including those encompassing voice over Internet Protocol (VoIP), we seek comment on the ongoing evolution of wireless technologies and the implications for location accuracy. Consistent with the National Broadband Plan, we look at the impact of Next Generation 911 (NG911) deployment and its potential for location accuracy. The FCC should always be looking for ways to harness the benefits of technology advances to improve accuracy and speed of response in emergencies, and to provide more interoperable and integrated emergency response capabilities for PSAPs, hospitals and first responders.

The Chairman is to be commended for bringing this important item to the full Commission for

consideration. I particularly want to thank the staff of the Public Safety and Homeland Security for their hard work and thorough analysis. I look forward to working with my colleagues, with the staff and with all E911 stakeholders as we continue to strengthen E911 requirements and capabilities.

**STATEMENT OF
COMMISSIONER ROBERT M. McDOWELL**

RE: Wireless E911 Location Accuracy Requirements, Second Report and Order, PS Docket No. 07-114.

For some time now, I have strongly encouraged efforts to forge consensus on the technological challenges to improving the accuracy of locating wireless callers who face an emergency. I am delighted, therefore, that we have reached this day and I am pleased to support today's Report and Order. We are unanimously adopting rules that will satisfy the current needs of public safety personnel and the expectations of America's wireless consumers. I thank all the participants for sharing your expertise and knowledge on the complex issues discussed in this proceeding.

Given the great consumer demand for and constant technology upgrades to wireless services, the companion Further Notice of Proposed Rulemaking and Notice of Inquiry is the more important of the two documents we adopt today. We have an ongoing duty to ensure that consumers, industry and first responders will all benefit as more powerful products are developed and deployed.

I am pleased that the Commission is promoting a meaningful discussion on the longer term requirements for 911 capabilities. We are posing tough questions on the effect of location accuracy and automatic location identification improvements, including indoor testing capabilities, as well as the applicability of E911 requirements to additional wireless communications services, devices and applications, among other issues. As is reflected in the order we adopt today, harnessing the expertise of all interested stakeholders will serve the public interest and move all of us ahead to understand and solve these technological challenges in a straightforward, comprehensive and transparent manner.

Thank you to Jeff Cohen and Patrick Donovan for their leadership, as well as to the entire team in the Public Safety and Homeland Security Bureau for its important work.

**STATEMENT OF
COMMISSIONER MIGNON L. CLYBURN**

RE: Wireless E911 Location Accuracy Requirements, Second Report and Order, PS Docket No. 07-114.

As I have mentioned before, one of the top priorities of this agency should be the safety of consumers. The accuracy of wireless E-9-1-1 location services, has become an increasingly important public safety concern, because our citizens have become more dependent on their mobile wireless devices. This surge in the demand for mobile wireless services reflects, in large part, an increased demand for innovative broadband applications. But as the Fourteenth Report on Mobile Services highlights, this increased demand for mobile services, is also a result of more people opting to rely solely on their mobile wireless service for their communications needs. As the percentage of citizens who only rely on mobile services increases, so should our focus on improving the location accuracy of E-9-1-1 for emergency services.

The Order and Notices we adopt today, send important messages about the direction our communications industry should take with regard to improving E-9-1-1 services. As the history leading up to the Second Report and Order suggests, consensus by all stakeholders is a more effective way to make our citizens safer than litigation. I congratulate APCO, NENA, AT&T, Sprint, T-Mobile, and Verizon Wireless, for reaching a workable compromise on location accuracy standards, and for putting the safety of our citizens ahead of other interests.

The Further Notice of Proposed Rulemaking and Notice of Inquiry, demonstrate a comprehensive and balanced approach to promoting more accurate E-9-1-1 services. I was particularly pleased to see the Further Notice address the different problems that service providers face in challenging environments, such as certain rural areas. It may be the case, that all service providers, large and small, face technical challenges in providing E-9-1-1 services. It is also true however, that these problems are more acute in hard to serve areas, where 3G networks are not currently deployed. Therefore, we should promote improved location accuracy standards, while recognizing that different areas may require different approaches to achieving those standards. I was also pleased to see that both Notices recognize the importance of considering the interests of persons living with disabilities. I commend the parties, such as AT&T and CTIA, who urged all stakeholders to account for those interests in developing E-9-1-1 technical solutions.

The Notice of Inquiry properly asks about the feasibility of extending location accuracy requirements to the many new wireless devices and applications, that provide the equivalent of mobile telephony but because of technical classifications, are not subject to our E-9-1-1 rules. Consumers have come to expect, that they can make VoIP phone calls from their computers as well as from their iPhones and other smart phones. It is reasonable for them to expect that they can access E-9-1-1 services when using VoIP technology. The Commission should ensure that its E-9-1-1 rules adapt to keep pace with consumer expectations. I encourage large carriers, smaller service providers, and other stakeholders, to provide us with the relevant information we need to take a proper, thorough, look at this issue. I thank the staff of the Public Safety and Homeland Security Bureau for their hard work on these items.

**STATEMENT OF
COMMISSIONER MEREDITH A. BAKER**

RE: Wireless E911 Location Accuracy Requirements, Second Report and Order, PS Docket No. 07-114.

I am pleased to support today's *Second Report and Order, Further Notice of Proposed Rulemaking, and Notice of Inquiry*. More than a decade ago, one of the first bills I ever worked on in Washington made 911 the national emergency number for mobile as well as fixed numbers. Fast forward to today when one of every four American homes has *only* wireless telephone service and standardizing access to emergency response services has become even more critical.¹⁸² And, even in households that have both fixed and wireless service, one in seven receives all or nearly all calls on wireless telephones.¹⁸³

Americans aren't just *receiving* calls on their wireless phones, either. Comments in our record reveal that in states such as Virginia and Texas, large majorities of 911 calls were *placed* on wireless phones. Those consumers, and countless others in emergency situations, will be safer and more secure as we require heightened standards for wireless carriers to ensure effective location of 911 callers.

I applaud the industry-wide cooperation in making these standards a reality. I also support the Commission's practical approach in allowing a carrier to blend network-based location data with A-GPS handset-based accuracy data to achieve the new Phase II network-based benchmarks.

However, it is important to note that these standards apply only to calls made outdoors. Today's *FNPRM* rightly inquires about the state of location-based technology and whether the FCC should consider enhancing E911 services for consumers placing 911 calls from indoor and in-building locations. Heightened standards for locating emergency indoor callers could materially enhance the ability of first responders to provide assistance and save lives.

Today's *Notice of Inquiry* also asks whether to extend 911 and E911 requirements beyond interconnected VoIP services, as defined by the Commission, to portable VoIP services and additional IP-based devices, services and applications. While these are important questions, I am cautious about the extent of the Commission's jurisdiction in this area.

I want to thank the staff of the Public Safety and Homeland Security Bureau for its work on this item. I look forward to working with my Commission colleagues on continuing to improve E911 public safety initiatives.

¹⁸² Stephen J. Blumberg & Julian V. Luke, *Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July-December 2009*, at 1 (May 12, 2010) National Center for Health Statistics, Centers for Disease Control and Prevention. (available at: <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless200905.pdf>) (Last visited September 22, 2010).

¹⁸³ *Wireless Substitution: Early Release of Estimates from the National Health Interview Study, supra*, at 5.