In addition to filing comments with the Secretary, a copy of any comments on the information collections contained in this Order should be submitted to Lex Smith, Federal Communications Commission, Room 1A-804, 445 12th Street, S.W., Washington, DC 20554, or via the Internet to lesmith@fcc.gov, and to Virginia A. Huth, OMB Desk Officer, 10236 NEOB, 725 - 17th Street, N.W., Washington, DC 20503, or via the Internet to vhuth@omb.eop.gov.

C. Authority

92. This action is taken pursuant to Sections 1, 4(i), 201, 303, 309, and 332 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. §§ 151, 154(i), 201, 303, 309, 332.

D. Further Information

93. For further information, contact Dan Grosh or Mindy Littell of the Policy Division, Wireless Telecommunications Bureau, at 202-418-1310 (voice) or 202-418-1169 (TTY).

VI. ORDERING CLAUSES

94. Accordingly, IT IS ORDERED that Part 20 of the Commission's Rules is amended as set forth in Appendix B.

95. IT IS FURTHER ORDERED that the rule amendments made by this Order and specified in Appendix B SHALL BECOME EFFECTIVE 120 days after the date of the publication of the rule amendments in the Federal Register.

96. IT IS FURTHER ORDERED that the information collections contained in the rule amendments set forth in Appendix B WILL BECOME EFFECTIVE following approval by the Office of Management and Budget. The Commission will publish a document at a later date establishing the effective date.

97. IT IS FURTHER ORDERED that, the Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this Third Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

98. IT IS FURTHER ORDERED that all petitions for waiver of the Commission's wireless E911 rules submitted in response to the Wireless Telecommunications Bureau's

Waiver Public Notice ARE DISMISSED AS MOOT in light of the rule changes adopted in this Report and Order.

99. IT IS FURTHER ORDERED that the Petition to Modify the wireless 911 rules filed by the Wireless Consumers Alliance, Inc. IS DENIED.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas

Magalie Roman Salas
Secretary

APPENDIX A

LIST OF COMMENTERS

Waiver Public Notice, DA 98-2631 (Dec. 24, 1998)
(Denoted by "Comments I" or "Reply Comments I")

■ **List of Pleadings** (Feb. 4, 1999)

1. Advantage Cellular Systems, Inc.: Request for Waiver
2. AirTouch: Comments and Petition for Waiver
3. Ameritech: Request for Waiver
4. Arctic Slope Telecommunications and Cellular, Inc. (Arctic Slope): Request for Waiver
5. AT&T Wireless: Comments
6. Brazos Cellular Communications, Ltd. (South #5 RSA Limited Partnership): Request for Waiver
7. Celulares Telefonica (CT): Comments
8. CenturyTel Wireless, Inc. (CenturyTel): Request for Waiver
9. Chariton (Missouri RSA No. 5 Partnership): Request for Waiver
10. Cincinnati Bell Wireless: Comments to support AT&T's Comments
11. CTIA: Comments
12. GTE: Ex Parte Presentation
13. Inland Cellular Telephone Company (on behalf of Eastern Sub-RSA Limited Partnership and Washington RSA Number 8 Limited Partnership): Petition for Waiver
14. New Mexico RSA 6-III Partnership: Request for Waiver
15. Nextel Communications: Request for Waiver
16. "Phase II Working Group" -- KSI, TruePosition, Corsair, and SigmaOne Communications: Comments
17. PrimeCo: Petition for Waiver
18. Public Safety Associations (NENA, APCO, and NASNA): Comments
19. Sprint Spectrum: Waiver Request
20. Southern Company: Request for Leave to File Request for Waiver at a Later Date.
21. TeleCorp PCS, Inc.: Request for Waiver
22. Texas RSA 7B3, Inc. (Peoples Cellular): Request for Waiver
23. Tritel, Inc.: Comments
24. Upstate Cellular Network: Petition for Waiver
25. United States Cellular Corporation (USCC): Contingent Request for Waiver
26. US West : Petition for Waiver

■ **Late Filing/Delivery**

1. Aerial Communications (Aerial): Petition for Waiver (Feb. 5)
2. Cellular Phone of Kentucky, Inc. (Ramcell of Kentucky): Petition for Waiver (Feb. 17)

3. Litchfield County Cellular, Inc. (Ramcell of Oregon): Petition for Waiver (Feb. 17)
4. North Carolina RSA 1 Partnership(Ramcell of North Carolina):Petition for Waiver (2/17)
5. Powertel, Inc. (Powertel): Petition for Waiver (Feb. 4)
6. Kurtis & Associates *Ex Parte* Filings on behalf of the following clients: (Feb. 4, delivered to WTB)
   - Aliant Cellular Inc.
   - Cal-One Cellular L.P.
   - Carolina PCS I Limited Partnership
   - DiGiPH PCS, Inc.
   - Hudson Valley RSA Cellular Partnership
   - Illinois Valley RSA 2-I Partnership
   - Illinois Valley RSA 2-II Partnership
   - Illinois Valley RSA 2-III Partnership
   - McElroy Electronics Corporation
   - Omaha Cellular Limited Partnership
   - RSA I Limited Partnership
   - Virginia 10 RSA Limited Partnership
7. North Alabama Cellular: Waiver Petition (Feb. 22)

■ **Oppositions/Comments** (Feb. 16, 1999)

1. Cell-Loc Inc.: Comments
2. KSI: Reply to Comments and Requests for Waiver
3. PCIA: Comments
4. SigmaOne Communications Corporation: Opposition to Waiver
5. TruePosition: Response to Comments and Waiver Requests
6. Comments of Public Safety Associations in Response to Requests for Waiver [APCO, NENA, NASNA]: Comments (filed on Feb. 22, original was submitted to WT Docket 96-86 on Feb. 16.)

■ **Replies to Oppositions** (Feb. 22, 1999)

1. Consolidated Reply of Advantage Cellular Systems, New Mexico RSA 6-III, South #5 RSA, Texas RSA 7B3.
2. Aerial Communications
3. AirTouch Communications
4. AT&T Wireless
5. Inland Cellular Telephone Company
6. SnapTrack
7. Sprint Spectrum
8. Upstate Cellular Network (UCN)

9. U.S. West

Targeted Comments on E911 Phase II ALI: Public Notice DA 99-1049
(Denoted by "Comments II" or "Reply Comments II")

- **Comments (June 17, 1999)**

1. Aerial Communications
2. AirTouch
3. ALLTEL Communications
4. Ameritech
5. APCO (Association of Public-Safety Communications Officials-International)
6. AT&T Wireless Services
7. BellSouth
8. Cell-Loc Inc.
9. CTIA (Cellular Telecommunications Industry Association)
10. Ericsson
11. GTE Wireless
12. IDC (Integrated Data Communications)
13. King County E911 Program
14. KSI
15. METROCOM.COM, Inc.
16. Motorola
17. NENA (National Emergency Number Association)
18. Nortel Networks, Inc.
19. Omnipoint Communications
20. Omnipoint Technologies
21. PCIA (Personal Communications Industry Association)
22. PrimeCo
23. Radix Technologies, Inc.
24. RCA (Rural Cellular Association)
25. RTG (Rural Telecommunications Group)
26. SnapTrack
27. Sprint PCS
28. Southwest Research Institute
29. TechnoCom Corporation
30. TIA Wireless Communications Division
31. TruePosition
32. TX-ACSEC (Texas Advisory Commission on State Emergency Communications), NASNA (National Association of State Nine-One-One Administrators), and certain Texas Emergency Communications Districts: Joint commenters

33. US West
34. US Wireless
35. WCA (Wireless Consumers Alliance, Inc.). WCA also filed a Petition To Modify the wireless 911 rules on June 1, 1999 which raised issues related to those in the Public Notice and which WCA incorporated by reference in its Comments.

- **Reply Comments (July 2, 1999)**

1. Aerial
2. AirTouch
3. Allen Telecom
4. APCO
5. Go2 Systems
6. IDC
7. KSI
8. Lucent Technologies
9. METROCOM.COM
10. Motorola
11. NENA
12. NTCA
13. Nextel
14. Omnipoint Communications
15. PCIA
16. PrimeCo
17. SnapTrack
18. Southern
19. Sprint
20. TX-ACSEC
21. Texas PUC
22. TruePosition
23. US West
24. WCA

APPENDIX B

FINAL RULES

Part 20 of Title 47 of the Code of Federal Regulations is amended as follows:

Part 20 - COMMERCIAL MOBILE RADIO SERVICES

1. Section 20.3 is amended by adding the following definitions:

Handset-based Location Technology. A method of providing the location of wireless 911 callers that requires the use of special location-determining hardware and/or software in a portable or mobile phone. Handset-based location technology may also employ additional location-determining hardware and/or software in the CMRS network and/or another fixed infrastructure.

Location-capable handsets. Portable or mobile phones that contain special location-determining hardware and/or software, which is used by a licensee to locate 911 calls.

Network-based Location Technology. A method of providing the location of wireless 911 callers that employs hardware and/or software in the CMRS network and/or another fixed infrastructure, and does not require the use of special location-determining hardware and/or software in the caller's portable or mobile phone.

2. Section 20.18 is amended by deleting paragraph (e), redesignating paragraphs (f) and (g) as (i) and (j) and adding the following paragraphs:

(e) *Phase II enhanced 911 service.* Licensees subject to this section must provide to the designated Public Safety Answering Point Phase II enhanced 911 service, *i.e.*, the location of all 911 calls by longitude and latitude in conformance with Phase II accuracy requirements (*see* paragraph (g) of this Section).

(f) *Phase-in for Network-based Location Technologies.* Licensees subject to this section who employ a network-based location technology shall provide Phase II 911 enhanced service to at least 50 percent of their coverage area or 50 percent of their population beginning October 1, 2001 or within 6 months of a PSAP request, whichever is later; and to 100 percent of their coverage area or 100 percent of their population within 18 months of such a request or by October 1, 2002, whichever is later.

(g) *Phase-in for Handset-based Location Technologies.* Licensees subject to this section who employ a handset-based location technology may phase in deployment of Phase II enhanced 911 service, subject to the following requirements:

(1) Without respect to any PSAP request for deployment of Phase II 911 enhanced service, the licensee shall:

(A) Begin selling and activating location-capable handsets no later than March 1, 2001;
(B) Ensure that at least 50 percent of all new handsets activated are location-capable no later than October 1, 2001; and
(C) Ensure that at least 95 percent of all new digital handsets activated are location-capable no later than October 1, 2002.

(2) Once a PSAP request is received, the licensee shall, in the area served by the PSAP:

(A) Within six months or by October 1, 2001, whichever is later:
(i) Ensure that 100 percent of all new handsets activated are location-capable;
(ii) Install any hardware and/or software in the CMRS network and/or other fixed infrastructure, as needed, to enable the provision of Phase II enhanced 911 service; and
(iii) Begin delivering Phase II enhanced 911 service to the PSAP.

(B) Within two years or by December 31, 2004, whichever is later, undertake reasonable efforts to achieve 100 percent penetration of location-capable handsets among its subscribers.

(3) For all 911 calls from portable or mobile phones that do not contain the hardware and/or software needed to enable the licensee to provide Phase II enhanced 911 service, the licensee shall, after a PSAP request is received, support, in the area served by the PSAP, Phase I location for 911 calls or other available best practice method of providing the location of the portable or mobile phone to the PSAP.

(4) Licensees employing handset-based location technologies shall ensure that location-capable portable or mobile phones shall conform to industry interoperability standards designed to enable the location of such phones by multiple licensees.

(g) *Phase II Accuracy.* Licensees subject to this section shall comply with the following standards for Phase II location accuracy and reliability:

(1) For network-based technologies: 100 meters for 67 percent of calls, 300 meters for 95 percent of calls;
(2) For handset-based technologies: 50 meters for 67 percent of calls, 150 meters for 95 percent of calls.
(3) For the remaining 5 percent of calls, location attempts must be made and a location estimate for each call must be provided to the appropriate PSAP.

(h) *Reports on Phase II plans.* Licensees subject to this section shall report to the Commission their plans for implementing Phase II enhanced 911 service, including the location-determination technology they plan to employ and the procedure they intend to use to verify conformance with Phase II accuracy requirements, by October 1, 2000. Licensees are required to update these plans within thirty days of the adoption of any change. These reports and updates may be filed electronically in a manner to be designated by the Commission.

APPENDIX C

FINAL REGULATORY FLEXIBILITY ANALYSIS

THIRD REPORT AND ORDER

1. As required by the Regulatory Flexibility Act, 5 U.S.C. § 603 (RFA),[1] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the Further Notice of Proposed Rule Making (Further Notice) issued in this proceeding.[2] The Commission sought written public comments in the Further Notice, including comment on the IRFA. The present Final Regulatory Flexibility Analysis (FRFA) in this Third Report and Order (Third R&O) conforms to the RFA.[3]

I. Need for and Purpose of This Action

2. The Commission adopted rules for implementation of Phase II of the E911 regulatory framework in 1996. At that time, it was believed that automatic location information (ALI) could only be effectively provided by technologies based in or overlaid on carrier networks. Since that time, advancements in location technologies that employ new or upgraded handsets have demonstrated important progress. It now appears that both network and handset-based solutions may provide location information by 2001 that meets or exceeds the Commission's accuracy requirements. Each type of solution has its advantages and limitations, and each may also be improved or combined with other technologies in the future to support further improvements in 911 service and public safety. The Commission's current rules, however, as a practical matter only permit network-based solutions to meet Phase II requirements. The Third R&O thus revises the Commission's 911 rules to permit handset-based solutions, or hybrid solutions that require changes both to handsets and wireless networks, to compete in a reasonable way with the network-based solutions in providing automatic location identification (ALI). The Third R&O is therefore intended to ensure that E911 regulation reflects the most current technological advances possible and accordingly the most effective and responsive E911 service possible.

II. Summary of Significant Issues Raised by the Public in Response to the Initial Regulatory Flexibility Analysis

[1] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAA). Title II of the CWAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

[2] *See* Further Notice at 11 FCC Rcd at 18764.

[3] *See* 5 U.S.C. § 604.

3. No comments were submitted in direct response to the IRFA. However, the Commission made every effort to gather as much data as possible and to solicit public comment on the issues resolved in the Third R&O.[4] The Commission's effort to establish a reliable record culminated in June 1999, when we sponsored a roundtable discussion of technical issues involved in implementing the performance and accuracy standards for E911 Phase II ALI technologies. Roundtable participants included representative of network-based solution technologies, handset-based technologies, manufacturers, wireless carriers, and public safety representatives.

III. Description and Estimates of the Number of Entities Affected by This Order on Reconsideration

4. 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, if adopted.[5] The RFA generally defines the term "small entity" as having the same meaning as the term "small business." [6] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[7] 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).[8]

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[4] *See*, for example, Public Notice, Wireless Telecommunications Bureau Requests Targeted Comment on Wireless E911 Phase II Automatic Location Identification Requirements, DA 99-1049, rel. June 1, 1999; Public Notice, Commission Seeks to Facilitate E911 Implementation and Requests a Report, CC Docket No. 94-102, FCC 99-132, rel. June 9, 1999.

[5] 5 U.S.C. 603(b)(3).

[6] Id. 601(6).

[7] 5 U.S.C. 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. 632). Pursuant to the RFA, 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 term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. 601(3).

[8] Small Business Act, 15 U.S.C. 632 (1996).

5. *SMR Licensees.* Pursuant to 47 C.F.R. § 90.814(b)(1), the Commission has defined "small business" for purposes of auctioning 900 Mhz SMR licenses,[9] 800 MHz SMR licenses for the upper 200 channels,[10] and 800 MHz SMR licenses for the lower 230 channels[11] as a firm that has had average annual gross revenues of $15 million or less in the three preceding calendar years. This small business size standard for the 800 MHz and 900 MHz auctions has been approved by the SBA. The rule amendment adopted in this Third R&O affects geographic and wide area SMR providers that were not previously subject to the resale rule because they do not offer real-time, two-way PSN-interconnected voice service. Such SMR providers will now be subject to the CMRS resale rule if they offer real-time, two-way voice or data service that is interconnected with the public switched network, provided they use an in-network switching facility.

6. Sixty winning bidders for geographic area licenses in the 900 MHz SMR band qualified as small business under the $15 million size standard. It is not possible to determine which of these licensees was not covered by the previous rule but intends to offer real-time, two-way PSN-interconnected voice or data service utilizing an in-network switching facility. Therefore, we conclude that the number of 900 MHz SMR geographic area licensees affected by this rule modification is at least 60.

7. The auction of the 525 800 MHz SMR geographic area licenses for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten winning bidders for geographic area licenses for the upper 200 channels in the 800 MHz SMR band qualified as small businesses under the $15 million size standard. It is not possible to determine which of these licensees was not covered by the previous rule but intends to offer real-time, two-way PSN-interconnected voice or data service utilizing an in-network switching facility. Therefore, we conclude that the number of 800 MHz SMR geographic area licensees for the upper 200 channels affected by this rule modification is at least ten.

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[9] *See* Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, PR Docket No. 89-583, Second Order on Reconsideration and Seventh Report and Order, 11 FCC Rcd 2639 (1995).

[10] *See* Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz frequency Band, PR Docket No. 93-144, First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rulemaking, 11 FCC Rcd 1463 (1995).

[11] *See* Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz frequency Band, PR Docket No. 93-144, Second Report and Order, 12 FCC Rcd 19079 (1997).

8. The Commission has determined that 3325 geographic area licenses will be awarded in the 800 MHz SMR auction for the lower 230 channels.[12] Because the auction of these licenses has not yet been conducted, there is no basis to estimate how many winning bidders will qualify as small businesses under the Commission's $15 million size standard. Nor is it possible to determine which of these licensees would not have been covered by the previous rule but will offer real-time, two-way PSN-interconnected voice or data service utilizing an in-network switching facility. Therefore, we conclude that the number of 800 MHz SMR geographic area licensees for the lower 230 channels that may ultimately be affected by this rule modification is at least 3325.

9. With respect to licensees operating under extended implementation authorizations, approximately 6800 such firms provide 800 MHz or 900 MHz SMR service. However, we do not know how many of these were not covered by the previous rule but intend to offer real-time, two-way PSN-interconnected voice or data service utilizing an in-network switching facility or which of this subset qualify as small businesses under the $15 million size standard.[13] We assumed, for purposes of the FRFA that *all* of the remaining existing authorizations are held by licensees qualifying as small businesses under the $15 million size standard. Of these, we assume, for purposes of our evaluations and conclusions in this Supplemental FRFA, that *none* of these licensees was covered by the previous rule but that *all* of them intend to offer real-time, two-way PSN-interconnected voice or data service utilizing an in-network switching facility. Therefore, we conclude that the number of SMR licensees operating in the 800 MHz and 900 MHz bands under extended implementation authorizations that may be affected by this rule modification is up to 6800.

10. *Cellular Licensees.* Neither the Commission nor the SBA has developed a definition of small entities applicable to cellular licensees. Therefore, the applicable definition of small entity is the definition under the SBA rules applicable to radiotelephone (wireless) companies. This provides that a small entity is a radiotelephone company employing no more than 1,500 persons.[14] According to the Bureau of the Census, only twelve radiotelephone firms from a total of 1,178 such firms which operated during 1992 had 1,000 or more employees.[15] Therefore, even if all twelve of these firms were cellular telephone companies,

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[12] *Id.*

[13] Because the RFA amendments were not in effect until the record compiled in response to the *Second NPRM* was closed, the Commission did not request information regarding the number of small businesses in this category.

[14] 13 C.F.R. §121.201, SIC code 4812.

[15] *1992 Census,* Series UC92-S-1, at Table 5, SIC code 4812.

nearly all cellular carriers were small businesses under the SBA's definition. In addition, we note that there are 1,758 cellular licenses; however, a cellular licensee may own several licenses. In addition, according to the most recent Carrier Locator: Interstate Service Providers data, 732 carriers reported that they were engaged in the provision of either cellular service or Personal Communications Service (PCS) services, which are placed together in the data.[16] We do not have data specifying the number of these carriers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of cellular service carriers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 732 small cellular service carriers that may be affected by the policies adopted in this Third R&O.

11. *Broadband Personal Communications Service (PCS).* The broadband PCS spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined "small entity"for Blocks C and F as an entity that has average gross revenues of less than $40 million in the three previous calendar years.[17] For Block F, an additional classification for "very small business" was added and is defined as an entity that, together with their affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[18] These regulations defining "small entity" in the context of broadband PCS auctions have been approved by the SBA.[19] No small businesses within the SBA-approved definition bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40% of the 1,479 licenses for Blocks D, E, and F.[20] Based on this information, we conclude that the number of small broadband PCS licensees will include the 90 winning C Block bidders and the 93 qualifying bidders in the D, E, and F blocks, for a

[16] Carrier Providers, Figure 1 (Jan. 1999).

[17] *See* Amendment of Parts 20 and 24 of the Commission's Rules - Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, WT Docket No. 96-59; Amendment of the Commission's Cellular/PCS Cross-Ownership Rule, GN Docket 90-314, Report and Order, 11 FCC Rcd 7824, 7850-52 (paras. 57-60) (1996); *see also* Section 24.720(b) of the Commission's Rules, 47 C.F.R. §24.720(b).

[18] *See Id.* at 7852 (para. 60).

[19] *See, e.g.*, Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5532, 5581-84 (paras. 114-20) (1994).

[20] FCC News, *Broadband PCS, D, E and F Block Auction Closes*, No. 71744 (released Jan. 14, 1997).

total of 183 small entity PCS providers as defined by the SBA and the Commission's auction rules.

12. *Providers of Location Technologies*. The Commission's requirement that wireless carriers provide the location of wireless 911 callers has created a business opportunity for companies that are able to develop and provide the technology to meet this obligation. Several apparently small location technology companies have participated in this proceeding, for example by presenting their technologies and filing comments.[21] We estimate that as many as 20 small companies are involved in developing location technologies that may be affected by these rules, either directly in the case of handset-based technology companies or largely indirectly in the case of network-based technology companies.

IV. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

13. Among the rules enacted by the Third R&O is a requirement that wireless carriers report their plans for implementing E911 Phase II, including the technology they plan to use to provide caller location, by October 1, 2000. This report shall provide information to permit planning for Phase II implementation by public safety organizations, equipment manufacturers, local exchange carriers, and this Commission in order to support Phase II deployment by October 1, 2001. This reporting requirement is discussed in Section IV E of the Third R&O. The Third R&O, in summary, adopts rules that: (1) allow a phase-in for handset-based solutions,[22] (2) establish a higher accuracy standard for handset-based solutions,[23] (3) require that handset deployment begin earlier that the current October 1, 2001, deployment date, and that this deployment occur, for wireless carriers employing a handset solution regardless of whether the Public Safety Answering Point (PSAP) has requested Phase II,[24] (4) require that wireless carriers employing handset-based solutions take additional steps to provide location information for roamers and callers with non-ALI capable handsets,[25] (5) require that carriers take action to ensure that any phase-in for handset-based solutions is brief and complete,[26] (6) replace the Root Mean Square (RMS) reliability methodology with a more

[21] *See* Third R&O, Appendix A and n. 18.

[22] *See* Section IV A in the Third R&O.

[23] *See* Section IV B in the Third R&O.

[24] *See* Section IV A in the Third R&O.

[25] *See* Section IV A in the Third R&O.

[26] *See* Section IV A in the Third R&O.

workable and understandable standard,[27] and (7) allow wireless carriers employing network-based location technology to reach 50 percent coverage within six months of a PSAP request for Phase II service and 100 percent coverage eighteen months after a PSAP request.[28]

V. Steps Taken To Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

14. The Commission is taking this action to provide all affected licensees, regardless of size, with the flexibility to comply with the E911 Phase II regulations in the way that they feel best takes advantage of available technology. The rules adopted in the Third R&O will allow for handset-based solutions, or hybrid solutions, as well as network-based solutions for providing location information. The Third R&O provides for a phase-in for handset-based technologies. This phase-in approach may potentially delay the full availability of phase II location information for callers and PSAPs. To offset the effects of a delay on public safety, the Third R&O requires that handset-based solutions be held to a higher accuracy standard. This will help locate callers more quickly and assist PSAPs in handling 911 calls more efficiently. The Third R&O also requires that handset deployment begin earlier than the current October 1, 2001, deployment date, and that this deployment occur for carriers employing a handset solution, regardless of whether the PSAP has requested Phase II.

15. These steps should promote the rapid rollout of handset-based solutions through normal handset turnover and growth. While it does not appear that any single network-based or handset-based location technology is perfect in all situations or for all wireless transmission technologies, both network and handset-based solutions may provide location information by 2001 that meets or exceeds our accuracy requirements. The Commission is aware that each type of solution has its advantages and limitations, and each may also be improved or combined with other technologies in the future to support further improvements in 911 service and public safety. The Commission is not recommending one method over another, and is aware of the limitations apparent in handset-based solutions; we believe that any disadvantages in our actions in the Third R&O are far outweighed by the possible benefits.

16. All of the actions taken in the Third R&O, as described above, may have a certain amount of negative impact on affected entities, but the Commission expects that few if any small entities will feel an impact from our actions. Providers of network-based technologies may be affected indirectly as they confront more vigorous competition from companies offering handset-based and hybrid solutions, but will also benefit directly from rule revisions that allow more time to install network-based location equipment, a more workable accuracy standard, and a best practice obligation for carriers that may encourage the use of

[27] *See* Section IV B in the Third R&O.

[28] *See* Section IV A in the Third R&O.

network-based technologies to supplement handset-based technologies. The limited negative affects of the Third R&O are offset by the flexibility that will be provided in allowing use of handset-based technology in complying with E911 regulations. This flexibility should be especially beneficial to small rural wireless carriers.[29] Taken together, the Commission expects that this revised program for Phase II deployment will encourage the deployment of the best and most efficient technologies, speed actual implementation of E911, and promote competition in E911 location technology and service. We expect that our actions in the Third R&O will provide the clear guidance needed to enable the many necessary participants in wireless E911 deployment to implement Phase II as soon as possible.

VI. Report to Congress

17. The Commission will send a copy of this Third R&O, including a copy of this Final Regulatory Flexibility Analysis, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the Third R&O and this Final Regulatory Flexibility Analysis will be sent to the Chief Counsel for Advocacy of the Small Business Administration. Finally, the Third R&O and FRFA (or summaries thereof) and will be published in the Federal Register. *See* 5 U.S.C. § 604(b).

[29] *See* Third R&O, paras. 23-25.

Statement of Commissioner Gloria Tristani

on Adoption of the Third Report and Order

In the Matter of
Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems

September 15, 1999

As more and more Americans sign up for wireless phone service and usage keeps growing, consumers continue to cite access to emergency services as one of the most important reasons for owning a wireless phone. Every day, Americans make nearly 100,000 emergency calls on their wireless phones. That's 70 calls a minute to report an accident, to stop a crime, to save a life. Today, the Commission takes a meaningful step to ensure that the public safety community has access to Enhanced 911 (E911) capability to locate and respond more rapidly to wireless 911 calls.

In our action today, we adopt a sensible approach to promote the rapid deployment of Automatic Location Identification (ALI)-capable technology for wireless 911 calls. The rules we adopt here will provide carriers with the ability to choose the best ALI technology option in light of their geographic coverage and customer base – whether it's a network- or handset-based solution.

It's clear that there is no one-size-fits-all solution for wireless E911 location identification. The phase-in approach for handset-based solutions which we adopt today involves trade-offs, but I believe that public safety is advanced by requiring increased location accuracy and early deployment for handset-based solutions. Moreover, these rules may speed ALI deployment in rural areas, where a handset-based option may provide a more effective and less costly solution. I recognize that much work remains to be done to ensure that consumers nationwide can benefit from ALI implementation, but I am pleased by the progress we make today.