

Internet to fain_t@al.eop.gov. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center (Room 239) of the Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554. Copies of comments and reply comments are available through the Commission's duplicating contractor: International Transcription Service, Inc. (ITS, Inc.), 2100 M Street, N.W., Suite 140, Washington, D.C. 20037, (202) 857-3800.

VI. CONCLUSION

157. In the implementation of wireless E911 service, state and local governments and public safety agencies will play a central role in developing effective E911 solutions. The schedule we are adopting sets a minimum standard which should not impede more rapid deployment or the development of new and improved capabilities and features. The fact that state and local authorities will continue to be responsible for E911 deployment in PSAPs and funding should encourage their ongoing efforts to find better ways to meet emergency needs.

158. The goal in this proceeding has been to make wireless services as comparable as possible to wireline service in E911 access. As technology makes it possible, we will continue to monitor how both wireline and wireless carriers can enhance their crucial roles in "promoting safety of life and property through the use of wire and radio communication."

VII. ADMINISTRATIVE PROVISION

159. As required by Section 603 of the Regulatory Flexibility Act, the Commission has prepared a Final Regulatory Flexibility Analysis of the Expected impact on small entities of the changes in our rules adopted herein and an Initial Regulatory Flexibility Analysis of the Expected impact on small entities of the proposals contained in the Further Notice of Proposed Rulemaking. The Final Regulatory Flexibility Analysis and the Initial Regulatory Flexibility Analysis are set forth in Appendix B.

VIII. ORDERING CLAUSES

160. Accordingly, IT IS ORDERED that the Rule Amendments specified in Appendix C SHALL BECOME EFFECTIVE 60 days after the date of publication in the Federal Register.

161. IT IS FURTHER ORDERED that the Petition of the Ad Hoc Alliance for Public Access to 911 is GRANTED in part, as set forth in the text of the Order.

162. IT IS FURTHER ORDERED that the signatories to the Consensus Agreement, the Personal Communications Industry Association, and the Ad Hoc Alliance for Public

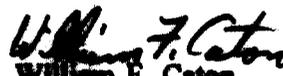
Access to 911 file joint annual reports within 30 days after the end of each calendar year, as set forth in the text of this Order.

163. IT IS FURTHER ORDERED that the signatories to the Consensus Agreement, the Personal Communications Industry Association, and Telecommunications for the Deaf, Inc. file a joint report within one year of the effective date of the rules adopted herein, as set forth in the text of the Order.

164. This action is taken pursuant to Sections 1, 4(i), 201, 208, 215, 303, and 309 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 201, 208, 215, 303, 309.

165. For further information, contact Peter Wolfe of the Policy Division, Wireless Telecommunications Bureau, at (202) 418-1310.

FEDERAL COMMUNICATIONS COMMISSION


William F. Caton
Acting Secretary

APPENDIX A

LIST OF COMMENTERS AND ABBREVIATIONS

(1) Initial Comments and Reply Comments on the Notice

AACOG (Alamo Area Council of Governments)
Adcomm (Adcomm Engineering Company)
Ad Hoc Telecomm. (Ad Hoc Telecommunications Users Committee, the California Bankers Clearing House and the New York Clearing House Association)
AirTouch (AirTouch Communications)
Alamo (Alamo Area Council of Governments)
Alliance (Consumers First and the Ad Hoc Alliance for Public Access to 911)
ALLTEL (ALLTELL Mobile Communications, Inc.)
Ameritech
AMSC (AMSC Subsidiary Corporation)
AMTA (American Mobile Telecommunications Association, Inc.)
APC (American Personal Communications)
APCO (Association of Public-Safety Communications Officials-International, Inc.)
ART (Associated RT, Inc.)
AT&T (American Telephone & Telegraph)
Bell Atlantic
BellSouth (BellSouth Corporation, BellSouth Telecommunications, Inc., BellSouth Enterprises, Inc. and BellSouth Cellular Corp.)
Caddo (Caddo Parish Communications District No. One)
Carter (Carter County)
CDC (The Department of Corrections of the State of California)
CNP (Cellular Networking Perspectives, Ltd.)
Century (Century Cellunet Inc.)
C. J. Driscoll (C.J. Driscoll & Associates)
CMT (CMT Partners)
COMSAT (COMSAT Corporation's COMSAT Mobile Communications division)
Constellation (Constellation Communications, Inc.)
Coast Guard (The United States Coast Guard)
Cowlitz (Cowlitz County)
CPUC (The People of the State of California and the Public Utilities Commission of the State of California)
CTIA (Cellular Telecommunications Industry Association)
E.F. Johnson (E.F. Johnson Company)
Elert (Elert & Associates)
Ericsson (Ericsson Corporation and affiliated companies)
GE (GE Capital - RESCOM)
Geotek (Geotek Communications, Inc. and its subsidiaries and affiliates)
Green (Green County Emergency Communications District)
GTE (GTE Service Corporation)
Harris (Harris Corporation)

Harris County (Greater Harris County 911 Emergency Network)
Hillsborough (Hillsborough County, FL)
IAFC (International Association of Fire Chiefs, Inc.)
ICSAR (Interagency Committee on Search and Rescue)
IDB Mobile (IDB Mobile Communications, Inc.)
IMSA (International Municipal Signal Association)
ITS (Intelligent Transportation Society of America)
Jackson County
Kentucky (Kentucky Emergency Number Association)
King County (King County E911 Program Office)
KML (KML Technology, Inc.)
KSI (KSI, Inc.)
Lake County
LEO One USA (LEO One USA Corporation)
LHC (Lake Huron Cellular)
Liberty (Liberty Cellular)
Lockheed (Lockheed Martin, Sanders)
LQP (Loral/QUALCOMM Partnership, L.P.)
Maryland ENSB (Maryland Department of Public Safety and Correctional Services, Emergency Number Systems Board)
MCI (MCI, Inc.)
Motorola (Motorola, Inc.)
NASNA (National Association of State Nine One One Administrators)
NATA (North American Telecommunications Association)
NCS (The Secretary of Defense, on behalf of the Department of Defense and as Executive Agent of the National Communications System)
NENA (National Emergency Number Association)
 - Florida Chapter of NENA
 - Georgia Chapter of NENA
 - North Carolina Chapter of NENA
Nextel (Nextel Communications, Inc.)
NJETS (New Jersey Office of Emergency Telecommunications Services)
Nortel (Northern Telecom, Inc.)
North Dakota (State of North Dakota)
NYNEX (The NYNEX Companies)
OPASTCO (Organization for the Protection and Advancement of Small Telephone Companies)
ORBCOMM (Orbital Communications Corporation)
Oregon (Oregon State Police Emergency Management Division)
Pacific Bell (Pacific Bell, Nevada Bell and Pacific Bell Mobile Services)
Palmer (Palmer Communications Incorporated)
PCIA (The Personal Communications Industry Association)
Pertech (Pertech America, Inc.)
Pro-West (Pro-West Associates)

PSCC (Public Safety Communications Center, IN)
RCA (Rural Cellular Association)
Redcomm (Redcomm Laboratories, Inc.)
San Juan (San Juan County, WA)
SafeTalk (National Cellular SafeTalk Center, Inc.)
SAT (Smith Advanced Technology, Inc.)
SBC (SBC Communications, Inc.)
SBMS (Southwestern Bell Mobile Systems, Inc.)
Shelby County (Shelby County 911 District)
Southern (The Southern Company)
Springwich (Springwich Cellular Limited Partnership)
Sprint (Sprint Cellular Company)
Stanford Telecom (Stanford Telecommunications, Inc.)
STARSYS (STARSYS Global Positioning, Inc.)
TDI (Telecommunications for the Deaf, Inc.)
Teleos
Telident (Telident, Inc.)
Tendler (Tendler Cellular)
Terrapin (Terrapin Corporation)
Thurston County (Thurston County, WA)
TIA (Telecommunications Industry Association)
TRW (TRW, Inc.)
TX-ACSEC (Texas Advisory Committee on State Emergency Communications)
US Cellular (US Cellular Corporation)
US West (US West, Inc.)
Vanguard (Vanguard Cellular Systems, Inc.)
Walla Walla (Walla Walla, WA Police Department)
Washington (State of Washington Emergency Management)
Washington County (Washington County, TN)
Watercom (Waterway Communications Systems, Inc.)
Westinghouse (Westinghouse Electric Corporation)
WT (Washington Telecommunications)

(2) Comments and Reply Comments on the Alliance's Petition for Rulemaking

AT&T (AT&T Wireless Services, Inc.)
BANM (Bell Atlantic NYNEX Mobile, Inc.)
BellSouth (BellSouth Corporation and BellSouth Cellular Corporation)
CTIA (Cellular Telecommunications Industry Association)
Carolina West (North Carolina RSA3 Cellular Telephone Company)
PBMS (Pacific Bell Mobile Services)
PCIA (Personal Communications Industry Association)
RCA (Rural Cellular Association)
SBMS (Southwestern Bell Mobile Systems, Inc.)

(3) Comments and Reply Comments on the Consensus Agreement

Alliance (The Ad Hoc Alliance for Public Access to 911)
AMSC (AMSC Subsidiary Corporation)
AMTA (American Mobile Telecommunications Association, Inc.)
BellSouth (BellSouth Corporation)
BMJ&D (Blooston, Mordkofsky, Jackson & Dickens)
CTO (Concepts to Operations, Inc.)
GTE (GTE Service Corporation)
ICSAR (The Interagency Committee on Search and Rescue)
ITS (Intelligent Transportation Society of America)
Motorola (Motorola, Inc.)
Nextel (Nextel Communications, Inc.)
Nortel (Northern Telecom Inc.)
PCIA (The Personal Communications Industry Association)
RCA (The Rural Cellular Association)
RCC (The Ad Hoc Rural Cellular Coalition)
US West (US West, Inc.)
Vanguard (Vanguard Cellular Systems, Inc.)

APPENDIX B

I. FINAL REGULATORY FLEXIBILITY ANALYSIS

As required by Section 603 of the Regulatory Flexibility Act, 5 U.S.C. § 603 (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice*. The Commission sought written public comments on the proposals in the *Notice*, including on the IRFA. The Commission's Final Regulatory Flexibility Analysis (FRFA) in this Order conforms to the RFA, as amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA).²⁹⁰

I. Need For and Objective of the Rules:

This *Report and Order* adopts policies concerning the operation of 911 and enhanced 911 (E911) emergency calling service and the services provided by cellular, broadband personal communications services (PCS), and geographic area specialized mobile radio (SMR) licensees. Commenters responding to the *Notice* in this proceeding have identified a number of ways in which 911 and E911 might be available through the use of wireless telephones, and have indicated that more widely available 911 and E911 services will save lives and property. Commenters also have indicated that various enhancements to wireless 911 service, such as the ability of the carrier to provide precise caller location information to the public safety answering point administrators, would make significant contributions to the effectiveness of wireless 911 services.

We find that the benefit of providing for more widely available and more effective 911 and E911 services for users of wireless telephones exceed any negative effects that may result from the promulgation of rules for this purpose. Thus, we conclude that the public interest is served by requiring that wireless telephones operate effectively with E911 systems.

II. Summary of Issues Raised by the Public Comments In Response to the Initial Regulatory Flexibility Analysis:

No comments were submitted in direct response to the Initial Regulatory Flexibility Analysis. In general comments on the *Notice*, however, a number of commenters raised issues that might affect small entities. Most of the wireless industry supported exemption for site-specific Specialized Mobile Radio (SMR) licensees due to their limited interconnection with the public switched network. Rural cellular providers argued that they should be exempted from E911 requirements because of the high expense in low density markets, as well as the lack of emergency service provider capabilities in such markets.

²⁹⁰ Subtitle II of the CWAAA is "The Small Business Regulatory Enforcement Fairness Act of 1996," (SBREFA), codified at 5 U.S.C. § 601.

III. Projected Reporting, Recordkeeping and Other Compliance Requirements of the Rule:

There are no general reporting or recordkeeping requirements. There are, however, requirements for a group of trade and consumer organizations to report to the Commission on the status of industry discussions of technical standards and other implementation issues.²⁹¹ We assume that these reports will be prepared by the professional staff of these associations, and we do not intend to impose any unnecessary burdens or costs on the entities involved in the preparation and submission of the reports. The rule will require cellular, broadband PCS, and geographic area SMR licensees to upgrade their equipment so that:

- (1) 911 calls from wireless mobile handsets which transmit a code identification will be transmitted without delay or credit verification.
- (2) 911 calls from any mobile handset will be transmitted without delay or credit verification to any emergency service provider who requests that they be transmitted.
- (3) 911 calls may be transmitted by speech or hearing impaired individuals through Text Telephone Devices.
- (4) Emergency service providers will be enabled to call back 911 calls which are disconnected.
- (5) Emergency service providers will be sent the location of the 911 caller within a radius of 125 meters by longitude and latitude in 67 percent of all cases.

These upgrades will require engineering and construction work on switches, protocols, and network architectures. We recognize that full implementation of wireless E911 will incur additional expenses.²⁹² However, we have found that E911 service to be in the public interest and that these relatively fixed costs will be spread over a widening base of subscribers as wireless subscribership grows, lowering unit costs per subscriber.

IV. Description and Estimate of Small Entities Subject to the Rules

The rule adopted in this *Report and Order* will apply to providers of cellular, broadband PCS, and geographic area 800 MHz and 900 MHz Specialized Mobile Radio (SMR) services, including licensees who have obtained extended implementation authorizations in the 800 MHz or 900 MHz SMR services, either by waiver or under Section

²⁹¹ See paras. 52, 75, 125, 132, *supra*. (These reporting requirements are applicable to the signatories to the Consensus Agreement, PCIA, TDI, and Alliance).

²⁹² See paras. 62, 84, *supra*.

90.629 of the Commission's Rules. However, the rule will apply to SMR licensees only if they offer real-time, two-way voice service that is interconnected with the public switched network.

a. Estimates for Cellular Licensees

The Commission has not developed a definition of small entities applicable to cellular licensees. Therefore, the applicable definition of small entity is the definition under the Small Business Administration (SBA) rules applicable to radiotelephone companies. This definition provides that a small entity is a radiotelephone company employing fewer than 1,500 persons.²⁹³ Since the Regulatory Flexibility Act amendments were not in effect until the record in this proceeding was closed, the Commission was unable to request information regarding the number of small cellular businesses and is unable at this time to make a precise estimate of the number of cellular firms which are small businesses.

The size data provided by the SBA does not enable us to make a meaningful estimate of the number of cellular providers which are small entities because it combines all radiotelephone companies with 500 or more employees.²⁹⁴ We therefore used the 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of the Census, which is the most recent information available. That census shows that only 12 radiotelephone firms out of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees.²⁹⁵ Therefore, even if all 12 of these large firms were cellular telephone companies, all of the remainder were small businesses under the SBA's definition. We assume that, for purposes of our evaluations and conclusions in the Final Regulatory Flexibility Analysis, all of the current cellular licensees are small entities, as that term is defined by the SBA. Although there are 1,758 cellular licenses, we do not know the number of cellular licensees, since a cellular licensee may own several licenses.

We assume that all of the current rural cellular licensees are small businesses. Comments filed by small business associations, the Organization for the Protection and Advancement of Small Telephone Companies (OPASTCO), state that 2/3 of its 440 members provide cellular service,²⁹⁶ and comments filed by the Rural Cellular Association (RCA) state

²⁹³ 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4812.

²⁹⁴ U. S. Small Business Administration 1992 Economic Census Employment Report, Bureau of the Census, U.S. Department of Commerce, SIC Code 4812 (radiotelephone communications industry data adopted by the SBA Office of Advocacy).

²⁹⁵ U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Subject Series, Establishment and Firm Size, Table 5, Employment Size of Firms: 1992, SIC Code 4812 (issued May 1995).

²⁹⁶ OPASTCO Comments at 1-2 (filed January 9, 1995).

that its members serve 80 cellular service areas.²⁹⁷ We recognize that these numbers represent only part of the current rural cellular licensees because there might be other rural companies not represented by either association.

b. Estimates for Broadband PCS Licensees

The broadband PCS spectrum is divided into six frequency blocks designated A through F. Pursuant to 47 C.F.R. § 24.720(b), the Commission has defined "small entity" for Blocks C and F licensees as firms that had average gross revenues of less than \$40 million in the three previous calendar years. This regulation defining "small entity" in the context of broadband PCS auctions has been approved by the SBA.²⁹⁸

The Commission has auctioned broadband PCS licenses in Blocks A, B, and C. We do not have sufficient data to determine how many small businesses under the Commission's definition bid successfully for licenses in Blocks A and B. As of now, there are 90 non-defaulting winning bidders that qualify as small entities in the Block C auction. Based on this information, we conclude that the number of broadband PCS licensees affected by the rule adopted in this *Report and Order* includes the 90 non-defaulting winning bidders that qualify as small entities in the Block C broadband PCS auction.

At present, no licenses have been awarded for Blocks D, E, and F for spectrum. Therefore, there are no small businesses currently providing these services. However, a total of 1,479 licenses will be awarded in the D, E, and F Block broadband PCS auctions, which are scheduled to begin on August 26, 1996. Eligibility for the 493 F Block licensees is limited to "entrepreneur" with the average gross revenues of less than \$125 million. However, we cannot estimate how many small businesses under the Commission's definition will win F Block licensees, or D and E Block licensees. Given the facts that nearly all radiotelephone companies have fewer than 1,000 employees and that no reliable estimate of the number of prospective D, E, and F Block licensees can be made, we assume, for purposes of our evaluations and conclusions in this FRFA, that all of the licenses will be awarded to small entities, as that term is defined by the SBA.

c. Estimates for SMR Licensees

Pursuant to 47 C.F.R. § 90.814(b)(1), the Commission has defined "small entity" for geographic area 800 MHz and 900 MHz SMR licenses as firms that had average gross revenues of less than \$15 million in the three previous calendar years. This regulation

²⁹⁷ RCA Comments at 2 (filed January 9, 1995).

²⁹⁸ See 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 (1994).

defining "small entity" in the context of 800 MHz and 900 MHz SMR has been approved by the SBA.²⁹⁹

The rule adopted in this *Report and Order* applies to SMR providers in the 800 MHz and 900 MHz bands that either hold geographic area licenses or have obtained extended implementation authorizations. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of less than \$15 million. Since the Regulatory Flexibility Act amendments were not in effect until the record in this proceeding was closed, the Commission was unable to request information regarding the number of small businesses in this category. We do know that one of these firms has over \$15 million in revenues. We assume, for purposes of our evaluations and conclusions in this FRFA, that all of the remaining existing extended implementation authorizations are held by small entities, as that term is defined by the SBA.

The Commission recently held auctions for geographic area licenses in the 900 MHz SMR band. There were 60 winning bidders who qualified as small entities under the Commission's definition in the 900 MHz auction. Based on this information, we conclude that the number of geographic area SMR licensees affected by the rule adopted in this *Report and Order* includes these 60 small entities.

No auctions have been held for 800 MHz geographic area SMR licenses. Therefore, no small entities currently hold these licenses. A total of 525 licenses will be awarded for the upper 200 channels in the 800 MHz geographic area SMR auction. However, the Commission has not yet determined how many licenses will be awarded for the lower 230 channels in the 800 MHz geographic area SMR auction. There is no basis to estimate, moreover, how many small entities within the SBA's definition will win these licenses. Given the facts that nearly all radiotelephone companies have fewer than 1,000 employees and that no reliable estimate of the number of prospective 800 MHz licensees can be made, we assume, for purposes of our evaluations and conclusions in this FRFA, that all of the licenses will be awarded to small entities, as that term is defined by the SBA.

V. Steps Taken To Minimize the Burdens on Small Entities

²⁹⁹ 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, 2693-702 (1995); 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).

The Commission in this proceeding has considered comments on ways of achieving wider 911 availability and E911 compatibility with wireless telephone services. In doing so, the Commission has adopted alternatives which minimize burdens placed on small entities. First, it has limited the regulations to mass market two-way voice services.³⁰⁰ In doing so, it excluded small local specialized mobile services which provide mainly dispatch services and do not provide the mass market services which most users rely on to send 911 calls.³⁰¹ It has also excluded mobile satellite systems.³⁰² Second, it provided for waivers for small rural cellular carriers, and also provided that most services would not be required unless specifically requested by the local emergency service providers.³⁰³ Third, it has taken industry concerns into account by basing the schedule for implementing E911 on that recommended by the Consensus Agreement between the Cellular Telephone Industry Association and public safety organizations, which does not require caller location information until five years after the rules adopted in the Order become effective.³⁰⁴ Finally, it has made the E911 requirements conditional on (1) a request by a local emergency service provider that is capable of receiving and using the information; and (2) a mechanism for the recovery of costs relating to the provision of the service.³⁰⁵ Therefore, the burden on small entities will be offset by the requirement that a cost recovery mechanism will be in place before their E911 obligations need to be implemented.

VI. Significant Alternatives Considered and Rejected

The Commission rejected the alternative proposal that the rules should be applicable to all providers of Commercial Mobile voice services because not all CMRS services are mass market voice services whose users expect to be able to use them to call 911. Specifically, the Commission found that the costs of requiring local SMR services to comply with the rules would outweigh the benefits and application of the rules to them, and would give them an incentive to eliminate their interconnection to the public network, which would not be in the public interest.³⁰⁶ The Commission did not exempt rural cellular carriers from these requirements, as requested by some of commenters, but instead provided for waivers. The Consensus Agreement between the Cellular Telephone Industry Association and public safety organizations indicated that the signatories would work with rural cellular carriers to resolve

³⁰⁰ See Section IV. B. 2, *supra*.

³⁰¹ See para. 83, *supra*.

³⁰² *Id.*

³⁰³ See para. 84, *supra*.

³⁰⁴ See Section IV. B. 1, *supra*.

³⁰⁵ See para. 11, *supra*.

³⁰⁶ See para. 81, *supra*.

their problems in good faith, and that the issue of how such carriers would be treated need not delay the final rule, which would be required in the public interest. Instead, reviewing the need for applying the rules to rural cellular carriers could be reviewed on an individualized basis. Moreover, the Commission relied on the representations that many emergency service providers do not use 911 in rural areas, so that the requirement that the emergency service providers would have to request and be capable of receiving and using the E911 services would protect carriers from the obligation to provide unneeded services. Further, the requirement that there be a cost recovery mechanism would protect small carriers from having to absorb excessive costs.³⁰⁷

The Commission rejected proposals to delay the provision of the upgrades necessary to expand the availability of 911 and the accuracy of location technology because these upgrades will result in saving lives and property and because the requirements of the rules were included in the Consensus Agreement. We rejected the argument that imposing 911 availability requirements on wireless carriers would competitively disadvantage wireless carriers, since several wireless carriers have been voluntarily transmitting 911 calls without a validation requirement. Moreover, the Commission rejected proposals that Federal grade of service and other standards should be developed by the Commission, and instead determined that parties should be allowed to develop standards with monitoring by the Commission, since these issues require a level of expertise which can best be achieved by intra-industry discussions.³⁰⁸

VII. Report to Congress

The Commission shall send a copy of this Final Regulatory Flexibility Analysis along with this Order in a report to Congress pursuant of the Small Business Regulatory Enforcement Fairness Act of 1996, codified at 5 U.S.C. Section 801(a)(1)(A). A copy of this RFA will also be published in the Federal Register.

³⁰⁷ See para. 84, *supra*.

³⁰⁸ See Section IV. C. *supra*.

II. INITIAL REGULATORY FLEXIBILITY ANALYSIS FOR FURTHER NOTICE OF PROPOSED RULEMAKING

I. Reason for Action

This Further Notice of Proposed Rulemaking responds to the petition submitted by the Ad Hoc Alliance for Public Access to 911 to amend the Commission's Rules to require that all newly constructed mobile and portable units be equipped to select the strongest signal whenever a 911 call is placed. Telephone stations for wireless services are not adequately identifying caller location to permit a timely response by emergency services personnel and are not providing 911 service for all caller locations.

II. Objectives and Legal Basis for Proposed Rules

One objective of this Further Notice is to collect additional information on the technical issues related to the improvement of wireless E911 services, including higher accuracy standards for the Automatic Location Identification (ALI), a latency period requirement, and the provision of 911 services without interruption where one wireless provider does not provide complete area coverage. Another objective is to collect information with respect to informing consumers what their wireless phones can and cannot do. A third objective is to determine whether all 911 calls should be transmitted without any preconditions.

The proposed action is authorized under Sections 1, 4(i), 201, 208, 215, 303, 309 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 201, 208, 215, 303, 309.

III. Description and Estimate of Small Entities Subject to the Rules

The proposed changes in the regulations will apply to providers of cellular, broadband PCS, and geographic area 800 MHz and 900 MHz specialized mobile radio services, including licensees who have extended implementation authorizations in the 800 MHz or 900 MHz SMR services, either by waiver or under Section 90.629 of the Commission's Rules. However, the rule will apply to SMR licensees only if they offer real-time, two-way voice service that is interconnected with the public switched network.

In the Final Regulatory Flexibility Analysis for the *Report and Order*, we have estimated the number of small entities for each category, or else stipulated that all providers are small entities where we were unable to make an estimate. We request comment on whether these estimates should be improved or refined. We especially request comment on the number of small entities in the categories that we were unable to estimate, i.e., cellular

service providers; PCS service providers in the D, E, and F Blocks; 800 MHz geographic area SMR licensees; and providers of 800 MHz or 900 MHz geographic area SMR service pursuant to waiver or pursuant to Section 90.629 of our rules.

IV. Reporting, Recordkeeping, and Other Compliance Requirements

Commercial mobile radio services will be required to improve the accuracy and time of the identification of the location of mobile transmitters and to permit interoperability of their 911 service with those of their competitors and to provide consumer education materials. Equipment used for commercial mobile radio services will have to be capable of providing this information to the local telephone exchanges to which they are connected. Local telephone exchanges will incur costs storing and relaying this information to E911 public safety answering points. We request comment with respect to ways in which these proposed requirements can be modified to reduce the burden on small entities and at the same time meet the objectives of this proceeding.

V. Significant Alternatives Considered and Rejected

The Commission concluded that the 911 and E911 rules adopted in the Report and Order are a first step toward the goal of meeting the Nation's public safety communications needs, and that it is also necessary to begin the task of exploring the need for further action to spur improvements in the features and delivery of the 911 and E911 services. We believe that continuing involvement of the Commission in developing rules that take the resources of small businesses into account as well as the public safety needs are in the public interest. Therefore, the Commission rejected alternative proposals that the future development of the E911 technologies should be left to the market forces and the industry without the Commission's involvement.

The Commission considered and rejected proposals that the rules should be expanded to apply to all providers of Commercial Mobile Radio Services (CMRS) because not all CMRS services are mass market voice services whose users expect to be able to use them to call 911. Specifically, the Commission believes that the costs of requiring local SMR services and 220 MHz licensees operating on 5 kHz channels to comply with the proposed rules would outweigh the benefits and application of the proposed rules to them, and would give them an incentive to eliminate their interconnection to the public network, which would not be in the public interest. Similarly, because it is not certain how multilateration Location and Monitoring Service (LMS) will develop, we concluded that it is premature to propose to require such licensees to provide E911 at this time. In the future if these wireless service providers not covered by the current rules develop into a mobile telephone service like cellular or broadband PCS, we may revisit this decision.

The Commission considered and rejected proposals to adopt a specific technology for providing ALI, because we believe that various technologies are currently under development which can provide more advanced public safety technology than those that are currently available. The Commission also considered and rejected proposals to adopt rules to require a minimum latency period to locate 911 callers at this time, because the record is insufficient to determine the technical feasibility and the costs of implementing such requirements, especially the financial impact on small business entities.³⁰⁹ The Commission instead decided to seek comment on these proposals, including the benefits and feasibility of such requirements.

VI. Federal Rules That Overlap, Duplicate, or Conflict with These Proposed Rules

There are no Federal rules which overlap, duplicate, or conflict with the rules we are proposing.

³⁰⁹ See para. 142, *supra*.

APPENDIX C

FINAL RULES

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

Part 20 - COMMERCIAL MOBILE RADIO SERVICES

1. The authority citation for Part 20 continues to read as follows:

AUTHORITY: Sections 4, 303 and 332, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, and 332.

* * * * *

2. Section 20.03 is amended by adding the following definitions in alphabetical order to read as follows:

Section 20.3 Definitions.

Automatic Number Identification. A system which permits the identification of the caller's telephone number.

* * * * *

Code Identification. A mobile Identification Number for calls carried over the facilities of a cellular or Broadband PCS licensee, or the functional equivalent of a Mobile Identification Number in the case of calls carried over the facilities of a Specialized Mobile Radio Services.

* * * * *

Mobile Identification Number. A 34-bit number that is a digital representation of the 10-digit directory telephone number assigned to a mobile station.

* * * * *

Pseudo Automatic Number Identification. A system which identifies the location of the base station or cell site through which a mobile call originates.

Public Safety Answering Point. A point that has been designated to receive 911 calls and route them to emergency service personnel.

* * * * *

3. New Section 20.18 is added to read as follows:

Section 20.18 911 Service.

(a) The following requirements are only applicable to Broadband Personal Communications Services (Part 24, Subpart E of this chapter) and Cellular Radio Telephone Service (Part 22, Subpart H of this chapter), Geographic Area Specialized Mobile Radio Services in the 800 MHz and 900 MHz bands (included in Part 90, Subpart S of this chapter) and offer real-time, two-way voice service that is interconnected with the public switched network, and Incumbent Wide Area SMR Licensees.

(b) As of [one year after the effective date of the rule], licensees subject to this section must process all 911 calls which transmit a Code Identification and must process all 911 wireless calls which do not transmit a Code Identification where requested by the administrator of the designated Public Safety Answering Point which is capable of receiving and utilizing the data elements associated with 911 service.

(c) As of [one year after the effective date of the rule], licensees subject to this section must be capable of transmitting 911 calls from individuals with speech or hearing disabilities through means other than mobile radio handsets, e.g., through the use of Text Telephone Devices.

(d) As of [18 months after the effective date of the rule], licensees subject to this section must relay the telephone number of the originator of a 911 call and the location of the cell site or base station receiving a 911 call from any mobile handset or text telephone device accessing their systems to the designated Public Service Answering Point through the use of Pseudo Automatic Number Identification and Automatic Number Identification.

(e) As of [five years after the effective date of this rule], licensees subject to this section must provide to the designated Public Service Answering Point the location of a 911 call by longitude and latitude within a radius of 125 meters using root mean square techniques.

(f) The requirements set forth in paragraphs (d) and (e) of this section shall be applicable only if the administrator of the designated Public Service Answering Point has requested the services required under those paragraphs and is capable of receiving and utilizing the data elements associated with the service, and a mechanism for recovering the costs of the service is in place.

APPENDIX D

TABLE A: MAJOR PROVISIONS OF E911 SERVICE NPRM

Implementation Schedule

PHASE	IMPLEMENTATION
One	Within one year after the effective date of a final Order, wireless service providers would be required to relay the location of the base station or cell site receiving a 911 call to the PSAP.
Two	Within three years, the carrier must include an estimate of the approximate location and distance of the mobile unit from the receiving base station or cell site.
Three	Within five years, the mobile unit must be located in three dimensions (<i>i.e.</i> , two surface coordinates and height) within a radius of no more than 125 meters, or 410 feet.

Proposed Service Features

911 Availability	Any transmitter that is service-initialized would be allowed to make a 911 call without validation, <i>e.g.</i> , when roaming (Phase 1).
911 Call Priority	911 calls would be assigned priority over non-emergency service calls (Phase 1).
Access to TTY	Access by individuals with speech or hearing disabilities through a TTY device (Phase 1).
Re-Ring; Call Back	Capability to permit PSAP attendants to return calls if the call is disconnected (Phase 2).
Common Channel Signalling	Technology to provide additional information similar to wireline E911, <i>e.g.</i> , class of service, priority of caller (Phase 2).

Other Issues on Which Comment Was Sought

Equipment Standards	Whether to establish specific requirements for base and mobile transmitters (<i>e.g.</i> , ANI and ALI), and the elements of such standards.
Labelling	Whether to require labelling of equipment that does not meet E911 requirements.
Privacy	Whether there are privacy interests in 911 calls and, if so, what measures are appropriate to protect those interests.
Preemption	Whether intrastate regulations conflict with the proposed E911 rules, and whether such regulations should be preempted.

TABLE B: CONSENSUS AGREEMENT BETWEEN CTIA AND PUBLIC SAFETY GROUPS REGARDING WIRELESS E911

Implementation Schedule

PHASE	IMPLEMENTATION
One	<ul style="list-style-type: none"> ■ Within 12 to 18 months after the effective date of a final Order, wireless service providers would be required to relay the location of the base station or cell site receiving a 911 call to the PSAP. ■ ANI and "pseudo-ANI" would be passed from carriers to PSAPs. ■ Use of ANI and "pseudo-ANI" will provide ability to call the 911 caller back if the call is disconnected; "automatic re-ring" would not be required. ■ CTIA favors 18-month deadline; APCO, NENA, and NASNA favor 12 month deadline ■ 911 service would be available to any handset that is service-initialized and available without a requirement for user validation, e.g., to roamers.
Two	Drop Phase Two of <i>Notice</i> .
Three [Phase Two under the Consensus Agreement]	<ul style="list-style-type: none"> ■ Within five years, the mobile station must be located in two dimensions (<i>i.e.</i>, longitude and latitude) within a radius of no more than 125 meters. ■ Accuracy to 125 meters would be measured using root mean square (RMS) techniques, which means that location devices would be required to be accurate to within 125 meters in about 67 percent of all cases. ■ Parties agree to work in good faith to address concerns that in exceptional cases, such as rural areas, carriers will have difficulty in meeting requirements.

Other Proposals

Cost Recovery	<ul style="list-style-type: none"> ■ State and local cost recovery mechanisms are needed to fund both carrier and PSAP investment in E911 technology and 911 cost of service. ■ State or local 911 fees or taxes should not discriminate between wireline and wireless carriers. ■ FCC should declare that state or local 911 fees or taxes reasonably related to costs are not barred as a matter of law.
Legal Liability	<ul style="list-style-type: none"> ■ The parties believe that the wireline experience, in which callers generally have been held to consent implicitly to the disclosure of calling number, location, and associated information, is applicable to wireless 911. ■ The FCC should address and resolve legal liability issues under the Communications Assistance for Law Enforcement Act of 1994, which the parties believe does not preclude location determination and disclosure in the ordinary course of good-faith 911 operations.

TTY	■ The parties agree with Commission proposal that 911 access should be available in Phase I to speech and hearing impaired individuals through means other than mobile radio handsets, such as TTY devices.
Equipment Labelling	■ The parties agree to work on methods and language for consumer education that would not require equipment labelling.

**SEPARATE STATEMENT OF
COMMISSIONER RACHELLE B. CHONG**

Re: Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 94-102, RM-8143.

The campaign to teach Americans to dial 911 on their landline telephones for emergency assistance has saved countless lives and helped protect property. We believe that the benefits enjoyed by wireline 911 callers should be extended to all wireless subscribers. In the Report and Order we issue today we ensure that wireless subscribers will be able to access 911 everywhere there is technologically compatible wireless and 911 services. I write separately to set forth my views on why I supported the actions we took in the Order.

One of the goals of our Report and Order is to make it easier and faster for wireless telephone subscribers to obtain access to 911 services, even when these subscribers are roaming outside their home service area. Although the Commission had originally hoped we could accomplish this goal by requiring wireless telephone carriers to complete calls from all service initialized handsets, we ultimately determined that this approach was inadequate. Based on the information we received, the primary problem with this approach is that there is no way to distinguish between service initialized and non-service initialized handsets, without invoking authentication and validation procedures. These authentication and validation procedures can significantly delay or in some cases prevent legitimate subscribers from obtaining access to 911 services.¹

Accordingly, to ensure that wireless subscribers will be able to obtain access to 911 services without delay, we believed it was in the public interest to require the wireless carrier to complete all calls from handsets that transmit a "code identification" or Mobile Identification Number (MIN). Although this solution serves our goal of faster, more reliable 911 calling from wireless handsets, I recognize that it has at least one significant drawback. The universe of handsets with MINs is larger than the universe of active subscribers. For example, the universe of handsets with MINs includes former wireless subscribers who have terminated their service as to that handset, as well as purchasers of handsets preprogrammed with a MIN but who have never subscribed for service. These two scenarios pose problems for the public safety administrators handling 911 calls from

¹ Because not all wireless carriers have roaming agreements with all other carriers, the validation process can sometimes result in a roaming caller not being able to make a call at all or only after giving the carrier providing the service a valid credit card number.

nonsubscriber handsets. For example, for nonsubscribers, the public safety dispatcher may have difficulty calling back the 911 caller for additional information.

As a public policy matter, however, I think it is wise to require wireless carriers to complete some non-subscriber 911 calls so that we can ensure that wireless subscribers' calls to 911 generally will be completed without delay. I am comfortable with this approach so long as this approach does not impose undue financial burdens on carriers. I recognize that carriers incur costs for completing 911 calls. While I believe it is reasonable and in the public interest for the carrier to bear these costs as to subscribers, I do not believe that it is fair or appropriate to require the carrier to assume these costs for non-subscribers.

Accordingly, I am pleased that the decision allows wireless carriers to recover their costs for completing 911 calls for non-subscribers at the state or local level. I encourage state or local authorities to promptly put into place some mechanism for such nonsubscriber costs to be recovered by the wireless carriers, so that carriers will not be subject to undue financial burdens for carrying these critical 911 calls.

Finally, I commend the wireless industry and the public safety community for their excellent cooperation on this important issue. Their consensus agreement laid the foundation for this decision. I also wish to recognize the excellent efforts of Congresswoman Anna Eshoo of California and her staff in raising the public visibility of this issue and prompting all the affected parties to find a good solution.