service and an MSS service with a terrestrial component, and therefore consumers using ATC handsets likely will expect those handsets to have access to the same 911 services as other terrestrial wireless devices.[342] The ATC base stations will afford MSS carriers the opportunity for local access to selective routers and 911 trunks to local PSAPs, thereby making delivery of basic and enhanced 911 service more feasible than it currently is for MSS carriers without ATC.

109. Although we are convinced that we have the authority to require MSS systems with ATC to comply with the basic and enhanced 911 requirements contained in Section 20.18 of our rules, we are not prepared to establish a roll-out schedule or to require compliance upon deployment of ATC systems. Globalstar points out that "[f]or MSS and ATC, each operational MSS system is unique in both system design and the frequencies it uses."[343] This appears to be true with regard to hand-off of calls between satellite and terrestrial segments of a network. Globalstar maintains that an ATC phone would operate in only one mode (satellite or terrestrial) for any single call. We infer from this that a call initiated on the terrestrial segment of Globalstar's network could not be handed-off mid-call to the satellite segment. MSV, however, says that an advisory committee should study "how the hand-off of calls between the satellite and terrestrial components of an integrated MSS/ATC system will impact E9-1-1 compliance."[344] NENA/NASNA supports formation of an advisory committee which they say should consider whether an MSS carrier's ancillary terrestrial service could be readied for Phase II sooner than its conventional satellite-enabled transmissions.[345] We direct the rechartered NRIC to study whether hand-off of calls between terrestrial and satellite network components will be a factor and if so what the impact will be on 911 service.

110. We believe for those calls that utilize only the terrestrial component of an MSS system, the carrier should provide access to the same 911 services as terrestrial CMRS providers. For reasons discussed above, particularly consumer expectation and improved feasibility of routing calls to local PSAPs, MSS carriers who intend to integrate ATC should be designing their systems with 911 features in mind. Including 911 features in the design stage will prevent potentially costly and complicated retrofitting at a later date. We seek additional comment, however, concerning whether transition periods for compliance are warranted, and if so what an appropriate schedule would be. We agree with Globalstar that the position location mechanism may be different for each mode of an ATC call.[346] Depending on the mode the phone is in, 911 access could be by either call center (for satellite calls) or basic/enhanced 911 (for terrestrial calls). This split in functionality could be confusing to consumers and we seek comment on steps carriers could take to clarify this situation. We believe that MSS carriers with ATC will have the benefit of using technological advances already made with respect to terrestrial E911. Therefore, we seek comment about whether MSS carriers with integrated ATC will be able to comply with the location accuracy standards (for both network-based and handset-based solutions) of Rule 20.18, and if they cannot, why. Comment from equipment manufactures would be particularly useful on this point. Globalstar says that equipment options will be limited by smaller MSS subscriber bases and unique features that distinguish MSS systems from one another.[347] ICO argues that because ATC was only recently permitted, licensees should be permitted time to design systems first before adding E911 requirements.[348] We believe that to the contrary, since ATC will facilitate E911 service, MSS carriers intending to offer ATC should be considering E911 in the design stage. In this way, MSS providers with

[342] CTIA comments at 2, 5-6.

[343] Globalstar comments at 14.

[344] MSV comments at 21-22.

[345] NENA/NASNA reply at 10.

[346] Globalstar comments at 13.

[347] Globalstar comments at 14.

[348] ICO comments at 6.

ATC might avoid any unnecessary delays in implementing E911 service at the time that their ATC networks become operational.

B. MSS Carriers' Reporting and Recordkeeping Requirements

111. Background and Discussion. The call center rule requires MSS carriers to deploy call centers 12 months after publication of this Report and Order, but we do not require any advance planning to meet that goal. Clearly, advance planning is essential to meeting this deadline. Delays in carrier planning for call center implementation could, in turn, complicate the planning of other necessary participants in call center planning – PSAPs, providers of PSAP databases, local exchange carriers, and others. Timely planning and communication among the parties involved with call centers could be critical for successful deployment of this capability. For similar reasons, the Commission required terrestrial wireless carriers to submit reports on their plans for implementing Phase II E911.[349] We seek comment whether MSS carriers subject to the call center requirement should prepare and submit a report on their plans for implementing call centers no later than three (3) months prior to the call center rule's effective date. The report would have to include basic information concerning the carrier's call center plans, including staffing and site considerations and the PSAP database to be used. We expect that the reports would assist our efforts to monitor call center development and then take any necessary actions to ensure that the implementation deadline is met. The reports would also provide the public with valuable information about MSS emergency services.

112. We also seek comment on recordkeeping and reporting requirements post-call center deployment. Since the call center rule is the domestic MSS industry's first 911 requirement, we are interested in collecting data on MSS call center use, including the volume of calls that the call centers receive. We would find other call data useful as well, such as the number of calls that required forwarding to a local PSAP and the success rate in handing off calls to the proper PSAP. We seek comment on whether MSS carriers should record and store this information themselves, subject to inspection by the Commission at any time, or whether MSS carriers should file the information in the form of a report once a year. We invite commenters to address whether the call center data should be reported to an entity other than the Commission (and, if so, suggest possible recipients of the data). Collection of call data would allow us to monitor compliance with the call center requirement and track usage trends. For example, if the data were to show a substantial increase in call center call volume over a period of time, we might consider modifying the call center rule to accommodate the changing market. We seek comment on this approach. We also seek comment on sunset provisions for any recordkeeping or reporting requirements, and request information about appropriate sunset timeframes.

C. Multi-Line Telephone Systems

113. Background. Based on the record before us, and given the particular requirements of E911 over multi-line telephone systems, the accompanying Report and Order concludes that state and local governments are in the best position to devise rules to ensure that E911 is effectively deployed over MLTS in their jurisdictions. We nonetheless recognize the importance of effective MLTS E911 capability in the emergency call system and are concerned that lack of implementation of MLTS E911 capability may create unacceptable gaps in that system. Accordingly, we issue this *Second Further Notice of Proposed Rulemaking* to continue our consideration of this issue, and to ensure that we are in a position to take appropriate action should states fail to do so or should it otherwise be warranted. We again commend those states that have passed legislation to require MLTS implementation of E911, and refer other states to the Model Legislation submitted by NENA and APCO as a meaningful blueprint for

[349] *Wireless E911 Third Report and Order*, 14 FCC Rcd 17388, 17427-28, paras. 87-89 (1999). *See also* 47 C.F.R. § 20.18(i).

their own laws.

114. Discussion. Through this Notice, we seek further comment on the Commission's role in requiring multi-line systems to deliver call-back and location information, and specifically seek comment on the value of a national approach where states have failed to act.[350] While we continue to study the need for federal action, we expect states to work quickly to adopt legislation to reduce any gaps in this area. We note that if state action proves uniformly effective, further action by the Commission may not be necessary.

115. As an initial matter, we seek to refresh the record on the prevalence of MLTS and on the status of E911 implementation for those systems. We seek comment on the number of lines that are served by multi-line systems, and the full range of operators who manage them. We encourage commenters to provide as comprehensive a picture as possible of the status of MLTS deployment, but to also note particular variations by location or type of user. We seek comment on how the growth of IP telephony will affect the manufacture and deployment of new MLTS equipment and its use for 911/E911 calls. Does this development affect the policy question of whether MLTS E911 standards should be uniform nationally, or instead can be set on state by state basis? With regard to MLTS manufacturers, we seek comment as to whether E911 features represent an opportunity for manufacturers to improve the value of their equipment. If so, is the value added by these improvements worth the increased costs to their customers. If the status of MLTS E911 implementation has changed over time, we seek comment on the application of the four criteria discussed in the *E911 Scope NPRM* and the accompanying Report and Order herein.[351]

116. We also seek updated comment on the Commission's authority to require compliance with E911 rules we may adopt, on all of the affected parties: carriers, manufacturers, PSAPs, and MLTS operators. In particular, we ask commenters to focus on the nature of the Commission's jurisdiction over MLTS operators, in light of the Commission's earlier interpretations of section 4(i) authority and its prior statement that "the reliability of 911 service is integrally related to our responsibilities under section 1 of the Act, which include 'promoting safety of life and property through the use of wire and radio communication.'"[352] To the extent that parties ask this Commission to adopt rules in this area, we also seek comment on whether any such rules would have a disproportionate impact on small entities. We also seek comment generally on steps that we can take to ensure that small entities are not disproportionately impacted, if any such steps are necessary.

117. Finally, we seek comment on NENA's proposed new section to our Part 64 rules requiring that LEC central offices be provisioned to permit connection of MLTS equipment for E911 purposes "in any accepted industry standard format, as defined by the FCC, requested by the MLTS operator."[353] In connection with this recommendation, we seek comment on NEC's recommendation that the Commission

[350] We note that in the accompanying Report and Order, the Commission expressed its intention to issue a public notice in a year to examine the status of state action on this topic. Should there be legislative action during the comment or reply period of this proceeding, we encourage commenters to bring such action to our attention.

[351] *E911 Scope NPRM*, 17 FCC Rcd at 25581-82, paras. 12-15. In the accompanying Report and Order, the Commission analyzed each service based on whether: (1) it offers real-time, two-way voice service that is interconnected to the public switched network on either a stand-alone basis or packaged with other telecommunications services; (2) the customers using the service or device have a reasonable expectation of access to 911 and E911 services; (3) the service competes with traditional CMRS or wireline local exchange services; and (4) it is technically and operationally feasible for the service or device to support E911.

[352] *Amendment of Part 63 of the Commission's Rules to Provide for Notification by Common Carriers of Service Disruptions*, Second Report and Order, CC Docket No. 91-273, 9 FCC Rcd 3911, 3925, para. 35.

[353] Model Legislation, exh. A, at 1.

adopt the ANSI T1.628-2000 ISDN network interface standard as an "accepted industry standard," thereby requiring LECs to enable MLTS operators to use a more efficient means of interfacing with the network than is currently available in most instances. According to NEC, without this change, many MLTS operators will continue to be forced to incur the cost of purchasing direct inward dial (DID) numbers strictly for E911 purposes, despite the fact that their existing ISDN service could eliminate this cost if the LEC switch could accept the updated ISDN network interface standard.[354] We note that, in the attached Order, we have raised a number of concerns about this proposal.[355] We ask parties to address this issue further. Finally, we note that, in the accompanying Report and Order we have asked both industry standard setting bodies and the Network Reliability and Interoperability Council to address issues of MLTS E911 capability.[356] We encourage parties to supplement this record as these organizations address these issues. We agree that adopting a standard in this area would be useful but seek comment on what the appropriate standard should be.

VI. PROCEDURAL MATTERS

A. Regulatory Flexibility Act

118. The Final Regulatory Flexibility Analysis for this Report and Order, as required by the Regulatory Flexibility Act of 1980,, as amended, *see* 5 U.S.C. § 604, is set forth in Appendix C. The Initial Regulatory Flexibility Analysis for the Second Further Notice of Proposed Rulemaking, as required by the Regulatory Flexibility Act of 1980, as amended, *see* 5 U.S.C. § 604, is set forth in Appendix D.

B. Paperwork Reduction Act

119. The actions contained herein have been analyzed with respect to the Paperwork Reduction Act of 1995 (PRA) and found to impose new reporting and/or recordkeeping requirements or burdens on the public. Implementation of these reporting and/or recordkeeping requirements will be subject to approval by the Office of Management and Budget (OMB) as prescribed by the PRA, and will go into effect upon publication by Commission staff of an announcement in the Federal Register that OMB has approved the information collection.

C. Paperwork Reduction Analysis

120. Written comments by the public on the new information collection are due 60 days after the date of publication in the Federal Register. Written comments must be submitted by the OMB on the proposed and/or modified information collections on or before 60 days after the date of publication in the Federal Register. In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Judith Herman, Federal Communications Commission, Room 1-C804, 445 Twelfth Street, S.W., Washington, D.C. 20554, or via the Internet to Judith.Herman@fcc.gov, and to Kim Johnson, OMB Desk Officer, Room 10236 New Executive Office Building, 725 Seventeenth Street, N.W., Washington, D.C. 20503, or via the Internet to Kim_A._Johnson@omb.eop.gov.

[354] NEC comments at 6-7.

[355] *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Calling Systems*, Report and Order, CC Docket 94-102 and IB Docket 99-76, paras. 60-62 (*E911 Order*).

[356] *See supra*, Report and Order, at para. 62.

D. Accessible Formats

121. To request materials in accessible formats for individuals with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0531 (voice), or 202-418-7365 (tty).

VII. ORDERING CLAUSES

122. IT IS ORDERED, that pursuant to Sections 1, 4(i), 7, 10, 201, 202, 208, 214, 222(d)(4)(A)-(C), 222(f), 222(g), 222(h)(1)(A), 222(h)(4)-(5), 251(e)(3), 301, 303, 308, and 310 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 157, 160, 201, 202, 208, 214, 222(d)(4)(A)-(C), 222(f), 222(g), 222(h)(1)(A), 222(h)(4)-(5), 251(e)(3), 301, 303, 308, 310, this *Report and Order* is hereby ADOPTED.

123. IT IS FURTHER ORDERED that the rule changes set forth in Appendix D WILL BECOME EFFECTIVE 60 days after publication in the Federal Register, with the exception of new rule 25.284 which WILL BECOME EFFECTIVE 12 months after publication in the Federal Register.

124. IT IS FURTHER ORDERED that the Commission's Office of Consumer and Government Affairs, Reference Information Center, SHALL SEND a copy of this *Report and Order and Second Further Notice of Proposed Rulemaking*, including the Final Regulatory Flexibility Analysis and the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch

Marlene H. Dortch
Secretary

APPENDIX A

FINAL RULES

Parts 20, 25 of Chapter I of Title 47 of the Code of Federal Regulations are amended as follows:

Revise Part 20 as follows:

§ 20.18

1. Section 20.18(a) is amended to read as follows:

(a) Scope of section. The following requirements are only applicable to Broadband Personal Communications Services (part 24, subpart E of this chapter), Cellular Radio Telephone Service (part 22, subpart H of this chapter), and Geographic Area Specialized Mobile Radio Services and Incumbent Wide Area SMR Licensees in the 800 MHz and 900 MHz bands (included in part 90, subpart S of this chapter) **and those entities that offer voice service to consumers by purchasing airtime or capacity at wholesale rates from these licensees, collectively CMRS providers.** In addition, service providers in these enumerated services are subject to the following requirements solely to the extent that they offer real-time, two way switched voice service that is interconnected with the public switched network and utilize an in-network switching facility which enables the provider to reuse frequencies and accomplish seamless hand- offs of subscriber calls.

2. Section 20.18(b) is amended to read as follows:

(b) Basic 911 Service. **CMRS providers** subject to this section must transmit all wireless 911 calls without respect to their call validation process to a Public Safety Answering Point, or, where no Public Safety Answering Point has been designated, to a designated statewide default answering point or appropriate local emergency authority pursuant to § 64.3001 of this chapter, provided that "all wireless 911 calls" is defined as "any call initiated by a wireless user dialing 911 on a phone using a compliant radio frequency protocol of the serving carrier."

3. Section 20.18(c) is amended to read as follows:

(c) TTY Access to 911 Services. **CMRS providers** 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 (TTY).

(d) – (g) *** [unchanged]

4. Revise 20.18 (g) to add a new subsection (vi) as follows:

20.18(g)(1)(vi): Licensees that meet the enhanced 911 compliance obligations through GPS-enabled handsets and have commercial agreements with resellers will not be required to include the resellers' handset counts in their compliance percentages.

5. Redesignate 20.18(h) to (i); (i) to (j); (j) to (k); (k) to (l); and (l) to (m)

6. New 20.18(h) to read as follows:

20.18(h) ***Reseller obligation.*** **(1) Beginning December 31, 2006, resellers have an obligation, independent of the underlying licensee, to provide access to basic and enhanced 911 service to the**

extent that the underlying licensee of the facilities the reseller uses to provide access to the public switched network complies with Sections 20.18(d)-(g).

(2) Resellers have an independent obligation to ensure that all handsets or other devices offered to their customers for voice communications and sold after December 31, 2006 are capable of transmitting enhanced 911 information to the appropriate PSAP, in accordance with the accuracy requirements of Section 20.18(i).

Revise Part 25 as follows:

§ 25.103

1. Section 25.103 is amended to read as follows:

*****

25.103(g) *Emergency call center (ECC).* A facility that subscribers of satellite commercial mobile radio services call when in need of emergency assistance by dialing "911" on their mobile satellite earth terminal.

2. New Section 25.284 is added to read as follows:

25.284 Emergency Call Center Service
Providers of mobile satellite service to end-user customers (part 25, subparts A-D) must provide Emergency Call Center service to the extent that they offer real-time, two way switched voice service that is interconnected with the public switched network and utilize an in-network switching facility which enables the provider to reuse frequencies and/or accomplish seamless hand-offs of subscriber calls. Emergency Call Center personnel must determine the emergency caller's phone number and location and then transfer or otherwise redirect the call to an appropriate public safety answering point.

(1) Providers of mobile satellite services that utilize earth terminals that are not capable of use while in motion are exempt from providing Emergency Call Center service for such terminals.

APPENDIX B

Parties Filing Comments
(44 Commenters)

Name of Party	Abbreviation
Association for Communications Technology Professionals in Higher Education, Inc.	ACUTA
Ad Hoc Telecommunications Users Committee	Ad Hoc Users Committee
AirCell, Inc.	AirCell
American Automobile Association	AAA
American Mobile Telecommunications Association, Inc.	AMTA
Association of Public Safety Communications Officials – International, Inc.	APCO
Association of International Automobile Manufacturers, Inc.	AIAM
AT&T Wireless Services, Inc.	AT&T Wireless
ATX Technologies, Inc.	ATX Technologies
Avaya, Inc.	Avaya
Benjamin N. Kann, Sr.	
Benton County Emergency Services E911 Program	Benton
BMW Group	BMW
Boulder Regional Emergency Telephone Service Authority	BRETSA
Cellular Telecommunications and Internet Association	CTIA
Chris Fischer	
Colorado 9-1-1 Advisory Task Force	Colorado Task Force
ComCare Alliance	
Final Analysis Communications Services, Inc.	Final Analysis Communications
Globalstar USA, LLC and Globalstar, LP	Globalstar
ICO Global Communications Holding Limited	ICO Global
Inmarsat Ventures PLC	Inmarsat
Intelligent Transportation Society of America	ITSA
Intrado	
Mercedes-Benz USA, LLC	MBUSA
Mobex Network Services, LLC	Mobex Network Services
Mobile Satellite Ventures Subsidiary, LLC	Mobile Satellite Ventures
Motorola, Inc.	Motorola
NEC America, Inc.	NEC

NENA and NASNA (joint filed)	NENA/NASNA
Nextel Communications, Inc.	Nextel
OnStar Corporation	OnStar
Paging Systems, Inc.	
SkyBitz, Inc.	SkyBitz
Sprint Corporation	Sprint
Stratos Mobile Networks, Inc. and Stratos Communications, Inc.	Stratos
Telecommunications Industry Association	TIA
Toyota Motor North America, Inc.	Toyota
TracFone Wireless, Inc.	TracFone
TruePosition, Inc.	TruePosition
United Telecom Council	
Virgin Mobile USA, LLC	Virgin Mobile
Washington State E-911 Program	WSEP
WorldCom, Inc.	WorldCom

Parties Filing Reply Comments
(37 Reply Commenters)

Name of Party	Abbreviation
ACUTA, Inc.	ACUTA
Ad Hoc Telecommunications Users Committee	Ad Hoc Users Committee
Alliance of Automobile Manufacturers	AAM
American Automobile Association	AAA
Association of Public Safety Communications Officials – International, Inc.	APCO
AT&T Wireless Services, Inc.	AT&T Wireless
ATX Technologies, Inc.	ATX Technologies
Avaya, Inc.	Avaya
Colorado Advisory 9-1-1 Task Force	
ComCARE Alliance	
Digital Earth Systems, Inc.	DES
Henning Schulzrinne	
Hop-On Wireless	
ICO Global Communications Holding Limited	ICO Global

Inmarsat Ventures PLC	Inmarsat
Iridium Satellite LLC & Iridium Constellation LLC	Iridium
Locus, Corp.	
Mercedes-Benz USA, LLC	MBUSA
Mobex Network Services, LLC	Mobex Network Services
Mobile Satellite Ventures Subsidiary, LLC	Mobile Satellite Ventures
NEC America, Inc.	NEC
NENA and NASNA (joint filed)	NENA/NASNA
Net2Phone, Inc.	
OnStar Corporation	OnStar
Porsche Cars North America, Inc.	Porsche
Red Sky Technologies, Inc.	Red Sky
Southern Company	
T-Mobile USA, Inc.	T-Mobile
Telecommunications Industry Association	TIA
Telenor Satellite Services, Inc.	Telenor
Texas 9-1-1 Agencies	
Toyota Motor North America, Inc.	Toyota
Verizon	
Verizon Wireless	Verizon Wireless
Virgin Mobile USA, LLC	Virgin Mobile
Vonage Holding Corp.	Vonage
WorldCom, Inc.	WorldCom

APPENDIX C

FINAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[357] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems Further Notice of Proposed Rulemaking (*Notice*).[358] The Commission sought written public comment on the proposal in the *Notice*, including comment on the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[359]

A. Need for, and Objectives of, Adopted Rules

2. In the *Order*, the Commission modifies existing rules to broaden the scope of those rules to include new services that were either not in existence or were just beginning to emerge at the time of the rules' adoption. Specifically, the Commission, through this Report and Order, modifies its 911 rules to include within the scope of those rules certain mobile satellite service providers and resellers, including pre-paid calling card providers. The Commission takes this action in recognition of Congress' directive to "facilitate the prompt deployment throughout the United States of a seamless, ubiquitous, and reliable end-to-end infrastructure for communications, including wireless communications, to meet the Nation's public safety and other communications needs."[360] In addition, the Commission takes these actions to ensure consumers' expectations regarding access to enhanced 911 service are met, to strengthen Americans' ability to access public safety. It has balanced those goals against the needs of entities offering these services to be able to compete in a competitive marketplace.

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

3. We received no comments directly in response to the IRFA in this proceeding. The Commission, however, considered the potential impact of its rules on smaller wireless service providers and in response to concerns expressed by some commenters, we adopted phase-in periods and decided in the case of certain small wireless handset manufacturers, such as disposable phone manufacturers, and smaller wireless service providers, such as automated maritime telecommunications service providers, not to impose an obligation at this time.[361] The Commission believes that such actions should ensure that smaller entities operating in these areas are able to do so with minimal regulatory interference.

C. Description and Estimate of the Number of Small Entities To Which the Adopted Rules Will Apply

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 adopted rules, if adopted.[362] The RFA generally

[357] *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) (CWAA).

[358] *See* Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, *Notice of Proposed Rulemaking*, 17 FCC Rcd 25,576 (2002) (*Notice*).

[359] *See* 5 U.S.C. § 604.

[360] *See Wireless Communications and Public Safety Act of 1999*, Pub. L. No. 106-81, 113 Stat. 1286 (codified at 47 USC §§ 222, 251(e)) (*Wireless Communications and Public Safety Act of 1999*). *See* 47 USC § 615 note.

[361] *See* infra paras. 91-106.

[362] See 5 U.S.C. § 603(b)(3).

defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[363] In addition, the term "small business" has the same meaning as the term "small business concern" under section 3 of the Small Business Act.[364] Under the Small Business Act, a "small business concern" is one that: (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).[365] A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[366]

5. We have included small incumbent local exchange carriers in this present RFS analyis. 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."[367] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent local exchange carriers are not dominant in their field of operation because any such dominance is not "national" in scope.[368]

6. **Incumbent Local Exchange Carriers.** Neither the Commission nor the SBA has developed a specific small business size standard for providers of incumbent local exchange services. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[369] According to the FCC's *Telephone Trends Report* data, 1,337 incumbent local exchange carriers reported that they were engaged in the provision of local exchange services.[370] Of these 1,337 carriers, an estimated 1,032 have 1,500 or fewer employees and 305 have more than 1,500 employees.[371] Consequently, we estimate that the majority of providers of local exchange service are small entities that may be affected by the rules and policies adopted herein.

7. **Competitive Local Exchange Carriers.** Neither the Commission nor the SBA has developed a specific small business size standard for providers of competitive local exchange services. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[372] According to the FCC's

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[363] 5 U.S.C. § 601(6).

[364] 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 term which are appropriate to the activities of the agency and publishes such definitions(s) in the Federal Register."

[365] 15 U.S.C. § 632.

[366] *Id.* § 601(4).

[367] 15 U.S.C. § 632.

[368] Letter from Jere W. Golver, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of "small-business concern," which the RFA incorporates into its own definition of "small business." *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 C.F.R. § 121.102(b).

[369] 13 C.F.R. § 121.201, NAICS code 513310.

[370] FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, at Table 5.3, page 5-5 (August 2003) (*Telephone Trends Report*).

[371] *Id.*

[372] 13 C.F.R. § 121.201, NAICS code 513310.

Telephone Trends Report data, 609 companies reported that they were engaged in the provision of either competitive access provider services or competitive local exchange carrier services.[373] Of these 609 companies, an estimated 458 have 1,500 or fewer employees and 151 have more than 1,500 employees.[374] Consequently, the Commission estimates that the majority of providers of competitive local exchange service are small entities that may be affected by the rules.

8. **Competitive Access Providers.** Neither the Commission nor the SBA has developed a specific size standard for competitive access providers (CAPS). The closest applicable standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[375] According to the FCC's *Telephone Trends Report* data, 609 CAPs or competitive local exchange carriers and 35 other local exchange carriers reported that they were engaged in the provision of either competitive access provider services or competitive local exchange carrier services.[376] Of these 609 competitive access providers and competitive local exchange carriers, an estimated 458 have 1,500 or fewer employees and 151 have more than 1,500 employees.[377] Of the 35 other local exchange carriers, an estimated 34 have 1,500 or fewer employees and one has more than 1,500 employees.[378] Consequently, the Commission estimates that the majority of small entity CAPS and the majority of other local exchange carriers may be affected by the rules.

9. **Local Resellers.** The SBA has developed a specific size standard for small businesses within the category of Telecommunications Resellers. Under that standard, such a business is small if it has 1,500 or fewer employees.[379] According to the FCC's *Telephone Trends Report* data, 133 companies reported that they were engaged in the provision of local resale services.[380] Of these 133 companies, an estimated 127 have 1,500 or fewer employees and 6 have more than 1,500 employees.[381] Consequently, the Commission estimates that the majority of local resellers may be affected by the rules.

10. **Toll Resellers.** The SBA has developed a specific size standard for small businesses within the category of Telecommunications Resellers. Under that SBA definition, such a business is small if it has 1,500 or fewer employees.[382] According to the FCC's *Telephone Trends Report* data, 625 companies reported that they were engaged in the provision of toll resale services.[383] Of these 625 companies, an estimated 590 have 1,500 or fewer employees and 35 have more than 1,500 employees.[384] Consequently, the Commission estimates that a majority of toll resellers may be affected by the rules.

11. **Interexchange Carriers.** Neither the Commission nor the SBA has developed a specific size standard for small entities specifically applicable to providers of interexchange services. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that

[373] *Telephone Trends Report*, Table 5.3.

[374] *Id.*

[375] 13 C.F.R. § 121.201, NAICS code 513310.

[376] *Telephone Trends Report*, Table 5.3.

[377] *Id.*

[378] *Id.*

[379] 13 C.F.R. § 121.201, NAICS code 513330.

[380] *Telephone Trends Report*, Table 5.3.

[381] *Id.*

[382] 13 C.F.R. § 121.201, NAICS code 513330.

[383] *Telephone Trends Report*, Table 5.3.

[384] *Id.*

standard, such a business is small if it has 1,500 or fewer employees.[385] According to the FCC's *Telephone Trends Report* data, 261 carriers reported that their primary telecommunications service activity was the provision of interexchange services.[386] Of these 261 carriers, an estimated 223 have 1,500 or fewer employees and 38 have more than 1,500 employees.[387] Consequently, we estimate that a majority of interexchange carriers may be affected by the rules.

12. **Operator Service Providers.** Neither the Commission nor the SBA has developed a specific size standard for small entities specifically applicable to operator service providers. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[388] According to the FCC's *Telephone Trends Report* data, 23 companies reported that they were engaged in the provision of operator services.[389] Of these 23 companies, an estimated 22 have 1,500 or fewer employees and one has more than 1,500 employees.[390] Consequently, the Commission estimates that a majority of local resellers may be affected by the rules.

13. **Prepaid Calling Card Providers.** The SBA has developed a size standard for small businesses within the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[391] According to the FCC's *Telephone Trends Report* data, 37 companies reported that they were engaged in the provision of prepaid calling cards.[392] Of these 37 companies, an estimated 36 have 1,500 or fewer employees and one has more than 1,500 employees.[393] Consequently, the Commission estimates that a majority of prepaid calling providers may be affected by the rules.

14. **Mobile Satellite Service Carriers.** Neither the Commission nor the U.S. Small Business Administration has developed a small business size standard specifically for mobile satellite service licensees. The appropriate size standard is therefore the SBA standard for Satellite Telecommunications, which provides that such entities are small if they have $12.5 million or less in annual revenues.[394] Currently, nearly a dozen entities are authorized to provide voice MSS in the United States. We have ascertained from published data that four of those companies are not small entities according to the SBA's definition,[395] but we do not have sufficient information to determine which, if any, of the others are small

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[385] 13 C.F.R. § 121.201, NAICS code 513310.

[386] *Telephone Trends Report*, Table 5.3.

[387] *Id.*

[388] 13 C.F.R. § 121.201, NAICS code 513310.

[389] *Telephone Trends Report*, Table 5.3.

[390] *Id.*

[391] 13 C.F.R. § 121.201, NAICS code 513330.

[392] *Telephone Trends Report*, Table 5.3.

[393] *Id.*

[394] 13 C.F.R. § 121.201, North American Industry Classification System ("NAICS") code 51740, formerly NAICS code 513340.

[395] Comsat Corporation, Globalstar USA, Honeywell International, Inc., and Mobile Satellite Ventures Subsidiary LLC ("MSVS") each holds one of the current licenses for 1.6 GHz mobile satellite stations. Comsat Corporation reported annual revenue of $618 million in its most recent annual report to the U.S. Securities and Exchange Commission ("SEC"). Globalstar USA (formerly AirTouch Satellite Services) is a wholly-owned subsidiary of Vodaphone Group Plc. In an annual report filed with the SEC, Vodaphone reported revenue of 15 billion pounds sterling for the year ending March 31, 2001. In another annual report filed with the SEC, Honeywell International Inc. reported receiving sales revenue of $23.7 billion in 2001. MSVS is wholly owned by a limited partnership that

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entities. We anticipate issuing several licenses for 2 GHz mobile earth stations that would be subject to the requirements we are adopting here. We do not know how many of those licenses will be held by small entities, however, as we do not yet know exactly how many 2 GHz mobile-earth-station licenses will be issued or who will receive them.[396] The Commission notes that small businesses are not likely to have the financial ability to become MSS system operators because of high implementation costs, including construction of satellite space stations and rocket launch, associated with satellite systems and services. Still, we request comment on the number and identity of small entities that would be significantly impacted by the proposed rule changes.

15. **Other Toll Carriers.** Neither the Commission nor the SBA has developed a specific size standard for small entities specifically applicable to "Other Toll Carriers." This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[397] According to the FCC's *Telephone Trends Report* data, 92 carriers reported that they were engaged in the provision of "Other Toll Services."[398] Of these 92 carriers, an estimated 82 have 1,500 or fewer employees and ten have more than 1,500 employees.[399] Consequently, the Commission estimates that a majority of "Other Toll Carriers" may be affected by the rules.

16. **Wireless Service Providers.** The SBA has developed a size standard for small businesses within the two separate categories of Cellular and Other Wireless Telecommunications and Paging. Under these standards, such a business is small if it has 1,500 or fewer employees.[400] According to the FCC's *Telephone Trends Report* data, 1,387 companies reported that they were engaged in the provision of wireless service.[401] Of these 1,387 companies, an estimated 945 have 1,500 or fewer employees and 442 have more than 1,500 employees. Consequently, we estimate that a majority of wireless service providers may be affected by the rules.

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

17. The reporting, recordkeeping, or other compliance requirements adopted require that any and all of the affected entities to which the Commission's adopted rules apply must comply with the Commission's rules adopted in the *Report and Order*.

(...continued from previous page)
is 48.1% owned by Motient Corporation and 39.9% owned by a limited partnership controlled by a wholly-owned subsidiary of BCE, Inc. In an annual report filed with the SEC, Motient reported revenue of $93.3 billion for calendar year 2001. BCE, Inc. reports in its corporate website, http://www.bce.ca/en/investors/reports/annual/bce/2002annual/bce_ar02_04_e.html, that it received $19.8 billion of revenue in 2002.

[396] There are currently four space-station authorizations for mobile satellite service systems that would operate with 2 GHz mobile earth stations. Although we know the number and identity of the space-station operators, neither the number nor the identity of future 2 GHz mobile-earth-station licensees can be determined from that data.

[397] 13 C.F.R. § 121.201, NAICS code 513310.

[398] *Telephone Trends Report*, Table 5.3.

[399] *Id.*

[400] 13 C.F.R. § 121.201, NAICS code 513322.

[401] *Telephone Trends Report*, Table 5.3.

18. In paragraph 31 of the section of the *Report and Order* that addresses mobile satellite systems (MSS), the Commission requires that MSS providers provide Emergency Call Center service to the extent that they offer real-time, two way switched voice service that is interconnected to the public switched network and utilize an in-network switching facility which enables the provider to reuse frequencies and/or accomplish seamless hand-offs of subscriber calls. The Commission declines to mandate specific procedural requirements for this call center service, and instead, is requiring that the Emergency Call Centers be capable of determining the emergency caller's phone number and location. These Call Centers are then required to transfer or redirect the emergency call to an appropriate public safety answering point. At paragraph 37, the Commission determines that although it intends to eventually apply enhanced 911 requirements to MSS providers subject to the foregoing call center requirements, there is not a sufficient basis in the record to require immediate E911 compliance.

19. In the telematics section of the *Report and Order* at paragraphs 64-90, the Commission declines to require that providers of standard telematics services, *i.e.*, those that do not offer a commercial wireless voice service (CMRS) that connects the telematics user to end users other than the telematics call center, comply with the Commission's E911 requirements. For those telematics providers that do offer CMRS, however, the Commission determines that they may have E911 obligations and will need to work with the underlying wireless carriers, so that regardless of the legal relationship between the carrier and the telematics provider the Commission's E911 requirements can be met.

20. For resellers and pre-paid calling providers, at paragraphs 91-100 of the *Report and Order*, the Commission decides that they have an independent obligation to comply with the Commission's 911 rules to the extent that the underlying licensee deploys the technology for E911 service. In paragraphs 101-104, the Commission finds that it is unnecessary to impose E911 obligations on manufacturers of disposable phone and personal digital assistants that contain a voice component.

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

21. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its adopted 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) an exemption from coverage of the rule, or any part thereof, for small entities.[402]

22. In the *Report and Order*, the Commission adopted a phase-in period for resellers of wireless service to comply with its rules. This phase-in period was set to allow time for the wholesale price of wireless handsets capable of transmitting the required callback and location information to decline based on economies of scale; and to allow resellers sufficient time to make any necessary changes to their wireless handsets. This alternative will assist all affected licensees, and may be especially helpful to small entities that require more time to comply with the new rules. Additionally, instead of imposing a E911 Phase II requirement on resellers that considered its embedded base of handsets, as it did to licensees, the Commission only places a forward-looking requirement on resellers.

23. By tailoring its rules in this manner, the Commission seeks to fulfill its obligation of ensuring "a seamless, ubiquitous, and reliable end-to-end infrastructure for communications, including wireless communications, to meet the Nation's public safety and other communications needs."[403]

[402] *See* 5 U.S.C. § 603(c)(1)-(c)(4).

[403] *Id.*

F. Report to Congress

24. The Commission will send a copy of the *Report and Order*, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.[404] In addition, the Commission will send a copy of the *Order*, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the *Order* and FRFA (or summaries thereof) will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).

[404] *See* 5 U.S.C. § 801(a)(1)(A)

APPENDIX D

INITIAL REGULATORY FLEXIBILITY ANALYSIS
Further Notice of Proposed Rulemaking
CC Docket No. 94-102

1. As required by the Regulatory Flexibility Act, as amended (RFA),[405] the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this *Second Further Notice* of Proposed Rulemaking (*Second Further Notice*), IB Docket No. 99-67 and CC Docket No. 94-102. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Second Further Notice*. The Commission will send a copy of the *Second Further Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration. *See* 5 U.S.C. § 603(a). In addition, the *Second Further Notice* and IRFA (or summaries thereof) will be published in the *Federal Register*.[406]

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

2. The *Second Further Notice* continues a reevaluation of the scope of communications services that should provide access to emergency services that was initiated with the *Further Notice of Proposed Rulemaking*, CC Docket No. 94-102 and IB Docket No. 99-67.[407] The *Second Further Notice* examines and seeks comment on the need to require compliance with the Commission's basic and enhanced 911 (E911) rules, or similar requirements, by mobile satellite service (MSS) providers, including MSS providers having an ancillary terrestrial component (ATC). The *Second Further Notice* also seeks comment on a proposal to require mobile satellite service (MSS) providers to comply with reporting and recordkeeping requirements in connection with emergency call center implementation. Further, the *Second Further Notice* considers whether multi-line telephone systems (MLTS) should be required to provide access to enhanced 911 (E911) service and questions whether the Commission should adopt revisions to its Part 64 rules.

B. Legal Basis for Proposed Rules

3. The proposed action is authorized under Sections 1, 4(i), 7, 10, 201, 202, 208, 214, 222(d)(4)(A)-(C), 222(f), 222(g), 222(h)(1)(A), 222(h)(4)-(5), 251(e)(3), 301, 303, 308, 309(j), and 310 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 157, 160, 201, 202, 208, 214, 222(d)(4)(A)-(C), 222(f), 222(g), 222(h)(1)(A), 222(h)(4)-(5), 251(e)(3), 301, 303, 308, 309(j), 310.

C. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply

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 adopted rules, if adopted.[408] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small

[405] *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).

[406] *See* 5 U.S.C. § 603(a)

[407] *See* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, IB Docket No. 99-67, *Further Notice of Proposed Rulemaking*, 17 FCC Rcd 25576 (2002).

[408] See 5 U.S.C. § 603(b)(3).

organization," and "small governmental jurisdiction."[409] In addition, the term "small business" has the same meaning as the term "small business concern" under section 3 of the Small Business Act.[410] Under the Small Business Act, a "small business concern" is one that: (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).[411] A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[412]

5. We have included small incumbent local exchange carriers in this present RFA analyis. 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."[413] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent local exchange carriers are not dominant in their field of operation because any such dominance is not "national" in scope.[414]

6. **Incumbent Local Exchange Carriers.** Neither the Commission nor the SBA has developed a specific small business size standard for providers of incumbent local exchange services. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[415] According to the FCC's *Telephone Trends Report* data, 1,337 incumbent local exchange carriers reported that they were engaged in the provision of local exchange services.[416] Of these 1,337 carriers, an estimated 1,032 have 1,500 or fewer employees and 305 have more than 1,500 employees.[417] Consequently, we estimate that the majority of providers of local exchange service are small entities that may be affected by the rules and policies adopted herein.

7. **Competitive Local Exchange Carriers.** Neither the Commission nor the SBA has developed a specific small business size standard for providers of competitive local exchange services. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[418] According to the FCC's *Telephone Trends Report* data, 609 companies reported that they were engaged in the provision of either

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[409] 5 U.S.C. § 601(6).

[410] 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 term which are appropriate to the activities of the agency and publishes such definitions(s) in the Federal Register."

[411] 15 U.S.C. § 632.

[412] *Id.* § 601(4).

[413] 15 U.S.C. § 632.

[414] Letter from Jere W. Golver, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of "small-business concern," which the RFA incorporates into its own definition of "small business." *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 C.F.R. § 121.102(b).

[415] 13 C.F.R. § 121.201, NAICS code 513310.

[416] FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, at Table 5.3, page 5-5 (August 2003) (*Telephone Trends Report*).

[417] *Id.*

[418] 13 C.F.R. § 121.201, NAICS code 513310.

competitive access provider services or competitive local exchange carrier services.[419] Of these 609 companies, an estimated 458 have 1,500 or fewer employees and 151 have more than 1,500 employees.[420] Consequently, the Commission estimates that the majority of providers of competitive local exchange service are small entities that may be affected by the rules.

8. **Competitive Access Providers.** Neither the Commission nor the SBA has developed a specific size standard for competitive access providers (CAPS). The closest applicable standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[421] According to the FCC's *Telephone Trends Report* data, 609 CAPs or competitive local exchange carriers and 35 other local exchange carriers reported that they were engaged in the provision of either competitive access provider services or competitive local exchange carrier services.[422] Of these 609 competitive access providers and competitive local exchange carriers, an estimated 458 have 1,500 or fewer employees and 151 have more than 1,500 employees.[423] Of the 35 other local exchange carriers, an estimated 34 have 1,500 or fewer employees and one has more than 1,500 employees.[424] Consequently, the Commission estimates that the majority of small entity CAPS and the majority of other local exchange carriers may be affected by the rules.

9. **Local Resellers.** The SBA has developed a specific size standard for small businesses within the category of Telecommunications Resellers. Under that standard, such a business is small if it has 1,500 or fewer employees.[425] According to the FCC's *Telephone Trends Report* data, 133 companies reported that they were engaged in the provision of local resale services.[426] Of these 133 companies, an estimated 127 have 1,500 or fewer employees and 6 have more than 1,500 employees.[427] Consequently, the Commission estimates that the majority of local resellers may be affected by the rules.

10. **Toll Resellers.** The SBA has developed a specific size standard for small businesses within the category of Telecommunications Resellers. Under that SBA definition, such a business is small if it has 1,500 or fewer employees.[428] According to the FCC's *Telephone Trends Report* data, 625 companies reported that they were engaged in the provision of toll resale services.[429] Of these 625 companies, an estimated 590 have 1,500 or fewer employees and 35 have more than 1,500 employees.[430] Consequently, the Commission estimates that a majority of toll resellers may be affected by the rules.

11. **Interexchange Carriers.** Neither the Commission nor the SBA has developed a specific size standard for small entities specifically applicable to providers of interexchange services. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that

[419] *Telephone Trends Report*, Table 5.3.

[420] *Id.*

[421] 13 C.F.R. § 121.201, NAICS code 513310.

[422] *Telephone Trends Report*, Table 5.3.

[423] *Id.*

[424] *Id.*

[425] 13 C.F.R. § 121.201, NAICS code 513330.

[426] *Telephone Trends Report*, Table 5.3.

[427] *Id.*

[428] 13 C.F.R. § 121.201, NAICS code 513330.

[429] *Telephone Trends Report*, Table 5.3.

[430] *Id.*

standard, such a business is small if it has 1,500 or fewer employees.[431] According to the FCC's *Telephone Trends Report* data, 261 carriers reported that their primary telecommunications service activity was the provision of interexchange services.[432] Of these 261 carriers, an estimated 223 have 1,500 or fewer employees and 38 have more than 1,500 employees.[433] Consequently, we estimate that a majority of interexchange carriers may be affected by the rules.

12. **Operator Service Providers.** Neither the Commission nor the SBA has developed a specific size standard for small entities specifically applicable to operator service providers. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[434] According to the FCC's *Telephone Trends Report* data, 23 companies reported that they were engaged in the provision of operator services.[435] Of these 23 companies, an estimated 22 have 1,500 or fewer employees and one has more than 1,500 employees.[436] Consequently, the Commission estimates that a majority of local resellers may be affected by the rules.

13. **Prepaid Calling Card Providers.** The SBA has developed a size standard for small businesses within the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[437] According to the FCC's *Telephone Trends Report* data, 37 companies reported that they were engaged in the provision of prepaid calling cards.[438] Of these 37 companies, an estimated 36 have 1,500 or fewer employees and one has more than 1,500 employees.[439] Consequently, the Commission estimates that a majority of prepaid calling providers may be affected by the rules.

14. **Mobile Satellite Service Carriers.** Neither the Commission nor the U.S. Small Business Administration has developed a small business size standard specifically for mobile satellite service licensees. The appropriate size standard is therefore the SBA standard for Satellite Telecommunications, which provides that such entities are small if they have $12.5 million or less in annual revenues.[440] Currently, nearly a dozen entities are authorized to provide voice MSS in the United States. We have ascertained from published data that four of those companies are not small entities according to the SBA's definition,[441] but we do not have sufficient information to determine which, if any, of the others are small

[431] 13 C.F.R. § 121.201, NAICS code 513310.

[432] *Telephone Trends Report*, Table 5.3.

[433] *Id.*

[434] 13 C.F.R. § 121.201, NAICS code 513310.

[435] *Telephone Trends Report*, Table 5.3.

[436] *Id.*

[437] 13 C.F.R. § 121.201, NAICS code 513330.

[438] *Telephone Trends Report*, Table 5.3.

[439] *Id.*

[440] 13 C.F.R. § 121.201, North American Industry Classification System ("NAICS") code 51740, formerly NAICS code 513340.

[441] Comsat Corporation, Globalstar USA, Honeywell International, Inc., and Mobile Satellite Ventures Subsidiary LLC ("MSVS") each holds one of the current licenses for 1.6 GHz mobile satellite stations. Comsat Corporation reported annual revenue of $618 million in its most recent annual report to the U.S. Securities and Exchange Commission ("SEC"). Globalstar USA (formerly AirTouch Satellite Services) is a wholly-owned subsidiary of Vodaphone Group Plc. In an annual report filed with the SEC, Vodaphone reported revenue of 15 billion pounds sterling for the year ending March 31, 2001. In another annual report filed with the SEC, Honeywell International Inc. reported receiving sales revenue of $23.7 billion in 2001. MSVS is wholly owned by a limited partnership that

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entities. We anticipate issuing several licenses for 2 GHz mobile earth stations that would be subject to the requirements we are adopting here. We do not know how many of those licenses will be held by small entities, however, as we do not yet know exactly how many 2 GHz mobile-earth-station licenses will be issued or who will receive them.[442] The Commission notes that small businesses are not likely to have the financial ability to become MSS system operators because of high implementation costs, including construction of satellite space stations and rocket launch, associated with satellite systems and services. Still, we request comment on the number and identity of small entities that would be significantly impacted by the proposed rule changes.

15. **Other Toll Carriers.** Neither the Commission nor the SBA has developed a specific size standard for small entities specifically applicable to "Other Toll Carriers." This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under the SBA rules is for Wired Telecommunications Carriers. Under that standard, such a business is small if it has 1,500 or fewer employees.[443] According to the FCC's *Telephone Trends Report* data, 92 carriers reported that they were engaged in the provision of "Other Toll Services."[444] Of these 92 carriers, an estimated 82 have 1,500 or fewer employees and ten have more than 1,500 employees.[445] Consequently, the Commission estimates that a majority of "Other Toll Carriers" may be affected by the rules.

16. **Wireless Service Providers.** The SBA has developed a size standard for small businesses within the two separate categories of Cellular and Other Wireless Telecommunications and Paging. Under these standards, such a business is small if it has 1,500 or fewer employees.[446] According to the FCC's *Telephone Trends Report* data, 1,387 companies reported that they were engaged in the provision of wireless service.[447] Of these 1,387 companies, an estimated 945 have 1,500 or fewer employees and 442 have more than 1,500 employees. Consequently, we estimate that a majority of wireless service providers may be affected by the rules.

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

17. The reporting, recordkeeping, or other compliance requirements ultimately adopted will depend on the rules adopted and the services subject to those rules. First, any and all of the affected entitites who the Commission finds appropriate to provide 911 and E911 services (*See* Legal Authority,

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is 48.1% owned by Motient Corporation and 39.9% owned by a limited partnership controlled by a wholly-owned subsidiary of BCE, Inc. In an annual report filed with the SEC, Motient reported revenue of $93.3 billion for calendar year 2001. BCE, Inc. reports in its corporate website, http://www.bce.ca/en/investors/reports/annual/bce/2002annual/bce_ar02_04_e.html, that it received $19.8 billion of revenue in 2002.

[442] There are currently four space-station authorizations for Mobile Satellite Service systems that would operate with 2 GHz mobile earth stations. Although we know the number and identity of the space-station operators, neither the number nor the identity of future 2 GHz mobile-earth-station licensees can be determined from that data.

[443] 13 C.F.R. § 121.201, NAICS code 513310.

[444] *Telephone Trends Report*, Table 5.3.

[445] *Id.*

[446] 13 C.F.R. § 121.201, NAICS code 513322.

[447] *Telephone Trends Report*, Table 5.3.

for example, in paragraphs 12-17 of the *Report and Order*[448]) would need to comply with the Commission's basic or enhanced 911 rules. This would involve a schedule for implementing 911 and E911 service, and possibly regulations mandating the provision of automatic number identification (ANI), possible software modification to assist in recognition of single or multiple emergency numbers, and provision of automatic location information (ALI) and interference precautions, as well as regulations, specific to individual services. Additionally, paragraphs 111-112 of the *Second Further Notice* seek comment on proposals that all Mobile Satellite Service (MSS) licensees subject to the emergency call center requirement both (a) submit implementation progress reports prior to the effective date of the call center requirement and (b) record data on call center operations for possible reporting purposes.

18. The *Second Further Notice*, in paragraphs 113-117, examines whether to require multi-line telephone systems, including wireline, wireless, and Internet protocol-based systems, to deliver call-back and location information. Possible requirements that the *Second Further Notice* suggests if the Commission decides that multi-line telephone systems should provide these services include technical standards as discussed in paragraph 117. Paragraphs 114-116 seek comment on the scope of deployment of MLTS and on the Commission's jurisdiction over all parties involved in the provision of E911 over MLTS, including carriers, MLTS manufacturers, PSAPs, and MLTS operators.

19. Other regulations and requirements are possible for those services discussed in the *Second Further Notice* found suitable for 911 and E911 service. Such rules and requirements could be found appropriate, based on comment filed in response to the *Second Further Notice* and would be designed to meet the consumer needs and licensee situations in each service and service area.

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

20. The RFA requires an agency to describe any significant 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) an exemption from coverage of the rule, or any part thereof, for small entities.[449]

21. The critical nature of the 911 and E911 proceedings limit the Commission's ability to provide small carriers with a less burdensome set of E911 regulations than that placed on large entities. A delayed or less than adequate response to an E911 call can be disastrous regardless of whether a small carrier or a large carrier is involved. MSS providers have been exempt to date from the Commission's 911 and E911 regulations as the Commission sought information from which to judge the appropriateness of requiring that these services provide 911 and E911 service. The *Second Further Notice* continues this examination and reflects the Commission's concern that only those entities that can reasonably be expected to provide emergency services, financially and otherwise, be asked to provide this service. The *Second Further Notice* affords small entities another opportunity to comment on the appropriateness of the affected services providing emergency services and on what the Commission can due to minimize the regulatory burden on those entities who meet the Commission's criteria for providing such service.

22. Throughout the *Second Further Notice*, the Commission tailors its request for comment to

[448] *See* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, IB Docket No. 99-67, *Report and Order and Further Notice of Proposed Rulemaking*, FCC 03-290, rel. Nov. 24, 2003.

[449] *See* 5 U.S.C. § 603.

devise a prospective regulatory plan for the affected entities, emphasizing the individual needs of the service providers, manufacturers, and operators as well as the critical public safety needs at the core of this proceeding. The Commission will consider all of the alternatives contained not only in the *Second Further Notice*, but also in the resultant comments, particularly those relating to minimizing the effect on small businesses.

23. The most obvious alternatives raised in the *Second Further Notice* are whether the services under discussion should be required to comply with the Commission's basic and enhanced 911 rules or whether the Commission should continue to exempt these entities from providing this service.

24. Along these lines, discussion of criteria and alternatives could focus on implementation schedules. In discussing the prospective entities and soliciting further information, throughout the *Second Further Notice* the Commission invites comment on the schedule for implementing 911 and E911 services which best meets the abilities, technically and financially, of the individual entities. In the past, the Commission has best been able to offer affected small and rural entities some relief from E911 by providing small entities with longer implementation periods than larger, more financially flexible entities that are better able to buy the equipment necessary to successful 911 and E911 implementation and to first attract the attention of equipment manufacturers. We again seek comment on such possible alternatives.

25. In its discussion of MSS, the *Second Further Notice* recognizes that although satellite carriers face unique technical difficulties in implementing both basic and enhanced 911 features, these difficulties are avoided to a larger extent when the carrier has an ancillary terrestrial component (ATC) to its service. Thus, in paragraphs 107-110, the *Second Further Notice* examines the impact of ATC on MSS providers' ability to offer the same enhanced 911 service that terrestrial wireless carriers provide. Paragraph 108 of the *Second Further Notice* notes that several commenters, thus far, have indicated that MSS basic and enhanced 911 service can be improved with ATC. The *Second Further Notice* suggests alternative solutions to this problem, asking whether MSS providers with ATC should be allowed additional time (or transition periods) in order to come into compliance with terrestrial E911 rules, and whether they can meet the location identification standards of Section 20.18 (47 C.F.R. § 20.18). The *Second Further Notice* also directs the Network Reliability and Interoperability Council to study issues associated with hand-off of calls between satellite and terrestrial components.

26. As mentioned, the *Second Further Notice* seeks comment on reporting and recordkeeping proposals in connection with implementation of the MSS emergency call center requirement. Call center 911 service is a new form of 911 service, and the *Second Further Notice* seeks comment on the collection of call center data, including total volume of calls received during a given period, the number of calls requiring forwarding to a public safety answering point (PSAP), and the success rate in handing off the call to an appropriate PSAP. The *Second Further Notice* suggests alternatives for this data collection, seeking comment on whether the information should simply be retained by service providers and available upon Commission request, whether the information should be submitted to the Commission on a regular basis, or whether the information should be submitted to a third party for review. In addition, the *Second Further Notice* seeks comment on whether the proposed data collection/recordkeeping requirement should be subject to sunset provisions.

27. The *Second Further Notice*, in paragraphs 113-117, examines potential 911 and E911 requirements for multi-line telephone systems. In that regard, the Commission considers whether to impose such regulations on a national basis or whether it is sufficient to rely on actions by state and local authorities to ensure reliable coverage. NENA and APCO, for example, have proposed Model Legislation that would allow states, through legislation, to adopt many of the standards and protocol association with delivering E911 services through multi-line systems. Paragraph 117 considers adopting NENA's proposed new section to our Part 64 rules requiring that LEC central offices be provisioned to permit connection of MLTS equipment for E911 purposes in any accepted industry standard format, as

defined by the Commission, requested by the MLTS operator. In connection with this recommendation, the *Second Further Notice* seeks comment on NEC's recommendation that the Commission adopt the ANSI T1.628-2000 ISDN network interface standard as an "accepted industry standard," thereby requiring LECs to enable MLTS operators to use a more efficient means of interfacing with the network than is currently available in most instances. Additionally, the *Second Further Notice* asked parties to comment on whether any rules that the Commission adopts may have a disproportionate impact on small entities and requested comment how it might ameliorate any such impacts.

F. Federal Rules that Overlap, Duplicate, or Conflict with the Proposed Rules

None.

SEPARATE STATEMENT OF
CHAIRMAN MICHAEL K. POWELL

Re: Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems (CC Docket No. 94-102); and Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (MPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band (IB Docket No. 99-67).

E911 is an essential component to the Commissions Homeland Security Agenda. By our action, the Commission demonstrates its continued commitment to ensuring that all Americans have access to life saving services provided through various telecommunications platforms.

Our balanced approach takes into consideration reasonable consumer expectations regarding access to emergency call features, the need to deploy life saving services in times of crisis, and the needs of entities offering various services and devices to compete in a competitive marketplace.

Specifically, in this Report and Order, we revise and broaden the scope of our existing enhanced 911 (E911) rules to clarify the obligation of mobile satellite services (MSS), telematics services, multi-line telephone systems, resold and pre-paid calling services, and disposable phones to provide E911capabilities. In the Second Further Notice of Proposed Rulemaking, we seek additional comment, concerning MSS carriers with integrated ancillary terrestrial component (ATC), and their ability to comply with our location accuracy standards. In addition, our continued participation with local and state public safety organizations and private industry, such as the FCC's E911 Coordination Initiative, will further encourage the full deployment of prompt emergency response.

Although the Commission expands the scope of its rules, it must continue to ensure that there are no unacceptable gaps in our Nation's emergency call system. I am particularly concerned about E911 access for MLTS operators. I strongly encourage our state colleagues to take action to ensure E911 capabilities in these systems. The Commission will continue to closely monitor this situation to ensure the American people have the E911 access they expect and deserve.

SEPARATE STATEMENT OF COMMISSIONER KATHLEEN Q. ABERNATHY

Re: Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems (CC Docket No. 94-102); and Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (MPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band (IB Docket No. 99-67).

Today's item is another step in the Commission's efforts to ensure that E911 capability is available in a timely and efficient manner to all segments of the United States population. Today we clarify our existing E911 rules to delineate which additional technologies and services will be required to transmit E911 information to public safety answer points. This order ensures that consumers will have access to critical public safety services in the near future through mobile satellite services (MSS), telematic services that offer commercial mobile wireless services, and prepaid and resold commercial mobile wireless service services. We are also setting a framework for reviewing state implementation of E911 service over multi-line telephone systems. Our goals are three fold: first, meet the reasonable expectations of consumers to have access to emergency services; second, strengthen the ability of all American's to access public safety in times of crisis; and third, enable entities offering access to E911 services to operate in a competitive marketplace.

Access to E911 services continues to be a top priority of mine. I look forward to reviewing the record gathered in response to the Further NPRM on issues concerning the implementation of E911 service over the ancillary terrestrial component of MSS and certain reporting and recordkeeping requirements for MSS deployment of E911.

SEPARATE STATEMENT OF
COMMISSIONER MICHAEL J. COPPS

Re: *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems (CC Docket No. 94-102); and Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (MPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band (IB Docket No. 99-67).*

I'm pleased that we're addressing some of the potential gaps in our 911 system in this important Order, and that we are clarifying the responsibilities of a wide range of parties.

The responsibilities of multi-line telephone system operators are of particular concern for me. This is one of our public safety community's top public safety issues, and we need to determine what can be done to bring adequate E911 services to Americans who work in the large offices where MLTS are present. This may well be a place for more federal action. Today, in an FNPRM, we seek to bolster our record on the nature of this problem, the technologies involved, and our jurisdiction. I strongly encourage the public safety community and MLTS operators to file specific and thorough comments on these issues. Without their help, we cannot properly address this challenge.

Finally, I note that as the Commission continues its examination of IP telephony, we must keep 911 issues in mind. We need to find a way to allow this technology to bring much needed new competition to our consumers without undermining the ubiquity of our 911 system.

SEPARATE STATEMENT OF
COMMISSIONER KEVIN J. MARTIN

Re: Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems (CC Docket No. 94-102); and Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (MPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band (IB Docket No. 99-67).

I am pleased with much of this item. 911 service is a vitally important means for Americans to respond to a host of emergencies. And enhanced 911 (or E911), which provides public safety officials information on the caller's physical location, has made 911 service even more valuable. While we still have a long way to go to make nationwide E911 deployment a reality, this item takes some important steps by addressing some gaps in our E911 rules. Among other things, the item discusses the E911 obligations of mobile satellite services, telematics services, resold and pre-paid services, and disposable phones. I am hopeful that, through this item, we have provided some needed regulatory clarity.

I am disappointed, however, in our treatment of multi-line telephone systems (MLTS). 911 calls made by MLTS have posed significant problems. A phone in a large company's MLTS might be anywhere in the country, and public safety officials will have no way of knowing where the phone is. I have heard multiple stories of emergency personnel showing up in the wrong place as the result of insufficient information from an MLTS. Indeed, today the Commission acknowledges that the lack of effective implementation of MLTS E911 may be an unacceptable gap in the emergency call system. Nevertheless, we fail to take any concrete actions, instead posing questions in another further notice.

I appreciate that some states have made real strides in addressing the MLTS problem and that there are outstanding questions about the legality and wisdom of the Commission taking action. However, I am concerned by the fact that we have been seeking comment on these issues since at least 1994. And a year ago, I spoke on the importance of resolving the MLTS problem. All the while, many Americans dialing 911 from an MLTS have faced an unacceptable level of protection. I thus think we need to resolve this further proceeding as soon as is practicable.

SEPARATE STATEMENT OF
COMMISSIONER JONATHAN S. ADELSTEIN

Re: In re Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; CC Docket No. 94-102

There is no higher calling or higher priority for us at the Commission than improving 911 and enhanced 911 (E911) emergency response services. Every day, we confront issues that have millions of dollars at stake; but nothing we do is more important than 911 and E911 services. Unlike a lot of issues we handle that get so much attention, this literally is a matter of life or death.

The Commission always can do more to support the rollout of E911. In my view, we can never do enough. And we have made great strides during the last year: by continuing to provide solid regulatory guidance; by improving our level of collaboration with legislators on Capitol Hill, including the leadership of the Congressional E911 Caucus; and through two very well-organized E911 Coordination Initiatives, which were held right here in the Commission meeting room.

We continue these outstanding efforts today by providing a comprehensive review of our rules to determine the applicability of E911 requirements to a number of different technologies and services. I believe that the item strikes the right balance in imposing obligations on these services, in that it continues our work to make emergency response better and faster in America through the use of both improved 911 and E911 services but also recognizes the unique technical and service characteristics of the different offerings.

That is why I am particularly pleased that we adopt a measured approach to those telematics providers providing call-center based services, which are not also available with commercial mobile wireless service. These companies are offering their subscribers a service with very real public benefits. There is no reason to impose regulation on these services, given their success and collaboration with the public safety community to date.

I also am pleased with our decision to require MSS carriers to establish call centers for the purpose of answering 911 emergency calls. Rightly, we also put these same carriers on notice that we ultimately intend to require them to comply with our E911 requirements, though the record, at this time, does not support immediate compliance with those rules.

Finally, I do have a lingering concern that our actions today with regard to Multi-Line Telephone Systems (MLTS), such as private branch exchanges (PBXs), just are not enough. Consequently, I regard our action today as simply a first step, and I am very pleased with our decision to continue our review in this important area through a Further Notice. It cannot be emphasized enough how critical it is that state and local governments adopt rules requiring MLTS E911 implementation, such as the model legislation suggested by APCO and NENA. I am fully prepared to intervene should we not see the timely adoption of these important requirements.