

Before the  
Federal Communications Commission  
Washington, D.C. 20554

In the Matter of

Replacement of Part 90 by Part 88 to Revise	)	
the Private Land Mobile Radio Services and	)	PR Docket No. 92-235
Modify the Policies Governing Them	)	
	)	
and	)	
	)	
Examination of Exclusivity and Frequency	)	
Assignment Policies of the Private Land	)	
Mobile Services	)	

**SECOND MEMORANDUM OPINION AND ORDER**

**Adopted:** April 6, 1999

**Released:** April 13, 1999

By the Commission:

**TABLE OF CONTENTS**

Title	Paragraph
I. EXECUTIVE SUMMARY .....	0
II. INTRODUCTION AND BACKGROUND.....	0
III. DISCUSSION	
A. Consolidation Plan	
1. Frequency Pool Eligibility .....	0
2. Frequency Coordination	
i.Coordination of Power Petroleum and	
Railroad Frequencies Previously Assigned on an	
Exclusive or Shared Basis.....	0
ii UTC/API Freeze Request .....	0
iii. Other Requests for Exclusive Coordination .....	0
iv. Frequency Coordination Process .....	0
3. Application Process .....	0
B. Low Power Frequencies.....	0
C. Concurrence Requirement for Trunked Operations.....	0
D.Classification of Industrial/Business Pool Licensees	
Providing Interconnected For-Profit Service .....	39
E. Miscellaneous Issues.....	0
IV. CONCLUSION 0	
V. PROCEDURAL MATTERS	
A. Regulatory Flexibility Act .....	0
B. Ordering Clauses.....	0

C.	Contacts for Information.....	0
----	-------------------------------	---

## APPENDICES

A.	List of Petitioners
B.	Final Regulatory Flexibility Analysis
C.	Final Rules

## I. EXECUTIVE SUMMARY

1. This *Second Memorandum Opinion and Order (Second MO&O)* clarifies certain decisions in the *Second Report and Order*<sup>1</sup> (*Second R&O*) in PR Docket No. 92-235, and, where necessary, makes appropriate modifications to the rules. Because the rules adopted in the *Second R&O* became effective on October 17, 1997, this *Second MO&O* addresses those issues which must be resolved in order to ensure a smooth transition to the new regulatory framework under which the twenty Private Land Mobile Radio (PLMR) Services covered in Part 90 of the Rules are consolidated into two broad frequency pools -- namely, Public Safety and Industrial/Business. We defer to a later date issues associated with the trunking of frequencies in systems which operate below 800 MHz. We also defer consideration of the issue of potential interference to medical telemetry systems from PLMR stations operating on 12.5 kHz or 6.25 kHz offset channels in the 450-470 MHz band. The significant decisions of this *Second MO&O* are as follows:

- We affirm the decision to limit the eligibility of the Public Safety Pool to those entities that were eligible under any of the former Public Safety Radio Services and the Special Emergency Radio Service.
- We provide that all frequencies -- shared and exclusive -- assigned to the former Power Radio Service, Petroleum Radio Service and Railroad Radio Service prior to the adoption of the *Second R&O* must be coordinated by the frequency coordinators responsible for these services prior to adoption of the *Second R&O*. In the alternative, applicants for these frequencies must obtain the prior written concurrence of UTC, API or AAR, as appropriate.
- We provide a limited extension of the protection provided on the frequencies assigned solely to the former Power, Petroleum and Railroad Radio Services by affording similar protection on the frequencies previously allocated to the former Automobile Emergency Radio Service.
- We affirm the reliance upon the frequency coordination process, reject arguments that, with consolidation, the traditional expert and impartial service of frequency coordinators will be compromised, and decline to regulate the frequency coordination process more restrictively.
- We decline to address herein an Emergency Request for Limited Licensing Freeze.

<sup>1</sup> Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Radio Services, PR Docket No. 92-235, *Second Report and Order*, 12 FCC Rcd 14307 (1997) (*Second R&O*).

- We clarify several aspects of the rules regarding licensees operating on the low power 12.5 kHz offset channels in the 450-470 MHz band and make limited provision for the use of wide band equipment on low power offset channels.
- We clarify the rules regarding the stations from which applicants proposing trunked systems must obtain concurrence.

## II. INTRODUCTION AND BACKGROUND

2. On February 20, 1997, the Commission adopted the *Second R&O*, wherein the primary action was to consolidate the twenty PLMR services into two broad frequency pools and introduce competition into the frequency coordination process. This action stemmed from the Commission's conclusion in the *Report and Order*<sup>2</sup> in this proceeding that such action would provide for more efficient assignment of PLMR spectrum.<sup>3</sup> The *Second R&O* created a Public Safety Pool, consisting of all former Public Safety Radio Services and the Special Emergency Radio Service (SERS),<sup>4</sup> and an Industrial/Business Pool, consisting of the former Industrial and Land Transportation Radio Services.<sup>5</sup> Additionally, the *Second R&O* established provisions designed to facilitate development of highly efficient centralized trunked systems in the shared PLMR bands below 800 MHz,<sup>6</sup> and adopted an approach for accommodating low power use of frequencies in the 450-470 MHz band.<sup>7</sup> We received fifteen petitions for reconsideration or clarification addressing various decisions contained in the *Second R&O*, as well as 43 letters, eleven oppositions and comments, eight replies, one supplemental comment, a petition, motion and opposition thereto.<sup>8</sup> The requests for reconsideration or clarification primarily concern the eligibility criteria for the two pools, the jurisdictions of the various frequency coordinators and the rules regarding trunked operation.

---

<sup>2</sup> Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Radio Services, PR Docket No. 92-235, *Report and Order and Further Notice of Proposed Rule Making*, 10 FCC Rcd 10076 (1995) (*First R&O*).

<sup>3</sup> *Id.* at 10081.

<sup>4</sup> See *Second R&O* at 14317-18. The Public Safety Radio Services listed in 47 C.F.R. Part 90, Subpart B (1996) are: the Local Government Radio Service, the Police Radio Service, the Fire Radio Service, the Highway Maintenance Radio Service, the Forestry-Conservation Radio Service, and the Emergency Medical Radio Service. Entities eligible for licensing in the Special Emergency Radio Service are listed in 47 C.F.R. Part 90, Subpart B (1996).

<sup>5</sup> *Id.* The Industrial Radio Services listed in 47 C.F.R. Part 90, Subpart D (1996) are: the Power Radio Service, the Petroleum Radio Service, the Forest Products Radio Service, the Film and Video Production Radio Service, the Relay Press Radio Service, the Special Industrial Radio Service, the Business Radio Service, the Manufacturers Radio Service, and the Telephone Maintenance Radio Service. The Land Transportation Radio Services listed in 47 C.F.R. Part 90, Subpart E (1996) are: the Motor Carrier Radio Service, the Railroad Radio Service, the Taxicab Radio Service, and the Automobile Emergency Radio Service.

<sup>6</sup> *Id.* at 14337-38.

<sup>7</sup> *Id.* at 14338-44.

<sup>8</sup> A list of these filings is provided as Appendix A.

3. This *Second MO&O* addresses the pending requests for reconsideration and clarification of the *Second R&O*, except those related to the trunking rules and potential interference to medical telemetry systems, which we will address at a later date. We do, however, on our own motion, clarify one aspect of the trunking rules. We also address several miscellaneous issues raised in the petitions for reconsideration and clarification. Finally, we make certain minor corrections to a few of our rules which effect no substantive changes. These are incorporated into our rules without discussion.<sup>9</sup>

### III. DISCUSSION

#### A. Consolidation Plan

##### 1. Public Safety Frequency Pool Eligibility

4. In the *Second R&O*, the Commission restricted eligibility in the new Public Safety Pool to those entities that were eligible in any of the former Public Safety Radio Services and the SERS.<sup>10</sup> The reasons for defining eligibility in this way were to (1) assure that entities specifically charged with the protection of the life and property of the general public have access to spectrum; (2) promote interoperability between entities involved in ensuring the safety of life; and (3) be consistent with other Commission definitions of public safety radio services.<sup>11</sup> With respect to entities that did not meet the criteria for the Public Safety Pool, the Commission determined that their communications needs could be met through the use of a consolidated Industrial/Business Pool. In addition, as with the Public Safety Pool, the Commission put frequency coordination processes in place to protect the integrity of these entities' communications.<sup>12</sup>

5. The Alarm Industry Communications Committee (AICC) has requested that the Commission expand the categories of entities eligible for the Public Safety Pool.<sup>13</sup> AICC asks that central station alarm companies, which support and complement traditional public safety radio services, be included in the Public Safety Pool. AICC bases its request on the conclusions of the Public Safety Wireless Advisory

---

<sup>9</sup> See, e.g., rule amendments in Appendix C - Final Rules, Section 90.311. Public notice of these minor corrections to the rules and the opportunity for public comment on the changes are unnecessary, given that the changes have no substantive component. See 5 U.S.C. § 553(b)(B). (Providing that notice and comment are not required "when the agency finds . . . that notice and public procedure . . . are impracticable, unnecessary or contrary to the public interest.")

<sup>10</sup> See *Second R&O*, 12 FCC Rcd at 14319-20.

<sup>11</sup> *Id.* at 14316, 14319-20.

<sup>12</sup> *Id.* at 14316.

<sup>13</sup> Similarly, in its Petition for Reconsideration, AAA requested that frequencies formerly allocated to the Automobile Emergency Radio Service (AERS) be moved to the Public Safety Pool. See AAA Petition for Reconsideration at 5. AAA subsequently withdrew its request. See Letter from Steven F. Morris, Hogan and Hartson L.L.P. to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, dated November 24, 1997. Thus, the Commission will not address the merits of this AAA argument. We nonetheless address other remaining issues presented in AAA's reconsideration petition. See paras. 0-0, 0.

Committee (PSWAC)<sup>14</sup> Interoperability Subcommittee, which defined two categories of public safety providers -- Service Providers and Support Providers.<sup>15</sup> After reviewing the AICC reconsideration petition, the Commission declines to modify the eligibility criteria for the Public Safety Pool as AICC suggests. The Commission notes that the eligibility criteria for the Public Safety Pool are consistent with PSWAC's definition of public safety services as specified in its *Final Report*<sup>16</sup> and with the definition of public safety services that is used in Section 337(f)(2) of the Communications Act of 1934, as amended.<sup>17</sup> Moreover, they are in accord with the three-prong test for eligibility for new public safety spectrum that the Commission adopted in implementing Section 337. Finally, given the shortage of spectrum in the Public Safety Pool, the Commission is not persuaded that the eligibility criteria should be expanded as AICC requests. For these reasons, we affirm the decision that the Public Safety Pool be restricted to the six types of entities eligible in the former Public Safety Radio Services and the SERS.

## 2. Frequency Coordination

### i.Coordination of Power, Petroleum and Railroad Frequencies Previously Assigned on an Exclusive or Shared Basis.

6. In the *Second R&O*, the Commission determined that, in the case of power, petroleum and railroad licensees, frequencies that previously were assigned to those three industries on an exclusive basis would continue to be coordinated only by their prior certified frequency coordinators.<sup>18</sup> Thus, under the current rules, UTC, The Telecommunications Association (UTC) coordinates frequencies previously allocated on an exclusive basis to the power utility industry; the American Petroleum Institute (API) coordinates frequencies previously assigned to the petroleum industry on an exclusive basis and the Association of American Railroads (AAR) coordinates frequencies previously assigned to the railroad industry on an exclusive basis.<sup>19</sup>

---

<sup>14</sup> PSWAC, sponsored jointly by the FCC and the National Telecommunications and Information Administration (NTIA), was convened on June 25, 1995, to evaluate the wireless communications needs of federal, state, and local public safety agencies through the year 2010 and recommend possible solutions. *See* PSWAC Final Report at 2.

<sup>15</sup> AICC Reply to Comments on Petition for Partial Reconsideration and Clarification at 2. *See* PSWAC Final Report at 45. The PSWAC Interoperability Subcommittee defined public safety as "[t]he public's right, exercised through Federal, State or Local government as prescribed by law, to protect and preserve life, property, and natural resources and to serve the public welfare." Public Safety Services Providers are those entities whose primary mission is providing Public Safety Services. Public Safety Support Providers are entities whose mission is to support Public Safety Services, either directly to the public or in support of Public Safety Service Providers. *See* Final Report of the Public Safety Wireless Advisory Committee, September, 1996, at 45.

<sup>16</sup> The Commission notes that the PSWAC Steering Committee did not use the Interoperability Subcommittee's definitions of Public Safety Service Providers and Support Providers in the *Final Report*, but rather defined public safety in terms of the Public Safety Radio Services and the SERS.

<sup>17</sup> 47 U.S.C § 337(f)(2).

<sup>18</sup> *See Second R&O*, 12 FCC Rcd at 14330.

<sup>19</sup> *See* 47 C.F.R. § 90.35(b)(2)(i).

7. In its Petition for Reconsideration, API points out that, prior to consolidation, many channels assigned to the former Petroleum Radio Service were allocated on a shared basis with other services.<sup>20</sup> Under the new consolidation rules, these previously shared frequencies may be coordinated by any certified frequency coordinator in the Industrial/Business Pool -- they are not limited to coordination by the former Petroleum Radio Service coordinator because they are not frequencies that were exclusively assigned to the Petroleum Radio Service under the prior rules.<sup>21</sup> Therefore, API contends that, although the *Second R&O* provided a degree of protection to the relatively few frequencies that were previously assigned to the former Petroleum Radio Service on an exclusive basis, no complementary degree of protection was provided on frequencies that previously were assigned to the Petroleum Radio Service on a shared basis.

8. To remedy this problem, API suggests that the Commission adopt "protected contour" interference protection for stations on former Petroleum Radio Service frequencies that were assigned on a shared basis.<sup>22</sup> The Commission rejects API's suggestion, *inter alia* because the issue of whether to provide protected contours (*i.e.* exclusivity) to Part 90 licensees generally, is the subject of another aspect of this proceeding<sup>23</sup> and may well be implicated in our implementation of the 1997 Budget Act.<sup>24</sup> Consequently, the Commission considers the issue of protected contours to be outside the scope of the instant *Second MO&O*.

9. However, the Commission is persuaded that API has raised a legitimate safety issue concerning the frequencies that were assigned to the former Petroleum Radio Service on a shared basis prior to consolidation.<sup>25</sup> The Commission also believes that comparable treatment should be afforded to frequencies that were previously assigned on a shared basis to the former Power Radio Service and Railroad Radio Service.<sup>26</sup> Accordingly, the Commission is now requiring that frequencies that were either assigned on a primary basis, in the First R&O, to any of these former three services (*i.e.* the Petroleum, Power and Railroad services) or that were shared, on a primary basis, prior to the first R&O, between one of these three services and another radio service, must be coordinated by API, UTC or AAR, as appropriate. Alternatively, API, UTC or AAR, as appropriate, in its discretion, may determine that such frequencies may be coordinated by any other certified Industrial/Business Pool frequency coordinator, provided that coordinator receives prior written concurrence from API, UTC or AAR, as appropriate.<sup>27</sup>

---

<sup>20</sup> API Petition for Reconsideration at 7,8.

<sup>21</sup> See 47 C.F.R. § 90.35(b)(2)(ii).

<sup>22</sup> API Petition for Reconsideration at 6-7. Specifically, API recommends that concurrence be required on any application in the UHF band when an applicant's 21 dBu contour overlaps the 39 dBu contour of an existing system; in the VHF high band when an applicant's 19 dBu contour overlaps the 37 dBu contour of an existing system; and in the VHF low band when an applicant's 12 dBu contour overlaps the 30 dBu contour of an existing system.

<sup>23</sup> See *First R&O*, 10 FCC Rcd at 10129.

<sup>24</sup> See 1997 Balanced Budget Act, Pub. L. No. 105-33, 111 Stat. 251 (1997) *codified at* 47 U.S.C. §§ 309 and 337.

<sup>25</sup> See 47 C.F.R. § 90.65.

<sup>26</sup> See 47 C.F.R. §§ 90.63, 90.91.

<sup>27</sup> Concurrence from UTC, API or AAR will not be required on the frequencies allocated for fixed use in the

10. In the *First R&O*, the Commission created new 12.5 kHz<sup>28</sup> and 6.25 kHz<sup>29</sup> channels in the 450-470 MHz bands. Some of these channels were allocated to a single, specific service; others were shared between services. The channels allocated to a certain specific service (*i.e.* Power, Petroleum or Railroad) must be coordinated by the frequency coordinator for that service; or, alternatively, may be coordinated by any certified Industrial/Business Pool frequency coordinator provided written concurrence is obtained. However, the Commission will not impose this coordination -- or concurrence -- requirement on those 12.5 kHz and 6.25 kHz channels that were shared between the Power, Petroleum or Railroad services and other radio services.

11. The Commission is not affording the concurrence option for bands below 50 MHz. The Commission believes it is unnecessary to do so because there are 31 channels for which API is the only authorized coordinator and 64 channels for which UTC is the only authorized coordinator.<sup>30</sup> The Commission considers this to be a sufficient number of channels to meet these industries' need for safety-related communications.

**ii. UTC/API Freeze Request**

12. UTC and API request a "freeze" on the acceptance of applications for any channel that, "prior to the implementation of the Commission's *Second R&O* . . . was allocated for shared use by the power (IW) and/or petroleum (IP) Radio Services and for any channels less than 15 kHz removed from such channels."<sup>31</sup> UTC and API contend that the requested limited freeze should remain in effect until the Commission evaluates a rulemaking petition that would propose "a long-term solution to the serious problems presented by the existing radio pool consolidation rules."<sup>32</sup> In support, UTC and API cite a case of co-channel interference which occurred when a new private carrier system was activated 25 miles from the

---

150-174 MHz band because fixed operations only occur between known points. Therefore, it is easier for other coordinators to account for and protect these systems as compared to mobile operations that occur within a geographic area.

<sup>28</sup> *Id.* Rules adopted in the *First R&O* created new channels 12.5 kHz removed from all existing primary channels on which only equipment designed to operate on 12.5 kHz channels or less may be used.

<sup>29</sup> *See First R&O*, 10 FCC Rcd at 10094. Rules adopted in the *First R&O* created new channels 6.25 kHz removed from all existing primary channels on which only equipment designed to operate on 6.25 kHz channels or less may be used.

<sup>30</sup> *See* 47 C.F.R. § 90.35.

<sup>31</sup> Emergency Request for Limited Licensing Freeze filed by UTC and API (Emergency Request) at 1, 2 (footnotes omitted).

<sup>32</sup> *Id.* at 3. The referenced petition for rulemaking has been submitted by UTC, API and AAR. *See* Establishment of Public Service Radio Pool in the Private Mobile Radio Frequencies Below 800 MHz, *Petition for Rulemaking*, RM-9405 (August 14, 1998). The petitioners request the Commission to set aside a separate pool for what they characterize as the "Critical Infrastructure Industries." *Id.* at 7. Consideration of this petition is outside the scope of the instant *Memorandum Opinion and Order*.

transmitter site of Public Service Electric and Gas (PSE&G), a New Jersey gas utility. According to UTC and API, as a consequence of the co-channel interference from the private carrier station, PSE&G crews, in 16 documented instances, "did not receive dispatch orders relating to instructions from local public safety officials for the immediate disconnection of gas service (e.g., to scenes of fires)."<sup>33</sup> UTC and API attribute the referenced interference to an "inherently defective coordination"<sup>34</sup> and forecast that further incidents of life-threatening interference will occur in the near future.<sup>35</sup>

13. The UTC/API freeze petition remains pending before the Commission and will be resolved separately because it is beyond the scope of matters contained in the *Second Report and Order*. The Commission notes, however, that by requiring UTC, API or AAR coordination, or concurrence, for channels formerly assigned -- on either an exclusive or shared basis -- to the former Power Radio Service, Petroleum Radio Service or Railroad Radio Service, the Commission has provided a significant degree of protection against interference of the kind that concerns UTC and API.<sup>36</sup>

14. UTC and API also request "freezing" assignments on all frequencies within 15 kHz of former power and petroleum channels (adjacent channels).<sup>37</sup> The Commission declines to adopt a freeze on the acceptance of applications for adjacent channels for several reasons. First, the record before us does not justify an adjacent channel freeze. Neither UTC nor API has cited any instances of adjacent channel interference. The Commission is reluctant to freeze acceptance of applications without evidence that there is a serious problem that cannot be resolved under our current rules and procedures. Second, adjacent channel interference can be controlled in many instances by the use of receiving equipment with adequately narrow selectivity. Finally, the Commission takes this opportunity to reiterate our expectation that frequency coordinators will cooperate in the application of appropriate adjacent channel signal to interference ratios when coordinating adjacent channel operations.<sup>38</sup> As always, the Commission encourages all parties potentially affected by interference under the new consolidation regime to work cooperatively, using the coordination process to identify and eliminate harmful interference before it develops, with due consideration that it is shared spectrum and no party can be guaranteed exclusive channels totally free of interference.<sup>39</sup>

---

<sup>33</sup> *Id.* at 5.

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> Within one day of making a coordination, each frequency coordinator must provide a notice to other coordinators certified to coordinate the selected frequency, providing relevant parameters related to the coordination. See 47 C.F.R. § 90.176. See also letter from the Hon. Walter B. Jones, *et al.* to William Kennard, Chairman, FCC, dated December 4, 1998.

<sup>37</sup> See *Emergency Request* at 2.

<sup>38</sup> See Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Radio Services, PR Docket No. 92-235, *Report and Order and Further Notice of Proposed Rule Making* 10 F.C.C.R. 10076, 10114-15 (1995). See also Filing Freeze to be Lifted for Applications Under Part 90 for 12.5 kHz Offset Channels in the 421-430 and 470-512 MHz Bands, DA 97-2006, *Public Notice* 13 FCC Rcd 5942 (1997).

<sup>39</sup> See 47 C.F.R. § 90.173(a). ("Except as otherwise specifically provided in this part, frequencies assigned to

### iii. Other Requests for Exclusive Coordination

15. Another issue pertaining to frequency coordination is raised in a petition for reconsideration from the American Automobile Association (AAA). AAA -- the prior certified frequency coordinator for the former Automobile Emergency Radio Service (AERS) -- submits that it should be the exclusive coordinator for frequencies previously allocated to the AERS. AAA, a non-profit association providing emergency road service to 39 million members, believes that its role of responding to over 29 million emergency calls, yearly -- 8 million of which involve a threat to life or property -- justifies categorizing AAA as a "quasi-public safety" entity that should be afforded frequency coordination protection comparable to that provided to the power, petroleum and railroad industries in the *Second R&O*.<sup>40</sup> Requests similar to that made by AAA are made in petitions or comments filed by the American Trucking Association (ATA), AICC, FIT, MRFAC and the International Taxicab and Livery Association (ITLA), all of which argue that their constituents' operations have some nexus with safety and that they therefore should be afforded the same coordination rights that the Commission has afforded to the power, petroleum and railroad industries in the *Second R&O*.<sup>41</sup>

16. After carefully evaluating the arguments advanced by those seeking coordination procedures comparable to those of the power, petroleum and railroad industries, the Commission believes that only AAA has made a persuasive showing that it should be granted coordination parity with the power, petroleum and railroad industries. Although the Commission does not contest the claims of the other petitioners that their constituents' communications are sometimes safety-related, the Commission does not believe that the safety-related communications of these other petitioners are either as frequent, or as potentially serious from the standpoint of the overall public welfare, as emergency road service communications.<sup>42</sup> To cite but one example, emergency road services are called upon several hundred times each day, often by law enforcement officials, to remove from the nation's highways, vehicles that constitute road hazards because they have been involved in accidents or otherwise have become disabled.<sup>43</sup> The

land mobile stations are available on a shared basis only and will not be assigned for the exclusive use of any licensee.")

<sup>40</sup> AAA Petition for Reconsideration at 2, 15.

<sup>41</sup> See AICC Petition for Clarification and Reconsideration at 3; FIT Comments on Petitions for Reconsideration at 6-7; MRFAC Comments on Petitions for Reconsideration at 2-3. ITLA Petition for Reconsideration at 17. PCIA opposed these requests for separate coordination. See PCIA Opposition and Comments to Petitions for Reconsideration at 6-7.

<sup>42</sup> AAA claims that it responds to an emergency road service call every 4.5 seconds and that thirty percent of its service calls involve an immediate threat to life or property. Letter from Michele Farquhar, attorney for AAA, to William E. Kennard, Chairman, FCC, dated June 12, 1998. See also, AAA White Paper, The Need for "Safety" Treatment of Frequencies in the Automobile Emergency Radio Service, transmitted under cover letter from Steven F. Morris, Attorney for AAA, to Magalie R. Salas, Secretary, FCC, dated May 20, 1998, at 19. The Association of Public Safety Communications Officials, International, Inc. (APCO) notes that automobile emergency services have an "important safety-related role" that warrants treatment similar to that given, e.g., utility and railroad services. Comments of APCO in Response to Petitions for Reconsideration and Clarification at 2.

<sup>43</sup> See, e.g., Letter from Ricardo Martinez, M.D., Administrator, National Highway Traffic Safety Administration, to William E. Kennard, Chairman, FCC, dated June 17, 1998.

communications necessary to effect the prompt clearing of the highways must be clearly and rapidly conveyed, because delay can result in serious injury or death to motorists if the vehicles remain in place.<sup>44</sup> The Commission concludes, therefore, that automobile emergency road services have a significant quasi-public safety component involving safety on the nation's highways.<sup>45</sup>

17. The Commission's conclusion concerning the quasi-public safety character of emergency road service communications is reinforced by the importance that the Congress placed on emergency road services in its deliberations leading to the 1997 Balanced Budget Act. In the 1997 Budget Act, Congress created a separate category for not-for-profit organizations that offer emergency road services and exempted that category from spectrum auctions.<sup>46</sup> As noted in the Conference Committee report: "The Senate included this particular exemption in recognition of the valuable public safety service provided by emergency road services."<sup>47</sup>

18. Thus, given the exceptionally large number of service calls handled by emergency road service providers, the fact that a significant percentage of those calls -- 30 percent -- involves threats to person or property, the imperative need for safety on the nation's highways and the importance that the Congress has placed on the role of emergency road services in the 1997 Balanced Budget Act, the Commission concludes that the public interest would be best served by requiring that frequencies in the former AERS be coordinated only by AAA, the certified frequency coordinator responsible for coordination of the AERS frequencies prior to adoption of the *Second R&O*. Alternatively, AAA in its discretion may determine that frequencies in the former AERS may be coordinated by any other certified Industrial/Business Pool frequency coordinator, provided that such coordinator receives the prior written concurrence of AAA.

19. The Commission does not agree with ATA that the new coordination procedures will adversely affect the service environment in the PLMR bands. ATA contends that only those coordinators who are most familiar with given frequencies and radio services should have primary coordination authority over those frequencies and services.<sup>48</sup> Otherwise, ATA argues, the existing protection afforded PLMR users will be lost, resulting in greater interference and impaired utility of the spectrum.<sup>49</sup> To the contrary, the Commission believes that the frequency coordination process, as enhanced by the protections implemented in the *Second R&O*, and expanded upon herein, is sufficient to safeguard the integrity of the communications of PLMR licensees. The Commission holds this view for several reasons. First, there are few functional differences in the types of operations coordinated by each of the PLMR coordinators. For example, each coordinator has experience coordinating a variety of radio systems, including mobile, portable, fixed, and

---

<sup>44</sup> See, e.g., Letter from Dennis A. Garrett, Police Chief, City of Phoenix, Arizona, to Reed Hundt, Chairman, FCC, dated May 13, 1997. See also AAA Petition for Reconsideration at 16.

<sup>45</sup> See, e.g. Letter from the Hon. Conrad Burns and the Hon. Byron L. Dorgan to William E. Kennard, Chairman, FCC, dated February 17, 1998.

<sup>46</sup> See 47 U.S.C. § 309(j)(2)(A).

<sup>47</sup> 142 Cong. Rec. H6029-01, H6173 (July 29, 1997).

<sup>48</sup> *Id.* at 4, 6.

<sup>49</sup> *Id.* at 5.

mobile relay stations. Second, the certified coordinators have demonstrated proficiency in coordinating different types of entities on the same frequencies in the PLMR bands above 800 MHz. The Commission has not been presented with persuasive evidence that the same quality of coordination cannot be achieved on the PLMR bands below 800 MHz. Third, the Commission directed the coordinators to develop technical coordination guidelines.<sup>50</sup> Fourth, the Commission believes that market forces will motivate each frequency coordinator to provide the best realizable protection for each user, not only for those users who meet the eligibility criteria for their former radio services. Moreover, unlike the coordination process that existed pre-consolidation, the new competitive coordination process will encourage each coordinator to view every PLMR user as a potential customer, regardless of that user's prior service affiliation. The Commission believes, therefore, that to attract potential customers and ensure repeat business from existing customers each coordinator will be motivated to provide the best possible interference protection when effecting a frequency coordination.

#### iv. The Frequency Coordination Process

20. Small Business in Telecommunications (SBT) filed a petition for reconsideration dealing in part with the frequency coordination process.<sup>51</sup> SBT submits that the relationship between the frequency coordinator and the applicant must be "redefined." SBT believes that: (1) stricter standards should be imposed on frequency coordinators; (2) additional technical standards are required to assure more reliable coordination; and (3) additional frequency coordinators are required and should be selected according to new standards.<sup>52</sup> Further, in SBT's view, the Commission has established an "irrational relationship of unnecessary tension between the coordinator and the applicant" by giving coordinators the authority to request additional information in connection with recommending the most appropriate frequency for a user. SBT also opposes placing the burden of proceeding and burden of proof on any applicant challenging the determination of a frequency coordinator.<sup>53</sup> SBT believes that the Commission should designate the frequency coordinator as the applicant's agent, charged with a fiduciary duty to advance the applicant's best interests.<sup>54</sup> SBT would have the Commission place the burden of proceeding and the burden of proof on the coordinator, not the applicant, in the event of a contested coordination and urges the Commission to extend its rules of practice and procedure to cover resolution of contested coordinations.<sup>55</sup> In SBT's view, applicants should be protected against "coordinator error or misbehavior." SBT believes that coordinator services should be provided to applicants at a uniform charge and that coordinators' fees should be "capped."<sup>56</sup> Finally, SBT argues that a coordinator should be prohibited from disclosing to any third party, other than the Commission, the fact that a coordination has been unsuccessful.<sup>57</sup>

<sup>50</sup> *Second R&O*, 12 FCC Rcd 14330-31

<sup>51</sup> SBT Petition for Reconsideration, May 19, 1997.

<sup>52</sup> *Id.* at 4-17.

<sup>53</sup> *Id.* at 4.

<sup>54</sup> *Id.* at 5.

<sup>55</sup> *Id.* at 6.

<sup>56</sup> *Id.* at 9-10.

<sup>57</sup> *Id.* at 10.

21. As an initial matter, the Commission notes that, as PCIA has observed,<sup>58</sup> many of the issues raised by SBT go beyond the scope of the instant proceeding. The Commission considers them nonetheless in the interest of completeness and because no issue raised by SBT has persuaded us that a change in our existing rules or policies is required. SBT has submitted no examples of "coordinator error or misbehavior" that would warrant stricter additional technical standards. Rather, SBT's requested changes appear grounded on speculation that the environment created by consolidation will somehow undercut the traditional level of neutral, impartial service that coordinators have provided to PLMR applicants and licensees. The Commission disagrees with SBT's contention that a coordinator should act as the applicant's fiduciary when conducting the coordination process. Instead, the Commission believes that making coordinators the agents of applicants, in the manner SBT urges, would impinge on the independence of coordinators to make coordination decisions based on the most effective and efficient use of the spectrum. The independence of coordinators has been, in large part, the reason that the coordination process has worked as well as it has in the nearly forty years it has been in existence.<sup>59</sup> The Commission is not persuaded that it would be in the public interest to compromise or undermine such independence.

22. Further, SBT's request that the Commission require coordinators to charge a uniform fee to all applicants is unnecessary. Consolidation has created a more competitive marketplace for coordinators' services and the Commission sees no reason to impose regulation when marketplace forces appear adequate to keep coordination fees at a reasonable level. Moreover, SBT has failed to demonstrate that imposing a "cap" on coordinators' fees is warranted; thus, the Commission declines its suggestion to do so. In any event, as the Affiliated American Railroads (AAR) points out, the Commission has previously stated that the Commission will address complaints against any coordinator charging an unreasonable fee.<sup>60</sup>

23. The Commission also finds that SBT's argument concerning the need for additional coordinators or changes in the criteria used for coordinator selection is unsupported at this time. SBT has not shown that the current number of coordinators is inadequate or that the coordination process would be improved by the addition of more coordinators or a change in selection standards. However, in light of the broad changes effected in the PLMR bands as a result of this proceeding, the Commission reserves the right to revisit this issue in the future. Moreover, the Commission disagrees with SBT's contention that coordination information must be kept confidential. The free exchange of information among coordinators is an essential part of the coordination process and often results in spectrum-efficient assignments. The Commission has no reason to believe that this situation would change with consolidation.

24. Our experience with the coordination process establishes no rationale for shifting the burden of proceeding and the burden of proof from the applicant to the coordinator when a coordination is contested, as SBT requests. SBT has not demonstrated that the current allocation of burdens is in any way deficient or unfair and the Commission therefore declines to accede to SBT's request to shift them. Finally, the Commission also rejects SBT's request that the Commission's rules of practice and procedure govern the

---

<sup>58</sup> PCIA Opposition and Comments to Petitions for Reconsideration at 8.

<sup>59</sup> See Frequency Coordination in the Private Land Mobile Radio Services, PR Docket No. 83-737, *Report and Order*, 103 FCC 2d 1093, 1096 (1986) (*Frequency Coordination R&O*).

<sup>60</sup> Comments of Affiliated American Railroads on Petitions for Reconsideration, at 5. See also ITA Petition for Clarification and/or Reconsideration at 13-14.

resolution of contested coordinations. SBT has failed to show that there is any deficiency in the coordination resolution process that would be remedied by application of the Commission's procedural rules which, in any event, would be largely inapplicable to resolving a contested coordination.

25. In its petition, ITA, in what it states is an effort to maintain coordination data base integrity, proposes that so-called "asymmetrical systems" – those whose bandwidths are not centered on the center frequencies specified in the rules – be treated as if they were employing the rule-specified center frequencies.<sup>61</sup> The Commission sees no reason why ITA's proposal would not be workable provided all coordinators follow the same procedure. Therefore, as the Commission did with other technical coordination procedures, the Commission will leave it to the coordinators to reach a consensus on this matter.<sup>62</sup> If the coordinators fail to reach a consensus on this issue and disputes regarding asymmetrical systems arise in the future, the Commission will resolve the issue at that time.

26. ITA also notes, with approval, that the Commission has amended Section 90.175 of the Rules, 47 C.F.R. § 90.175, to explicitly recognize the coordinator's right to request additional data, as necessary, in order to make an informed coordination decision.<sup>63</sup> The Commission notes that in the *Second R&O*, the Commission instructed the frequency coordinators to develop technical guidelines for coordination.<sup>64</sup> ITA states that it intends to use the authority conferred by Section 90.175 to deter the filing of speculative applications and to identify authorizations that should be suspended or revoked for failure to construct.<sup>65</sup> Although the Commission agrees with ITA that spectrum efficiency would be greatly compromised by the filing of speculative applications, the Commission wishes to make it clear that the Commission has not vested frequency coordinators with the authority to refuse coordination of an application because, in a coordinator's view, the application is "speculative." The Commission does, however, note that under the current Rules, matters such as verification of site availability, nature of the communications service to be provided and details concerning shared-use or multiple licensing are relevant to coordination.<sup>66</sup> To the extent that such information also suggests that an application is less than *bona fide*, the Commission expects coordinators to apprise the Commission of that fact. Similarly, the Commission expects coordinators to call to the Commission's attention stations that have not been constructed within the allotted time or which have ceased operation. Permitting such stations to retain their authorizations without providing service severely detracts from the goals underlying this proceeding – to facilitate and promote efficient use of the spectrum. The Commission's experience with frequency coordinators to date is that they have cooperated with the Commission in resolving difficult interference problems and generally have operated in the interest of promoting more efficient use of the PLMR spectrum.<sup>67</sup>

---

<sup>61</sup> The rules allow applicants to deviate from the channel plan provided that they are properly coordinated. See 47 C.F.R. § 90.173(a) and (j).

<sup>62</sup> In the *Second R&O*, the Commission stated that the frequency coordinators should develop technical guidelines for frequency coordination. See *Second R&O*, 12 FCC Rcd at 14330-31.

<sup>63</sup> ITA Petition for Clarification and/or Reconsideration at 9.

<sup>64</sup> See *Second R&O*, 12 FCC Rcd at 14330-31.

<sup>65</sup> ITA Petition for Clarification and/or Reconsideration at 11.

<sup>66</sup> *Id.*

<sup>67</sup> On April 29, 1998, the Commission entered into a *Memorandum of Understanding (MOU)* with the

27. Contrary to some petitioners' claims that failure to heed their requests for exclusive coordination will result in unacceptable interference, the Commission believes that the coordination procedures and safeguards the Commission has established are entirely suitable for the consolidated PLMR bands. The Commission is confident that the coordination process will continue to serve an essential role in facilitating the expeditious processing of applications which are in compliance with the Commission's technical rules in the PLMR bands. Indeed, the filings made in this proceeding by organizations responsible for frequency coordination lead us to conclude that the frequency coordination process will be enhanced as a result of this proceeding. Our opinion in this regard is heightened by the undertakings of frequency coordinators to further automate the coordination process, *inter alia* by facilitating the electronic exchange of coordination information.<sup>68</sup>

---

Commission's certified Frequency Advisory Committees (FAC) to streamline the Commission's compliance and enforcement process in the resolution of interference complaints from the land mobile communications industry. This *MOU* will facilitate interaction between the Commission's Compliance and Information Bureau and the FACs to protect the technical and regulatory integrity of the land mobile radio bands. *See* FCC Announces Joint Agreement For The Resolution of Interference Complaints In The Land Mobile Communications Industry, *News Release*, Report No. CI 98-7. A similar *MOU* was concluded between the Commission and the Association of Public Safety Communication Officials, International, Inc. (APCO) on July 7, 1998. The APCO *MOU* applies to public safety channels. *See* FCC Announces Joint Agreement with the Association of Public Safety Communication Officials (APCO) for the Resolution of Interference Complaints, *News Release*, Report No. CI 98-12.

<sup>68</sup> *See, e.g.*, ITA Petition for Clarification and/or Reconsideration at 8-12. On July 15, 1997, the Land Mobile Communications Council (LMCC) representing all PLMR frequency coordinators, submitted a document detailing the methods and protocols proposed for coordination data exchange. Letter from Larry A. Miller, President, LMCC to Daniel B. Phythyon, Esq., Chief, Wireless Telecommunications Bureau, Federal Communications Commission, (dated July 15, 1997). As noted in the letter, the Commission sets general guidelines for data notification procedures among coordinators, but leaves the details of implementation to the coordinators. Accordingly, while the Commission takes no formal action with respect to this letter, the Commission acknowledges the procedures set forth therein, which apparently will promote the expeditious and efficient sharing of information among coordinators.

#### 4. Application Process

28. ITA, supported by UTC, The Telecommunications Association (UTC), requests that the Commission clarify that a coordinator may forward an application to the coordinator who has coordination responsibility for the frequency or frequencies associated with the application.<sup>69</sup> ITA argues that the alternative -- returning the application to the applicant -- would only foster inefficiency.<sup>70</sup> The Commission agrees. Throughout this proceeding, the Commission has focused on ways of improving efficiency within the PLMR bands below 800 MHz. To require coordinators to return applications to applicants who then would have to forward them to the proper coordinator would hamper achievement of such efficiency. Therefore, coordinators, at an applicant's request, may forward an application to a coordinator who has sole coordination authority over the spectrum in question. The Commission notes, however, that any Industrial/Business Pool coordinator, instead of forwarding an application as discussed above, may perform the coordination himself or herself provided written concurrence on the result is obtained from the coordinator with responsibility for the frequency or frequencies in question. However, this latter option is not available on certain VHF low band frequencies.<sup>71</sup>

29. In a related matter, AAA seeks clarification, with support from UTC, of the responsibilities of the power, petroleum, and railroad frequency coordinators regarding the frequencies which only they can coordinate.<sup>72</sup> AAA contends that it is unclear how much discretion these coordinators will have to deny a request if the coordinator believes the proposed system will jeopardize an existing system. As a safeguard against potential abuse, AAA recommends that the Commission apply evaluation and coordination standards comparable to those used under the former interservice sharing rules.<sup>73</sup> While the Commission agrees with AAA and UTC that some clarification on this issue is necessary, the Commission declines to implement the former interservice sharing rules *in toto* as suggested. Under AAA's proposal, applicants would be required to demonstrate that there are no other satisfactory frequencies available.<sup>74</sup> Implementing such a requirement would be tantamount to reversing the main premise of our consolidation decision, *i.e.*, that all applicants are eligible on all frequencies without special showings. Instead of adopting AAA's recommendation, the Commission will require the power, petroleum, railroad and automobile emergency road service coordinators to furnish a statement to an applicant setting out the technical reasons for denial of requests to

---

<sup>69</sup> ITA Petition for Reconsideration and/or Clarification at 5; UTC Comments on Petitions for Reconsideration at 10.

<sup>70</sup> ITA Petition for Reconsideration and/or Clarification at 5.

<sup>71</sup> See para. 0 *supra*.

<sup>72</sup> AAA Petition for Reconsideration at 17; see also UTC Comments on Petitions for Reconsideration at 10.

<sup>73</sup> *Id.* The rules for interservice sharing were deleted by the *Second R&O*. See *Second R&O* 12 FCC Rcd at 14323. Those rules required that applicants for interservice sharing of frequencies provide: (1) a determination that no satisfactory frequencies were available in the applicant's own radio service in the area of desired operation; (2) a demonstration that the frequencies requested in another radio service were not assigned in the area of desired operation; (3) a statement of concurrence from the frequency coordinator in the other radio service; and (4) a statement or showing that the proposed use would not violate any of the technical limitations applicable to the service to which the frequency was regularly allocated. See 47 C.F.R. § 90.176 (1996).

<sup>74</sup> AAA Petition for Reconsideration at 17-18.

use any frequencies over which they have sole coordination authority. The statement shall be in writing and in sufficient detail to permit discernment of the technical basis for declining concurrence. Finally, the Commission believes that this requirement would also benefit coordination of frequencies in the Public Safety Pool. Therefore, the Commission is extending this requirement to public safety coordinators for frequencies over which they have sole coordination authority. These procedures should promote sharing to the greatest degree possible and guard against unwarranted summary denials.<sup>75</sup>

30. Although some of the commenting parties have expressed concern that consolidation will result in widespread intractable disputes between coordinators, or between applicants and coordinators,<sup>76</sup> the Commission does not share that concern and believes that such disputes will be rare. Our conclusion in that regard is based on years of experience with the coordination process, in which there have been few such disputes. The Commission is confident, therefore, that with the advent of consolidation, coordinators will continue to bring their considerable skills to bear on resolution of any disputes that may arise. In the unlikely event that a dispute arises that cannot be resolved by good faith efforts among the coordinators and the parties involved, the relevant application can be submitted to the Commission with documentation from the coordinator as to why the application could not be coordinated, as well as documentation from the applicant showing error in the coordination determination. Upon completion of our review and analysis of these showings, the Commission will resolve the matter.

31. It should be noted, however, that the Commission intends to exercise its authority sparingly with respect to the resolution of coordination disputes. An applicant's burden of showing that the recommendation of a coordinator is in error will be met only by the submission of complete, clear and convincing documentary evidence supporting the applicant's position. Applicants therefore are well advised to exhaust all other possible solutions before bringing disputed coordinations before the Commission.

## **B. Low Power Frequencies**

32. There are a number of incumbent licensees operating low power stations (*i.e.*, stations with 2 watts or less output power) on a secondary, non-interference basis on channels offset by 12.5 kHz from regularly assignable high power channels in the 450-470 MHz band.<sup>77</sup> This offset type of operation afforded licensees a degree of protection from high power operations. However, with adoption of the new channel plan, high power stations gain access to the channels previously assigned exclusively for low power use.<sup>78</sup> Accordingly, absent special provisions being made for low power licensees, it would be expected that new high power stations operating in the same area would create such severe interference to low power operations that many low power stations would be rendered unusable. Interference, albeit to a much lesser degree, also could occur to high power operations from the low power stations.<sup>79</sup>

---

<sup>75</sup> Frequency coordinators were subject to a similar requirement under the interservice sharing rules. *See Frequency Coordination R&O*, 103 FCC 2d at 1111.

<sup>76</sup> *See, e.g.*, SBT Petition for Reconsideration *passim*.

<sup>77</sup> These channels are commonly referred to as "12.5 kHz offset channels."

<sup>78</sup> *See First R&O*, 10 FCC Rcd at 10111.

<sup>79</sup> *Id.* at 10110.

33. In the *First R&O*, the Commission, recognizing the value of low power systems, provided authority to the frequency coordinators to designate channels for low power use.<sup>80</sup> Because the Commission concurrently decided that the PLMR services should be consolidated but deferred a final decision on the details of consolidation, the frequency coordinators were reluctant to act on this authority.<sup>81</sup> In addition, the Wireless Telecommunications Bureau, in response to industry concerns that new high power stations operating on the 12.5 kHz offset frequencies would render many low power systems inoperable without low power licensees having an ample opportunity to migrate to designated low power channels, froze the licensing of new high power stations on these channels in the 450-470 MHz band.<sup>82</sup> At the time the PLMR services were consolidated in the *Second R&O*, the Commission again emphasized the need for designated low power channels and directed the frequency coordinators to develop a consensus plan for low power operations by October 17, 1997.<sup>83</sup> In the *Second R&O*, the Commission also stated that it would not lift the licensing freeze for a period of seven months after a low power plan had been approved in order to provide sufficient time for existing low power licensees to migrate to the new low power channels.<sup>84</sup>

34. On June 4, 1997, the frequency coordinators, through LMCC, submitted a plan in which they recommended that 104 former 12.5 kHz offset channel pairs (14 channel pairs in the Public Safety Pool and 90 channel pairs in the Industrial/Business Pool) be set aside for low power operations.<sup>85</sup> Effective seven months after issuance of a Public Notice stating the LMCC plan has been accepted, the Commission will begin accepting applications for new high power stations on offset frequencies not designated for low power. Additionally, the Commission will accept applications from low power licensees who wish to increase power and obtain primary status on their existing offset channels, provided the channel is not one specified in the LMCC plan. Both existing licensees who want to remove their low power classification and new high power licensees must operate in accordance with the technical rules for the specific channel, *i.e.*, within a 12.5 kHz channel bandwidth.<sup>86</sup> The grandfathering afforded licensees on these offset channels in the *First*

---

<sup>80</sup> *Id.*

<sup>81</sup> See Joint Pool Consolidation Proposal filed on Nov. 20, 1996 at 12. The Joint Pool consists of the Personal Communications Industry Association, the Industrial Telecommunications Association, the Alliance of Motion Picture and Television Producers, the Newspaper Association of America, and the Telephone Maintenance Frequency Advisory Committee.

<sup>82</sup> See Freeze on the Filing of High Power Applications for 12.5 kHz Offset Channels in the 450-470 MHz Band, *Public Notice*, DA 95-1771, 10 FCC Rcd 9995 (1995).

<sup>83</sup> See *Second R&O*, 12 FCC Rcd at 14340-41.

<sup>84</sup> *Id.* at 14343.

<sup>85</sup> See Letter from Larry A. Miller, President, LMCC, to Daniel B. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission (dated June 4, 1997). In addition to the 104 former offset channels, LMCC recommended that the 6.25 kHz channel directly above and below these channel pairs be designated for low power use. When the Commission has satisfied itself that the plan is viable, and consistent with the Commission's Rules, the Wireless Telecommunications Bureau will issue a Public Notice stating that the plan has been accepted.

<sup>86</sup> See *First R&O*, 10 FCC Rcd at 10097.

*R&O* allows low power stations to continue operating on a wide band basis under their current authorizations even though the station does not meet the current technical rules for its operating frequency.<sup>87</sup>

If any existing low power licensee does not wish to migrate to designated low power channels and wishes to remain at low power using its current wideband equipment, it may do so. However, such operation will be on a secondary basis and such licensees will not be afforded interference protection from other stations and may not cause interference to other stations. Existing low power licensees that relocate to the designated low power channels will be afforded primary status on the designated channel and may continue wideband (25 kHz) operation.<sup>88</sup> However, if using wideband equipment, these stations will continue to have secondary status with respect to adjacent channel operations.<sup>89</sup>

35. Finally, because the current rules would limit new licensees on any of the designated low power channels to 12.5 kHz operation, several entities have asked that the Commission allow a mechanism for the continued licensing of new wideband low power systems.<sup>90</sup> Analysis of the Industrial/Business Pool reveals that there are twelve frequencies available for low power operations on a nationwide basis that can be used with wideband (25 kHz) equipment<sup>91</sup> and an additional ten channel pairs available for such use at distances greater than 16 km (10 mi) from any airport listed in 47 C.F.R. § 90.35(b)(61).<sup>92</sup>

---

<sup>87</sup> *Id.* Licensees operating on the former 12.5 kHz offset frequencies are allowed to operate with 25 kHz equipment, even though the rule amendments of the *First R&O* require stations operating on these frequencies to operate on 12.5 kHz channels.

<sup>88</sup> This also applies to existing low power users currently operating on frequencies designated for low power under the LMCC plan.

<sup>89</sup> This is consistent with LMCC's position. *See* Letter from Larry A. Miller, President, LMCC to Daniel B. Phythyon, Esq., Chief, Wireless Telecommunications Bureau, Federal Communications Commission (dated Nov. 24, 1997).

<sup>90</sup> *See, e.g.*, MRFAC Petition for Clarification, or in the Alternative, for Declaratory Ruling, May 27, 1997.

<sup>91</sup> These are 457.525 MHz, 457.550 MHz, 457.575 MHz, 457.600 MHz, 467.750 MHz, 467.775 MHz, 467.800 MHz, 467.825 MHz, 467.850 MHz, 467.875 MHz, 467.900 MHz, and 467.925 MHz.

<sup>92</sup> These are 460.650 MHz, 460.675 MHz, 460.700 MHz, 460.725 MHz, 460.750 MHz, 460.775 MHz, 460.800 MHz, 460.825 MHz, 460.850 MHz, 460.875 MHz, 465.650 MHz, 465.675 MHz, 465.700 MHz, 465.725 MHz, 465.750 MHz, 465.775 MHz, 465.800 MHz, 465.825 MHz, 465.850 MHz, and 465.875 MHz.

36. Because of the widespread use and large installed base of relatively low-cost low power wideband equipment for a variety of specialized uses,<sup>93</sup> the limited number of frequencies available for wideband low power operations, and the limited interference potential of such equipment, the Commission will license new low power wideband stations on the low power channels contained in the LMCC plan. However, such licensing will be on a secondary basis with respect to operations on the designated low power channel and the adjacent channels. The Commission anticipates that the proposed operations of a limited number of applicants will necessitate a requirement for a new 25 kHz system to have primary status with respect to co-channel and adjacent channel licensees. Therefore, the Commission will entertain waiver requests for those instances where an applicant makes a sufficient showing, including, but not limited to, the use of spectrally efficient equipment.<sup>94</sup> The Commission believes that this policy strikes a balance between our goal of promoting more efficient use of radio spectrum, which, in turn, will accommodate an ever increasing user base, and the needs and requirements of the business community to continue to use wide band equipment for a variety of specialized uses. Additionally, to reduce the potential for harmful interference and provide for more accuracy in the frequency coordination process, the Commission removes the requirement in 47 C.F.R. § 90.267 that all stations on designated low power channels be licensed as mobile.<sup>95</sup>

37. The Hewlett-Packard Corporation (HP) filed a Petition for Reconsideration and Clarification<sup>96</sup> in which it raised the issue of potential interference to medical telemetry equipment from PLMR stations operating on 12.5 kHz offset channels in the 450 - 470 MHz band. Medical telemetry is used principally to monitor cardiac parameters of ambulatory patients in hospitals. Historically, the telemetry transmitters -- which are unlicensed devices -- typically were placed on frequencies between the channels used by high power stations, *e.g.* offset by plus or minus 12.5 kHz from high power stations operating with 25 kHz channel spacing in the 450 - 470 MHz band. As noted *supra*, seven months after the LMCC low power plan is accepted by the Commission, applications for high power stations, employing 12.5 kHz channel spacing will be accepted on frequencies in the 450 - 470 MHz band that are not designated for low power use in the LMCC plan. Activation of stations on such channels could result in high power stations being operated on some of the same frequencies currently used for medical telemetry. Thus, in recognition of this fact and in response to a request from HP, the Commission placed a "freeze" on the acceptance of high power stations operated with 12.5 kHz channel spacing in the 450 - 470 Mhz band.<sup>97</sup> Subsequently, the Commission commenced a study of the technical characteristics of medical telemetry equipment to determine, *inter alia*, the interference susceptibility of medical telemetry receivers and whether and to what

---

<sup>93</sup> For example, low power systems are used for two-way voice communication, telemetry, remote operation of heavy machinery, alarm systems, and inventory control systems.

<sup>94</sup> Spectral efficiency is defined to mean that the equipment complies with the type acceptance guidelines of 47 C.F.R. § 90.203(j).

<sup>95</sup> See 47 C.F.R. § 90.267(a)(3).

<sup>96</sup> HP Petition for Reconsideration and Clarification, May 19, 1997. The HP Petition was supported in comments submitted by another manufacturer, SpaceLabs Medical Products Inc. (SpaceLabs). SpaceLabs Comments on Petition for Reconsideration and Clarification of Hewlett-Packard Company, Jun. 16, 1997. Comments were also filed by ITA, Aeronautical Radio, Inc. and PCIA. HP filed Reply Comments on July 2, 1997.

<sup>97</sup> Freeze on the Filing of High Power Applications for 12.5 kHz Offset Channels in the 450 - 470 MHz Band, PR Docket No. 92-235, *Public Notice*, 10 FCC Rcd 9995 (1995).

extent protection of medical telemetry installations could be taken into account in and accommodated by the frequency coordination process. The Commission's study of medical telemetry equipment characteristics is not yet complete. Given that the study's results may implicate the LMCC low power plan, the Commission, to date, has deferred its acceptance of the LMCC low power plan and the associated commencement of the seven-month migration period, and maintained the freeze of the filing of applications for high-power operations on frequencies in the 450-470 MHz band. We believe that it would be imprudent to proceed further on this matter until the aforementioned study is completed. In the interim, we will defer consideration of the issue raised by HP, and hold the HP petition and the LMCC consensus plan in abeyance, pending the development of additional data on, *inter alia*, the interference susceptibility of medical telemetry equipment.

### C. Concurrence Requirement for Trunked Operations

38. The Commission received several petitions for reconsideration concerning our trunking rules. As noted previously, the Commission will address these petitions in a separate item. At this time, however, the Commission believes that one matter regarding the concurrence requirement for trunked systems requires clarification. Under the current rules, applicants who do not have exclusive use of their frequencies in their service area must obtain concurrence from all co-channel licensees whose service areas overlap a circle with a 70-mile radius from the proposed trunked base station.<sup>98</sup> In addition to this requirement, applicants for trunked systems may also have to obtain concurrence from adjacent channel licensees. In this regard, the Rules state that if a proposed trunked base station will operate with a 25 kHz channel bandwidth, then concurrence must be obtained from all adjacent channel stations that have operating frequencies 15 kHz or less removed from the proposed base station's operating frequency. For proposed trunked systems that will operate with channel bandwidths of 12.5 kHz or 6.25 kHz, the Rules require concurrence from all adjacent channel stations that have operating frequencies removed from the proposed base station's operating frequency by 7.5 kHz or 3.75 kHz, respectively. Our staff's informal discussions with industry representatives after the *Second R&O* was released reveal that there is some confusion concerning the meaning of "operating frequency" as that term is used in amended Section 90.187 of the Rules. To dispel this confusion, the Commission is amending Section 90.187 of the Rules herein by replacing "operating frequency" with "assigned frequency."<sup>99</sup> Thus, applicants of proposed trunked systems must obtain concurrence from all co-channel stations and only those adjacent channel stations that have assigned frequencies within the stated boundaries. For example, if a licensee proposes to operate a trunked radio system that is designed to operate on 12.5 kHz channels in the 450-470 MHz band on one of the former 12.5 kHz offset channels,<sup>100</sup> the Rules require the applicant to obtain concurrence from all co-channel stations and all adjacent stations that have assigned frequencies within 7.5 kHz of the trunked system's assigned frequency, *e.g.*, concurrence must be obtained from an adjacent 6.25 kHz system, but not an adjacent 25 kHz system. In addition, concurrence is not required from stations that have secondary status.

### D. Classification of Industrial/Business Pool Licensees Providing

---

<sup>98</sup> See 47 C.F.R. § 90.187.

<sup>99</sup> The "assigned frequency" is the center frequency of the spectrum assigned to a station. See 47 C.F.R. § 2.1.

<sup>100</sup> See para. 0 *supra*, for a description of 12.5 kHz offset channels.

### Interconnected For-Profit Service

39. In the *Second R&O*, the Commission established the Industrial/Business Pool and adopted, as eligibility criteria for the new Pool, the eligibility criteria for the former Business Radio Service. Specifically, anyone engaged in a commercial activity is eligible, as are educational, philanthropic and ecclesiastical institutions. In the *Second R&O*, the Commission observed that, because the Industrial/Business Pool frequencies were being made available to a substantial portion of the public, there likely were regulatory implications for those Industrial/Business Pool licensees which provide for-profit service and which are authorized to provide interconnection with the Public Switched Network (PSN). The Commission stated that such licensees probably should be classified as CMRS providers and that we would resolve the issue of classifying them as CMRS in a subsequent proceeding.

40. By way of background, in the *Second Report and Order* in GN Docket No. 93-252, which was prior to the Commission's adoption of the *Second R&O*, the Commission concluded that, "with the exception of the Business Radio Service, all Industrial and Land Transportation Services should be classified as private mobile radio services (PMRS) under Section 332(d)(3) of the [Communications] Act."<sup>101</sup> The Commission based its conclusion regarding the regulatory treatment of Industrial and Land Transportation Radio Services on two factors: (1) because the Commission's rules limited such services to "highly specialized uses for restricted classes of users" the services should be treated as not being available to a substantial portion of the public for purposes of Section 332(d)(1) of the Communications Act; and (2) its acknowledgement that many of the licensees in these services operated systems solely for internal use and thus did not meet the "for-profit" element of the commercial mobile radio services (CMRS) definition provided in the Communications Act.<sup>102</sup> The Commission nonetheless noted that with respect to the sale of excess capacity activities, the Industrial and Land Transportation Services licensees would be treated as for-profit to the extent of any for-profit activity.<sup>103</sup> With respect to the Business Radio Service, however, the Commission determined in the *CMRS Second R&O* that the eligibility criteria were sufficiently broad to render such service effectively available to a substantial of the public.<sup>104</sup> As a result, the regulatory classification of the Business Radio Services licensees depends upon whether the other elements of the CMRS definition are met.<sup>105</sup> Specifically, Business Radio Service licensees who offer for-profit interconnected service are classified as CMRS providers. Business Radio Service licensees who operate internal use systems or do not offer interconnected service to system users are classified as PMRS unless it is demonstrated that they are providing the functional equivalent to CMRS.<sup>106</sup>

41. After further review of this issue, we have determined that another proceeding is not necessary because Section 332(d)(1) of the Act requires us to classify as CMRS providers, all Industrial/Business Pool

---

<sup>101</sup> Implementation of Sections 3(n) and 332 of the Communications Act, GN Docket No. 93-252, *Second Report and Order*, 9 FCC Rcd 1411, para.86 (1994) (*CMRS Second R&O*).

<sup>102</sup> *Id.*

<sup>103</sup> *Id.* at n.181.

<sup>104</sup> *Id.* at para. 87.

<sup>105</sup> *Id.*

<sup>106</sup> *Id.*

licensees who offer for-profit, interconnected service. As noted above, the Commission previously determined that broad eligibility criteria for a radio service could render such service as effectively available to a substantial portion of the public for purposes of determining regulatory treatment under Section 332 of the Act. Consequently, because the Commission's action in the *Second R&O* made the eligibility criteria for the Industrial/Business Pool exceptionally broad, we conclude that the frequencies included in the pool are effectively available to a substantial portion of the public. Thus, the regulatory treatment of Industrial/Business Pool licensees will depend upon whether the systems operated by such licensees meet the other elements of the Act's CMRS definition. In this connection, we note that a for-profit, interconnected mobile service that is available "to such classes of users as to be effectively available to a substantial portion of the public," is, by definition under the Communications Act, CMRS. Thus, Industrial/Business Pool licensees who offer for-profit interconnected service will be classified as CMRS providers. Further, Industrial/Business Pool licensees who operate internal use systems or do not offer for-profit interconnected service to system users will be classified as PMRS unless it is demonstrated that they are providing service that is functionally equivalent to CMRS. Pursuant to Section 332(c)(1) of the Act: "A person engaged in the provision of a service that is a commercial mobile service shall, insofar as such person is so engaged, be treated as a common carrier . . ." Hence, all CMRS licensees are subject to Part 20 of our Rules, 47 C.F.R. § 20.1 et seq., governing the CMRS and the provisions of Title II of the Act, 47 U.S.C. §§ 201-276, governing common carriers, except for those portions from which the Commission has decided to forbear.<sup>107</sup>

#### E. Miscellaneous Issues

42. The Commission now turns to several miscellaneous issues raised in the petitions for reconsideration and clarification.

43. Entities which obtained their licenses pursuant to the former interservice sharing rules. AAA is concerned that, with elimination of the interservice sharing rules, licensees currently operating on channels acquired through interservice sharing<sup>108</sup> would be required to vacate those channels if such frequencies are included in the Public Safety Pool. No implication to that effect was intended in our previous orders and the Commission wishes to make it clear that stations which have acquired their channels through the old interservice sharing rules may continue to operate on those channels and, if necessary, seek renewal and modifications of their authorizations in the future. If frequency coordination is required in connection with a modification, and the channel is one managed by a specific coordinator, -- e.g., a coordinator having management responsibility for a channel that previously was assigned to the former Power, Petroleum, Railroad or Automobile Emergency Radio Services -- the applicant may: (a) submit the coordination request and application to the coordinator responsible for managing the channel; (b) submit the coordination request and application to the coordinator of the applicant's choice who would then forward the application to the coordinator responsible for managing the channel; or (c) perform the coordination and obtain written concurrence from UTC, API, AAR or AAA, as appropriate.<sup>109</sup>

---

<sup>107</sup> See n. **Error! Bookmark not defined.** *supra*.

<sup>108</sup> Licenses issued pursuant to interservice sharing contain the number 13 in the "special conditions" column of the license document, indicating that the station was authorized pursuant to 47 C.F.R. §§ 90.176, 90.621(g), 90.621(h) (1996).

<sup>109</sup> See para. 0 *supra*.

44. Paired VHF taxicab radio service channels. ITLA asserts that its constituents received unexplained disparate treatment when the Commission abolished the geographical separation of taxi and non-taxi users in certain areas.<sup>110</sup> Additionally, it argues that assigning single channel simplex<sup>111</sup> operation in areas where taxicab companies currently use two-frequency simplex operation will invite interference.<sup>112</sup>

45. As explained in note **Error! Bookmark not defined.** *supra*, taxicabs using two-frequency operation are unable to monitor their transmit frequency prior to transmitting. If other users in the same geographic area were operating in the single frequency simplex mode, excessive interference could result. Therefore, the Commission finds merit in ITLA's contention that compatibility problems could be encountered if both single frequency simplex and two-frequency simplex operations are permitted in the same general area. Accordingly, in those areas in which the former Taxicab Radio Service was afforded geographic separation from the former Business Radio Service on VHF frequencies, the Commission will require any Industrial/Business Pool user of these VHF frequencies to employ half-duplex operation with the base station transmit frequency 5.28 MHz below the mobile transmit frequency in order to ensure compatibility with existing stations operating on those VHF frequencies.

---

<sup>110</sup> ITLA Petition for Reconsideration at 6.

<sup>111</sup> Simplex operation is an operating method in which transmission is made possible alternatively in each direction of a telecommunication channel. Ordinarily, frequencies in the 150-174 MHz band are assigned as single simplex channels, except for certain frequencies available in the former Taxicab Radio Service, which were assigned in pairs in some metropolitan areas. See 47 C.F.R. §§ 90.173(i), 90.93(c)(1), and 90.93(c)(2) (1996). Taxicab companies have typically used two simplex channels for dispatching. In such a system, the dispatcher transmits only on frequency 1 and receives on frequency 2 and the individual taxicabs transmit only on frequency 2 and receive on frequency 1. Using this type of operation, individual taxicabs are able to communicate only with the dispatcher and not with other taxicabs.

<sup>112</sup> ITLA Petition for Reconsideration at 14.

46. Specific frequency limitations. In the *Second R&O*, the Commission provided the current Petroleum Radio Service frequency coordinator with exclusive authority to coordinate frequencies that were listed solely within that radio service.<sup>113</sup> API asserts that several Petroleum Radio Service frequencies were not labeled in accordance with this provision. Additionally it claims that limitations on several frequencies were omitted and should be reinstated.<sup>114</sup> Upon analysis of the frequency table, the Commission agrees, in part, with API's contentions. Specifically, the Commission found that of all the frequencies in question, only 25.14 MHz was allocated exclusively to the Petroleum Radio Service.<sup>115</sup> Thus, the Commission will revise the frequency table accordingly. Further, the Commission will add limitations 4 and 7 to 2292 kHz, 30.66 MHz, 30.74 MHz, and 30.82 MHz. The Commission declines to add limitation 9 to these frequencies. That limitation, corresponding to limitation 7 in the former Petroleum Radio Service, was not applicable to the listed frequencies.<sup>116</sup> Finally, to correct an error in the Industrial/Business Pool frequency table, the Commission is amending the rules to remove limitation 30 from 469.500 MHz and 469.550 MHz.

47. MED Channels. On our own motion, the Commission addresses a matter relating to channels used for emergency medical communications (MED channels). Prior to commencement of this proceeding, ten MED channels were assigned, each with a 25 kHz channel bandwidth. These MED channels were divided into two groups with MED-9 and MED-10 comprising one group and MED-1 through MED-8 comprising the second group.<sup>117</sup> Subsequently, the MED channels were subdivided, with 6.25 kHz spacing, to derive a total of 32 channel pairs between MED-1 and MED-8.<sup>118</sup> Under our Rules, with exceptions not relevant here, equipment used on MED channels 1-8 must be capable of transmitting and receiving on each of the MED channel pairs. At present, there is no type accepted equipment available that will permit licensees to conform to the transmitting and receiving requirements of 47 C.F.R. § 90.27(c)(13)(ii), *i.e.* manufacturers have not yet submitted for type acceptance, equipment capable of tuning

---

<sup>113</sup> See *Second R&O*, 12 FCC Rcd at 14330.

<sup>114</sup> API Petition for Reconsideration at 8-9. The frequencies in question are: 1628 kHz, 1652 kHz, 1676 kHz, 1700 kHz, 2292 kHz, 2398 kHz, 4637.5 kHz, and 25.14 MHz. Additionally, API asks that limitation 4 be added to 2292 kHz, limitations 4, 7, and 9 be added to 30.66 MHz and 30.82 MHz, and limitations 4 and 7 be added to 30.74 MHz. Specific frequency limitations are listed in new rule section 90.35(b). See *Second R&O* at para. 196. Limitation 4 allows geophysical stations to use tone or impulse signalling on a secondary basis for purposes other than indicating failure of equipment. Limitation 7 allows assignment of geophysical stations on a secondary basis. Limitation 9 states that operation is secondary to stations in the maritime mobile service.

<sup>115</sup> See 47 C.F.R. Part 90 (1996). 1628 kHz and 1652 kHz were shared with the Film and Video Production Radio Service; 1676 kHz and 1700 kHz were shared with the Forest Products Radio Service; 2292 kHz and 4637.5 kHz were shared with the Power, Film and Video Production, and Special Industrial Radio Services; and 2398 kHz was shared with the Power, Forest Products, Film and Video Production, and Special Industrial Radio Services.

<sup>116</sup> See 47 C.F.R. § 90.65(b) (1996).

<sup>117</sup> See 47 C.F.R. §§ 90.27(c)(11) (1996) and 90.27(c)(13) (1996).

<sup>118</sup> See 47 C.F.R. § 90.27(c)(13)(i) (1996).

6.25 kHz-spaced MED channels. Accordingly, for one year following the effective date of rules adopted pursuant to this *Second MO&O*, the Commission will permit new licensees to continue using equipment only capable of transmitting and receiving on MED channels 1-8, as permitted by the prior implementation of Section 90.27(c)(13)(ii) of the Rules, 47 C.F.R. § 90.27(c)(13)(ii) (1994). Thereafter, and until the year 2006, new licensees must employ MED transceivers capable of transmitting and receiving on 12.5 kHz- or 6.25 kHz- spaced MED channels; after the year 2006, new licensees must employ MED transceivers capable of transmitting and receiving on 6.25 kHz-spaced MED channels. The Commission makes these provisions effective in 2006, rather than 2005 – the year in which type accepted radios must comply with the 6.25 kHz channel plan. In doing so, the Commission provides an additional one year "lead time" for manufacturers to get radios into the marketplace well in advance of the date that licensees must convert to 6.25 kHz operation.

All licensees operating on the MED channels as of one year after the effective date of the rules adopted in this *Second MO&O* will be grandfathered and permitted to continue operating with radios capable of operation only on MED channels 1 through 8.

48. Change to Narrower Emission Type. Also on our own motion, the Commission amends Sections 90.135(a)(2), 90.135(b)(5) and 90.135(d) of the Rules, 47 C.F.R. §§ 90.135(a)(2), 90.135(b)(5), 90.135(d). These rule sections permit licensees to change emission type without filing for modification of license provided the change is to an emission type narrower than the currently authorized emission type. Under the current rules, the licensee must notify the Commission of a change to a narrower emission type, but there is no mechanism in place, such as issuance of a public notice, that insures that information concerning the change will be timely and reliably conveyed to frequency coordinators. Accordingly, and because the Commission believes that the cited rule sections are seldom invoked, the Commission eliminates this exception to the requirement that licensees must file an application for modification of license when they change emission type.

49. Premature Classification of Offset Channels. The International Municipal Signal Association (IMSA), the International Association of Fire Chiefs, Inc. (IAFC), the American Association of State Highway and Transportation Officials (AASHTO) and the Forestry-Conservation Communications Association (FCCA) filed a Joint Petition for Partial Reconsideration.<sup>119</sup> Therein they opposed what they characterized as "premature reclassification of the low power offset channels in the Fire, Highway Maintenance and Forestry-Conservation Services to the Local Government Service."<sup>120</sup> IMSA *et al.* claimed that this asserted "premature reclassification" occurred in the *Memorandum Opinion and Order* released December 30, 1996.<sup>121</sup> Subsequently, however, in the *Second R&O*, the Commission consolidated the Fire, Highway Maintenance Forestry-Conservation and Local Government Services into the Public Safety Pool, thereby making any prior "reclassification" immaterial. Accordingly, the Commission hereby dismisses the IMSA *et al.* Joint Petition for Partial Reconsideration as moot.

---

<sup>119</sup> IMSA *et al.* Joint Petition for Partial Reconsideration, Feb. 4, 1997.

<sup>120</sup> *Id.* at 1-2.

<sup>121</sup> *Memorandum Opinion and Order*, PR Docket No. 92-235, 11 FCC Rcd 17676 (1997).

50. Petition for Clarification and Petition for Stay. On January 14, 1998, IMSA and IAFC filed a petition for clarification and a motion to stay.<sup>122</sup> IMSA and IAFC ask the Commission to stay licensing on certain channels in the 453 MHz and 458 MHz bands unless applications therefor have been coordinated by the recognized coordinator for the former Emergency Medical Radio Service (EMRS).<sup>123</sup> The bases for the Clarification Petition and Stay Motion are that, in the frequency table in the *Second R&O*,<sup>124</sup> coordinators other than IMSA were listed for certain EMRS frequencies.<sup>125</sup> IMSA and IAFC assert that this listing of coordinators might be interpreted as an intent by the Commission to "change the primary use designation of these channels"<sup>126</sup> to other than EMRS use. Thus, they contend that a stay is necessary to prevent use of the EMRS frequencies by others.<sup>127</sup>

51. The Commission notes, as an initial matter, that the frequency coordinator listing, described *supra*, was an inadvertent error in the *Second R&O* which the Commission intended to correct in this *Second MO&O*.<sup>128</sup> A corrected table is contained in Appendix C hereto. The Petition for Clarification therefore is unnecessary and is dismissed as moot. IMSA and IAFC have not shown that any specific party has been "misled into thinking that these frequencies may be used for *any* purpose,"<sup>129</sup> much less that coordination requests or applications actually have been filed for EMRS frequencies by non-EMRS entities. Accordingly, the Commission denies the Stay Motion. Because the Commission is denying the IMSA and IAFC Clarification Petition and Stay Motion, the Commission is dismissing, as moot, the opposition to the Clarification Petition and Stay Motion filed by APCO<sup>130</sup> and the reply pleading filed by IAFC/IMSA.<sup>131</sup>

---

<sup>122</sup> Petition for Clarification of International Municipal Signal Association and International Association of Fire Chiefs, Inc. (Clarification Petition); Motion for Stay of the International Municipal Signal Association and International Association of Fire Chiefs, Inc. (Stay Motion).

<sup>123</sup> Stay Motion at 7.

<sup>124</sup> *Second R&O*, 12 FCC Rcd at 14374-14431.

<sup>125</sup> Clarification Petition at 4-5.

<sup>126</sup> *Id.* at 5.

<sup>127</sup> Stay Motion *passim*.

<sup>128</sup> *See* para. 0 *supra*.

<sup>129</sup> Stay Motion at 5, emphasis in original.

<sup>130</sup> Opposition of APCO to Motion for Stay and Petition for Clarification, February 3, 1998. Although the APCO pleading is untimely, the Commission accepts it nonetheless on APCO's representation that APCO was not properly served with the IMSA and IAFC pleading, and in the interest of a complete record.

<sup>131</sup> International Association of Fire Chiefs, Inc. and International Municipal Signal Association Reply to Opposition.

52. Petition for Issuance of Erratum or Petition for Reconsideration. On November 12, 1997, Ericsson, Inc. filed a Petition for Issuance of Erratum or Petition for Reconsideration (Ericsson Petition). Ericsson notes that revised Section 90.203(j)(3) of the Rules requires a spectrum efficiency of 4800 bits per second per 6.25 kHz for data transmission and believes that this data rate specification was erroneously included in the Rules.

53. As an initial matter, Ericsson's Petition for Reconsideration is untimely and the Commission dismisses it on that ground. With regard to the alternative caption of Ericsson's filing – the Petition for Issuance of Erratum – the Commission is treating this as an informal request for Commission action pursuant to Section 1.41 of the Commission's Rules. The Commission has reviewed Section 90.203(j)(3) of the Rules and find no error. Section 90.203(j)(3) accurately reflects the Commission's decision in the *Second R&O*. Accordingly, considered as an informal request for Commission action, the Ericsson Petition is denied.

#### IV. CONCLUSION

54. With the adoption of this *Second Memorandum Opinion and Order*, the Commission reaffirms its commitment to consolidating the radio services below 800 MHz, clarifies certain aspects of the radio service consolidation, and incorporates certain modifications to rules for the PLMR services. These decisions affirm the general framework for consolidation adopted in the *Second R&O*. Additionally, clarification regarding low power channels in the 450-470 MHz band and licensing procedures for trunked systems is provided. In sum, the rule amendments and clarifications adopted herein continue our efforts to promote effective and efficient use of the PLMR spectrum.

#### V. PROCEDURAL MATTERS

##### A. Regulatory Flexibility Act

55. Appendix B contains a Final Regulatory Flexibility Analysis with respect to this *Second Memorandum Opinion and Order*.

**B. Ordering Clauses**

56. In view of the foregoing and pursuant to the authority contained in Sections 4(i), 303(r), and 405 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 405, and Section 1.429(i) of the Commission's Rules, 47 C.F.R. § 1.429(i), **IT IS ORDERED** that the Petitions for Reconsideration described herein **ARE GRANTED** in whole or in part and **DENIED** in whole or in part as discussed herein;<sup>132</sup> that the Petition for Clarification of International Municipal Signal Association and International Association of Fire Chiefs, Inc. is **DISMISSED** as moot; that the Motion for Stay of the International Municipal Signal Association and International Association of Fire Chiefs, Inc. is **DENIED**; that the Opposition to Motion to Stay and Petition for Clarification filed by the Association of Public Safety Communications Officers International is **DISMISSED** as moot; that the International Association of Fire Chiefs, Inc. and International Municipal Signal Association Reply to Opposition is **DISMISSED** as moot; that the Petition for Issuance of Erratum or Petition for Reconsideration of Ericsson, Inc. is **DISMISSED**, when considered as a petition for reconsideration and **DENIED**, when considered as an informal request for Commission action; and that the Emergency Request for Limited Licensing Freeze filed by UTC The Telecommunications Association and the American Petroleum Institute is **DENIED**.

57. **IT IS FURTHER ORDERED** that pursuant to the authority contained in Sections 4(i) and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 4(i) and 303(r), Part 90 of the Commission's Rules **IS AMENDED** as set forth below effective [**30 days after publication in the Federal Register**].

58. **IT IS FURTHER ORDERED** that the Commission's Office of Public Affairs, Reference Operations Division, **SHALL SEND** a copy of this *Second Memorandum Opinion and Order* including the Supplemental Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

**C. Contacts for Information**

59. For further information contact Ira Keltz or Michael Wilhelm of the Wireless Telecommunications Bureau, Public Safety and Private Wireless Division, Policy and Rules Branch, at (202) 418-0680 or via E-Mail to "mayday@fcc.gov".

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas  
Secretary

---

<sup>132</sup> As indicated in para. 0 *supra.*, those aspects of petitions for reconsideration regarding trunking rules and interference to medical telemetry equipment not addressed in this *Second MO&O* remain pending in this proceeding and will be addressed in a future order.

**APPENDIX A****List of Petitioners**Petitions for Reconsideration or Clarification:

1. Alarm Industry Communications Committee (AICC)
2. American Automobile Association (AAA)
3. American Mobile Telecommunications Association, Inc. (AMTA)
4. American Petroleum Institute (API)
5. American Trucking Associations, Inc. (ATA)
6. Ericsson, Inc. (Ericsson)
7. Hewlett-Packard Company (HP)
8. Industrial Telecommunications Association, Inc. (ITA)
9. International Taxicab and Livery Association (ITLA)
10. Kenwood Communications Corporation (Kenwood)
- 11.1. Manufacturers Radio Frequency Advisory Committee (MRFAC) - Petition for Clarification, or in the Alternative, for Declaratory Ruling
12. Personal Communications Industry Association (PCIA)
13. Small Business in Telecommunications (SBT)
14. UTC, the Telecommunications Association (UTC) - Petition for Clarification

Oppositions and Comments to Petitions for Reconsideration:

1. Aeronautical Radio, Inc. (ARINC)
2. Affiliated American Railroads (AAR)
3. Association of Public-Safety Communications Officials International (APCO)
4. Forest Industries Telecommunications (FIT)
5. Industrial Telecommunications Association, Inc. (ITA)
6. INTEK, Inc.
7. Manufacturers Radio Frequency Advisory Committee (MRFAC)
8. Motorola
9. Personal Communications Industry Association (PCIA)
10. SpaceLabs Medical Products, Inc. (Spacelabs)
11. UTC, the Telecommunications Association (UTC)

Reply Comments:

1. American Automobile Association (AAA)
2. Alarm Industry Communications Council (AICC)
3. American Petroleum Institute (API)
4. Hewlett-Packard (HP)
5. International Taxicab and Livery Association (ITLA)
6. Kenwood
7. Small Business in Telecommunications (SBT)
8. UTC, the Telecommunications Association (UTC)

Supplemental Comments:

1. American Automobile Association (AAA)

Petition

1. International Municipal Signal Association (IMSA)  
and International Association of Fire Chiefs (IAFC)

Motion

1. International Municipal Signal Association (IMSA)  
and International Association of Fire Chiefs (IAFC)

Opposition

1. Association of Public Safety Communications Officials, International (APCO)

Reply to Opposition

1. International Municipal Signal Association (IMSA)  
and International Association of Fire Chiefs (IAFC)

Letters:

Note: The following letters, addressed to the Commission's chairman are all substantively identical "form" letters supporting the position taken by AAA in its petition for reconsideration, *supra.*:

1. Township of Abington, Pennsylvania, Police Department
2. Borough of Aboca, Pennsylvania
3. Borough of Ashley, Pennsylvania
4. Borough of Berwick, Pennsylvania
5. Bloomsburg, Pennsylvania, Police Department
6. Brookhaven, Pennsylvania, Police Department
7. Dallas Borough, Pennsylvania, Police Department
8. Dallas Township, Pennsylvania, Police Department
9. Danville, Pennsylvania, Police Department
10. Borough of Dupont, Pennsylvania, Police Department
11. Borough of Edwardsville, Pennsylvania, Police Department
12. The Association of Chiefs of Police, Essex County, New Jersey
13. Evansville, Indiana, Police Department
14. Exeter, Pennsylvania, Police Department
15. Forty Fort Borough, Pennsylvania, Police Department
16. Office of the Sheriff, Hancock County, Ohio
17. Township of Hanover, Pennsylvania, Police Department
18. Township of Haverford Police Department

19. Borough of Hughestown, Pennsylvania, Police Department
20. Jenkins Township, Pennsylvania, Police Department
21. Municipality of Kingston, Pennsylvania, Police Department
22. Kingston Township, Pennsylvania, Police Department
23. Lehman Township Police Department
24. Luzerne County, Pennsylvania, Emergency Services Department
25. Borough of Marcus Cook, Pennsylvania, Police Department
26. Media, Pennsylvania, Police Department
27. Nanticoke, Pennsylvania, Police Department
28. New Britain Borough, Pennsylvania, Department of Police
29. New Britain Borough, Pennsylvania, Police Department
30. New Jersey Police Traffic Officers' Association
31. City of Phoenix, Arizona, Police Department
32. City of Pittston, Pennsylvania, Police Department
33. Plains Township, Pennsylvania, Police Department
34. Borough of Plymouth, Pennsylvania, Police Department
35. Plymouth Township, Pennsylvania, Police
36. Township of Springfield, Montgomery County, Pennsylvania, Department of Police
37. Township of Springfield, Delaware County, Pennsylvania, Department of Police
38. Tinicum, Pennsylvania, Police Department
39. Trainer Boro, Pennsylvania, Police Department
40. City of Wilkes-Barre, Pennsylvania, Police Department
41. Wilkes-Barre Township, Pennsylvania, Police Department
42. Willistown, Pennsylvania, Police Department
43. Wright Township, Pennsylvania, Police Department

## APPENDIX B

## Supplemental Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act (RFA), *see* 5 U.S.C. § 603, Initial Regulatory Flexibility Analyses (IRFA) were incorporated in the *Notice of Proposed Rule Making* and the *Further Notice of Proposed Rule Making* in PR Docket 92-235.<sup>133</sup> The Commission sought written public comment on the rule making proposals in the *Refarming Notice* and *Further Notice*, including on the respective IRFAs. This present Supplemental Regulatory Flexibility Analysis (Supplemental FRFA) in this *Second Memorandum Opinion and Order (Second MO&O)* conforms to the RFA.<sup>134</sup>

**I. Need For, and Objectives of, the *Second MO&O***

2. Our objective is to increase spectrum efficiency and facilitate the introduction of advanced technologies into the 150-174 MHz, 421-430 MHz, 450-470 MHz, and 470-512 MHz private land mobile radio (PLMR) bands. The *Report and Order* in this proceeding modified the Commission's rules to resolve many of the technical issues which inhibited the use of spectrally efficient technologies in these frequency bands. It also stated the Commission's intent to consolidate the twenty existing radio service pools. The *Further Notice* in this proceeding proposed several methods of introducing market based incentives into the PLMR bands, including exclusivity. In the *Second R&O*, the Commission consolidated the radio service frequency pools and addressed related issues such as frequency coordination, trunking, and low power frequencies. This *Second MO&O* address petitions for reconsideration and clarification received in response to the *Second R&O*.

3. The Commission finds that the potential benefits to the PLMR community from the promulgation of rules for this purpose exceed any negative effects that may result. Thus, the Commission

---

<sup>133</sup> Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, PR Docket 92-235, *Notice of Proposed Rule Making*, 7 FCC Rcd 8105, 8133 (1992) (*Refarming Notice*). Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignments Policies of the Private Land Mobile Radio Services, PR Docket No. 92-235, *Report and Order and Further Notice of Proposed Rule Making*, 10 FCC Rcd 10076, 10177 (1995) (*Report and Order* or *Further Notice*). A Final Regulatory Flexibility Analysis was provided in the first *Memorandum Opinion and Order*, Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, PR Docket 92-235, *Memorandum Opinion and Order*, 11 FCC Rcd. 17676, 17718 (1996). An additional Final Regulatory Flexibility Analysis was furnished in connection with the *Second Report and Order*, Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, PR Docket 92-235, *Second Report and Order*, 12 FCC Rcd 14307, 14353 (1997).

<sup>134</sup> *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is The Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

concludes that the public interest is served by modifying our rules to consolidate the PLMR services and increase the spectral efficiency of the PLMR bands.

## **II. Summary of Significant Issues Raised by the Public in Response to the Previous Final Regulatory Flexibility Analyses**

4. No reconsideration petitions were submitted in direct response to the previous FRFAs. The Commission has, however, reviewed general comments that may impact small businesses. Much of the impact on small businesses arises from the central decision in this proceeding -- determining the number of frequency pools and the eligibility criteria for each pool. This affects small businesses in the following way. A smaller number of pools provides a greater number of frequencies available for small businesses that use PLMR systems to meet their coordination needs. Additionally, by creating fewer pools, frequency coordinators will now be subject to competition. Thus, small businesses that use PLMR systems can expect to pay lower prices for frequency coordination while receiving equivalent or better service. Finally, consolidating the PLMR services provides each frequency coordinator, which currently provides service only for a narrowly defined type of user, with the ability to expand its business base.

## **III. Description and Estimate of the Number of Small Entities Subject to Which the Rules Apply**

5. 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 rules adopted. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."<sup>135</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.<sup>136</sup> A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>137</sup> A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."<sup>138</sup> Nationwide, as of 1992, there were approximately 275,801 small organizations.<sup>139</sup> "Small

---

<sup>135</sup> See 5 U.S.C. § 601(6).

<sup>136</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

<sup>137</sup> Small Business Act, 5 U.S.C. § 632 (1996).

<sup>138</sup> 5 U.S.C. § 601(4).

<sup>139</sup> 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to the Office of Advocacy of the Small Business Administration).

governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."<sup>140</sup> As of 1992, there were approximately 85,006 such jurisdictions in the United States.<sup>141</sup> This number includes 38,978 counties, cities and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.<sup>142</sup> The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, the Commission estimates that 81,600 (91 percent) are small entities.

#### *Estimates for PLMR Licensees*

6. Private land mobile radio systems serve an essential role in a vast range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories. Because of the vast array of PLMR users, the Commission has not developed, nor would it be possible to develop, a definition of small entities specifically applicable to PLMR users. For the purpose of determining whether a licensee is a small business as defined by the Small Business Administration (SBA), each licensee would need to be evaluated within its own business area. The Commission's fiscal year 1994 annual report indicates that, at the end of fiscal year 1994, there were 1,101,711 licensees operating 12,882,623 transmitters in the PLMR bands below 512 MHz.<sup>143</sup> Further, because any entity engaged in a commercial activity is eligible to hold a PLMR license, these rules could potentially impact every small business in the U.S.<sup>144</sup>

#### *Estimates for Frequency Coordinators*

7. Neither the Commission nor the SBA have developed a definition of small entities specifically applicable to spectrum frequency coordinators. Therefore, the Commission concluded that the closest applicable definition under SBA rules is Business Associations (SIC 8611).<sup>145</sup> The SBA defines a small business association as an entity with \$5.0 million or less in annual receipts. There are 18 entities certified to perform frequency coordination functions under Part 90 of our Rules. However, the Commission is unable to ascertain how many of these frequency coordinators are classified as small entities under the SBA definition. The Census Bureau indicates that 97% of business associations have annual receipts of \$4.999 million or less and would be classified as small entities. The Census Bureau category is very broad, and does not include specific figures for firms that are engaged in the frequency coordination. Therefore, for

---

<sup>140</sup> 5 U.S.C. § 601(5).

<sup>141</sup> U.S. Dept. of Commerce, Bureau of the Census, "1992 Census of Governments."

<sup>142</sup> *Id.*

<sup>143</sup> *See* Federal Communications Commission, 60th Annual Report, Fiscal Year 1994 at 120-121.

<sup>144</sup> The Regulatory Flexibility Act amendments were not in effect until the record in this proceeding was closed, hence the Commission did not request the level of information currently mandated under the RFA.

<sup>145</sup> *See Second R&O* at 14355.

the purposes of this Supplemental FRFA, the Commission estimates that almost all of the 18 spectrum frequency coordinators are small as defined by the SBA.

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

8. The rules adopted in this *Second MO&O* do not have any general reporting or recordkeeping requirements for PLMR licensees. There are, however, a few compliance requirements. First, frequency coordinators, when recommending frequencies that were formerly allocated on a shared basis to the Petroleum Radio Service, must obtain the concurrence of the former Petroleum Radio Service frequency coordinator. While the Commission wants to remove as many requirements on the licensing process as possible, the Commission believes that this requirement is necessary in order to protect critical safety-related communications systems.<sup>146</sup> The American Petroleum Institute, supported by several commenters, petitioned for protection of existing petroleum stations based upon coverage contours.<sup>147</sup> Rather than institute a complex requirement based on the computation of coverage contours, the Commission believes that the goals of protecting these systems can be achieved through a simple concurrence requirement.<sup>148</sup>

9. Second, the Commission is requiring each of the coordinators that have sole management authority over a group of frequencies to supply supporting reasons for denying any request for frequency coordination on those frequencies.<sup>149</sup> The American Automobile Association petitioned for a clarification that would have held these coordinators to the same coordination procedures as previously were applicable under the former interservice sharing rules.<sup>150</sup> The Commission believes that such procedures would be excessive under the new consolidated pool structure. Therefore, to guard against summary denials and to promote sharing to the greatest degree possible, the Commission believes that requiring the coordinators with sole management authority over certain frequencies to justify any denials of coordination on those frequencies will suffice.<sup>151</sup>

---

<sup>146</sup> See *Second MO&O* at para. **Error! Reference source not found.**

<sup>147</sup> *Id.* at para. 10.

<sup>148</sup> *Id.* at para. 11.

<sup>149</sup> *Id.* at para. 24.

<sup>150</sup> *Id.* at n. 80.

<sup>151</sup> *Id.* at para. 24.

**V.Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered**

10. The Commission, in this *Second MO&O*, has considered petitions for reconsideration and clarification regarding its *Second R&O* in PR Docket No. 92-235, which consolidated the PLMR radio services below 512 MHz. In doing so, the Commission has adopted several proposals which minimize burdens placed on small entities. First, the Commission adopted a concurrence requirement on frequencies that were allocated to the former Petroleum Radio Service on a shared basis. Based on the need to provide additional protection to entities operating on these frequencies, concurrence is the simplest method of providing this protection. The alternative would be to require applicants and frequency coordinators, including those that are small businesses, to conduct complex and costly contour analyses.<sup>152</sup> Second, the Commission did not expand the number of frequencies on which coordinators have sole management authority. This decision will ensure the continued benefits of consolidation. Namely, entities will have more frequency options than if more frequencies were restricted. The increase in frequency choices will provide a greater likelihood that licensees, including small entities, will share frequencies with fewer systems, enabling them to achieve more efficiency in their radio systems.<sup>153</sup> Third, the Commission clarifies that a coordinator, at an applicant's request, who determines that the most appropriate frequency is one that is managed solely by another frequency coordinator can forward an application directly to that coordinator. The alternative would be to return applications which would foster inefficiency, add delays to the coordination process, and drive up costs.<sup>154</sup> Fourth, the Commission clarifies and modifies the rules regarding designated low power frequencies to (1) allow existing users of low power systems that are not currently operating on designated low power frequencies to modify their operating frequency to one of the designated frequencies and obtain primary status while still using wideband equipment, and (2) allow new licensees on the designated low power frequencies, all of which are restricted to narrowband operations, to obtain authorizations for wideband equipment on a secondary basis. Many users and manufacturers of low power systems are small businesses and these actions allow for such entities to continue to use existing equipment and for manufacturers to deplete, rather than scrap, existing inventory.<sup>155</sup> Fifth, the Commission amends the Rules to require entities to operate in the semi-duplex mode when using former Taxicab Radio Service frequencies in metropolitan areas. Such action ensures that future authorizations on these channels will be compatible with existing taxicab users, many of which are small businesses.<sup>156</sup> Sixth, the Commission amends the rules to extend until 2006, the date by which new licensees operating on the emergency medical (MED) channels must employ equipment capable of operating on all the newly created MED channels. Existing licensees on these channels are grandfathered using their existing radios. This provides relief to licensees, many of which are small businesses, which could not readily comply with the originally proposed rule because of lack of available equipment.<sup>157</sup>

---

<sup>152</sup> See *Second MO&O* at para. **Error! Reference source not found.**

<sup>153</sup> See *Second MO&O* at para. 12-15.

<sup>154</sup> *Id.* at para. 23.

<sup>155</sup> *Id.* at para. 29.

<sup>156</sup> *Id.* at para. 39.

<sup>157</sup> *Id.* at para. 41.

**Report to Congress:** The Commission will send a copy of this *Second Memorandum Opinion and Order* including this Supplemental FRFA, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of the *Second Memorandum Opinion and Order*, including Supplemental FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the *Second Memorandum Opinion and Order* and Supplemental FRFA (or summaries thereof) will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).

APPENDIX C

Final Rules

Part 90 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

**PART 90 - PRIVATE LAND MOBILE RADIO SERVICES**

1. The authority citation for Part 90 continues to read as follows:

**AUTHORITY: 47 U.S.C. 154, 302, 303, and 332, unless otherwise noted.**

2. Section 90.20 is amended by removing the entry for 156.2475 MHz, adding entries for 151.0625 MHz, 151.0775 MHz, 151.1825 MHz, 151.1975 MHz, 151.3025 MHz, and 151.3175 MHz to paragraph (c)(3), revising the entries for 35.02 MHz, 151.070 MHz, 151.190 MHz, 151.310 MHz, 453.025 MHz, 453.03125 MHz, 453.075 MHz, 453.0125 MHz, 453.125 MHz, 453.175 MHz, 458.025 MHz, 458.075 MHz, 458.125 MHz, 458.175 MHz, and 470 to 512 MHz of paragraph (c)(3), paragraphs (d)(66)(ii), (d)(66)(iii), and (d)(66)(iv) and adding new paragraphs (d)(66)(v), (d)(66)(vi) and (d)(77) to read as follows:

**§ 90.20 Public Safety Pool.**

\* \* \* \* \*

(c) \* \* \*

(3) \* \* \*

Frequency or Band	Class of Stations(s)	Limitations	Coordinator
Megahertz:			
35.02	Mobile	12, 77	PS
* * *			
151.0625	do	27, 28	PH
151.070	do	28	PH
151.0775	do	27, 28	PH
* * *			
151.1825	do	27, 28	PO
151.190	do	28	PO
151.1975	do	27, 28	PO
* * *			
151.3025	do	27, 28	PO
151.310	do	28	PO

151.3175	.....do	.....27, 28	.....	PO
* * *				
453.0125	.....Mobile	.....57, 77	.....	PX
453.025	.....Central control, fixed	.....58, 59, 60, 61, 62	.....	PM
	base, or mobile			
453.03125	.....Base or mobile	.....44, 59, 60, 61, 62	.....	PM
* * *				
453.075	.....Central control, fixed	.....58, 59, 60, 61, 62	.....	PM
	base, or mobile			
* * *				
453.125	.....Central control, fixed	.....58, 59, 60, 61, 62	.....	PM
	base, or mobile			
* * *				
453.175	.....Central control, fixed	.....58, 59, 60, 61, 62	.....	PM
	base, or mobile			
* * *				
458.025	.....Central control, fixed	.....58, 59, 61, 62, 63	.....	PM
	base, or mobile			
* * *				
458.075	.....Central control, fixed	.....58, 59, 61, 62, 63	.....	PM
	base, or mobile			
* * *				
458.125	.....Central control, fixed	.....58, 59, 61, 62, 63	.....	PM
	base, or mobile			
* * *				
458.175	.....Central control, fixed	.....58, 59, 61, 62, 63	.....	PM
	base, or mobile			
* * *				
470 to 512	Base or mobile	.....68	.....	

\* \* \* \* \*

(d) \* \* \*

(66) \* \* \*

(ii) Except as provided in paragraphs (d)(66)(iv) and (v) of this section, mobile or portable stations licensed prior to **[One year after publication in the Federal Register]**, must employ equipment that is both wired and equipped to transmit/receive, respectively, on each of the following MED frequency pairs with transmitters operated on the 468 MHz frequencies: MED-1, MED-2, MED-3, MED-4, MED-5, MED-6, MED-7, and MED-8.

(iii) Except as provided in paragraphs (d)(66)(v) and (vi) of this section, mobile or portable stations licensed on or after **[One year after publication in the Federal Register]**, must employ

equipment that is both wired and equipped to transmit/receive, respectively, on each of the following MED frequency pairs with transmitters operated on the 468 MHz frequencies: MED-1, MED-12, MED-2, MED-22, MED-3, MED-32, MED-4, MED-42, MED-5, MED-52, MED-6, MED-62, MED-7, MED-72, MED-8, and MED-82.

(iv) Except as provided in paragraphs (d)(66)(v) and (vi) of this section, mobile or portable stations licensed on or after January 1, 2006, must employ equipment that is both wired and equipped to transmit/receive, respectively, on each of these MED frequency pairs with transmitters operated on the 468 MHz frequencies.

(v) Portable (hand-held) units operated with a maximum output power of 2.5 watts are exempted from the multi-channel equipment requirements specified in paragraphs (d)(66)(ii), (d)(66)(iii), and (d)(66)(iv) of this section.

(vi) Stations located in areas above line A, as defined in §90.7 will be required to meet multi-channel equipment requirements only for those frequencies up to the number specified in paragraphs (d)(66)(ii), (d)(66)(iii), and (d)(66)(iv) of this section that have been assigned and coordinates with Canada in accordance with the applicable U.S.-Canada agreement.

\* \* \* \* \*

(77) Paging operations are not permitted on this frequency.

\* \* \* \* \*

3. Section 90.22 is amended by revising the introductory text to read as follows:

**§ 90.22 Paging Operations.**

Unless specified elsewhere in this part, paging operations may be authorized in the Public Safety Pool on any frequency except those assigned under the provisions of § 90.20(d)(77). Paging operations on frequencies subject to § 90.20(d)(77) authorized before August 17, 1974, may be continued only if they do not cause harmful interference to regular operations on the same frequencies. Such paging operations may be renewed indefinitely on a secondary basis to regular operations, except within 125 km (75 mi) of the following urbanized areas:

\* \* \* \* \*

4. Section 90.35 is amended by revising the entries for 2292 kHz, 25.14 MHz, 30.66 MHz, 30.74 MHz, 30.82 MHz, 150.815 MHz through 150.9725 MHz, 151.490 MHz, 152.870 MHz, 153.035 MHz through 153.4025 MHz, 153.425 MHz through 153.4625 MHz, 153.485 MHz through 153.5225 MHz, 153.545 MHz through 153.5825 MHz, 153.605 MHz through 153.6425 MHz, 153.665 MHz through 153.6875 MHz, 157.470 MHz through 157.5225 MHz, 157.725 MHz,

158.145 MHz through 158.1825 MHz, 158.205 MHz through 158.2425 MHz, 158.265 MHz through 158.3325 MHz, 158.355 MHz through 158.3775 MHz, 158.415 MHz through 158.4375 MHz, 173.250 MHz, 173.300 MHz, 173.350 MHz, 173.39625, 451.175 MHz, 451.225 MHz, 451.275 MHz, 451.375 MHz, 451.425 MHz, 451.475 MHz, 451.525 MHz, 451.550 MHz, 451.575 MHz, 451.600 MHz, 451.625 MHz, 451.650 MHz, 451.675 MHz, 451.700 MHz, 451.750 MHz, 452.325 MHz, 452.375 MHz, 452.425 MHz, 452.475 MHz, 452.525 MHz through 452.61875 MHz, 452.775 MHz, 452.825 MHz, 452.875 MHz, 456.175 MHz, 456.225 MHz, 456.275 MHz, 456.375 MHz, 456.425 MHz, 456.475 MHz, 456.525 MHz, 456.550 MHz, 456.575 MHz, 456.600 MHz, 456.625 MHz, 456.650 MHz, 456.675 MHz, 456.700 MHz, 456.750 MHz, 457.325 MHz, 457.375 MHz, 457.425 MHz, 457.475 MHz, 457.775 MHz, 457.825 MHz, 457.875 MHz, 462.475 MHz, 462.525 MHz, 467.475 MHz, 467.525 MHz, 467.8375 MHz, 469.500 MHz, and 469.550 MHz of paragraph (a)(3), revising paragraphs (b)(2), (c)(6), and (c)(52), and adding paragraphs (c)(79), (c)(80) and (c)(81) to read as follows:

**§ 90.35 Industrial/Business Pool.**

\* \* \* \* \*

(b) \* \* \*

(2) Unless otherwise specified, coordination of frequencies in the Industrial/Business pool must be done in accordance with the following:

(i) Unless specified elsewhere in this part, frequencies without any coordinator specified in the Coordinator column of paragraph (b)(3) of this section may be coordinated by any frequency coordinator certified in the Industrial/Business Pool.

(ii). A letter symbol in the Coordinator column of the frequency table in paragraph (b)(3) of this section designates the mandatory certified frequency coordinator for the associated frequency in the table. However, any certified frequency coordinator in the Industrial/Business Pool may coordinate such frequency provided the prior written consent of the designated coordinator is obtained. Frequencies for which two coordinators are listed may be coordinated by either of the listed coordinators.

(iii) The letter symbols listed in the Coordinator column of the frequency table in paragraph (b)(3) of this section refer to specific frequency coordinators as follows:

- IP-Petroleum Coordinator
- IW-Power Coordinator
- LR-Railroad Coordinator
- LA-Automobile Emergency Coordinator

(3) \* \* \*

Frequency or Band	Class of Stations(s)	Limitations	Coordinator
----------------------	-------------------------	-------------	-------------

Kilohertz:

2292 ..... Base or mobile ..... 4, 5, 7 .....  
 \* \* \*

Megahertz:

25.14 ..... do ..... 3, 4 ..... IP  
 \* \* \*

30.66 ..... do ..... 4, 7 .....  
 \* \* \*

30.74 ..... do ..... 4, 7 .....  
 \* \* \*

30.82 ..... do ..... 4, 7 .....  
 \* \* \*

150.815 ..... do ..... LA

150.830 ..... do ..... 28, 29 ..... LA

150.845 ..... do ..... LA

150.8525 ..... do ..... 30 ..... LA

150.860 ..... do ..... LA

150.8675 ..... do ..... 30 ..... LA

150.875 ..... do ..... LA

150.8825 ..... do ..... 30 ..... LA

150.890 ..... do ..... LA

150.8975 ..... do ..... 30 ..... LA

150.905 ..... do ..... LA

150.920 ..... do ..... 28, 29 ..... LA

150.935 ..... do ..... LA

150.9425 ..... do ..... 30 ..... LA

150.950 ..... do ..... LA

150.9575 ..... do ..... 30 ..... LA

150.965 ..... do ..... LA

150.9725 ..... do ..... 30 ..... LA

\* \* \*

151.490 ..... do ..... 13, 32 .....  
 \* \* \*

152.465 ..... do ..... 79 .....  
 \* \* \*

152.870 ..... do .....  
 \* \* \*

153.035 ..... do ..... IP

153.0425 ..... do ..... 30 ..... IP

153.050 ..... do ..... 4, 7 ..... IP

153.0575 ..... do ..... 4, 7, 30 ..... IP

153.065 ..... do ..... IP

153.0725 ..... do ..... 30 ..... IP

153.080 ..... do ..... 4, 7 ..... IP

153.0875 ..... do ..... 4, 7, 30 ..... IP

153.095	do		IP
153.1025	do	30, 80	IP
153.110	do	4, 7	IP
153.1175	do	4, 7, 30	IP
153.125	do		IP
153.1325	do	30	IP
153.140	do	4, 7	IP
153.1475	do	4, 7, 30	IP
153.155	do		IP
153.1625	do	30	IP
153.170	do	4, 7	IP
153.1775	do	4, 7, 30	IP
153.185	do		IP
153.1925	do	30	IP
153.200	do	4, 7	IP
153.2075	do	4, 7, 30	IP
153.215	do		IP
153.2225	do	30	IP
153.230	do	4, 7	IP
153.2375	do	4, 7, 30	IP
153.245	do		IP
153.2525	do	30	IP
153.260	do	4, 7	IP
153.2675	do	4, 7, 30	IP
153.275	do		IP
153.2825	do	30	IP
153.290	do	4, 7	IP
153.2975	do	4, 7, 30	IP
153.305	do		IP
153.3125	do	30	IP
153.320	do	4, 7	IP
153.3275	do	4, 7, 30	IP
153.335	do		IP
153.3425	do	30	IP
153.350	do	4, 7	IP
153.3575	do	4, 7, 30	IP
153.365	do		IP
153.3725	do	30	IP
153.380	do		IP
153.3875	do	30	IP
153.395	do		IP
153.4025	do	30	IP
* * *			
153.425	do	80	IP, IW
153.4325	do	30, 80	IP, IW

153.440	do	80	IP, IW
153.4475	do	30, 80	IP, IW
153.455	do	80	IP, IW
153.4625	do	30, 80	IP, IW
* * *			
153.485	do	80	IP, IW
153.4925	do	30, 80	IP, IW
153.500	do	80	IP, IW
153.5075	do	30, 80	IP, IW
153.515	do	80	IP, IW
153.5225	do	30, 80	IP, IW
* * *			
153.545	do	80	IP, IW
153.5525	do	30, 80	IP, IW
153.560	do	80	IP, IW
153.5675	do	30, 80	IP, IW
153.575	do	80	IP, IW
153.5825	do	30, 80	IP, IW
* * *			
153.605	do	80	IP, IW
153.6125	do	30, 80	IP, IW
153.620	do	80	IP, IW
153.6275	do	30, 80	IP, IW
153.635	do	80	IP, IW
153.6425	do	30, 80	IP, IW
* * *			
153.665	do	80	IP, IW
153.6725	do	30, 80	IP, IW
153.680	do	80	IP, IW
153.6875	do	30, 80	IP, IW
* * *			
157.470	Base or mobile	12	LA
157.4775	do	12, 30	LA
157.485	do	12	LA
157.4925	do	12, 30	LA
157.500	do	12	LA
157.5075	do	12, 30	LA
157.515	do	12	LA
157.5225	do	12, 30	LA
* * *			
157.725	Base or mobile	79	
* * *			
158.145	do		IP, IW
158.1525	do	30	IP, IW
158.160	do		IP, IW

158.1675	do	30	IP, IW
158.175	do	81	IP, IW
158.1825	do	30, 81	IP, IW
* * *			
158.205	do	81	IP, IW
158.2125	do	30, 81	IP, IW
158.220	do	81	IP, IW
158.2275	do	30, 81	IP, IW
158.235	do	81	IP, IW
158.2425	do	30, 81	IP, IW
* * *			
158.265	do	81	IP, IW
158.2725	do	30, 81	IP, IW
158.280	do		IP
158.2875	do	30	IP
158.295	do		IP
158.3025	do	30	IP
158.310	do	4, 7	IP
158.3175	do	4, 7, 30	IP
158.325	do		IP
158.3325	do	30	IP
* * *			
158.355	Base or mobile		IP
158.3625	do	30	IP
158.370	do	4, 7	IP
158.3775	do	4, 7, 30	IP
* * *			
158.415	do		IP
158.4225	do	30	IP
158.430	do	4, 7	IP
158.4375	do	4, 7, 30	IP
* * *			
173.250	Base or Mobile		IP, IW
* * *			
173.300	Base or Mobile		IP, IW
* * *			
173.350	Base or Mobile		IP, IW
* * *			
173.39625	do	39, 40, 41, 44	
* * *			
451.175	do		IP, IW
* * *			
451.225	do		IP, IW
* * *			
451.275	do		IP, IW

***			
451.375	do		IP, IW
***			
451.425	do		IP, IW
***			
451.475	do		IP, IW
***			
451.525	do		IP, IW
***			
451.550	do	4, 7	IP
***			
451.575	do		IP, IW
***			
451.600	do	4, 7	IP
***			
451.625	do		IP, IW
***			
451.650	do	4, 7	IP
***			
451.675	do		IP, IW
***			
451.700	do	4, 7	IP
***			
451.750	do	4, 7	IP
***			
452.325	do		LR
***			
452.375	do		LR
***			
452.425	do		LR
***			
452.475	do		LR
***			
452.525	do		LA
452.53125	do	33	LA
452.5375	do	30	LA
452.54375	do	33	LA
452.550	do		LA
452.55625	do	33	LA
452.5625	do	30	LA
452.56875	do	33	LA
452.575	do		LA
452.58125	do	33	LA
452.5875	do	30	LA
452.59375	do	33	LA

452.600	.....do	.....	LA
452.60625	.....do	33	LA
452.6125	.....do	30	LA
452.61875	.....do	33	LA
* * *			
452.775	.....do	.....	LR
* * *			
452.825	.....do	.....	LR
* * *			
452.875	.....do	.....	LR
* * *			
456.175	.....do	.....	IP, IW
* * *			
456.225	.....do	.....	IP, IW
* * *			
456.275	.....do	.....	IP, IW
* * *			
456.375	.....do	.....	IP, IW
* * *			
456.425	.....do	.....	IP, IW
* * *			
456.475	.....do	.....	IP, IW
* * *			
456.525	.....do	.....	IP, IW
* * *			
456.550	.....do	.....	IP
* * *			
456.575	.....do	.....	IP, IW
* * *			
456.600	.....do	.....	IP
* * *			
456.625	.....do	.....	IP, IW
* * *			
456.650	.....do	.....	IP
* * *			
456.675	.....do	.....	IP, IW
* * *			
456.700	.....do	.....	IP
* * *			
456.750	.....do	.....	IP
* * *			
457.325	.....do	.....	LR
* * *			
457.375	.....do	.....	LR
* * *			

457.425 .....	do .....	LR
* * *		
457.475 .....	do .....	LR
* * *		
457.775 .....	do .....	LR
* * *		
457.825 .....	do .....	LR
* * *		
457.875 .....	do .....	LR
* * *		
462.475 .....	do .....	IP, IW
* * *		
462.525 .....	do .....	IP, IW
* * *		
467.475 .....	do .....	IP, IW
* * *		
467.525 .....	do .....	IP, IW
* * *		
467.8375 .....	do .....	11, 12, 30, 35, 60 .....
* * *		
469.500 .....	do .....	10, 34 .....
* * *		
469.550 .....	do .....	10, 34 .....

\* \* \* \* \*

(c) \* \* \*

(6) Frequencies may be assigned in pairs with the separation between base and mobile transmit frequencies being 5.26 MHz. A mobile station may be assigned the frequency which would normally be assigned to a base station for single frequency operation. However, this single-frequency operation may be subject to interference that would not occur to a two-frequency system. Base or mobile stations operating wholly within Standard Metropolitan Areas having 50,000 or more population (1950 Census) must be operated in the half-duplex mode.

\* \* \* \* \*

(52) In Puerto Rico and the Virgin Islands only, this frequency is available to all stations operating in the Industrial/Business Pool and may be coordinated by any frequency coordinator certified in the Industrial/Business Pool.

\* \* \* \* \*

(79) Frequencies may be assigned in pairs with the separation between base and mobile transmit frequencies being 5.26 MHz. A mobile station may be assigned the frequency which would normally be

assigned to a base station for single frequency operation. However, this single-frequency operation may be subject to interference that would not occur to a two-frequency system. Base or mobile stations located 80.5 km (50 miles) or less from the center or any urbanized area of 600,000 or more population (U.S. Census of Population, 1970) must be operated in the half-duplex mode.

(80) Concurrence from the Petroleum Coordinator is required only for applications for this frequency that request authorization for transmitters in Arkansas, Louisiana, Oklahoma, or Texas.

(81) Concurrence from the Petroleum Coordinator is required only for applications for this frequency that request authorization for transmitters in Arkansas, Louisiana, Oklahoma, Oregon, Texas, or Washington.

5. Section 90.135 is amended by revising paragraph (a)(2), removing and reserving paragraph b(5) and revising paragraph (d) to read as follows:

**§ 90.135 Modification of License.**

(a) \* \* \*

(2) Change in the type of emission.

\* \* \* \* \*

(b) \* \* \*

(5) Reserved

\* \* \* \* \*

(d) In case of a change listed in paragraphs (b)(1) or (b)(2) of this section \* \* \*

6. Section 90.173 is amended by revising paragraphs (a) and (j) to read as follows:

**§ 90.173 Policies governing the assignment of frequencies.**

(a) Except as indicated in paragraph (j) of this section, the frequencies which ordinarily may be assigned to stations in the services governed by this part are listed in subparts B, C and F of this part. Except as otherwise specifically provided in this part, frequencies assigned to land mobile stations are available on a shared basis only and will not be assigned for the exclusive use of any licensee.

\* \* \* \* \*

(j) Frequencies other than those listed in subparts B and C may be assigned in the 150–174 MHz, 421–430 MHz, 450–470 MHz, and 470–512 MHz bands, provided the following conditions are met:

- (1) Such applications must be accompanied by a showing of frequency coordination in accordance with the requirements of § 90.175;
- (2) The frequencies must not be available in any other rule part of this chapter; and
- (3) The authorized bandwidth of any system operating in accordance with this paragraph must not overlap spectrum available in other rule parts of this chapter unless that spectrum is also allocated in part 90.

\* \* \* \* \*

7. Section 90.175 is amended by revising the first sentence of the introductory text and paragraph (b) to read as follows:

**§ 90.175 Frequency coordination requirements.**

Except for applications listed in paragraph (i) of this section, each application for a new frequency assignment, for a change in existing facilities as listed in §90.135(a), or for operation at temporary locations in accordance with §90.137 must include a showing of frequency coordination as set forth below. \* \* \*

\* \* \* \* \*

(b) *For frequencies between 25 and 470 MHz:*

(1) A statement is required from the applicable frequency coordinator as specified in §§ 90.20(c)(2) and 90.35(a)(2) recommending the most appropriate frequency. In addition, concurrence from the applicable frequency coordinator must be obtained on frequencies designated for such a requirement. The coordinator's recommendation may include comments on technical factors such as power, antenna height and gain, terrain, and other factors which may serve to minimize potential interference. In addition:

(2) On frequencies designated for coordination or concurrence by a specific frequency coordinator as specified in §§ 90.20(c)(3) and 90.35(b)(3), the applicable frequency coordinator shall provide a written supporting statement in instances in which coordination or concurrence is denied. The supporting statement shall contain sufficient detail to permit discernment of the technical basis for the denial of coordination or concurrence.

(3) In instances where a frequency coordinator determines that an applicant's requested frequency or the most appropriate frequency is one designated for coordination by a specific frequency coordinator as specified in §§ 90.20(c)(3) and 90.35(b)(3), that frequency coordinator may forward the application directly to the appropriate frequency coordinator. A frequency coordinator may only forward an application as specified above if consent is obtained from the applicant.

\* \* \* \* \*

8. Section 90.187 is amended by revising paragraph (b)(2)(i) and the second sentence of (b)(2)(ii) to read as follows:

**§ 90.187 Trunking in the bands between 150 and 512 MHz.**

\* \* \* \* \*

(b) \* \* \*

(2) \* \* \*

(i) Stations that have assigned frequencies (base and mobile) that are 15 kHz or less removed from proposed stations that will operate with a 25 kHz channel bandwidth; stations that have assigned frequencies (base and mobile) that are 7.5 kHz or less removed from proposed stations that will operate with a 12.5 kHz bandwidth; or stations that have assigned frequencies (base and mobile) 3.75 kHz or less removed from proposed stations that will operate with a 6.25 kHz bandwidth; and

(ii) \* \* \* Alternatively, applicants may submit an engineering analysis based upon generally accepted engineering practices and standards that demonstrates that the service area of the trunked system does not overlap the service area of any existing station.

\* \* \* \* \*

9. Section 90.207 is corrected by revising the second sentence of paragraph 1 to read as follows:

**§ 90.207 Types of emissions.**

\* \* \* \* \*

(1) \* \* \* Authorization to use digital voice emissions is construed to include the use of F1D, F2D, G1D, or G2D emission subject to the provisions of § 90.233.

10. Section 90.211 is removed.

**§ 90.211 [Removed]**

11. Section 90.267 is amended by revising paragraphs (a)(3) and (b) and adding new paragraphs (c) and (d) to read as follows:

**§ 90.267 Assignment and use of frequencies in the 450-470 MHz band for low-power use.**

(a) \* \* \*

(3) Stations are limited to 2 watts output power.

\* \* \* \* \*

(b) Unless specified elsewhere in this part, licensees as of **[30 days after publication in the Federal Register]**, licensed for operations with an emission designator wider than 11k25 on frequencies subject to the conditions of paragraph 90.20(d)(20) or paragraph 90.35(c)(30) of this part that have been designated low-power channels pursuant to paragraph (a) of this section may obtain primary status with respect to co-channel licensees, by supplying their coordinates to the Commission. These licensees will continue to operate on a secondary basis with respect to adjacent channel licensees. Additionally, these licensees may continue to operate with an authorized bandwidth wider than 11.25 kHz on frequencies subject to the conditions of paragraph 90.20(d)(20) or paragraph 90.35(c)(30) of this part.

(c) Unless specified elsewhere in this part, licensees as of **[30 days after publication in the Federal Register]**, licensed for operations with an emission designator wider than 11k25 on frequencies subject to the conditions of paragraph 90.20(d)(20) or paragraph 90.35(c)(30) of this part that have not been designated as low-power channels pursuant to paragraph (a) of this section that otherwise comply with the conditions of paragraph (a) of this section may obtain primary status with respect to co-channel licensees, by modifying their license to a designated low-power channel and supplying their coordinates to the Commission. These licensees will continue to operate on a secondary basis with respect to adjacent channel licensees. Additionally, these licensees may continue to operate with an authorized bandwidth wider than 11.25 kHz on frequencies subject to the conditions of paragraph 90.20(d)(20) or paragraph 90.35(c)(30) of this part.

(d) Applicants proposing to operate with an authorized bandwidth wider than 11.25 kHz on designated low-power frequencies that are subject to the conditions of paragraph 90.20(d)(20) or paragraph 90.35(c)(30) of this part that otherwise meet the conditions of paragraph (a) of this section, may be licensed on a secondary, non-interference basis.

12. Section 90.311 is amended by revising the table in paragraph (a) to read as follows:

**§ 90.311 Frequencies.**

(a) \* \* \*

Channel Assignment	Urbanized Area	General access pool	
		Base and mobile	Mobile
14	Boston, MA Chicago, IL Cleveland, OH Miami, FL	470.30625 to 472.99375	473.30625 to 475.99375

Channel Assignment	Urbanized Area	General access pool	
		Base and mobile	Mobile
	New York/N.E. NJ Pittsburgh, PA		
	Los Angeles, CA	470.05625 to 472.99375	473.05625 to 475.99375
15	Chicago, IL Cleveland, OH Detroit, MI New York/N.E. NJ	476.30625 to 478.99375	479.30625 to 481.99375
16	Boston, MA Dallas/Fort Worth, TX Detroit, MI San Francisco/Oakland, CA	482.30625 to 484.99375	485.30625 to 487.99375
	Los Angeles, CA (Use is restricted to Public Safety Pool eligibles)	482.00625 to 484.99375	485.00625 to 487.99375
17	Houston, TX San Francisco/Oakland, CA Washington, DC/MD/VA	488.30625 to 490.99375	491.30625 to 493.99375
18	Pittsburgh, PA Washington, DC/MD/VA	494.30625 to 496.99375	497.30625 to 499.99375
19	Philadelphia, PA	500.30625 to 502.99375	503.30625 to 505.99375
20	Los Angeles, CA	506.13125 to 508.99375	509.13125 to 511.99375
	Philadelphia, PA	506.30625 to 508.99375	509.30625 to 511.99375

\* \* \* \* \*