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

In the Matter of	)	
	)	
Replacement of Part 90 by Part 88 to Revise	)	PR Docket No. 92-235
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 Services	)	

**SECOND REPORT AND ORDER**

**Adopted: February 20, 1997**

**Released: March 12, 1997**

By the Commission:

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## I. INTRODUCTION

1. Our primary goal in this proceeding has been to address the increasing communications requirements of the private land mobile radio (PLMR) community by developing a strategy for encouraging more efficient use of PLMR spectrum below 800 MHz -- *i.e.*, those PLMR Services within the 150-174 MHz, 421-430 MHz, 450-470 MHz, and 470-512 MHz bands. The *Report and Order (R&O)* in this docket served as a critical first step toward achieving this goal.<sup>1</sup> In that decision, we adopted extensive rule changes to promote highly effective and efficient use of the PLMR spectrum and to facilitate the introduction of advanced technologies into the private mobile services.<sup>2</sup> We also concluded that the PLMR Services must be consolidated and that competition should be introduced into the coordinator services for each service group.<sup>3</sup> We stated that consolidation of the twenty PLMR service groups below 800 MHz would "provide for more efficient allocation of the increased capacity created by the introduction of more efficient technology."<sup>4</sup>

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<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 Services, PR Docket No. 92-235, *Report and Order and Further Notice of Proposed Rule Making*, 10 FCC Rcd 10076 (1995).

<sup>2</sup> *See id.* at 10092-101.

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

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

2. By this *Second Report and Order*, we consolidate the twenty PLMR Services into two broad service pools, with appropriate provision for ensuring that the safety of the public will not be compromised. In addition, we resolve two other issues raised in conjunction with consolidation: (a) whether to permit centralized trunking, and (b) how to implement the decision in the *R&O* to provide protection for current low power operations in the 450-470 MHz band. Additionally, we address a Request for Temporary Relief filed by several public safety coordinators.<sup>5</sup> We have, generally, delayed the effective date of these rules until six months after publication in the Federal Register in order to provide coordinators sufficient time to implement consolidation.<sup>6</sup> Today's action is the next critical step toward providing a regulatory framework which promotes efficient use of PLMR spectrum below 800 MHz.

## II. EXECUTIVE SUMMARY

3. The primary action taken today is the consolidation of the twenty PLMR Services into two pools -- one for Public Safety (including the Special Emergency Radio Service) and one for Industrial/Business. By reducing the number of pools to two, we will, consistent with safety considerations, ensure the most efficient distribution of the additional channels created as a result of the transition to narrowband technology, permit licensees to better utilize technologically innovative and efficient equipment, and reduce administrative burdens. The steps we have taken to guarantee that this consolidation does not jeopardize public safety are two-fold. First, we have established a separate Public Safety Pool as well as a structure within the new Public Safety Pool, whereby each of the existing Public Safety frequency coordinators can continue to manage frequencies that they were responsible for prior to consolidation, with one exception. We will allow any of the current certified coordinators in the Public Safety Radio Services to coordinate frequencies allocated to the Local Government Radio Service.<sup>7</sup> Second, we have identified three types of entities within the new Industrial/Business pool -- railroad, power, and petroleum companies -- that routinely use PLMR frequencies for critical public safety-related communications. To ensure that the integrity of these communications is not impaired, we will require anyone who seeks to use the frequencies previously allocated specifically for these types of operations to go through the same frequency coordinators that have been responsible for coordinating these frequencies. For example, a non-railroad business that seeks to use a frequency previously allocated to the Railroad Radio Service would be required to coordinate its

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<sup>5</sup> Joint Request for Temporary Relief filed February 4, 1997, by International Municipal Signal Association (IMSA), International Association of Fire Chiefs, Inc. (IAFC), American Association of State Highway and Transportation Officials (AASHTO), and Forestry-Conservation Communications Association (FCCA).

<sup>6</sup> The specific rule changes adopted herein are contained in Appendix D. We note that our actions today do not resolve issues raised in the *Further Notice* portion of the *R&O* concerning the introduction of market-based incentives, such as exclusivity, spectrum user fees and competitive bidding. See *R&O*, 10 FCC Rcd at 10126-41. We will address those issues in a future order.

<sup>7</sup> See para. 38, *infra*.

request through the frequency coordinator for this service (*i.e.*, the Association of American Railroads).

4. We are also taking action to ensure that the communications needs of public safety entities can continue to be met during the six month period prior to the effective date of the rules. Therefore, effective upon publication in the Federal Register, we are expanding eligibility in the Local Government Radio Service to include the non-governmental entities that are currently eligible in the Fire and Forestry-Conservation Radio Services.<sup>8</sup>

5. Our decision today will also facilitate the efficient use of the PLMR spectrum in the following ways:

- The Industrial/Business frequency pool will be administered by multiple coordinators, each of whom will have the authority to coordinate use of any frequency within the pool (with the exception of railroad, power, and petroleum frequencies, as described above). Thus, users will have the opportunity to make marketplace decisions when seeking the services of a frequency coordinator.
- Licensees will be able to operate highly efficient trunked systems in the bands below 800 MHz, with certain limitations designed to protect the interests of existing users sharing the same spectrum (*i.e.*, with concurrence of affected licensees and compliance with frequency coordination requirements).
- We are adopting an approach for ensuring that the current low power use of frequencies will be accommodated without undue disruption of service.

### III. BACKGROUND

6. This proceeding concerns PLMR frequencies in the bands below 800 MHz administered under Part 90 of the Commission's Rules (47 C.F.R. Part 90). The bands, in general, are: 150-174 MHz, 421-430 MHz, 450-470 MHz and 470-512 MHz. Under our current rules, these frequencies are divided into twenty separate radio services, grouped in four general categories as shown in Table 1, below.

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<sup>8</sup> See 47 C.F.R. §§ 90.21(a) and 90.25(a). Non-governmental entities such as volunteer fire departments and nature conservatories are eligible to hold authorizations in the Fire and Forestry-Conservation Radio Services, provided that they are accompanied by a supporting statement from the governmental entity having legal jurisdiction over the area to be served.

**Table 1: Current Private Land Mobile Radio Services Grouped by General Categories**

<p><u>Public Safety Radio Services:</u> Local Government, Police, Fire, Highway Maintenance, Forestry-Conservation, and Emergency Medical Radio Services</p> <p><u>Special Emergency Radio Service</u><sup>9</sup></p> <p><u>Industrial Radio Services:</u> Power, Petroleum, Forest Products, Film &amp; Video Production, Relay Press, Special Industrial, Business, Manufacturers, and Telephone Maintenance Radio Services</p> <p><u>Land Transportation Radio Services:</u> Motor Carrier, Railroad, Taxicab, and Automobile Emergency Radio Services</p>
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7. The Radiolocation Service (47 C.F.R. Part 90, Subpart F) is not listed in Table 1, even though it has frequencies below 800 MHz, because it is not considered a PLMR Service. While frequencies in the 421-430 MHz and 470-512 MHz bands are available for PLMR use, these bands are allotted and allocated differently than the other PLMR frequencies below 800 MHz. Rather than being available nationwide and allocated to one of the twenty radio services, they are available only in certain cities and allocated to certain pools. Specifically, the 421-430 MHz band is available only in Detroit, Cleveland, and Buffalo, and frequencies in this band are divided into three pools: Public Safety, Business, and Industrial/Land Transportation.<sup>10</sup> The 470-512 MHz band is available for PLMR use in only thirteen cities, and frequencies in this band were originally divided into seven pools. Later, however, the rules were changed to put the spectrum into one General Access Pool.<sup>11</sup>

8. In determining that consolidation of the twenty PLMR Services set out in Table 1 would best serve the public interest, we stressed that the intended purpose of consolidating radio services "is to distribute assignments between low-use and high-use groups more evenly, to simplify interservice sharing procedures, to organize channel allocations that will enable licensees to more easily utilize advanced technologies, and to organize the services in such manner to achieve more efficient and flexible spectrum use."<sup>12</sup> We also recognized the

<sup>9</sup> The Special Emergency Radio Service (SERS) covers the licensing of the following categories of activities: medical services, rescue organizations veterinarians, handicapped persons, disaster relief organizations, school buses, beach patrols, establishments in isolated places, communications standby facilities, and emergency repair of public communication facilities.

<sup>10</sup> See 47 C.F.R. § 90.273.

<sup>11</sup> See 47 C.F.R. Part 90, Subpart L.

<sup>12</sup> 10 FCC Rcd. at 10106.

importance of different services, particularly Public Safety, and encouraged commenters to develop a plan that included a Public Safety pool.<sup>13</sup> We further recommended that such a plan contain clear guidelines regarding the requirements for inclusion in such a Public Safety pool.<sup>14</sup> We considered these guidelines necessary to prevent overcrowding and to maintain the integrity of critical functions of the users included within this pool.<sup>15</sup> While we indicated that two to four broad categories, including one for Public Safety licensees, appeared reasonable, we deferred a final decision on the precise contours of consolidation to provide members of the PLMR community, including users, manufacturers, and frequency coordinators, with an opportunity to negotiate and submit a consensus consolidation proposal to the Commission. In providing this opportunity, we stated that if a consensus could not be reached, we would adopt a plan based on the record.<sup>16</sup> That contingency has come to pass; no consensus was reached.

9. We also recommended that the PLMR community address other related issues, such as how to effectively introduce competition among frequency coordinators, whether a single coordinator or multiple coordinators should be authorized for public safety users, how the existing databases can be shared to ensure fair competition among all of the frequency coordinators, whether a national real-time data base to reflect frequency assignments can be created and used, and what approach should be taken to designate frequencies for low power use on a primary basis. We received twenty-eight comments, fourteen reply comments, and two supplemental comments recommending or supporting a variety of consolidation plans<sup>17</sup> and a number of *ex parte* submissions.<sup>18</sup> In addition, the Industrial Telecommunications Association (ITA) submitted a proposed technical blueprint for consolidation (Blueprint).<sup>19</sup> We placed this on Public Notice and received forty comments and nine reply comments in response.<sup>20</sup>

10. The Commission also received a number of petitions for reconsideration requesting that we reconsider or clarify various rule changes adopted in the *R&O*. Several of the petitions

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<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

<sup>15</sup> *Id.* at 10107.

<sup>16</sup> *Id.* at 10082.

<sup>17</sup> Sixteen comments, three reply comments, and both supplemental comments focused solely on the issues of consolidation. The remaining comments focused on both consolidation and the issues of the *Further Notice of Proposed Rule Making* in this proceeding. A list of the parties filing comments is provided in Appendix A.

<sup>18</sup> Numerous *ex parte* filings were in the form of Congressional correspondence.

<sup>19</sup> See *ex parte* submission of ITA on January 21, 1997, titled "Proposed Technical Blueprint for Frequency Use Limitations in the Post-refarming Environment."

<sup>20</sup> A list of the parties filing comments is provided in Appendix A.

raised issues related to consolidation.<sup>21</sup> In our recent *Memorandum Opinion and Order* addressing these petitions, we stated that we would address the issues related to consolidation when we adopted a specific consolidation plan.<sup>22</sup> Finally, the Commission received a Request for Temporary Relief to permit the frequency coordinators for the Fire, Highway Maintenance, and Forestry-Conservation Radio Services to continue to coordinate frequencies that were formerly assigned to their respective pools as low power offset channels.<sup>23</sup>

## IV. DISCUSSION

### A. Consolidation Plan

#### 1. Number of Pools

11. As indicated above, we received a wide range of recommendations in response to our call for a consensus plan on consolidation. A number of commenters support consolidation. Some endorse the idea in general terms,<sup>24</sup> while others advocate specific consolidation plans.<sup>25</sup> The plans contain a range of choices, proposing consolidation of the PLMR Services into two to five pools. Those who propose specific plans all agree that there should be a separate pool for public safety (or "emergency response") services. The disagreement lies in how many additional pools there should be. Supporters of a two-pool approach (public safety and all others) argue that to increase efficiency and more evenly distribute spectrum, the Commission must not segregate services into arbitrary and needless classifications, and that advanced technologies make it unnecessary to distinguish different types of communications.<sup>26</sup> Those that recommend more than

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<sup>21</sup> See, e.g., UTC, The Telecommunications Association (UTC) Petition for Reconsideration at 6-8; Alarm Industry Communications Committee Petition for Reconsideration at 6-7; SpaceLabs Medical, Inc. (SpaceLabs) Petition for Reconsideration at 7-8; Hewlett-Packard (HP) Petition for Reconsideration at 3-4.

<sup>22</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 Services, PR Docket No. 92-235, *Memorandum Opinion and Order*, \_\_ FCC Rcd \_\_\_\_ (199\_) (MO&O) at paras. 98-99.

<sup>23</sup> Joint Request for Temporary Relief filed February 4, 1997, by International Municipal Signal Association (IMSA), International Association of Fire Chiefs, Inc. (IAFC), American Association of State Highway and Transportation Officials (AASHTO), and Forestry-Conservation Communications Association (FCCA).

<sup>24</sup> See, e.g., Boeing Corporation (Boeing) Comments at 12; Maximum Service Television, Inc. Reply Comments at 4; Potlatch Corporation Comments at 1.

<sup>25</sup> See, e.g., American Petroleum Institute (API) Comments at 6; UTC Comments at 4.

<sup>26</sup> See, e.g., Joint Pool Consolidation Proposal (Joint Pool) (includes: Personal Communications Industry Association, Industrial Telecommunications Association, Alliance of Motion Picture and Television Producers, Newspaper Association of America, and Telephone Maintenance frequency Advisory Committee) at 4; Personal Communications Industry Association (PCIA) Reply Comments at 13. Additionally, several entities endorse the two-

two pools make two principal arguments. First, they contend that licensees who use their spectrum to provide safety-related communications -- even if they do not operate within one of the public safety services -- should be placed in a different pool than licensees who use the spectrum predominately for business-related communications.<sup>27</sup> Second, proponents of a more-than-two pool approach argue that a need exists to group services based on user compatibility as a function of the type of business conducted.<sup>28</sup> Individual consolidation proposals, filed by both those who support and oppose consolidation, are summarized in Appendix B.

12. A number of commenters oppose consolidation in general, arguing that the current system should be retained.<sup>29</sup> Several commenters suggest that the Commission change the interservice sharing rules<sup>30</sup> rather than consolidate the radio services.<sup>31</sup> Still others oppose consolidation but, at the same time, offer specific suggestions on how consolidation should be accomplished if the Commission should decide to do so.<sup>32</sup> For the most part, these suggestions center on protecting safety-related communications. For example, the Association of Public-Safety Communications Officials-International, Inc. (APCO) recommends that the present public

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pool proposal contained in ITA's Blueprint. *See, e.g.*, Aeronautical Radio, Inc. (ARINC) Comments to Blueprint at 2; Alliance Communications Comments to Blueprint; and E.F. Johnson Company Comments to Blueprint at 3-4.

<sup>27</sup> In order to ensure a high degree of reliability, some commenters express the need to separate users based on whether the system is used predominantly for safety. For example, the use of radio to dispatch taxicabs is different than the use of radio in ensuring the public welfare by restoring electric service after a storm induced power outage which is different from the use of radio to coordinate fire fighting activities or rescue operations. *See, e.g.*, UTC Comments at 7-8.

<sup>28</sup> For example, the Coalition of Industrial and Land Transportation Radio Users (Coalition) (which include American Automobile Association, American Trucking Associations, Inc., Forest Industries Telecommunications, International Taxicab and Livery Association, and Manufacturers Radio Frequency Advisory Committee) asserts that it is common sense to group public safety agencies in a Public Safety Pool and land transportation companies in a Land Transportation Pool because these entities are engaged in similar activities and already share many frequencies. *See* Coalition Consolidation Plan at 4.

<sup>29</sup> *See, e.g.*, AASHTO Comments at 3-4; Burlington Northern Santa Fe Corporation Comments at 1-2; and CSX Transportation, Inc. (CSX) Comments at 3-5.

<sup>30</sup> The interservice sharing rules allow entities in one radio service to use frequencies in another radio service under certain conditions. *See* 47 C.F.R. § 90.176.

<sup>31</sup> *See, e.g.*, Joint Comments of Specialized Land Mobile Communications Users (Joint Commenters) (includes: American Automobile Association, American Trucking Associations, Inc., Association of American Railroads, Central Alarm Station Association, Forest Industries Telecommunications, International Taxicab and Livery Association, and Manufacturers Radio Frequency Advisory Committee) Comments at 3-4; American Automobile Association (AAA) comments at 3; Alarm Industry Communications Committee (AICC.) Comments at 3.

<sup>32</sup> *See, e.g.*, AICC comments at 5-7; AAA comments at 5-8.

safety block allocation continue in order to preserve the ability of all public safety agencies to use the spectrum to protect life and property.<sup>33</sup>

13. Entities other than public safety organizations also argue that they use radio for critical safety communications and that these communications should be protected. For example, the Association of American Railroads (AAR) states that the railroads must be guaranteed clear channels in a dedicated block of spectrum due to safety concerns and must retain the right to determine who has access to railroad frequencies.<sup>34</sup> It recommends that the Railroad Radio Service not be consolidated with any other radio service<sup>35</sup> or that the Commission create a separate rule part for railroad radio.<sup>36</sup> Similarly, API argues for separate treatment for spectrum used by the petroleum companies, given the use of the Petroleum Radio Service in protecting employee safety during such operations as exploration, drilling, and maintaining refineries.<sup>37</sup> Several commenters support the notion that some types of entities should receive special treatment.<sup>38</sup>

14. In general, those that oppose consolidation argue that the Commission's reasons for consolidation are flawed. They contend that: (1) it is important in radio services where licensees use radio for safety-related communications that the current frequency coordinator maintain control over how the channels in that radio service are used; (2) the current pool system works and that service specific allocations are necessary because the disparate nature of the radio services does not lend itself to a "one size fits all" approach; and (3) consolidation will increase the complexity of radio equipment as well as the coordination process.<sup>39</sup>

15. After careful analysis, we have determined that a modified two-pool approach will best achieve the benefits of consolidation without compromising safety of the general public. Our primary goal in this proceeding has been to increase spectrum efficiency in the PLMR bands below 800 MHz. A consolidation of all twenty PLMR services will significantly increase

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<sup>33</sup> APCO Position Paper on Radio Service Consolidation at 1.

<sup>34</sup> AAR Comments at 4 and 13.

<sup>35</sup> *Id.* at 4.

<sup>36</sup> AAR Supplemental Comments of April 12, 1996, at 2-3. AAR compares the use of radio by the railroads to that of the airlines. They state that, similar to the airlines, the railroad business is fundamentally vehicular in nature and radio is used for minute-by-minute operations.

<sup>37</sup> API Supplemental Comments at 2-3.

<sup>38</sup> *See, e.g.*, American Electric Power Comments to Blueprint at 1; Coalition Comments to Blueprint at 4-5. Additionally, many utility companies provided comments supporting UTC's three pool consolidation proposal. *See, e.g.*, Carolina Power and Light Company Comments to Blueprint; Detroit Edison Comments to Blueprint; Kentucky Utilities Commission Comments to Blueprint; and Potomac Electric Power Company Comments to Blueprint.

<sup>39</sup> *See, e.g.*, Joint Commenters Comments at 1-4; AICC Comments at 4; AAA Comments at 4.

licensee flexibility to manage the spectrum more efficiently through access to additional spectrum and accommodation of advanced technologies. An additional benefit of PLMR service consolidation is that it should reduce administrative burdens on users as well as the Commission. As explained below, a single pool, while maximizing certain efficiencies, poses too great a risk to the integrity of the communications operations of law enforcement, fire, and other public safety providers. On the other side of the equation, three or more pools appear unnecessary and ultimately will not foster more efficient spectrum use. We believe that the safeguards we are adopting for safety-related communications combined with the modifications to the frequency coordination process will adequately address the concerns raised by the proponents of three or more service pools.

16. Our reasons for establishing a separate public safety pool stem from the fact that a majority of the communications required by the public safety community are used to protect life and property and because public safety operations can affect the lives of hundreds, thousands or even tens of thousands of people. We recognize that competing demands for and use of spectrum from entities with a different mission and less critical set of needs than this community could place an unacceptable strain on the integrity of public safety spectrum use. We can limit such a strain by creating a separate pool limited to public safety communications. Moreover, this approach is consistent with our goal to foster a regulatory environment in which agencies involved in the protection of life and property have the communications resources they need to carry out their mission and an opportunity to select from a wide range of advanced wireless communications services.<sup>40</sup>

17. With respect to those licensees that are not, strictly speaking, public safety entities but nevertheless use radio communications to serve critical safety functions, we believe that it is unnecessary to segregate channels on a nationwide basis (*e.g.*, separate pools) to protect such communications, as suggested by some commenters. Rather, this protection can be provided by the frequency coordination process in the particular service area where the channel is being used for safety-related communications. To ensure that such communications are protected, we will require, as suggested by AAR, applicants for frequencies that are currently allocated to certain radio services where radio is often used for critical public safety communications to go through the current recognized coordinator.<sup>41</sup> In this way, critical communications capabilities can be protected by the coordinator who is intimately familiar with the use of these frequencies while still allowing the channel to be used by other entities in other parts of the country. For example, electric companies routinely use PLMR to coordinate power restoration efforts during an outage. Under the current radio service structure, frequencies used by electric companies are licensed under the Power Radio Service, and only available to eligibles in that service. Under a combined non-Public Safety Radio Service Pool structure, the channel used by an electric company to

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<sup>40</sup> See, *e.g.*, The Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State and Local Public Safety; Agency Communication Requirements Through the Year 2010, WT Docket No. 96-86, Notice of Proposed Rule Making, 11 FCC Rcd 12460 (1996) (*Public Safety Notice*).

<sup>41</sup> AAR Comments at 13.

coordinate repair efforts can be protected through the frequency coordination process in the area where the channel is used for critical communications and still be readily available to others, such as manufacturers or taxicabs, in other areas.

18. This two-pool structure is also best in terms of increasing flexibility and spectrum efficiency by giving users access to a larger pool of frequencies. Under a consolidated non-public safety pool, for example, frequencies initially set aside for tree logging and tree farming (Forest Products Radio Service) can be used in cities by taxicabs, service companies or other businesses operated in an urban environment without invoking the interservice sharing rules. Similarly, frequencies initially set aside for taxicabs (Taxicab Radio Service) could be used in rural areas by farmers or in the operation of mines. Also, a farmer who uses radio predominantly during the daytime hours can readily share a frequency with a delivery company or security firm that works primarily during the night. Further, the increased flexibility provided by a two-pool structure enhances the use of advanced technologies, such as trunking. For example, making additional spectrum available to licensees will allow public safety entities to more easily implement and use trunked systems to perform a number of their public safety functions. We believe that such a result is in the public interest because it will help improve public safety communication capabilities and reduce the costs of building and operating public safety communication systems.

19. A two-pool structure also reduces administrative and financial burdens on applicants. For example, this consolidation approach will eliminate the need to go through interservice sharing procedures in order to obtain authorization to operate on frequencies available in other radio services. This in turn allows users to get on the air sooner as well as saves them from having to pay more than one coordination fee.<sup>42</sup>

20. Accordingly, we are adopting two pools -- Public Safety and Industrial/Business -- as the basic framework for the PLMR bands below 800 MHz. Frequencies that were in any of the Public Safety Radio Services will be combined in the new Public Safety Pool. Similarly, frequencies that were in any of the Industrial or Land Transportation Radio Services will be combined in the new Industrial/Business Pool.<sup>43</sup> Further, we put frequencies in the 421-430 MHz band allocated for public safety use in three cities in the Public Safety Pool and those frequencies allocated for business and industrial/land transportation use in three cities in the Industrial/Business Pool. Frequencies in each of the two pools will be available to all eligibles

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<sup>42</sup> Often when entities apply for frequencies through interservice sharing procedures they have to pay a coordination fee to each coordinator.

<sup>43</sup> The current FCC Form 600, Application for Mobile Radio Service Authorization, expires on October 31, 1997. The FCC is currently working with the Office of Management and Budget to recertify this form. As part of this effort, we will update the instructions to the main form to reflect new two-letter codes for the consolidated Public Safety and Industrial/Business Pools below 800 MHz.

in that pool, unless reserved for a specific function.<sup>44</sup> The relationship of the current radio services to the new consolidated pools is shown in Table 2.<sup>45</sup> We have listed the 470-512 MHz band in each pool rather than divide up the frequencies between the two pools.<sup>46</sup> The Commission already consolidated the various pools in this band into one pool -- the General Access Pool. Further, unlike our current approach to the other bands, where frequencies are allocated to a specific service or group of services, frequencies in the 470-512 MHz band are available to all eligibles on a first come, first served basis. Thus, it would be impossible to divide these frequencies into different pools.<sup>47</sup>

Table 2: Private Land Mobile Radio Services in each of the two Pools

Public Safety	Industrial/Business
Local Government	Power
Police	Petroleum
Fire	Forest Products
Highway Maintenance	Film and Video Production
Forestry-Conservation	Relay Press
Emergency Medical	Special Industrial
Special Emergency	Business
	Manufacturers
	Telephone Maintenance
	Motor Carrier
	Railroad
	Taxicab
	Automobile Emergency

<sup>44</sup> For example, we will continue to specify frequencies used for oil spill cleanup and for Air Terminal Use (ATU) at airports.

<sup>45</sup> We have excluded the Radiolocation Service because it is fundamentally different from other PLMR services. Rather than listing specific frequencies, the rules for the Radiolocation service list permissible bands of operation. See 47 C.F.R. § 90.103. These bands, the vast majority of which are above 800 MHz (refarming concerns PLMR frequencies below 800 MHz), are available only on a secondary basis to other operations (*i.e.*, Federal Government operations). Also, frequency coordination is not required for Radiolocation Licenses. See 47 C.F.R. § 90.175(f)(6). Finally, none of the commenters recommended that the Radiolocation Service be included in the consolidation.

<sup>46</sup> This is supported by several commenters. See, *e.g.*, E.F. Johnson Comments to Blueprint at 4; PCIA Comments to Blueprint at 4.

<sup>47</sup> We are, however, taking this opportunity to eliminate reference to the seven pools in the 470-512 MHz band Frequency Table (47 C.F.R. § 90.311(a)) since they are no longer used.

21. Finally, we recognize that the fundamental changes to the PLMR Services below 800 MHz adopted herein cannot be implemented without a reasonable transition time. In this regard, the IAFC/IMSA and the Public Safety Communications Council (PSCC) suggest that the Commission should allow a six-month transition period before the new service pools become operative, to allow for upgrading of databases and the establishment of technical standards and operating procedures.<sup>48</sup> We agree. Accordingly, we will delay the effective date of the new pools and associated rules adopted in this proceeding until six months after publication in the Federal Register.

## 2. Eligibility

### i. Public Safety Pool

22. Although commenters agreed that there should be a public safety pool, there was some disagreement as to which radio services should be included in the pool. For example, UTC recommended that the public safety pool consist of what it referred to as "emergency response" services -- the Police, Fire, Emergency Medical (EMS) and Special Emergency Radio Services (SERS).<sup>49</sup> IAFC/IMSA states that fire and EMS services could co-exist with SERS in a generic public safety pool.<sup>50</sup> Other commenters suggest that SERS not be included in such a pool. They contend that SERS licensees are not governmental entities and are not true public safety services; thus, they do not belong in the Public Safety Pool.<sup>51</sup>

23. We believe that all of the six current Public Safety Radio Services,<sup>52</sup> as well as the Special Emergency Radio Service, should be included in the Public Safety Pool.<sup>53</sup> Any governmental entity will be eligible to use any Public Safety Pool frequency. Additionally, non-governmental entities that apply for frequencies that were previously available solely for public safety services<sup>54</sup> shall obtain a statement of support from the governmental entity having legal

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<sup>48</sup> IMSA/IAFC Reply Comments at 9-10, PSCC Comments to Blueprint at 7-8.

<sup>49</sup> UTC Comments at 5-6. UTC's consolidation plan, based on the criticality of services, would have split governmental entities between an Emergency Response Pool and a Public Service Pool. This was opposed by many entities who argued that all governmental entities must remain together in one pool. *See, e.g.,* APCO Reply Comments at 3-4; FCCA Reply Comments at 2.

<sup>50</sup> IAFC/IMSA Reply Comments at 6.

<sup>51</sup> *See, e.g.,* AICC Comments on Radio Service Consolidation at 6; APCO Position Paper on Radio Service Consolidation at 4.

<sup>52</sup> *See* Table 1, *supra*.

<sup>53</sup> The PSCC supports the inclusion of the SERS in a Public Safety Pool. *See* PSCC Comments to Blueprint at 7.

<sup>54</sup> This refers to frequencies that are currently listed only in Subpart B of the Commission's Rules.

jurisdiction over the area to be served.<sup>55</sup> Including all the Public Safety Radio Services and the Special Emergency Radio Service in one pool will promote the development of wide-area (state and regional) trunked systems that, in turn, will save scarce resources.<sup>56</sup> Further, it will promote interoperability<sup>57</sup> by allowing all governmental entities as well as non-governmental entities involved in ensuring the safety of life (e.g., hospitals, ambulance companies) to communicate with one another.<sup>58</sup> To further promote interoperability, we suggest coordinators in this pool examine the benefits of using the consensus plan approach discussed herein for low power operations as a way to reserve channels for universal mutual aid. Finally, defining eligibility in this way is consistent with (1) the Commission's definition of public safety services in GEN Docket No. 87-112, which established the Public Safety National Plan in the 821-824/866-869 MHz bands,<sup>59</sup> and (2) the PSWAC's definition of public safety as specified in its *Final Report*<sup>60</sup> as well as the Commission's proposals in the *Public Safety Notice*.<sup>61</sup>

24. An additional issue was raised by several public safety frequency coordinators with respect to entities in the Public Safety Pool.<sup>62</sup> These coordinators are concerned that the reallocation of former low power offset channels in the *Refarming Report and Order* from the Fire, Forestry-Conservation, and Highway Maintenance Radio services to the Local Government

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<sup>55</sup> For example, a beach patrol which is currently eligible in the SERS (47 C.F.R. § 90.45) would need government concurrence to obtain a license on a frequency that was solely within the jurisdiction of the Police Radio Service. However, no government concurrence would be necessary when applying for a frequency that was previously available in the SERS.

<sup>56</sup> Sharing a common infrastructure is both technically and economically efficient. See Section C, *infra*. for a discussion of trunking.

<sup>57</sup> As pointed out in the Final Report of the Operational Requirements Subcommittee of the Public Safety Wireless Advisory Committee (PSWAC), "[i]nteroperability is not just an issue for response to unique or large scale public safety incidents. Interoperability is requisite on a routine basis as a preventative measure." See PSWAC Final Report at Appendix A, page 74. In 1995, the Commission, along with the National Telecommunications and Information Administration (NTIA) established the Public Safety Wireless Advisory Committee to launch a major review of the wireless communications needs of the public safety community on every level -- local, state, and federal -- throughout the United States.

<sup>58</sup> We will be addressing specific solutions to interoperability in the Report and Order in WT Docket 96-86.

<sup>59</sup> Development and Implementation of a Public Safety National Plan and Amendment of Part 90 to Establish Service Rules and Technical Standards for Use of the 821-824/866-869 MHz Bands by the Public Safety Services, GEN Docket No. 87-112, *Report and Order*, 3 FCC Rcd 905 (1987).

<sup>60</sup> See Final Report of the Public Safety Wireless Advisory Committee, September 1996, Volume 1, Section 1.18.

<sup>61</sup> See *Public Safety Notice*, 11 FCC Rcd at 12463-465.

<sup>62</sup> See Joint Request for Temporary Relief filed February 4, 1997, by IMSA, IAFC, AASHTO, and FCCA.

Radio Service<sup>63</sup> adversely affects the ability of users to access these channels and restricts the coordinators' abilities to recommend suitable channels.<sup>64</sup> Specifically, non-governmental entities, such as volunteer fire departments and nature conservatories, who are currently eligible in the Fire and Forestry-Conservation Radio Services respectively, are not eligible in the Local Government Radio Service<sup>65</sup> and may suffer harm due to this reduction in available channels.<sup>66</sup>

25. To remedy this situation, these petitioners request that the Commission allow coordination of new licenses for non-governmental entities, that are eligible in the Fire and Forestry-Conservation Radio Services, on the frequencies that they had access to prior to the *Refarming Report and Order*.<sup>67</sup> Pursuant to the rules adopted herein concerning consolidation, these non-governmental entities will be eligible for all frequencies in the public safety pool, including the low power offsets transferred from the Fire and Forestry-Conservation Radio Services to the Local Government Radio Service, provided they obtain a statement of support from the governmental entity having legal jurisdiction over the area served. However, since the rule amendments being adopted in this *Second Report and Order* will not take effect for six months, we are concerned that the identified entities could suffer harm if the Commission does not take more immediate action. Therefore, effective upon publication of this *Second Report and Order* in the Federal Register, we are amending the eligibility requirements of the Local Government Radio Service to include non-governmental entities who are currently eligible in the Fire and Forestry-Conservation Radio Services. As under the previous rules, these non-governmental entities must obtain a statement of support from the governmental entity having legal jurisdiction over the area to be served. Such action will provide these non-governmental entities access to the spectrum they need to ensure the integrity of their communications systems.

26. This action is taken pursuant to Section 553(d) of the Administrative Procedure Act which permits an agency to implement a rule prior to thirty days after publication when the rule "... relieves a restriction."<sup>68</sup> Here, we find that this rule amendment will provide certain non-governmental entities the ability to access spectrum that they were able to prior to the

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<sup>63</sup> See *R&O*, 10 FCC Rcd at 10107-9.

<sup>64</sup> See Joint Request for Temporary Relief at 1-2.

<sup>65</sup> See 47 C.F.R. §§ 90.17(a), 90.21(a), and 90.25(a). Certain non-governmental entities may be authorized to use frequencies in the Fire and Forestry-Conservation Radio Services upon written consent of the governmental entity that has legal jurisdiction over the area to be served. No such provision exists in the Local Government Radio Service.

<sup>66</sup> See Joint Request for Temporary Relief at 2.

<sup>67</sup> See Joint Request for Temporary Relief at 3.

<sup>68</sup> See 5 U.S.C. § 553(d).

effectiveness of the rules adopted in the Refarming *Report and Order*.<sup>69</sup> Additionally, we note that pursuant to the consolidation rules being adopted herein, these non-governmental entities will be eligible for licensing on any frequency in the Public Safety Pool, upon the effective date of the consolidation rules (*i.e.*, six months after publication of this *Second Report and Order* in the Federal Register), subject to a statement of support from the governmental entity having legal jurisdiction over the area to be served.<sup>70</sup> At that time, the amendment to the Local Government Radio Service will be superseded by the new Subpart B (consolidation rules) being adopted herein.<sup>71</sup>

**ii. Industrial/Business Pool**

27. As indicated in Table 2, *supra*, the Industrial/Business Pool will be comprised of frequencies that were previously allotted to any of the Industrial or Land Transportation Radio Services, including the Business Radio Service. Anyone eligible in one of these radio services will be eligible in the new Industrial/Business Pool for any frequency in that pool unless specifically precluded.<sup>72</sup> In this regard, we have adopted the eligibility criteria from the old Business Radio Service. Accordingly, anyone engaged in a commercial activity is eligible. Also, educational, philanthropic and ecclesiastical institutions are eligible.

28. We note that our consolidation of the Industrial and Land Transportation Services, including the Business Radio Service, into one pool -- the Industrial/Business Pool, potentially may affect the current regulatory classification of the licensees in this pool. In the *Second Report and Order* in GN Docket No. 93-252,<sup>73</sup> we examined the regulatory status of all existing mobile services to determine whether they were commercial mobile radio services (CMRS) or private mobile radio services (PMRS) under Section 332 of the Communications Act of 1934, as amended (the Act).<sup>74</sup> In the *CMRS Second Report and Order*, we concluded that with the exception of the Business Radio Service, all Industrial and Land Transportation Services would

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<sup>69</sup> These non-governmental entities will be able to access any frequency currently assigned to the Local Government Radio Service, including all of the former low power offset frequencies that were reassigned from the Fire and Forestry-Conservation Radio Services to the Local Government Radio Service.

<sup>70</sup> See para. 23, *supra*.

<sup>71</sup> See Appendix E.

<sup>72</sup> See *supra* note 44. For example, a taxicab company will not be able to obtain an authorization on an ATU channel in the vicinity of an airport.

<sup>73</sup> Implementation of Section 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, GN Docket No. 93-252, *Second Report and Order*, 9 FCC Rcd 1411 (1994) (*CMRS Second Report and Order*).

<sup>74</sup> See Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, § 6002(b)(2)(A), 6002(b)(2)(B), 107 Stat. 312, 392 (1993).

be classified as PMRS under Section 332 (d)(3) of the Act.<sup>75</sup> In the case of the Business Radio Service, however, we determined that the eligibility rules are sufficiently broad to render this service effectively available to a substantial portion of the public. Consequently, classification of Business Radio Service licensees depends on whether they meet the other two elements of the CMRS definition - operating a for-profit service and interconnected with the public switched network.<sup>76</sup> As a result, we are concerned that by defining the eligibility for this consolidated pool in the same fashion as we did for the Business Radio Service, licensees (both current and future) on the old Industrial and Land Transportation frequencies (Industrial/Business Pool frequencies under consolidation) may now be deemed to offer service to a substantial portion of the public. Consequently, such licensees offering for-profit, interconnected service arguably could be classified as CMRS. Given that the rules we adopt today will not be effective for six months, we believe that the most prudent course of action is to defer resolution of this issue and fully address it in a future proceeding. In the context of this future proceeding, we will also examine the negative impact, if any, of such regulatory classification on the availability of frequencies to satisfy the communications needs of PLMR users.

### 3. Interservice Sharing

29. Under the existing rules, there are provisions that allow entities establishing eligibility under one radio service to obtain a license for a frequency in another radio service under certain conditions (interservice sharing).<sup>77</sup> Because we are eliminating the individual radio service categories and consolidating the PLMR Services into two pools, interservice sharing rules will no longer be necessary. Under consolidation, applicants will have the opportunity to apply directly for in-pool frequencies that were previously allocated to radio services other than their own. Accordingly, we will delete Section 90.176 of our Rules.

30. The existing interservice sharing rules allow for sharing between radio services in the Public Safety Radio Services (group 1). The rules also permit sharing between the Special Emergency Radio Service and radio services in the Industrial and Land Transportation Radio Services (group 2). Sharing has not been permitted, however, between radio services in group 1 and group 2.<sup>78</sup> While we believe that such sharing could increase flexibility, we do not think

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<sup>75</sup> *CMRS Second Report and Order*, 9 FCC Rcd at 1449. We reasoned that such regulatory treatment was appropriate because: (1) these services are limited under our rules to highly specialized uses for restricted classes of eligible users, and thus should not be treated as available to a substantial portion of the public for purposes of Section 332(d)(1); and (2) many of the licensees in these services operate systems solely for internal use and therefore do not meet the "for-profit" element of the definition of CMRS.

<sup>76</sup> The three prongs of the statutory definition of CMRS are (1) service must be provided on a for profit basis, (2) interconnected service is available and (3) service must be made available to the public or a substantial portion of the public. See Communications Act, § 332(d), 47 U.S.C. § 332(d).

<sup>77</sup> See 47 C.F.R. § 90.176.

<sup>78</sup> *Id.*

that it is appropriate to introduce interpool sharing at this time. Given the difficult logistics of consolidating twenty radio services into two pools, introducing additional requirements on the frequency coordinators could put undue pressures on the new two-pool system. Therefore, we will prohibit sharing between the Public Safety Pool and the Industrial/Business Pool, at least for the present time. We may revisit this issue once the consolidated system is running smoothly.

## B. Frequency Coordination

31. In stating our intention to consolidate the PLMR Services, the Commission recognized that changes may have to be made in the current frequency coordination process.<sup>79</sup> For example, we specifically raised the possibility of implementing a real-time common database for data exchange and introducing competition between frequency coordinators by allowing users to use the services of any certified coordinator in the consolidated pools.<sup>80</sup> In addition, several entities requested in their comments on consolidation and in their petitions for reconsideration that the Commission clarify the role and responsibility of frequency coordinators.<sup>81</sup> In the paragraphs below, we discuss changes in the coordination process in light of our decision to consolidate the PLMR Services into two pools. We recognize that additional changes may be necessary as we gain more experience with consolidation or if additional responsibilities are given to coordinators.<sup>82</sup>

### 1. Coordinators

32. Currently, each of the twenty PLMR Services (except SERS) has one certified coordinator<sup>83</sup> that is authorized to make frequency recommendations in that Radio Service. The coordinators are listed below.

Radio Service	Frequency Coordinator
Local Government and Police	APCO
Fire and Emergency Medical	IAFC/IMSA
Forestry-Conservation	FCCA

<sup>79</sup> See *R&O*, 10 FCC Rcd at 10106.

<sup>80</sup> *Id.* at 10105-6.

<sup>81</sup> See, e.g., Joint Pool Comments at 8-9; UTC Petition for Reconsideration at 6-8; AICC Petition for Reconsideration at 6-7. In the *MO&O* in this proceeding, we deferred discussion of issues relating to coordinator responsibilities to this *Second R&O*. See *MO&O* at para. 98.

<sup>82</sup> Matters regarding the frequency coordinators were addressed in PP Docket No. 96-17. See *Improving Commission Processes*, PP Docket No. 96-17, *Notice of Inquiry*, \_\_ FCC Rcd \_\_. We anticipate addressing our general policies and procedures regarding frequency coordination in this proceeding.

<sup>83</sup> The Special Emergency Radio Service has two certified coordinators.

Radio Service	Frequency Coordinator
Highway Maintenance	AASHTO
Special Emergency	PCIA and IAFC/IMSA
Power	UTC
Petroleum	API
Forest Products	Forest Industries Telecommunications
Film and Video Production	Alliance of Motion Picture and Television Producers
Relay Press	Newspaper Association of America
Special Industrial	Industrial Telecommunications Association
Business	PCIA
Manufacturers	Manufacturers Radio Frequency Advisory Committee
Telephone Maintenance	Telephone Maintenance Frequency Advisory Committee
Motor Carrier	American Trucking Association
Railroad	AAR
Taxicab	International Taxicab and Livery Association
Automobile Emergency	AAA

33. In consolidating these twenty radio services into two pools, we must determine the appropriate role for these coordinators. The commenters generally recommend that the Commission certify the current coordinators in the pool in which the radio service where they currently coordinate is placed.<sup>84</sup> We agree with this approach. The consolidation of twenty different radio services into two pools is a very complex undertaking. Allowing existing certified coordinators to continue their coordination functions will reduce confusion and help ensure that the public continues to receive access to vital services. Therefore, we certify current coordinators for the Public Safety Radio Services and the Special Emergency Radio Service as coordinators in the new Public Safety Pool. Similarly, we certify current coordinators in the Industrial and Land Transportation Radio Services as coordinators in the new Industrial/Business Pool.

34. In 1986, when the Commission certified a frequency coordinator in each of the PLMR Services, special emphasis was placed on the need for each coordinator to be representative of the users of the radio service in which it was certified.<sup>85</sup> Our decision to permit

<sup>84</sup> See, e.g., Coalition Comments at 5-6; Joint Pool Comments at 8; UTC Comments at 13.

<sup>85</sup> See Frequency Coordination in the Private Land Mobile Radio Services, PR Docket No. 83-737, *Report and Order*, 103 FCC 2d 1093 (1986). In following this approach, the Commission acted consistently with the Congressional directive contained in the Conference Report accompanying the 1982 Communications Amendments

each of the current certified coordinators to provide coordination service in a consolidated pool is not a rejection of this concept. Rather, we are recognizing that in many cases similarities exist in the types of systems PLMR licensees utilize. Where systems are virtually identical and user needs are similar, we believe that any of the recognized in-pool frequency coordinators, with their extensive experience and technical expertise in engineering systems and selecting frequencies, possess the ability to provide frequency coordination recommendations. Additionally, allowing frequency coordinators to serve all eligible users in their respective pool rather than only serving users that meet each radio service's eligibility requirements should minimize, if not eliminate, market entry barriers for small businesses pursuant to Section 257 of the Communications Act of 1934, as amended.<sup>86</sup>

35. We now turn to the question of whether to allow those coordinators to coordinate all frequencies in the pool. Public Safety entities oppose this open-ended approach for a Public Safety Pool. APCO and the PSWAC Transition Subcommittee, for example, recommend that the current method of frequency coordination, where each coordinator is responsible for specific frequencies, be retained.<sup>87</sup> APCO states that the present block allocations and individual public safety coordinators in the existing bands below 470 MHz provide the best method for managing frequency assignments to ensure that the vital needs of each public safety organization are satisfied.<sup>88</sup> The FCCA also supports this position, citing potential problems with abolishing the current public safety coordinator system and asserting that protection to wide-area systems and logical system planning will no longer be possible.<sup>89</sup>

36. In the non-public safety context, we received comments both opposed to and in support of allowing in-pool coordinators to coordinate all frequencies in the pool. Those opposed argue that a number of radio services have unique features and safety concerns that can only be accomplished through the expertise of a sole coordinator who is representative of the users and

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Act, which "encourage[d] the Commission to recognize those frequency coordinating committees for any given service which are most representative of the users of that service." Communications Technical Amendment Act of 1982, Report No. 97-765, 97th Congress 2d Sess., Sec. 20, at 47 (directing the Commission to recognize only representative frequency advisory committees before permitting non-representative committees to issue frequency coordinations).

<sup>86</sup> 47 U.S.C. § 257.

<sup>87</sup> APCO Position Paper on Radio Service Consolidation at 5; PSWAC Final Report, Section 4.5.5. Additionally, FCCA and IMSA/IAFC recommend that radio service consolidation be based on the findings of the PSWAC. See FCCA Reply Comments at 1; IAFC/IMSA Comments at 4.

<sup>88</sup> APCO Position Paper on Radio Service Consolidation at 1, 3.

<sup>89</sup> FCCA Reply Comments at 3-4.

intimately familiar with each group.<sup>90</sup> Those in favor contend that there is no reason that a coordinator for one radio service could not become as quickly familiar with specialized uses of spectrum for another service, and that competition among frequency coordinators would minimize the Commission's need to monitor and evaluate the performance of each certified coordinating committee.<sup>91</sup>

37. With respect to the Public Safety Pool, we generally agree with the commenters that at the present time, except as indicated below, applicants for a frequency in the new Public Safety Pool should be required to obtain coordination from the current recognized frequency coordinator for the specified frequencies.<sup>92</sup>

38. We are taking a slightly different approach regarding frequencies that are currently assigned to the Local Government Radio Service. We will allow any certified coordinator in the Public Safety Radio Services<sup>93</sup> to coordinate frequencies in the Local Government Radio Service.<sup>94</sup> This action is taken for several reasons. Frequencies in the Local Government Radio service are used routinely by Police, Fire, Highway Maintenance, Forestry Conservation and Emergency Medical (governmental entities) eligibles for both non-emergency and emergency communications. For example, in many communities Local Government frequencies may be the principal fire or highway maintenance frequencies and part of a public safety communications plan for these services. Therefore, it would seem appropriate for the fire or highway maintenance coordinator (or other public safety coordinator if those frequencies are being used in another context) to be able to provide coordination for these frequencies if they are being used in a fire or highway maintenance communications system. Further, there are a large number of 450-470 MHz frequencies allocated to all the Public Safety Radio Services. Since these frequencies are available to all public safety entities (just like Local Government frequencies) any of the certified public safety coordinators may provide coordination. Thus, there is a coordination mechanism already in place to accommodate multiple coordinators where public safety frequencies are shared between public safety eligibles. Finally, this will introduce competition, to the extent possible, into this pool which, in turn, should result in lower coordination costs and better service to the public.

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<sup>90</sup> See, e.g., Joint Commenters Comments at 1; CSX Comments at 4; AAR Comments at 23; Union Pacific Railroad Company and Missouri Pacific Railroad Company (Union Pacific) Comments at 5; ARINC Comments at 15

<sup>91</sup> PCIA Reply Comments at 10; Joint Pool comments at 8. See also, API Comments at 11.

<sup>92</sup> The Public Safety Pool frequency coordinators are listed in Appendix D.

<sup>93</sup> The restriction to current public safety frequency coordinators refers to those coordinators who are certified to coordinate radio services contained in 47 C.F.R. Part 90, Subpart B, *i.e.*, the Local Government, Police, Fire, Forestry-Conservation, Highway Maintenance, and Emergency Medical Radio Services.

<sup>94</sup> Currently only APCO can coordinate frequencies in the Local Government Radio Service.

39. As we indicated above, the integrity of the public safety services must be maintained without fail.<sup>95</sup> Having each public safety coordinator continue to manage the same frequencies and have access to all of the current Local Government frequencies, will preserve much of the *status quo*, provide coordinators access to a greater number of frequencies with which to accommodate applicants, and permit applicants to apply directly for frequencies that were previously available only through interservice sharing procedures. Also, preserving the jurisdiction of the individual coordinators over their current spectrum, while expanding access to Local Government frequencies, will help ensure consistency with local, regional, and state public safety communications plans.<sup>96</sup> This issue could be revisited in the future if a more integrated coordination system could be designed that would not impair public safety interests.

40. The Industrial/Business Pool does not present the same concerns as the Public Safety Pool. We acknowledge that eligibles in this pool use radio for safety related communications such as in the case of an accident or working in potentially hazardous situations. For the most part, however, radio is used to support business operations. Although each organization may have slightly different requirements based on the type of business they conduct, the majority of communications systems are used in a similar fashion -- for support of day-to-day business activities, such as dispatching and diverting personnel or work vehicles, coordinating the activities of workers and machines on location, or remotely monitoring and controlling equipment. In these contexts, we do not believe that radio is generally employed to respond to emergencies involving large segments of the general public. Moreover, to the extent that businesses occasionally use their radios for emergencies, we believe that such emergencies are fundamentally similar and, thus can easily be accommodated by any frequency coordinator. Therefore, except as discussed below, we will allow any in-pool coordinator to coordinate any frequency in the pool.<sup>97</sup> As a direct result of this action, we believe that further competition will be introduced into the frequency coordination process. This, in turn, should result in lower coordination costs and better service to the public. For example, we believe market forces will reduce the time it takes to obtain a coordination thereby allowing users to get on-the-air quicker. Further, the concept of allowing applicants the opportunity to select among multiple coordinators is not unique among Part 90 users. Before the band was reallocated, applicants for conventional

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<sup>95</sup> See para 15, *supra*.

<sup>96</sup> Each Public Safety frequency coordinator must be knowledgeable about the specific plans that have been established in the radio service in which they coordinate. They are not necessarily proficient in the intricacies of the plans established in the other Public Safety Radio Services. Therefore, under our approach toward consolidation, a fire company will be unable to access a police channel without first coordinating through APCO, the certified frequency coordinator for the Police Radio Service. This ensures that the fire company will not unwittingly jeopardize police safety by accessing a channel that has been allocated for specific police uses under a regional plan. See 47 C.F.R. § 90.16.

<sup>97</sup> The Industrial/Business Pool frequency coordinators are listed in Appendix D.

and trunked systems on General Category frequencies had the option of seeking frequency coordination from any of three frequency coordinators certified to recommend 800 MHz frequencies: ITA, PCIA, and APCO.

41. We recognize that within the Industrial/Business Pool, some types of radio users employ radio not just for day-to-day business needs but also to respond to emergencies that could be extremely dangerous to the general public.<sup>98</sup> Oftentimes these communications systems are employed to meet Federal regulations.<sup>99</sup> As stated *supra*, we believe maintaining the integrity of spectrum used for such public safety purposes is extremely important and using coordinators who are knowledgeable with such special communication needs is the best way to protect these systems. In this regard, there is broad support in the comments to protect operations in several radio services (Railroad, Power, and Petroleum) where radio is used as a critical tool for responding to emergencies that could impact hundreds or even thousands of people.<sup>100</sup> Although the primary function of these organizations is not necessarily to provide safety services, the nature of their day-to-day operations provides little or no margin for error and in emergencies they can take on an almost quasi-public safety function. Any failure in their ability to communicate by radio could have severe consequences on the public welfare.<sup>101</sup> For example, the failure or inability of trains to communicate with each other or a central dispatcher could result in unsafe conditions and an increased risk of derailment.<sup>102</sup> Also, utility companies need to possess the ability to coordinate critical activities during or following storms or other natural disasters that disrupt the delivery of vital services to the public such as provision of electric, gas, and water supplies.<sup>103</sup> Because interruptions in the ability of these entities to communicate could

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<sup>98</sup> In their comments to the Blueprint, UTC states that if a two-pool plan is adopted, utility and pipeline operations must be protected. See UTC Comments to Blueprint at 12.

<sup>99</sup> For example, Department of Transportation regulations require high-reliability communications systems and secondary communications systems for the operation of high pressure natural gas pipelines. See 49 C.F.R. §§ 194, Appendix A, 195.401(a), 195.402(c), and 195.408.

<sup>100</sup> For example, API, in their consolidation plan, placed these frequencies in a separate Industrial Safety Pool. See API Supplemental Comments at 4-10. Also, the Joint Pool, in their two pool plan advocates the protection of special use frequencies, such as slave locomotive control and fixed point-to-point telemetry frequencies used by the railroads and oil spill cleanup frequencies used by petroleum companies. See Joint Pool Consolidation Proposal at 6.

<sup>101</sup> See, for example, Letter from Jolene M. Molitoris, Administrator, U.S. Department of Transportation, Federal Railroad Administration to Reed Hundt, Chairman, Federal Communications Commission (Dec. 12, 1995). See also Letter from Jim Hall, Chairman, National Transportation Safety Board to Reed Hundt, Chairman, Federal Communications Commission (Dec. 15, 1995).

<sup>102</sup> AAR Comments at 3.

<sup>103</sup> UTC Comments at 7.

detrimentally affect the public welfare, we believe that it is important to maintain the integrity of communications on radio spectrum used for railroad, power, and petroleum operations.

42. Therefore, for the time being, entities who apply for frequencies which are currently allocated solely to the Railroad, Power, or Petroleum Radio Services<sup>104</sup> must obtain coordination from the current certified frequency coordinator for the respective service.<sup>105</sup> We expect, however, that these coordinators will make every effort to accommodate all applicants on these frequencies, regardless of the type of business they conduct.<sup>106</sup> We believe that using coordinators who are knowledgeable with such special communication needs is the best way to protect these operations, which involve safety-related communications, and outweighs any potential benefits that may be gained through a competitive frequency coordination process. For frequencies in the Railroad, Power, or Petroleum Radio Services that are also allocated to another radio service, however, entities may utilize the services of any certified frequency coordinator in the Industrial/Business Pool.<sup>107</sup> The alternative would be to require entities in the radio services where the frequencies are shared to go through a different coordinator than they do now.

## 2. Technical Coordination Procedures

43. The consolidation of the PLMR services and the introduction of multiple coordinators raise concerns of unfair coordinations and coordinator shopping. AICC and AAA contend that users will be motivated to seek out the recommendations of as many frequency coordinators as necessary to achieve the desired final outcome.<sup>108</sup> UTC shares this belief and recommends the adoption of sufficiently narrow frequency coordination procedures.<sup>109</sup> Additionally, commenters emphasize that standardized coordination procedures are necessary so

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<sup>104</sup> In the R&O, new interleaved channels (6.25, 7.5, or 12.5 kHz) that fell between existing channels allocated to a single service were assigned to that same service.

<sup>105</sup> We may revisit this issue once we obtain more experience with the new coordination system or when we address the issue of exclusivity raised in the *Further Notice* portion of the R&O. See para 31.

<sup>106</sup> For example, the railroads report that they granted 360 out of 567 interservice sharing requests between 1989 and 1995. See *Affiliated American Railroads Comments to Blueprint* at 13.

<sup>107</sup> For example, the frequency 451.175 MHz is currently allocated to the Power, Petroleum, Forest Products, Manufacturers, and Telephone Maintenance Radio Services. Therefore, this frequency can be coordinated by any certified frequency coordinator in the Industrial/Business Pool. However, the frequency 451.125 MHz which is allocated solely to the Power Radio Service may only be coordinated by the current certified frequency coordinator for the Power Radio Service.

<sup>108</sup> AICC Comments at 4; AAA Comments at 4.

<sup>109</sup> UTC comments at 13. We have already stated in para. 32, *supra*, that each current coordinator will be certified to coordinate only within the pool in which their radio service has been placed.

that each coordinator does not need to review every application.<sup>110</sup> We agree that standard coordination procedures are needed. We believe that a minimum set of technical coordination procedures to which all frequency coordinators must adhere is the least burdensome method of providing all members of the PLMR community with confidence that all new and existing radio systems will be adequately protected from interference. A minimum set of coordination procedures will also alleviate concerns of coordinator shopping. Rather than establish specific procedures at this time, however, we believe that the coordinators should attempt to reach consensus themselves on the applicable coordination procedures. We understand that this process takes time. In this regard, we note the efforts of Telecommunications Industry Associations (TIA) Working Group 8.8 (WG 8.8), which has been developing technical procedures for the frequency coordination process. Participants in the TIA project represent all facets of PLMR, including radio manufacturers, frequency coordinators, and users. At this time, a draft report titled, "Report on Technology Independent Methodology for the Modeling, Simulation, and Empirical Verification of Wireless Communications System Performance in Noise and Interference Limited Systems Operating on Frequencies Between 30 and 1500 MHz" is undergoing the review and approval process. It is expected that this report will be approved by TIA in the near future. Given the progress of the TIA WG 8.8 and the potential harm that could befall clients' systems from a lack of technical coordination procedures we are confident that the frequency coordinators will reach an agreement on such procedures quickly. Nevertheless, as stated *supra*, we will postpone the implementation of the consolidated pools until six months after publication in the Federal Register.<sup>111</sup>

### 3. Data Exchange

44. When we concluded in the *R&O* that consolidation was necessary, we also expressed our intent to foster competition in the frequency coordination process.<sup>112</sup> We asked users and frequency coordinators to provide guidance on how existing databases could be shared to ensure fair competition among all frequency coordinators.<sup>113</sup> We also asked the PLMR industry to explore creating and implementing a real-time common database to reflect frequency assignments as expeditiously as possible.<sup>114</sup>

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<sup>110</sup> Joint Pool Comments at 9; PCIA Reply Comments at 11.

<sup>111</sup> See para. 21, *supra*.

<sup>112</sup> See *R&O*, 10 FCC Rcd at 10105-106.

<sup>113</sup> *Id.*

<sup>114</sup> *Id.*