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

PR Docket No. 87-213

In the Matter of

Trunking in the Private Land Mobile Radio Services for More Effective and Efficient Use of the Spectrum — RM-5398

REPORT AND ORDER

Adopted: June 14, 1990; Released: July 2, 1990

By the Commission:

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I. INTRODUCTION

1. This Commission has before it a *Notice of Proposed Rule Making (Notice)* [1] that proposed rule changes to increase the number of frequencies available for trunked technology in the 800 MHz frequency band.[2] The *Notice* was the result of an earlier *Notice of Inquiry (Inquiry)* [3] that discussed the available options for furthering the use of trunked radio systems in the private land mobile radio services.

II. BACKGROUND

2. Generally, there are two types of systems licensed in the private land mobile services -- conventional and trunked systems. Conventional systems are distinguished from trunked systems primarily by the number of channels employed by the respective systems and the method of user access to the channels. Conventional systems, the more common of the two, are authorized in all private land mobile frequency bands. A conventional system usually has a single channel (a frequency or frequency pair), but may be authorized more than one channel. A conventional system user consciously chooses the channel on which to transmit and manually selects that channel.

3. Trunked systems, on the other hand, are currently only authorized on frequencies above 800 MHz. A trunked system usually employs five or more channels (frequency pairs). A trunked system user who wants to transmit is automatically routed by a computer to the first available channel or, if no channel is available, is placed in a waiting line (queue) to be served in turn. A trunked system, for efficiency reasons, has historically operated with total control of all channels used by the system.[4]

Because of this, a trunked system receives exclusive use of its licensed channels in its area of operation at the time the license is granted. A conventional system, on the other hand, can receive exclusive use of a channel above 800 MHz only after it has "loaded" at least 70 mobile units on the channel, and then only if no other existing conventional system already shares that channel.[5]

4. Trunking technology was first introduced in the private land mobile radio services in 1974 concurrent with the allocation of 600 channel pairs in the 800 MHz band.[6] In that action, we designated 100 of these 600 channel pairs for conventional use only and 200 channel pairs for trunked operation only. The remaining 300 channel pairs were kept in reserve. It was not long, however, before there were shortages of conventional channels. As a result of these shortages, we released an additional 50 of the 300 reserve channels for conventional use bringing the total number of conventional channels to 150.[7] These are the channels we proposed to convert to a General Category in the *Notice*.

5. Trunked operations were slower to develop because of the lack of available equipment and relatively high cost. As the efficiency of trunked equipment became apparent, the number of radio systems using this technology grew rapidly. In 1979 the demand for trunked frequencies exceeded the supply in certain major metropolitan areas, requiring the Commission to initiate waiting lists for those areas.[8] The greatest demand for trunked frequencies came from Specialized Mobile Radio (SMR) operators.[9]

6. In response to the demand for additional frequencies for trunked systems, we released the remaining 250 private land mobile channel pairs in 1982.[10] Unlike the 1974 allocation, the new channels were not divided according to system technology but instead were grouped according to broad service categories.[11] Applicants in each of these categories were allowed the flexibility to use either trunked or conventional systems. Although the SMR category was provided 80 of the 250 channel pairs, this allotment was still insufficient to meet the growing demand for SMR systems in many of the large urban areas.

7. In the past, we have taken numerous steps to help meet the demand for 800 MHz systems and to ensure that 800 MHz spectrum is being used efficiently. For example, we instituted a channel recovery program to recover underutilized 800 MHz frequencies.[12] These recovered channels are then made available to other users for system expansion or for new systems. We have adopted rules allowing intercategory sharing[13] on a limited basis and have allowed the partial assignment of trunked SMR authorizations.[14] We have also allocated additional spectrum from the 900 MHz reserve to the private land mobile services.[15] This 900 MHz spectrum can be used to establish new trunked systems, but it cannot be used to expand existing 800 MHz trunked systems because of incompatibility of current equipment.

8. While all of these steps have helped to satisfy some of the growing demand for private land mobile communications, the general scarcity of 800 MHz spectrum available for trunked operation is still a problem in many parts of the country, particularly for SMR operations. This is why we adopted the *Notice* in this proceeding to consider making more efficient use of existing private land mobile spectrum by expanding the use of both trunking and intercategory sharing.

III. COMMENTS

9. We received ten comments and seven reply comments in response to the *Notice*.[16] We believe the comments we received delineate a number of distinct issues we must address in this document. We have structured the following discussion to address each of these issues. They are: (1) whether to create a General Category; (2) whether trunked systems may expand using unassigned General Category frequencies; (3) whether trunked systems may combine with General Category conventional systems; (4) whether General Category conventional systems may convert to trunked operation, individually (in the case of a multiple-channel conventional system) or by combining with other conventional systems; (5) whether new trunked systems may be created using unassigned General Category frequencies; (6) how to coordinate General Category trunked system applications; (7) whether to allow creation of new out-of-category trunked systems in pools other than the General Category; and (8) whether to expand inter-category sharing at 900 MHz to foster trunked use. Analysis of the comments and discussion of the bases for our decisions in the context of each respective issue raised in the *Notice* follows.

IV. CREATING A GENERAL CATEGORY

A. Proposal.

10. The single most significant proposal in the *Notice* was to allow trunked operation on a regular basis on the 150 frequencies listed in Section 90.615 of the Commission's Rules. These frequencies are currently only available for conventional use.[17] We proposed to redesignate this group of 800 MHz conventional channels as the General Category, available to all Part 90 eligibles for both conventional and trunked use. We proposed to allow trunked operation on these frequencies to encourage more efficient technology and to promote spectrum use.

B. Comments.

11. Most of the commenters, including the American Petroleum Institute (API), the American SMR Network Association, Inc. (ASNA), the Associated Public-Safety Communications Officers, Inc. (APCO), the Manufacturers Radio Frequency Advisory Committee, Inc. (MRFAC), and Motorola, Inc. (Motorola), support the overall concept of converting these 150 channels into a new General Category in which both conventional and trunked systems would be permitted. This support is based generally upon spectrum efficiency considerations and expanded user choice.

12. The Special Industrial Radio Service Association, Inc. (SIRSA), on the other hand, opposes converting these 150 channels into a General Category on the basis that this would constitute de facto conversion to trunked systems and/or to exclusive SMR use. SIRSA believes that the proposed rules "would extend to SMR operators the opportunity to 'capture' virtually all of the 800 MHz channels currently designated as conventional." SIRSA envisions a "'free-for-all' in which the SMR operators will be able to inundate the Private Radio Bureau's Licensing Division with applications more quickly and in greater numbers than any other class of applicants."[18]

13. The National Association of Business and Educational Radio, Inc., (NABER), disagrees with SIRSA. NABER states that in major urban areas trunked spectrum is essentially exhausted and, to the extent conventional users are loaded and want greater spectrum efficiency, they should have the option of converting to trunked systems. NABER believes that loading requirements we proposed as conditions precedent to trunking in the General Category would assure that sufficient spectrum would remain in smaller markets for future users of conventional systems.[19] ASNA maintains that private land mobile entities are opting increasingly for trunked rather than conventional systems, and that the Commission is merely recognizing this by allowing trunking in the proposed General Category. ASNA contends that SMR systems don't take frequencies out of circulation, but rather support an increased number of end user units.[20]

14. The American Association of Railroads (AAR) and the Utilities Telecommunications Council (UTC) oppose creation of a General Category in which users of each of the four service categories may choose between conventional and trunked systems. Instead they favor dividing the 150 conventional frequencies among the four service categories (AAR would have a fifth category that was not service-related but reserved for continued conventional use only).[21]

C. Discussion.

15. After carefully analyzing SIRSA's arguments, we do not agree that our proposal to create a General Category would constitute a de facto reallocation or conversion of these 150 channels to the SMR service. Licensees in the General Category will not be required to become SMR operators, nor will the spectrum be dedicated exclusively for SMR use. SIRSA also contends that creation of a General Category would constitute a de facto reallocation or conversion of these 150 channels to trunked systems. To the contrary, the proposal actually provides more freedom of choice, because each General Category licensee will be able to choose whether to operate a conventional or a trunked system.

16. In the *Notice* we considered dividing the original 150 conventional frequencies among the various service categories as AAR and UTC would have us do, but we opted for the General Category approach instead. Our preliminary view expressed in the *Notice* was that dividing these frequencies among service categories would be administratively difficult because of the variety of users currently on these frequencies. We find that the alternative approach advocated by AAR and UTC needlessly adds complexity to our proposal. Moreover, this approach would not foster the most efficient use of the spectrum in which user demand spurs use of these channels.

17. We are therefore adopting rules to create a General Category. We are taking the 150 channels currently set aside exclusively for conventional use and making them available for conventional or trunked use to all categories of eligible users in the 800 MHz band. Each private land mobile licensee in the General Category will be free to choose whether to operate a trunked or a conventional system. When we adopted rules releasing 800 MHz spectrum, we created a separate category for conventional use because we believed at that time that this was the minimum practicable subdivision required to "promote the fullest and most efficient utilization of radio frequencies."[22] We now find that this subdivision is no longer necessary to achieve this end, and may even currently be inhibiting it. Allowing eligibles of all categories continued access to the new General Category is consistent with our original allocation scheme, based upon "open entry to the market and competition among users . . . on a fair basis."[23]

18. These 150 channels were originally set aside exclusively for conventional use to ensure that certain communication needs not suitably met by the application of trunked technology would be addressed. Maintenance of our existing spectrum pools by category of eligibles, together with a new General Category for all eligibles, will allow licensees to continue to meet communication needs most suitably addressed by conventional systems. Many private land mobile users have exhibited a desire for certain features of trunked systems and continually face increased spectrum scarcity. Allowing trunking on these frequencies will permit use of additional frequencies in areas where all other opportunities to trunk 800 MHz spectrum are unavailable and will provide for a generally more efficient technology.

V. EXPANDING TRUNKED SYSTEMS USING UNASSIGNED GENERAL CATEGORY FREQUENCIES

A. Proposal.

19. We proposed that under certain conditions licensees of existing fully-loaded[24] trunked systems in any of the four service categories could access unassigned frequencies in the General Category. To qualify to add unassigned General Category frequencies, we proposed that the applicant's own category coordinator must verify there are no available frequencies in the applicant's service category (or for SMRs that the applicant submit a statement that no frequencies are available, with the existence of the most recent SMR waiting list accepted as proof). We further proposed that the resulting trunked system could have no more than one channel in addition to the number of channels current loading warrants.[25]

B. Comments.

20. The comments generally support allowing expansion of existing trunked systems in any of the four service categories by using unassigned General Category frequencies.[26] In expressing its support, Motorola specifically endorses the requirement that in-category frequencies be exhausted and the requirement that channel recovery actions begin with General Category Channels.[27] NABER also endorses emphasis upon General Category channels in channel recovery actions while commenting favorably on the proposal.[28] ASNA supports the concept of removing an applicant from an area's SMR waiting list if it is not fully loaded after expanding through the use of General Category frequencies.[29] Motorola best sums up the comments in favor of allowing expansion of existing trunked systems on unassigned General Category frequencies when it says:

> Existing loaded trunked systems are, simply stated, proven entities for the users and the industry.[30]

C. Discussion.

21. We are adopting our proposal to allow expansion of existing trunked systems in any of the four service categories by using unassigned General Category frequencies. We believe that this furthers the primary objective of this proceeding, namely, to make more efficient use of the existing 800 MHz band allocation and to do so as quickly as possible to provide relief to 800 MHz users.

22. We are also requiring entities that seek expansion of existing trunked systems by using unassigned General Category channels to first meet the criteria set forth in our intercategory sharing provisions governing the use of unassigned frequencies in one service category by eligibles in another service category for system expansion.[31] These criteria, essentially conditions precedent to access to spectrum outside of an applicant's category, were designed to minimize the likelihood that in-category users could be adversely affected by making unassigned spectrum in a category available for users in other categories.[32] Similarly, we want to minimize the likelihood that conventional users in the General Category would be adversely affected by making unassigned spectrum in that category available for trunked system expansion. Also, we are adopting rules that require removal of an applicant from the SMR waiting list for an area if it obtains the maximum number of additional General Category channels possible for its trunked system under the new rules (i.e., loading plus one).[33]

VI. COMBINING CONVENTIONAL GENERAL CATEGORY SYSTEMS WITH TRUNKED SYSTEMS

A. Constructed Systems.

23. *Proposal.* We proposed to allow a constructed conventional system using General Category frequencies to combine with a trunked system loaded to 70 mobiles per channel in order to expand the trunked system, by assignment of either of the two systems to the other. We further proposed that the resultant trunked system would receive the expiration date of the conventional system and be limited in size to one more channel than its loading warrants. The trunked system's frequency coordinator would be required to verify that there are no available frequencies in its service category (an SMR system would be required to provide a statement that no frequencies are available in its geographic area).

24. Additionally, we proposed that the assignee would lose its place on the SMR waiting list for the geographic area in which it receives the assignment if it obtains the maximum number of channels allowed. The assignee would have to use the frequencies received at its trunked system's primary site. Where the assignor does not have exclusive use of the channel(s) assigned, the assignment application would have to include a signed statement listing all affected co-channel licensees verifying that they all have agreed to use of the General Category frequency by the assignee as part of a trunked system.

25. *Comments.* Commenters generally support the concept of combining constructed conventional systems in the General Category with loaded trunked systems in any other category.[34] APCO supports this and other aspects of our proposal but adds that existing public safety users in the General Category should receive channel exclusivity regardless of their current loading.[35] API "does not believe that SMRs should be allowed to acquire, indiscriminately, all of the general access channels that are already in use in an area, whether for expanding existing SMRs or establishing new ones."[36]

26. With respect to implementation of the proposal, ASNA supports giving the resultant system the expiration date of the conventional system. On the other hand, Motorola recommends giving the resultant trunked system a new 5-year license grant.[37] NABER expresses specific support of the proposal to limit any resultant trunked system to no more than one channel more than its loading warrants.[38] Motorola agrees that the existing trunked system licensee should establish that no in-category frequencies are otherwise available to expand the system.[39] Both Motorola and ASNA favor requiring the resultant trunked system to use any frequencies received at its primary site.[40]

27. With regard to the combining of constructed General Category systems on frequencies licensed to multiple users with out-of-category trunked systems, commenters concur with our proposal to require an assignment application to include a signed statement listing all affected co-channel licensees verifying that they all have agreed to the proposed assignment.[41] ASNA agrees with our proposal because it would give co-channel licensees an absolute right to veto this type of use, thus preserving the rights of any licensees that may anticipate objectional interference, yet at the same time allowing for flexibility.[42] NABER believes that trunking on frequencies shared by other conventional users can work where: (1) there is at least one "home" channel in the trunked system that is not shared; (2) a receiver is tied into the trunked repeater to monitor others' use of the channel; (3) the trunked system has a delay built into the system for the shared channel to enable the co-channel licensee to complete its conversation; and (4) the co-channel licensee concurs as provided by this proposal.[43] Additionally, Motorola supports the general principle that licensees should be permitted to negotiate any sharing arrangement where the technical obstacles can be resolved.[44]

28. *Discussion.* With certain modifications, we are adopting rules as proposed to allow a constructed conventional system on General Category frequencies to combine with an existing trunked 800 MHz system to expand the trunked system. We are adopting these rules because expansion of existing trunked systems promotes spectrum efficiency. The reasons we have decided to allow system expansion on unused channels in the General Category also warrant allowing the expansion of trunked systems by combining them with constructed General Category conventional systems.

29. Changes to our proposal include adoption of Motorola's suggestion that we authorize a new 5-year grant without an additional loading requirement for the resultant trunked system. This approach creates the least burden for licensees without jeopardizing any public interest considerations. The resultant trunked system after such an assignment may have no more than one more channel than its loading justifies. Typically, that channel will be partially loaded. Thus, at the instant of the assignment the system would be sufficiently loaded to avoid channel cancellation, and the only prospective instance in which automatic channel cancellation could occur as a result of failure to meet loading requirements would be if the system's loading decreased. The requirement that the resultant system after assignment may have only one more channel than loading warrants maintains spectrum effi-

ciency without the need for any additional loading or licensing constraints. We are adopting rules that require that any resultant system that includes a General Category frequency may not operate in the trunked mode on that frequency unless all affected co-channel licensees agree to such use.

30. We are adopting rules requiring that assigned frequencies be used at the trunked system's primary site as proposed. We note, however, that PR Docket No. 89-553 proposes to create national SMR licenses at 900 MHz that would be exempt from the 40-mile rule and also proposes permitting licensees of rural systems using 800 MHz and 900 MHz SMR frequencies to have multiple, unloaded base stations within 40 miles of each other. The multiple-site rural SMR systems would still have a primary site, but all frequencies would not have to be located there -- a maximum of ten frequencies could be located within 40 miles of the primary site.[45] We are not prejudging the outcome of PR Docket No. 89-553 by adopting the primary site requirement in this proceeding -- for that requirement at this time is merely consistent with the existing rules. Should the proposals in PR Docket No. 89-553 be adopted, they will in all likelihood have some effect upon the rules we are adopting in this proceeding.

31. In addition, we are taking this opportunity to clarify the partial assignment rules to make clear that an intercategory channel may be partially assigned only to an applicant that independently qualifies for that channel. Such an applicant must be either: (1) a member of the category for which the channel is allocated; or (2) a member of a category other than that for which the channel is allocated that in its own right qualifies to obtain the channel by intercategory sharing. We view the partial assignment of an out-of-category channel to another out-of-category entity as intercategory sharing. The assignee of such a channel is subject to the provisions of Section 90.621(g).[46]

B. Unconstructed Systems.

32. *Proposal.* We also proposed to allow licensees of conventional stations in the General Category that have not been constructed to assign their frequencies to licensees of trunked systems loaded to 70 mobiles per channel for use as trunked frequencies with the assignee's trunked system. We proposed the same restrictions on such an assignment as for constructed systems, with the additional provision that assignors of unconstructed systems must show that they are not speculating in private radio licenses.

33. *Comments.* Motorola, APCO, API, UTC, AAR, NABER and ASNA all oppose allowing assignment of unconstructed General Category conventional systems. NABER comments that this proposal invites spectrum warehousing, channel hoarding and speculation by applicants that have no real interest in constructing a system.[47] ASNA suggests that the proposal is contrary to Congressional intent and would invite spectrum speculation.[48] No commenter supports this aspect of our proposal.

34. *Discussion.* In the *Notice* in this proceeding we proposed to permit the assignment of conventional systems in the General Category that are unconstructed or not yet placed in operation.[49] Since our adoption of this proposal we stated that there may be instances where the benefits to the public of preventing the free transferability of unbuilt facilities may outweigh the benefits of allowing the free transfer of such facilities.[50] We are persuaded by the commenters that such a balancing test at this time weighs against free transferability. For 800 and 900 MHz private land mobile systems, we hold that public interest considerations with respect to avoiding misuse of the Commission's rules and possible abuse of process militate against the rules we originally proposed. We decline to adopt the rules that we proposed to permit the assignment of conventional systems in the General Category that are unconstructed or not yet placed in operation. In this regard, we intend to aggressively enforce Section 90.633 of our Rules requiring that conventional 800 MHz systems be placed in operation eight months after the date of grant of the license for the system.

VII. CONVERTING CONVENTIONAL SYSTEMS IN THE GENERAL CATEGORY INTO NEW TRUNKED SYSTEMS

A. Proposal.

35. We proposed to allow licensees of conventional systems in the General Category to convert those systems to trunked systems either by (1) choosing to trunk their existing systems, or (2) combining with licensees of other conventional systems in any category (including the General Category) and trunking over all the combined channels. We further proposed that if any of the conventional frequencies being trunked are not licensed on an exclusive basis, the application must include a signed statement listing all affected co-channel licensees and verifying that they have agreed to the proposal. For administrative reasons we proposed to treat any combining as a license modification resulting in one licensee for the trunked system. We proposed to require that all frequencies being trunked together must be located at a primary site. Where conventional systems are combined and converted into a single trunked system we proposed that all channels become part of the new trunked system with no penalties for loading deficiencies at the time of the combining. We further proposed to calculate loading deadlines for any trunked system created by combining and converting conventional systems from the original grant dates of each of the licenses being combined.

B. Comments.

36. Motorola supports permitting the conversion of conventional systems in the General Category to trunked systems, but would only allow loaded systems to combine for this purpose.[51] ASNA concurs that only loaded conventional systems should be permitted to combine in order to derive maximum spectrum utilization and to deter speculators.[52] NABER also supports allowing conversion of conventional systems in the General Category to trunked systems, but would impose a restriction to limit any trunked system resulting from the combining of two or more conventional systems to no more than one channel more than current loading warrants in order to prevent spectrum hoarding.[53] ASNA and NABER are concerned that numerous conventional systems could be licensed for the sole purpose of subsequently creating a larger trunked system than could be initially established under the existing rules. SIRSA supports our proposals to allow the conversion of existing General Category conventional systems to trunked systems.[54]

37. UTC and Motorola support a requirement that the applicant submit a signed statement listing all affected co-channel licensees and verifying that they have agreed to the proposal. ASNA supports requiring any combining to produce only one licensed entity.[55] Motorola and NABER oppose this requirement as precluding multiple licensed trunked community repeaters.[56] ASNA supports calculating loading deadlines from the original grant dates of any licenses being combined.[57] To the contrary, Motorola believes each new trunked system created by combining should receive a new 5-year grant (consistent with its position that only loaded conventional systems should be combined to form trunked systems).[58] Motorola and ASNA support a requirement that conventional frequencies converted to trunked use be located at a primary site.[59]

C. Discussion.

38. We are adopting rules to allow the conversion of conventional systems in the General Category to trunked systems, either by (1) trunking their existing systems, or (2) by combining one or more conventional systems in the General Category with conventional systems in the General Category or any other Category, with some modifications to our original proposal. The regulatory flexibility inherent in permitting conversion of existing conventional systems to trunked systems will allow the creation of new, more spectrum efficient systems that can provide additional communications capabilities.

39. We recognize that a licensee of a conventional system that intends to trunk the system may wish to maximize the number of channels available for trunking. Rules that permit General Category conventional systems to convert to trunked systems should not place licensees of conventional systems that wish to expand at a disadvantage with respect to existing trunked systems that wish to expand. Therefore, to be consistent, we will, as a matter of policy, accept an application from a General Category licensee to add unassigned General Category channels to a conventional system and convert it to a trunked system. We will also require that the resultant trunked system have no more than one channel in addition to the number of channels current loading warrants.

40. Many commenters express concerns related to maximizing spectrum use and preventing spectrum hoarding if we permit conventional systems to combine and convert into new trunked systems. Some commenters maintain that loading of conventional systems should be a condition precedent to combining those channels to form new trunked systems. Others, like NABER, recommend allowing conventional systems to combine regardless of current loading, but instead mandating that the resultant trunked system may have a maximum of one channel more than its loading warrants.

41. Spectrum efficiency considerations warrant encouraging trunking of conventional systems where desired. Therefore, we will permit any conventional system in the General Category to combine with one or more other conventional systems in the General Category or any other category to form a trunked system, no matter what each conventional system's loading may be. We will, however, require that at the instant of combining the resultant trunked system may have no more than one channel more than the total loading of all the combining systems warrants.

42. Many commenters favored new five-year license grants for the resultant trunked system formed by combining two or more conventional systems and converting them to trunked use. We are adopting rules to this effect for the same reasons that we adopted such rules with respect to the assignment of conventional General Category frequencies to fully loaded trunked systems. Because we require that trunked systems created as a result of combining two or more conventional systems and converting them to trunked use have no more than one more channel than loading warrants, there is no need to monitor loading progress at an early date by specifying an abbreviated license expiration date.

43. We are also modifying our proposal by adopting rules that give licensees combining conventional systems and converting them to trunked use a choice between: (1) filing license modifications that result in one licensee or, instead, (2) filing applications to become multiple licensees of non-SMR trunked community repeaters. This is in response to Motorola's comments that correctly pointed out that our proposed rules requiring one licensee as a result of combining two or more conventional systems and converting their channels to trunked use would have foreclosed the option to create a multiple licensed trunked system -- an option that has otherwise been available to users of private land mobile trunked systems above 800 MHz.

44. Additionally, we are adopting rules requiring that frequencies converted from conventional to trunked use must be located at the trunked system's primary site.[60] Where one or more of the channels to be combined is a General Category channel shared by multiple users, each of the other users of the channel must consent to the use of the channel as part of a trunked system.[61] Trunked systems above 800 MHz authorized to use General Category channels with the consent of existing co-channel users will, from that point forward, be accorded channel protection on those General Category channels consistent with the provisions of Section 90.621(c), with the exception of the already-existing co-channel users.

VIII. CREATING NEW TRUNKED SYSTEMS BY USING UNASSIGNED GENERAL CATEGORY FREQUENCIES

A. Proposal.

45. We proposed to allow entities eligible for any of the four service categories to create new trunked systems using no more than five unassigned trunked General Category frequencies after licensees of existing trunked systems have had six months to seek access to the General Category to expand their systems under the rules to be adopted in this proceeding. We proposed requiring each entity to file a new application even if it is currently on the SMR waiting list to create a new system in that area.

B. Comments.

46. Motorola, NABER, API and ASNA oppose trunking of unassigned General Category frequencies to create new trunked systems.[62] ASNA states that "permitting such operations would adversely impact the legitimate needs of non-commercial eligibles, as well as exacerbate the spectrum shortage for the expansion of existing systems."[63] UTC, on the other hand, "has no objection to the establishment of new trunked systems on General Category frequencies. However, UTC recommends that applications

for new trunked systems be delayed for at least one year in order to give licensees of existing trunked systems adequate time to plan and apply for expansion channels."[64]

C. Discussion.

47. We decline to adopt rules proposed in the *Notice* that would have permitted creation of new five-channel trunked systems on unassigned General Category frequencies six months after all of the other proposed rules would have gone into effect.[65] Adoption of these rules could adversely affect the other actions we are taking in this proceeding to provide spectrum relief to expanding trunked systems and to permit conventional systems to convert to trunked technology or combine with existing trunked systems to take advantage of trunked technology. We are, however, adopting rules that provide for new trunked systems on General Category frequencies by implementing criteria akin to our current intercategory sharing requirements. For instance, an applicant could create a conventional General Category system, load it, and then obtain one channel more than loading warrants and convert it to a trunked system. *See* new Section 90.615(b)(1), Appendix B.

IX. COORDINATING GENERAL CATEGORY TRUNKED USE

A. Proposal.

48. We proposed that an application to expand existing trunked systems in any of the four service categories by using unassigned General Category frequencies be coordinated by one of the three recognized category coordinators in the 800 MHz band. To be consistent, we further proposed that an application to create a new trunked system in the General Category must also be coordinated by one of the three category coordinators recognized above 800 MHz. The rules that we proposed mandated that the criteria for coordination of trunked systems in the General Category would be the same as the criteria for coordination of non-SMR 800 MHz trunked systems. *See* 47 C.F.R. § 90.621(c).

49. We proposed that an application to assign a conventional system in the General Category to a trunked system would have to be coordinated by the coordinator in the service in which the assignor's system is licensed (except where the assignor is an SMR, in which case any of the three category coordinators recognized above 800 MHz could be used). We also proposed that applicants seeking to combine conventional systems to form new trunked systems in the General Category use the coordinator for any category involved in the combining.

B. Comments.

50. ASNA supports our proposal to allow any of the three category coordinators recognized above 800 MHz to coordinate applications for new or expanded trunked systems on unassigned General Category frequencies.[66] ASNA states that by way of analogy under the current rules and procedures an SMR that wants an additional frequency through inter-category sharing may submit its application through any qualified coordinator. [67]

51. With respect to coordination of applications to expand trunked systems on in-use General Category frequencies, ASNA supports our proposal to require coordination by the assignor's coordinator, except for assignor-SMR systems that would use any of the three recognized coordinators above 800 MHz.[68] Motorola opposes use of the assignor's coordinator and instead recommends use of the assignee's coordinator on the basis that it is simpler and more consistent for a licensee to deal with its own category coordinator.[69]

52. APCO opposes allowing any of the three recognized category coordinators above 800 MHz to coordinate applications for new or expanded trunked systems on General Category channels because it believes that applicants would shop for the lowest fee. APCO recommends instead that there be joint coordination for this type of application for SMR systems by all three recognized category coordinators above 800 MHz with "a reasonable, standardized fee."[70]

53. NABER also opposes allowing any of the three recognized category coordinators above 800 MHz to coordinate applications for new or expanded trunked systems on General Category channels because it is of the view that it is already the designated coordinator for applicants seeking conventional-only SMR systems on these 150 channels. NABER maintains that multiple coordinators will result in spectrum shopping and simultaneous filings with confusion and delay.[71]

C. Discussion.

54. To date, licensing in what will now be the General Category has been based upon type of technology used rather than the category of eligible user. This is why we currently allow all three category coordinators above 800 MHz to coordinate their respective eligibles on these 150 channels.[72] Each coordinator is expected to coordinate with the other two before it sends a recommendation to the Commission for use of any of these 150 channels.

55. NABER is correct in noting that it has been designated the coordinator for conventional SMR base stations in the original 150 conventional 800 MHz channels that we now are converting to the General Category.[73] This is, however, a limited role at best. Our proposals greatly expand the need for SMR coordination with the substantial changes we are making by allowing trunking of these frequencies. While there has been no apparent dissatisfaction with NABER's limited role as a coordinator in its capacity of coordinating single channel SMR base stations associated with SMR conventional systems, regular coordination of trunked systems, SMR or not, is a new and substantial function in this spectrum.

56. Therefore, we are adopting rules requiring that applications for trunked systems that include anticipated operation on any General Category frequencies must be coordinated. The coordination may be performed by any of the three recognized category coordinators above 800 MHz.[74] Each of the recognized coordinators above 800 MHz, NABER, SIRSA and APCO, have mechanisms in place to engage in large-scale coordination of this type in this band. Moreover, providing for choice among these three coordinators for expansion of trunked systems in this band should not result in any significant inefficiency, confusion or delay. Procedures are already in place for cross-notification among the three 800 MHz coordinators in this spectrum when a recommendation is made by one.

57. The adoption of these rules for coordination of trunked systems that contemplate use of General Category frequencies has no effect upon current rules and procedures for coordination of conventional systems in the 150 channels that will now be known as the General Category.[75] Where applications for trunked use of General Category frequencies involve combining these frequencies with out-of-category frequencies, the Commission rules and policies for choice of coordinator for the out-of-category frequencies are controlling. Where applications for trunked use of General Category frequencies involve combining these frequencies with multiple out-of-category frequencies, and Commission rules and policies for choice of coordinator conflict, then the applicant may choose any recognized land mobile category coordinator above 800 MHz.

X. DECLINING TO CREATE NEW OUT - OF - CATEGORY TRUNKED SYSTEMS IN POOLS OTHER THAN THE GENERAL CATEGORY

A. Proposal.

58. In the *Notice* we considered but rejected allowing prospective SMR licensees to apply for new SMR systems to be created by combining and trunking unused frequencies in the 800 MHz Business and Industrial/Land Transportation Categories. We also considered but rejected proposing to allow SMR systems in the SMRS Category to expand using frequencies in the Public Safety Category.[76] We tentatively concluded that these actions could reduce the number of frequencies available for in-service users and the number of frequencies that could be used for expansion of 800 MHz trunked systems, risking denial of the legitimate needs of category eligibles.

B. Comments.

59. NABER and UTC support our tentative conclusion not to allow expanded or new SMR systems on unused out-of-category frequencies other than frequencies in the General Category.[77] ASNA concurs with this assessment on the basis of spectrum efficiency and maintenance of user choice.[78]

C. Discussion.

60. We affirm our tentative conclusion in the *Notice* that it is in the public interest to decline to consider rules to allow the combining of unassigned frequencies in the 800 MHz Business and Industrial/Land Transportation Categories to create new SMR systems and to decline to consider rules to allow expansion of SMR systems by permitting the systems to operate on unassigned frequencies in the 800 MHz Public Safety Category. Such actions could reduce frequency availability for in-category users, including frequencies needed for expansion of 800 MHz trunked systems.

XI. DECLINING TO EXPAND INTER - CATEGORY SHARING AT 900 MHZ

A. Proposal.

61. Inter-category sharing at 900 MHz between the Business and Industrial/Land Transportation Categories began May 6, 1990. There is no provision for SMR systems operating at 900 MHz to access out-of-category frequencies. We proposed to allow SMR systems to access 900 MHz frequencies in the Business and Industrial/Land Transportation Categories beginning May 6, 1990, as well. The rules we proposed would have also permitted Industrial/Land Transportation and Business eligibles to access the SMRS Category at 900 MHz.

B. Comments.

62. NABER supports the proposal.[79] ASNA concurs, noting that entities eligible for licensing in the Industrial/Land Transportation and Business Categories have had three years to assess their communications needs and make application for this 900 MHz spectrum.[80] Motorola supports ultimately allowing SMR systems to access the 900 MHz Industrial/Land Transportation and Business Categories and adding the 900 MHz SMRS Category to the categories available for inter-category sharing at 900 MHz, but would delay this action until December 1, 1991, to give would-be licensees in the 900 MHz Business and Industrial/Land Transportation Categories additional time to assess their communications needs and file applications.[81]

63. On the other hand, UTC believes including SMR systems and the SMRS Category in inter-category sharing at 900 MHz is premature.[82] Pacific Bell opposes the entire concept because it believes that reservation of frequencies for users of conventional systems at 900 MHz is vital to proper functioning of the Telephone Maintenance Radio Service and to the public switched telephone network.[83]

C. Discussion.

64. We are declining at this time to adopt rules regarding SMR system access to other Categories at 900 MHz or access of non-SMR eligibles to the SMR Category at 900 MHz. Because PR Docket No. 89-553 is still outstanding and deals with nationwide SMR system use of the 900 MHz spectrum, we may consider the integration of the 900 MHz SMR service into our intercategory sharing rules in that proceeding. We have not yet fully implemented SMR system access to the 900 MHz band. Until 900 MHz SMR systems are available for licensing nationwide, intercategory sharing involving the 900 MHz SMRS Category is premature. Adoption of such rules in the context of this proceeding would likely result in uncertainty and confusion because we would of necessity only be able to implement both the introduction of SMR systems at 900 MHz and intercategory sharing involving SMR systems and the SMRS category at 900 MHz on a piecemeal and somewhat *ad hoc* basis. We expect this issue to be addressed and resolved in PR Docket No. 89-553 or shortly thereafter. In this proceeding we are making no changes to the rules that currently permit intercategory sharing at 900 MHz between the Business and Industrial/Land Transportation Categories.[84]

XII. MISCELLANEOUS

A. Issues.

65. We also proposed that channel take-backs from trunked systems would start with General Category channels. Motorola requests that we adopt a uniform waiting period of six months to obtain additional frequencies for a system governed by Subpart S after a partial assignment of

General Category channels, a partial asssignment of channels in the other pools, or after automatic cancellation of channels. It makes this request "to make all penalty rules consistent in Part 90 Subpart S."[85] ASNA requests that we permit "short-spaced" assignment of General Category frequencies for trunked use with the consent of co-channel licensees.[86]

B. Discussion.

66. We are adopting rules to assure that General Category channels will be the first available as a result of channel recovery actions. Motorola's request to standardize the waiting periods to obtain additional frequencies for systems under Subpart S after partial assignments of General Category channels, after partial asssignments of channels in the other pools, and after automatic cancellation of channels is beyond the scope of this proceeding and will not be considered herein. ASNA's request regarding short-spacing of General Category channels for trunked use is unnecessary. By adding the General Category to the list of categories affected by the provisions of Section 90.621(c), we provide that applicants for SMR and non-SMR trunked systems that intend to use General Category frequencies that do not satisfy required separation criteria on those frequencies may obtain coordination for that use if they can demonstrate the consent of co-channel licensees on the General Category frequencies.[87]

XIII. FINAL REGULATORY FLEXIBILITY ANALYSIS

A. Reason for Action.

67. The rules we are adopting permit additional trunked use on land mobile frequencies above 800 MHz. These rules are intended to increase the efficient use of existing private land mobile spectrum. This action allows trunked systems to access additional frequencies and constructed conventional systems to convert to trunked systems, thereby providing service to a greater number of users, expediting the movement of scarce 800 MHz channels to their highest valued use, and providing a more consistent set of rules governing operation on frequencies above 800 MHz.

B. Legal Basis.

68. This action is authorized under Sections 4(i), 303(r), and 331(a) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 332(a).

C. Reporting, recordkeeping and other compliance requirements.

69. No new requirements are imposed upon licensees in the private land mobile services.

D. Federal rules that overlap, duplicate, or conflict with this rule.

70. None.

E. Summary of issues raised by the public comments in response to the Initial Regulatory Flexibility Analysis.

71. No comments were received specifically in response to the Initial Regulatory Flexibility Analysis. We note, however, that these rules provide increased opportunities to current trunked licensees and potential licensees. The overall effect on small entities should be favorable. The rules permit trunked communication systems to provide service to a larger number of end users. Although the rules may make it difficult for some entities to establish or expand conventional communication systems, other rule changes minimize this effect.

F. Any significant alternative minimizing the impact on small entities and consistent with the stated objectives.

72. All significant alternatives have been addressed in this *Report and Order*. Moreover, adoption of these rules should minimize regulatory burdens upon our licensees, including those licensees that are small business entities. The Secretary shall send a copy of this *Report and Order* to the Small Business Administration.

XIV. PAPERWORK REDUCTION ACT STATEMENT

73. The action contained herein has been analyzed with respect to the Paperwork Reduction Act of 1980 and found to contain no new or modified form, information collection and/or recordkeeping, labeling, disclosure or record retention requirements, and will not increase burden hours imposed on the public. Rather, if adopted as proposed, the licensing burden on the public could be reduced.

XV. CONCLUSION

74. For the reasons stated above, we are adopting rules to permit trunking on the 150 land mobile channels above 800 MHz now dedicated to conventional use. We are adopting the rules generally as proposed with certain modifications. Trunked systems that are combined with conventional General Category systems for trunked system use will receive a new 5-year license instead of a license with the expiration date of the General Category system as proposed. Rather than permitting a trunked system that is the result of combining two or more conventional systems to retain all of the original conventional channels even if they are only partially loaded, we are adopting rules that limit the resultant trunked system to a maximum of one more channel than justified by its loading. Rather than treating coordination of trunked systems differently depending upon whether the system was the result of combining trunked or conventional systems, converting conventional systems, or using unassigned General Category frequencies, we are instead adopting rules to allow an application for use of any General Category frequency on a trunked system to be coordinated by any of the three category coordinators recognized above 800 MHz.

75. We are declining to adopt rules that we proposed that would have permitted the transfer of unconstructed or non-operating conventional systems to trunked systems for trunked use. We are also declining to adopt rules that would have permitted the creation of new trunked systems on unassigned General Category frequencies. In addition, we are declining to adopt rules that we proposed that would have permitted SMR systems to have access to the Business and Industrial/Land Transportation Categories above 900 MHz through intercategory sharing, and that would have permitted Industrial/Land Transportation and Business eligibles to have access to the SMRS Category above 900 MHz through intercategory sharing.

XVI. ORDERING CLAUSES

76. Accordingly, IT IS ORDERED, pursuant to Sections 4(i) and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i) and 303(r), that Part 90 of the Commission's Rules, 47 C.F.R. Part 90, IS AMENDED as set forth in Appendix B below.

77. IT IS FURTHER ORDERED that these Rules, as amended, shall be effective **August 24, 1990.**

78. IT IS FURTHER ORDERED that this proceeding IS TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

APPENDIX A

Comments

American Petroleum Institute

American SMR Association, Inc.

Associated Public-Safety Communications Officers, Inc.

Association of American Railroads

Manufacturers Radio Frequency Advisory Committee, Inc.

Motorola, Inc.

National Association of Business and Educational Radio, Inc.

Pacific Bell

Special Industrial Radio Service Association, Inc.

Utilities Telecommunications Council

Reply Comments

American Petroleum Institute

American SMR Association, Inc.

Association of American Railroads

International Taxicab Association, Inc.

Motorola, Inc.

National Association of Business and Educational Radio, Inc.

Special Industrial Radio Service Association, Inc.

APPENDIX B

Part 90 of Chapter 1 of Title 47 of the Code of Federal Regulations is amended as follows:

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

Authority: Sections 4, 303, 331, 48 Stat., as amended, 1066, 1082; 47 U.S.C. §§ 154, 303, and 332 unless otherwise noted.

2. Section 90.609 is amended by revising the title, by revising paragraph (c), and by adding a new paragraph (d) to read as follows:

§ 90.609 Special limitations on amendment of applications for assignment or transfer of authorizations for radio systems above 800 MHz.

* * * * *

(c) Licensees of constructed systems in any category other than the General Category are permitted to make partial assignments of an authorized grant to an applicant proposing to create a new system or to an existing licensee that has loaded its system to 70 mobiles per channel and is expanding that system. An applicant authorized to expand an existing system or to create a new system with frequencies from any category other than the General Category obtained through partial assignment will receive the assignor's existing license expiration date and loading deadline for the frequencies that are assigned. A licensee that makes a partial assignment of a station's frequencies will not be authorized to obtain additional frequencies for that station for a period of one year from the date of the partial assignment.

(d) A constructed system in the General Category that is authorized to operate in the conventional mode may be combined with an existing system above 800 MHz authorized to operate in the trunked mode by assignment of an authorized grant of one station to the other only if:

(1) The trunked system is loaded to 70 mobiles per channel;

(2) The purpose of the assignment is to expand the trunked system.

(3) For all trunked systems that are not SMRs, the assignment application must include a statement from the trunked system's own frequency coordinator verifying that there are no available frequencies in the trunked system's service category in the frequency bands 806-824/851-869 MHz (trunked systems that are SMRs must submit evidence of existence of a current waiting list for SMRs in the geographic area in lieu of this requirement).

(4) Each application must include a signed statement listing any co-channel licensees (including call signs) located within 70 miles of the primary site of the trunked system verifying that they all have agreed to the proposed trunked use (see Section 90.621(c)).

(5) Each application must include a statement of construction and operation signed by the licensee of the conventional system. The statement of construction and operation must include the date of construction, location constructed (coordinates), the date the system was placed in operation (i.e., the date mobiles/portables began to interact with the mobile relay(s)), and a listing of the frequencies that are operational.

(6) All frequencies being trunked together must be located at a primary site.

(7) As a result of the assignment the assignee must have a number of channels that does not exceed one channel more than its current loading warrants. If, as a result of the assignment, the assignee obtains the maximum number of channels possible (one channel more than current loading warrants), and if the assignee is on the SMR waiting list for the geographic area in which it receives the assignment, the assignee shall forfeit its position on that waiting list.

(8) Each application must be coordinated by one of the three recognized category coordinators above 800 MHz.

(9) The assignee shall receive a new five-year license grant.

3. Section 90.611 is amended by revising paragraph (c) to read as follows:

§ 90.611 Processing of applications.

* * * * *

(c) Each application will be reviewed to determine whether it can be granted. Applicants for frequencies in the Public Safety, Industrial/Land Transportation, Business, and General Categories must specify the intended frequency (or frequencies) of operation. Applicants for frequencies in the SMRS Category may either specify the intended frequency (or frequencies) of operation in accordance with the provisions of § 90.621 or request the Commission to perform the selection.

* * * * *

4. Section 90.615 is amended by revising the section heading; revising the existing text and designating it as paragraph (a); and adding a new paragraph (b) to read as follows:

§ 90.615 Frequencies available in the General Category.

(a) Frequencies in the 806-809.750/851-854.750 MHz bands (Channels 1-150) are allocated to the General Category for conventional operations. The frequencies are available to all eligibles under this subpart (see § 90.603) for conventional operations in areas farther than 110 km (68.4 miles) from the U.S./Mexico border and farther than 140 km (87 miles) from the U.S./Canada border.

(b) Frequencies in this category may also be used for trunked operations in these same areas in accordance with the following:

(1) A licensee of a station in the General Category authorized to operate in the conventional mode may apply to operate instead in the trunked mode. A licensee applying to convert its station from the conventional to the trunked mode may apply for a number of channels not to exceed one more channel than its current loading warrants.

(2) Licensees of stations authorized to operate in the conventional mode in the General Category may combine channels with licensees of stations authorized to operate in the conventional mode in any category, including the General Category, to form a trunked system provided that:

(i) Each of the stations licensed for channels that are to be combined is constructed and operating.

(ii) Each application must include a written signed statement from each co-channel licensee located within 70 miles of the primary site of the trunked system verifying that each such licensee has agreed to the proposed trunked use (see Section 90.621(c)). The statement(s) should include each licensee's call sign.

(iii) All frequencies being trunked together must be located at a primary site.

(iv) Each application must be coordinated by one of the three recognized category coordinators above 800 MHz.

(v) The combining must result in one of two licensing forms:

(A) each of the licenses to be combined may be simultaneously modified to result in one licensee for one trunked system, or

(B) each of the licensees for existing conventional systems that are to be combined to form a trunked system may simulteously modify their licenses to reflect that they are to be multiply licensed on a new trunked system.

(vi) As a result of the combining, the new trunked system must have a number of channels that does not exceed one channel more than its current loading warrants.

(vii) The surviving licensee(s) receive a new five-year license grant.

(3) General Category frequencies may be used for trunked system expansion in accordance with § 90.621(g).

5. Section 90.621 is amended by revising the introductory text of paragraph (a), paragraphs (a)(1)(i), (a)(1)(iii), (c), (d), and (e); revising the introductory text in paragraph (g); redesignating existing paragraphs (g)(3), (4), and (5) to (g)(4), (5), and (6), respectively; and adding a new paragraph (g)(3) to read as follows:

§ 90.621 Selection and assignment of frequencies.

(a) Applicants for frequencies in the Public Safety, Industrial/Land Transportation, Business, and General categories must specify on the application the frequencies on which the proposed system will operate pursuant to a recommendation by the applicable frequency coordinator. Applicants for frequencies in the SMRS Category may either request specific frequencies by including in their applications justification for the frequencies requested or may request the Commission to select frequencies for the system from the SMRS Category.

(1) * * *

(i) Channels will be chosen and assigned in accordance with §§ 90.615, 90.617, or 90.619.

(ii) * * *

(iii) There are no limitations on the number of frequencies that may be trunked. Except as indicated in paragraph (a)(1)(iv) of this section, authorizations may be granted for up to 20 trunked frequency pairs at a time in accordance with the frequencies listed in §§ 90.615, 90.617, and 90.619.

* * * * *

(c) Trunked systems authorized on frequencies in the Public Safety, Industrial/Land Transportation, Business, and General Categories will be protected solely on the basis of predicted contours. Coordinators will attempt to provide a 40 dBu contour and to limit co-channel interference levels to 30 dBu over an applicant's requested service area. This would result in a mileage separation of 70 miles for typical system parameters. Applicants should be aware that in some areas, *e.g.*, Seattle, Los Angeles, and northern California, separations greater than 70 miles may be appropriate. Separations may be less than 70 miles where the requested service areas, terrain, or other factors warrant reduction. In the event that the separation is less than 70 miles, the coordinator must indicate that the protection criteria have been preserved or that the affected licensees have agreed in writing to the proposed system. Only co-channel interference between base station operations will be taken into consideration. Adjacent channel and other types of possible interference will not be taken into account.

(d) Conventional systems authorized on frequencies in the Public Safety (except for those systems that have participated in a formal regional planning process as described in § 90.16), Industrial/Land Transportation, Business, and General Categories that have met the loading level necessary for channel exclusivity will be protected in the same fashion as described in paragraph (c) of this section.

(e) Conventional systems authorized on frequencies in the Public Safety (except for those systems that have participated in a formal regional planning process as described in § 90.16), Industrial/Land Transportation, Business, and General Categories which have not met the loading levels necessary for channel exclusivity will not be afforded co-channel protection.

* * * * *

(g) Frequencies in the 806-821/851-866 MHz bands listed as available for eligibles in the Public Safety, Industrial/Land Transportation, Business, General, and SMRS Categories are available for inter-category sharing under the following conditions:

* * * * *

(3) Channels in the General Category are available to fully-loaded trunked Public Safety, Industrial/Land Transportation, Business, and SMR Category systems for expansion provided that:

(i) For non-SMR applicants, the application must include a statement from the applicant's own frequency coordinator verifying that there are no available frequencies in the applicant's service category in the frequency bands 806-824/851-869 MHz. For SMR applicants, the application must include a statement that no SMRS Category frequencies are available in the 806-824/ 851-869 MHz frequency bands supported by evidence of the existence of a current waiting list for SMRs in that geographic area.

(ii) As a result of the addition of any unused channels in the General Category to an existing trunked system, the number of channels that may be assigned to the station(s) authorized to operate that system may not exceed one channel more than its current loading warrants. If, as a result of the addition of General Category channels, an applicant obtains the maximum number of channels possible (one channel more than current loading warrants), and if the applicant is on the SMR waiting list for the geographic area in which it receives the channels, the applicant shall forfeit its position on that waiting list.

(iii) All frequencies being trunked together must be located at a primary site.

(iv) The application must be coordinated by one of the three recognized category coordinators above 800 MHz.

* * * * *

6. Section 90.629 is amended by revising the introductory text to read as follows:

90.629 Extended implementation schedules.

Applicants requesting frequencies in the Public Safety, Industrial/Land Transportation, Business, and General Categories for either trunked or conventional operations may be authorized a period of up to three (3) years for placing a station in operation in accordance with the following:

* * * * *

7. Section 90.631 is amended by adding a sentence to paragraph (b) after the sentence ending with the word "automatically" and before the sentence starting with the word "All" to read as follows:

90.631 Trunked systems loading, construction and authorization requirements.

* * * * *

(b) * * * If a trunked system has channels from more than one category, General Category channels are the first channels considered to cancel automatically. * * *

* * * * *

FOOTNOTES

[1] Notice of Proposed Rule Making, PR Docket No. 87-213, 4 FCC Rcd 312 (1989).

[2] Currently, above 800 MHz, trunking is permitted only on certain specified frequencies. *See* 47 C.F.R. §§ 90.615 - 90.621.

[3] Notice of Inquiry, PR Docket No. 87-213, 2 FCC Rcd 3820 (1987).

[4] Recent developments in technology and developments in possible sharing arrangements, see paragraph 27, infra, have now made it possible to consider sharing a channel for both trunked and conventional operations.

[5] *See* 47 C.F.R. §§ 90.621, 90.625, 90.631, and 90.633.

[6] Second Report and Order, Docket No. 18262, 46 FCC 2d 752 (1974).

[7] *See* Order, 43 Fed. Reg. 35,394 (1978); *see also* 47 C.F.R. § 90.615.

[8] The Commission established waiting lists as a means of ranking applications that could not be granted at the time of filing but could be granted when and if frequencies later became available.

[9] SMR operators are entrepreneurs who offer communications services on a commercial basis to private radio eligibles. The SMR service was created to encourage a competitive private land mobile market, as well as to promote the use of trunking technology. Second Report and Order, Docket No. 18262, 46 FCC 2d 752 (1974).

[10] Second Report and Order, Docket No. 79-191, 90 FCC 2d 1281 (1982).

[11] The four service categories are Public Safety/Special Emergency, Business, Industrial/Land Transportation, and SMR.

[12] We recover or "take back" assigned channels from SMR licensees who fail to meet either construction or mobile loading requirements of Section 90.631 of the Rules. *See* 47 C.F.R. § 90.631.

[13] *See* Report and Order, PR Docket No. 86-160, 2 FCC Rcd 513 (1987).

[14] Report and Order, Docket No. 86-404, 3 FCC Rcd 1838 (1988), 53 Fed. Reg. 12154 (1988).

[15] Report and Order, Gen Docket No. 84-1233, 61 RR 2d 165 (1986).

[16] A list of the commenting parties is provided in Appendix A.

[17] The Private Radio Bureau, however, has granted several waivers for trunked operation on these frequencies. *See*, for example, Sigma Telecommunication Waiver (DA 88-1064) adopted July 8, 1988. (Waiver granted where licensee has exclusive use of the conventional channel.

[18] Comments of SIRSA at 5-6.

[19] Reply comments of NABER at 7-8.

[20] Reply Comments of ASNA at 3-5.

[21] The four existing service categories above 800 MHz are Public Safety, Business, SMR and Industrial/Land Transportation.

[22] Land Mobile Radio Service, 46 FCC 2d 752, 765 (1974).

[23] *Id.*

[24] "Fully-loaded" in this context means 70 mobiles per channel. *See* 47 C.F.R. §§ 90.621(g)(2) and 90.631(b) and (c).

[25] We also proposed that if an applicant on the SMR waiting list acquires channels in this fashion to expand an existing trunked system, it may retain its position on the waiting list if the system is still fully loaded. If, after obtaining General Category channels to expand, the trunked system is no longer fully loaded, then the applicant would be removed from the SMR waiting list for that geographic area.

[26] SIRSA, AAR and UTC oppose creation of a General Category. When summarizing comments in the text on specific aspects of our proposal to implement the General Category, we will limit our discussion of commenter approval or disapproval of various implementation methods to commenters that address these specific issues.

[27] Comments of Motorola at 4-5, 14-15 and 17.

[28] Comments of NABER at 5.

[29] Comments of ASNA at 13.

[30] Reply comments of Motorola at 3.

[31] *See* 47 C.F.R. § 90.621(g).

[32] In 1982 we adopted rules allowing eligibles in the three non-SMR Categories access to frequencies in each others' categories. We later extended the intercategory sharing rules to include eligibles in the SMR Category. *See* note 9, *supra*.

[33] *See* note 24, supra.

[34] *See, e.g.*, Comments of Motorola at 3; Comments of ASNA at 14 and at 23-24; Comments of NABER at 8.

[35] Comments of APCO at 5. APCO's request that we adopt rules providing for channel exclusivity for public safety users regardless of loading is beyond the scope of this proceeding.

[36] Comments of API at 6.

[37] Comments of Motorola at 18.

[38] Comments of NABER at 5.

[39] Comments of Motorola at 14-15.

[40] Comments of Motorola at i; Comments of ASNA at 14.

[41] *See, e.g.*, Comments of Motorola at 13-14; Comments of UTC at iii.

[42] Comments of ASNA at 14-15.

[43] Comments of NABER at 7.

[44] Reply Comments of Motorola at 4.

[45] Notice of Proposed Rule Making, PR Docket No. 89-553, 4 FCC Rcd 8673 (1989).

[46] This is a clarification of policy we currently adhere to by applying the provisions of Sections 90.609 and 90.621(g) when read in conjunction with one another.

[47] Comments of NABER at 7-8.

[48] Comments of ASNA at 26-29.

[49] In *Bill Welch*, 3 FCC Rcd 6502 (1988), we permitted such transfers for cellular authorizations for unserved areas, *inter alia*, when it is not economical to build the system as originally proposed.

[50] Notice of Proposed Rule Making, CC Docket No. 90-6, FCC 90-14 (1990), at para. 61.

[51] Comments of Motorola at 8-12.

[52] Comments of ASNA at 22.

[53] Comments of NABER at 9.

[54] Comments of SIRSA at ii.

[55] Comments of ASNA at 22.

[56] Comments of Motorola at 12-13; Comments of NABER at 9.

[57] Comments of ASNA at 22.

[58] Comments of Motorola at 18-19.

[59] Comments of Motorola at i; Comments of ASNA at 22.

[60] Subject to the outcome of PR Docket No. 89-553. *See* para. 30, *infra*.

[61] Our proposals for co-channel licensee concurrence envisioned submission of a statement by the applicant seeking trunked use of the channel that all co-channel licensees concur in the trunked use. Instead, in each instance we are requiring co-channel licensee concurrence, we have decided the applicant must submit written concurrence from each such co-channel licensee with the application. This is consistent with our current and proposed rules requiring similar concurrence for channel short-spacing. *See* Section 90.621(c); see also Notice of Proposed Rule Making, In the Matter of Amendment of Part 90 of the Commission's Rules to Permit the Short Spacing of Specialized Mobile Radio Systems Upon Concurrence from Co-Channel Licensees, 5 FCC 2d 1135 (1990).

[62] Comments of Motorola at 1; Comments of NABER at 9; Comments of API at 5; Comments of ASNA at 8-9.

[63] Comments of ASNA at 18-19.

[64] Comments of UTC at

[65] This, of course, is to be distinguished from adding unassigned General Category frequencies to existing conventional or trunked systems to expand such systems.

[66] Comments of ASNA at 17.

[67] Reply Comments of ASNA at 8-9.

[68] Comments of ASNA at 17-18.

[69] Comments of Motorola at 16.

[70] Comments of APCO at 5-6.

[71] Comments of NABER at 5-6.

[72] Report and Order, PR Docket No. 83-737, 103 F.C.C. 2d 1093, 1146-1147 (1986).

[73] *See* Public Notice, Designation of Frequency Coordinator for 150 Original 800 MHz Conventional Channels, Mimeo No. 3950, May 3, 1983.

[74] We are adopting these rules in the context of the current framework for frequency coordination in the Part 90 Private Land Mobile Radio Services. We are currently considering a major restructuring of the frequency coordination process. *See* Notice of Proposed Rule Making, Frequency Coordination in the Private Land Mobile Radio Services, 4 FCC Rcd 6325 (1989). Such a restructuring may necessarily include modification of the rules we are adopting herein.

[75] Eligibles will continue to obtain coordination for conventional systems in the General Category from their respective category coordinators. Applicants for conventional SMR systems in the General Category will continue to obtain coordination from NABER.

[76] Notice of Proposed Rule Making, PR Docket No. 87-213, 4 FCC Rcd 312 (1989), at paras. 39-41.

[77] Comments of NABER at 10; Comments of UTC at iii.

[78] Comments of ASNA at 24.

[79] Comments of NABER at 10.

[80] Comments of ASNA at 18.

[81] Reply Comments of Motorola at 5.

[82] Comments of UTC at iii.

[83] Comments of Pacific Bell at 1-2.

[84] *See* paragraph 38 and note 45, *infra*.

[85] Comments of Motorola at 19.

[86] Comments of ASNA at 15.

[87] This change only affects General Category frequencies. Short-spacing on SMRS Category frequencies still requires a waiver of Section 90.621(b) of our Rules, 47 C.F.R. § 90.621(b). We are currently considering, however, whether to amend Section 90.621(b) to permit short-spacing on SMRS Category frequencies. *See* Notice of Proposed Rule Making, Amendment of Part 90 of the Commission's Rules to Permit the Short Spacing of Specialized Mobile Radio Systems Upon Concurrence from Co-Channel Licensees, PR Docket No. 90-34, 5 FCC Rcd 1135 (1990).