

years. During this period, the equipment manufacturers should be able to identify future technologies that may be implemented in the next twenty years, and the Commission will be able to consider the results of the narrowband channelization in the 220-222 MHz band.

Further, additional spectrum may become available from the federal government for allocation by the Commission for non-government use. The Commission may consider allocating a portion of this spectrum for advanced technologies and may determine it unnecessary to further reduce the channel bandwidths from 12.5 kHz to either 6.25 kHz or 5 kHz in the bands below 800 MHz. Thus, NABER recommends that the Commission not mandate a conversion to a more narrowband channel bandwidth than 12.5 kHz in the bands below 800 MHz until the Commission has an opportunity to determine the viability of narrowband technologies and the availability of additional spectrum which may be allocated for emerging technologies for PLMRS use.

Accordingly, NABER proposes a channel plan that consists of narrowband, contiguous channels of 6.25 kHz (other than paging channels, which will remain as currently authorized) which can be combined by an applicant into a broader channel bandwidth. As discussed below, an applicant would be required to demonstrate that the requested channel bandwidth meets the efficiency standard presently being developed by the Telecommunications Industry Association ("TIA"), the Association representing the equipment manufacturers.

It is NABER's belief that the Commission should not favor any one technology over another. A spectrum efficient technology for one type of use may not be efficient for another type of use. The purpose of "slotting" the spectrum into narrowband channels is to enable applicants to request one or more contiguous blocks of channels for a system which suits the individual users' needs. The alternative of setting aside discrete blocks of channels for one type of technology has the disadvantage of limiting the use of one or another technology when a technology block is exhausted. "Slotting" permits a mixture of technologies, without favor to any technology.

For the "slotting", it was necessary to determine the "lowest common denominator" which would permit: (1) natural reductions during the transition phase; (2) single channel use with a spectrum efficient technology; (3) the ability to combine slotted channels for efficient, wide-band technology with minimal wasted bandwidth; and (4) reduce the number of different types of equipment which manufacturers would need to produce. In weighing the four factors, the Task Force found that there was not a clear "winner." In regard to a natural reduction during the transition period, the Task Force recognized that currently, in the 150-170 MHz band, an applicant may obtain a license for narrowband operations.⁴ Additionally, NABER's two-step transition proposal outlined below will support a final very narrow channel bandwidth of either 5 kHz or 6.25 kHz. Reassigning center frequencies during the second step

⁴ See 47 C.F.R. § 90.271.

allows channels to be rearranged as needed independent of the final very narrow bandwidth chosen.

In considering the second factor, the discussion focused on the availability of equipment and the cost to migrate to the newer narrowband equipment. This discussion highlighted several of the members concern that the more narrowband equipment, whether using 6.25 kHz or 5 kHz, may not be successfully developed to meet the needs of the users. Conversely, a number of members are adamant that 5 kHz equipment will be successfully developed and will provide the most spectrum efficient operations. Ultimately, the majority of the Task Force members were convinced that, in a congested environment such as the 150 MHz and 450 MHz bands, development of equipment using a 6.25 kHz channel would have the more likelihood for viable operation.

Although there is considerable sentiment for using a 5 kHz baseline, it is the majority opinion that a 5 kHz channelling plan has a major deficiency in that it would prevent 6.25 kHz narrowband equipment from being effectively utilized. If 5 kHz channels are utilized, an applicant desiring the use of 6.25 kHz narrowband equipment would need to request two (2) 5 kHz channels, resulting in the potential of 3.75 kHz of "wasted" bandwidth. Whereas, an applicant desiring the use of 5 kHz channel bandwidth equipment would receive a 6.25 kHz bandwidth channel, with 1.25 kHz of "wasted" bandwidth.

Thirdly, NABER's "bandwidth on demand" approach makes contiguous spectrum available for wideband operation on combined

channels. Either 5 kHz or 6.25 kHz very narrow bandwidth channels will work equally well when combined together, as long as all of the very narrow bandwidth channel "building blocks" are the same size.

Finally, in relation to the fourth factor discussed in determining the lowest common denominator for channel "slotting," should the Commission establish 5 kHz bandwidth channels in the 150 MHz band and 6.25 kHz channels in the 450 MHz band, manufacturers may be required to produce two different bandwidth narrowband equipment types. NABER recognizes that manufacturers may choose to produce different bandwidth narrowband equipment, but NABER does not believe that the public interest is served in mandating such a requirement. Each manufacturer should be given the flexibility to determine where it wishes to expend its research and development resources. This should provide the users more choice, and more competition between the manufacturers. Therefore, NABER believes that the Commission should "slot" the channels in the 150 MHz and 450 MHz bands with the same bandwidth channels.

For these reasons, NABER proposes that system operations be reduced to 12.5 kHz channel bandwidth with a 6.25 kHz channel plan put in place for both the 150 MHz and 450 MHz band.⁵ By

⁵ NABER is aware that in the 150 MHz band, there is a recommendation proposed by the Association of American Railroads, in order to better utilize the spectrum, that offset channels 7.5 kHz from the current 15 kHz channel center frequency be provided in the channelling plan adopted by the Commission. The creation of these offset channels would be similar to the very narrowband operations currently provided for in the 150 MHz band under the rules, and would permit the "packing" of operations in this band. NABER believes that this offset overlay suggestion is compatible

maintaining channel centers, NABER's plan will create an incentive for current users to reduce channel bandwidths in advance of any mandatory change.

2. NABER's "Equivalent Efficiency"

NABER promotes the use of an "Equivalent Efficiency" standard. In conjunction with and as part of NABER's Task Force, representatives of TIA have agreed to develop a standard that can be applied to any technology desired by the user. TIA's standard will be based upon some formula which takes into account factors such as, the size of the service area requested, the amount of spectrum requested, the reliability of the system and the number of users proposed to serve. An applicant's "Bandwidth on Demand" would be dependent on meeting this criteria. An applicant could request a wider bandwidth provided that the applicant demonstrates that the efficiency of the proposed wide-band system meets the standard.

Thus, for example, a single 12.5 kHz bandwidth channel utilizing digital emissions could be granted based upon the applicant's demonstration that the proposed system meets the efficiency standard. Alternatively, another applicant could be granted two (2) 6.25 kHz channels utilizing narrowband technology, based upon its demonstration that the system meets the efficiency standard. Multiple channels could be requested for trunking with a similar demonstration.

with the recommendations made for operations in this band where there is contiguous spectrum within the service pool which includes the railroad radio service.

3. NABER's "Exclusivity For Efficiency"

One problem which has historically plagued the land mobile industry is the tendency of applicants to "over-engineer" a system. Specifically, applicants often request a larger service area than otherwise needed to serve the applicant's real needs. This decreases spectrum efficiency, as fewer systems can be accommodated on a single channel in a given area.

In order to correct this flaw in the assignment system, there are two options. The Commission has proposed to increase the number of systems on each channel, and thereby spectrum efficiency, by restricting the maximum size of an applicant's service area. However, while this option has the potential to increase the number of systems on each channel, the option does not necessarily translate into increased spectrum efficiency. Specifically, where an applicant actually needs a service area greater than permitted by the Commission (but which could be served by a single transmitter site), the applicant will need to apply for multiple stations. The waste of resources and increased cost necessitated by multiple stations (where multiple stations are technically not necessary) is counter-productive to the Commission's goals in this proceeding.

Further, the Commission's option favors private carrier systems and discourages private user systems, as private carriers will be the entity most likely to be able to afford the build-out

of a multiple-site system.⁶ While there is a tremendous need for private carrier systems which should be accommodated by the Commission in this proceeding, the Commission must recognize the need for private user systems. Users such as railroads, manufacturing plants and companies such as Federal Express and Yellow Freight must be able to economically install private systems.

NABER believes that the Commission must provide applicants with an incentive to request only that size service area which is necessary. Such an incentive would not only increase spectrum efficiency (by achieving the appropriate number of systems per channel which would serve all users needs), but it would also reduce the burden on the Commission and frequency advisory committees, by eliminating the need to determine whether the service area requested matches the technical parameters in the application.

In areas where spectrum is available, NABER proposes that an applicant could achieve channel exclusivity, provided that the applicant meets or exceeds an efficiency/loading factor which NABER has requested be developed by TIA. An applicant requesting the smallest channel bandwidth and smallest service area would have a lower threshold to achieve exclusivity. Conversely, an applicant

⁶ Recently, the House proposed amendment to the Communications Act of 1934, as amended (the "Act"), in which Section 332(c) of the Act would be modified to classify providers of mobile services for profit as common carriers. Should this draft proposal be enacted, the Commission's proposal in this Notice favoring private carriers may result in small businesses being unable to economically obtain the service necessary.

requesting wider channel bandwidth and a larger service area would have a higher threshold to achieve exclusivity. This standard would encourage applicants to use the smallest service area and bandwidth to serve the user's needs, thereby increasing spectrum efficiency.

Thus, for example, an applicant which has communication needs in Southern California could elect to place a single transmitter site atop Mount Wilson. This system, serving a large area with an omnidirectional antenna, would include areas for which the applicant did not truly require communications. Under NABER's proposal, the applicant for this single transmitter site would have a higher efficiency/loading threshold to meet to achieve channel exclusivity. Alternatively, the same applicant could voluntarily request several transmitter sites at lower elevations, serving more tightly controlled service areas, enabling other users to utilize the channel in other areas precluded by the Mount Wilson operation. Under NABER's plan, each smaller transmitter site would have a lower efficiency/loading threshold to meet to achieve channel exclusivity. Unlike the Commission's proposed power/height requirements, under NABER's scheme, the applicant would be able to select his/her own system design to best serve the applicant's requirements, but provide the applicant with an incentive to be spectrum efficient.

4. Contiguous Spectrum

The channeling of the spectrum into 6.25 kHz "slots", while permitting the combining of channels to achieve a 12.5 kHz channel

bandwidth or larger where appropriate, will not preclude the use of any spectrum efficient technology in development now or in the future. The "slots" would support the use of single sideband, TDMA digital, etc. Contiguous channels within a service pool would ensure that combining of channels for larger bandwidths could be accomplished with minimal effort.

5. NABER's Migration "Funnel"

NABER is concerned that the Commission's "screwdriver" adjustment, reducing the channel bandwidth of current radio equipment from 25 kHz to 12.5 kHz would be costly, ineffective and would not achieve the Commission's goals. It is NABER's understanding from equipment manufacturers that the "screwdriver" adjustment degrades the signal to noise ratio on systems, thereby reducing reliable service areas. Therefore, NABER suggests that the Commission focus on its long-term spectrum efficiency goal, while providing the easiest transition for users possible.

In deciding on a migration and channeling scheme, the Commission must remember that the spectrum proposed for refarming is used by a wide variety of users, from large railroad systems consisting of hundreds of thousands of units (all of which must be able to communicate with each other) to small handheld units costing less than \$200.00. The plan ultimately adopted by the Commission must balance the needs of each type of user. NABER, in developing its plan, has consulted with a wide variety of users. While all users recognize that some sacrifices will be necessary

during the transition period, such sacrifices must be in proper relation to the spectrum efficiency achieved.

Two Step Migration. NABER's two-step migration process involves the use of a "funnel" type mechanism which would permit the immediate (but not mandatory) use of narrowband equipment, if desired by the user, in the existing RF environment. This first step would appear to keep the status quo without the increase in number of channels as proposed by the Commission. However, as described below, the "cleaning up" of the land mobile spectrum during Step One should yield additional assignable spectrum and less adjacent channel interference.

a. Step One. Step one involves the discontinuation by the Commission of type acceptance for new, 25 kHz or 30 kHz bandwidth analog equipment (other than equipment utilized for paging operations) as soon as practical. NABER concurs with the recommendation made by the Land Mobile Communications Council in its Consensus Plan⁷ that after January 1, 1996, the Commission should type accept equipment to be operated in the PLMRS bands below 800 MHz (except on paging-only frequencies) that is capable of operating in 12.5 kHz channel bandwidths. It is NABER's understanding that 12.5 kHz equipment can readily be made available. There will need to be a period of time during which users can add 25 kHz units to an existing system, provided users recognize that such systems could operate in wide-band mode for a

⁷ Filed April 28, 1993 and placed on Public Notice on May 6, 1993. NABER actively participated in the LMCC group assisting with the drafting of the Consensus Plan.

short period. However, NABER understands that dual mode radios (25/30 kHz and 12.5 kHz operations) can be produced by equipment manufacturers. Such radios can serve as add-on units for existing systems, and provide narrowband operation immediately for new systems. In the 450 MHz band, as of January 1, 1996, new systems would be licensed for a 12.5 kHz channel bandwidth.

In order to "clean-up" the subject bands, applicants for new systems could request no more than 12.5 kHz channel bandwidth, unless the applicant can obtain concurrence from incumbent licensees on the adjacent channels to operate on the larger bandwidth. Renewals for current systems on 450 MHz primary channels would have their licenses conditioned upon a reduction in channel bandwidth to no more than 12.5 kHz no later than January 1, 2004. At that time, all offset channels could be considered primary. This will result in significant reduction in interference now experienced in the 450 MHz band between offset and primary channels.

Under this plan, equipment already in the field will have another ten (10) years to be amortized. If users wish to continue using wide-band equipment after this date, the equipment can be used on a secondary basis. This will permit users in less populated areas to continue using wide-band equipment, if desired, in areas where there are few users sharing channels. This would serve as a substitute for the Commission's plan to "phase-in" conversions by market size, since it is difficult to determine what constitutes the proper geographic reach of an urban area or mandate

the use of one technology equipment in one area and another technology equipment on the same channel in an adjacent area.

Offset users in the 450 MHz band, when applying for license renewal (or for a new system), would now specify whether they desire to be a site specific system, or whether they wish to continue non-site specific status. As discussed below, this information is important because in Step 2, such users will be divided onto different frequencies, with like users grouped together based upon the status selected. Renewal licenses would be conditioned upon a reduction in channel bandwidth to no more than 12.5 kHz no later than January 1, 2004, as discussed above. Site specific offset users could therefore achieve primary status (vis-a-vis adjacent channel, primary stations) on January 1, 2004.

In the 150 MHz band, NABER proposes to maintain the existing channel centers for new 12.5 kHz equipment.⁸ While this will initially result in a loss of some channels which would be created by a channel center "shift", the ability of users to immediately move to 12.5 kHz channels without impacting other users will mean that increased spectrum efficiency can be achieved more rapidly, by permitting users to "clean up" a channel and reduce interference to adjacent channel users.

⁸ The existing Commission rules provide for licensing of very narrowband operations in the 150 MHz band. Under NABER's proposal, existing 5 kHz narrowband licensees would be permitted to continue operation, but would have the option of either (1) modifying their authorizations to license a 6.25 kHz channel for continued operation on a primary basis, or (2) in 2004, continue operating as a grandfathered system but on a secondary basis.

Applicants "cleaning up" a channel utilized for two-way land mobile communications, through a combining of current users, etc., could request exclusive authorization, based upon the agreed efficiency standard developed by TIA. For example, applicants "cleaning up" several channels could immediately request to operate on more spectrum efficient technologies, such as centralized or decentralized trunking. In the 150 MHz band, where frequencies are typically not paired, and applicant could "clean" up two or more frequencies and utilize these "frequency pairs" in a trunked mode. Further, applicants for paging operations may "clean-up" a channel through combining of current users, to increase spectrum efficient use of one or more frequencies.

The immediate impact of Step One - users could: (1) immediately go to narrowband or digital technology; (2) achieve exclusive use of a channel; and/or (3) utilize centralized trunking. The long term impact of Step One is that offset users achieve primary status in 2004 and the RF spectrum is significantly "cleaned up" by site designation, resulting in additional recommendations which can be made during Step One.

b. Step Two. At the next license renewal after 2009 (first for new systems), the user's authorized bandwidth will be reduced to the maximum allowable bandwidth as defined by the efficiency standard developed by TIA. Prior to the renewal date, users will have the opportunity to justify the need for wider bandwidths. The coordinator would then recommend for the user's license renewal the lowest available channel in the respective service pool which will

accommodate the justified bandwidth requested by the user. The user would then be granted 90 days to complete the migration to the new channel.

The result would be that the users requiring smaller bandwidths would be grouped together at the lower end of the service pool band. This in turn would "create" wider available bandwidths at the middle and upper ends of the service pool. These wider bandwidths would become available to new users requesting wider bandwidths as well as existing users with growing bandwidth needs. If wider bandwidth channels are not readily available, users could be placed on a waiting list for the first available wide band channel.

The realignment in Step Two will achieve contiguous blocks of spectrum for each service pool, which will enable more opportunities for spectrum efficient systems. Further, non-site specific low power users can be moved at that time to different frequencies from site-specific low power users, reducing dramatically the interference potential to many low power users, such as manufacturing plants, hotel security forces, etc.

Step Two achieves the Commission's goal of four fold channel capacity increase, while being consistent with NABER's goals discussed above.

However, it is NABER's view that prior to implementation of Step Two, the Commission should revisit this portion of the plan by initiating a further rule making by January 1, 1999 (as recommended by LMCC in its Consensus Plan) in order to account for

any usage patterns which were not taken into account during this proceeding.

6. NABER's "Like Services" Consolidation

The reduction to the four proposed services does not address the needs of the end user. Specifically, where there are shared channels, there is a need to ensure compatibility among users. As stated by Congress, representative frequency advisory committees are best able to provide such coordination services. However, maintaining 19 services is burdensome and results in inefficient, time consuming and more costly assignments of licenses to users.

The most beneficial system is to consolidate "like" users either by operations or by the underlying business use of the applicant/licensee. The following consolidation of pools⁹ is proposed:

- i. Public Safety: Local Government, Police, Fire, Highway Maintenance, Forestry Conservation, Emergency Medical
- ii. Industrial I: Forest Products, Motion Picture, Special Industrial, Telephone Maintenance, Relay Press
- iii. Industrial II: Utilities, Petroleum, Manufacturers

⁹ The suggested consolidations of service pools are based on which current radio services share the majority of channels under the existing rules. NABER recognizes, from comments received from other frequency coordinating committees and NABER members, that, in the Industrial Service Pools, there is a divergence on which radio services should be consolidated as being "like" services. NABER recommends that the Commission consider the comments received in regard to the suggested consolidation and take appropriate action based on the such comments.

iv. Business: including Private Carrier Paging, Two-Way Private Carriers, Special Emergency, Taxicabs, Auto Emergency

v. Land Transportation: Railroads, Motor Carrier

The new Pools represent a consolidation of service pools currently sharing 150 MHz and/or 450 MHz spectrum. Where a portion of spectrum is currently shared among users from several pools, this indicates a workable combination of like users. To require such users to coordinate from numerous coordinating committees for access to a single frequency pair results in multiple coordination fees, delay in the granting of licenses, a database which is not up-to-date (and therefore inaccurate, leading to faulty recommendations) and needless squabbles between competing applicants and coordinating committees.

7. NABER's "Pools For Power"

NABER opposes the Commission's proposal to greatly reduce the permitted output power of stations and to reassign channels every 50 miles. The Commission's plan imposes a burden on the user to re-engineer its systems with the potential of increasing the cost of operation of a private system because of the need for a multi-site system.

The Commission's plan forces users with a need for wide-area operations to utilize a private carrier because it is likely that only private carriers are willing to invest the capital to create these multi-site systems. The power reduction proposed appears to contradict the Commission's stated goal of ensuring that the right to operate as a private system is retained. With the potential

increased cost to establish or re-engineer a system with multiple sites, the right to operate a private system is available but exercising the right may be beyond the economical reach of most smaller users. Also, this proposal does not take into account that additional tower structures may be required to be constructed to cover the current area of operations of many systems. It may be very difficult for users to obtain federal, state, and local approval for new sites to build the additional tower sites.

NABER's recommendation is to establish three different power level categories within each service pool.¹⁰ Specifically, there should be a certain number of channels set aside for: (1) high power systems with operational parameters similar to today's environment; (2) low power, site specific systems with a need for on-site use at permanent locations; and (3) low power, non-site specific systems with a need for on-site use at non-permanent locations. These "pools for power" should provide the flexibility to "engineer-in" a number of systems operating on low power, site specific frequencies in a geographic area, thereby maximizing the use of these frequencies in these areas. By implementing "pools for powers," NABER believes that geographic gaps between co-

¹⁰ Currently, within the various radio services, there are sub-classes of eligibility. For example, within the Business Radio Service, certain frequencies may be used only within a specific geographic area at a certain power level, such as around airport facilities. NABER believes that a similar sub-eligibility will be required to be established within the service pools to effectively implement the "pools for power." However, NABER has not attempted to identify such eligibility for each "power pool" because of the uncertainty of the manner in which the service pools will be classified.

channel stations of unusable spectrum which sometimes exists in the 800/900 MHz bands will be minimized. This will also minimize interference between co-channel systems. Further, NABER supports the proposed power limitations (based upon service area) proposed by LMCC in its Consensus Plan.

As explained above, users will have an incentive to use the lowest power possible, since a smaller service area will enable the user to more easily achieve channel exclusivity. Therefore, the problem in the past of overpowered systems will be eliminated.

8. Elimination of Community Repeaters

NABER supports the elimination of multiple-licensed community repeaters (including multiple-licensed non-profit cooperative systems), provided existing systems are grandfathered (as proposed) and the system operators have the option of converting the system to private carrier status and being designated at Step 2 for use of a private carrier channel. However, NABER opposes the elimination of single licensee non-profit cooperative community repeaters. Elimination of these community repeaters would cause undue economic and operational hardship to these licensees. In effect, this would force each small to medium size user to construct numerous private repeater stations within the same coverage area.

9. Innovative Shared Use Proposal ("ISU")

NABER opposes the ISU proposal, as it needlessly robs the 150 MHz band of contiguous spectrum. This allocation also requires that the private system user relinquish a significant portion of the capacity achieved by the proposed channel splitting.

C. COORDINATION ISSUES

As set forth above, NABER recommends that the Commission consolidate the current PLMRS pools to a more manageable number of five service pools. The consolidation of the pools was made based on the manner in which the current frequencies are shared today between the various radio services. These consolidations reflect, for the most part, a similar pool of frequency coordinators which have established a working relationship among themselves to provide the best recommendations to the various users of the shared frequencies. Thus, with the consolidation of the services, NABER suggests that there may also be a natural progression for the consolidation of the frequency coordinating committees. NABER does not recommend that the Commission mandate such a consolidation, but rather the Commission should encourage and facilitate such consolidations.

NABER does not advocate the elimination of the various frequency coordinating committees, but rather envisions frequency coordinating committees forming "partnerships," similar to joint committees that were formed between NABER and IMSA/IAFC. With NABER's proposal for "bandwidth on demand," "efficiency equivalencies," and "pools for power," coordinators will need more

sophisticated operating procedures, including computerizing a portion of the coordination processing. Many of the existing frequency committees may not have the ability to provide these advanced services. However, by consolidating with other frequency committees, such capability may be achieved.

NABER believes that the Commission's proposal to permit multiple coordinators in the various pools may result in a deterioration in the quality of frequency recommendations. NABER, like the Commission, believes that competition in the marketplace should be encouraged. However, the need for competition must be balanced with an applicant's requirement to have the best frequency recommendation made that will not result in an adversarial proceeding in the future. With multiple frequency coordinators, competition also may result in applicants engaging in "coordinator shopping." One coordinator may not wish to make a certain frequency recommendation because of adverse affects on an existing licensee(s), whereas another frequency coordinator may have no qualms about such recommendation.

Additionally, multiple coordinators would require a "real-time" database¹¹ to ensure that coordinators are not recommending the same frequencies to multiple applicants. These overlapping coordinations may not be identified until after the Commission has

¹¹ "Real-time database" is defined as a database in which each coordinator would immediately update upon recommendation of a specific frequency. The FCC data base is not considered a "real-time" data base because of the delay between receipt of an application at the Commission's lockbox facility (or Gettysburg office) and its entry into the database.

received the applications, thereby delaying application processing for the applicants who "lost" in the filing race and resulting in needless adversarial proceedings to resolve disputes between applicants and licensees. However, there should be nothing in the Commission's rules to prevent multiple coordinators from implementing such a "real time" data base to facilitate coordination of the consolidated service pool.

On the other hand, there is concern that users who are currently represented by a frequency coordinator committee may find themselves obtaining coordination from a frequency coordinator committee that is not as familiar with the users' types of operations and service area needs. There is a sentiment that the Commission, in the case of consolidation of frequency coordination committees, should provide a structure to ensure continued representation of the coordinators for these users. The Commission should consider these concerns if the coordinating agencies are consolidated.

D. MISCELLANEOUS ISSUES

1. Grandfathering of Paging Frequencies. NABER supports the Commission's proposal to grandfather the one-way paging only frequencies in the PLMRS and permit these systems to continue to operate on currently authorized channels rather than requiring conversion to the narrower bandwidth channels. As NABER has pointed out in previous pleadings, the efficiency of the paging channels would decrease as the bandwidth of the channel decreased. In fact, a number of the proposed advanced spectrum efficient

messaging technologies appear to require wider channel bandwidths, such as 50 - 100 kHz bandwidths, rather than narrower bandwidths. Thus, NABER believes that the "refarming" of these frequencies does not provide the efficiencies sought by the Commission.

However, NABER urges the Commission to similarly retain authorized channels in the various bands, including the 72-76 MHz band, utilized as control channels for these paging-only frequencies. Reduction in the bandwidth of the control channels will significantly decrease the efficiency of the paging-only frequencies even if the bandwidth of these frequencies are not reduced.

NABER also notes that, in proposed Section 88.1067, Power Limitations (Paging Operations), subparagraph (a) provides that the output power on frequencies 152.480 MHz and 157.740 MHz is limited to 300 watts. Currently, under Section 205(b), the output power of these frequencies is limited to 350 watts. Accordingly, NABER urges the Commission, based on the Commission's assertions that all paging frequencies would be grandfathered under the same technical parameters as currently exist to, in fact, retain all the existing parameters. Accordingly, the output power limit for these frequencies should remain at 350 watts.

2. 421-430 MHz Band. The Commission also proposes to split and offset the 421-430 MHz border frequencies authorized in Cleveland, Buffalo and Detroit. NABER recommends that the 421-430 MHz frequencies should initially remain on their presently allocated center frequency, and that these channels should be split

in accordance with the channelization plan described above. The paging channels in the 421-430 MHz band should also be grandfathered and be retained as 25 kHz bandwidth channels subject to existing height power limits.

3. Issues on Specific Proposed Rule Sections

Proposed Section 88.103 appears to impose a thirty (30) day resubmittal for returned applications below 800 MHz, except for applications in the 220-222 MHz band, while retaining the existing sixty (60) day resubmittal period for applications in the 220-222 MHz bands and in the bands above 800 MHz. In 1989, the Commission adopted an Order in which applications in all PLMRS bands returned for correction were provided a resubmittal period of sixty (60) days.¹² The Order provided that the rule changes became effective the date of the adoption of the Order. The rules, however, have never been changed to reflect the adoption of the Order.

Prior to the adoption of the aforesaid Order, returned applications for frequencies in the bands below 470 MHz were required to be resubmitted within thirty (30) days. The Commission found that the 30-day period was a burden on the applicants, and that the 60-day period provided to applicants above 800 MHz was more reasonable. Further, the Commission found that revising the rules to have a standard processing procedure would simplify the rules. As one goal of the Commission was to streamline the rules, this return to a dual standard appears to be contrary to the intent of the Commission. Accordingly, NABER urges the Commission not to

¹² Order (FCC 89-96), adopted March 27, 1989.

re-impose this dual standard for applications in the various private land mobile radio bands.

4. Pending Rule Making Proceedings. NABER notes that the Commission has initiated a number of rule making proceedings that will affect a number of proposed sections in Part 88, such as the interference standard for systems above 800 MHz and licensing of 929-930 MHz private paging channels on an exclusive basis. NABER presumes that the Commission will incorporate any revisions made to Part 90 into Part 88 as appropriate.

5. SMR Use to Broadcast On-Air Activities. The existing rules currently prohibit the transmission of program material of any kind for use in connection with broadcasting. In Section 88.449(a), the Commission proposes to continue this prohibition, except it would permit SMR customers to utilize SMR service for on-air activities. NABER is concerned that the elimination of the prohibition on the use of PLMRS frequencies, even limited to SMR frequencies, for broadcast activities may cause increased congestion of these frequencies during the peak hours of operation on these systems. The broadcast eligibles have sufficient spectrum allocated for such purposes; if such spectrum is congested, NABER would suggest that the Commission reconsider "refarming" the spectrum allocated to the broadcasters for these purposes. Nevertheless, NABER does not oppose this change in the "Prohibited Uses" so long as such operations associated with on-air activities is considered a secondary use similar to fixed operations under Subpart S of the Commission's rules.

Further, in subparagraph (c) of this section, the Commission proposes to limit communications of licensees without channel exclusivity to business and safety of life or property purposes. NABER believes that this subsection may change the eligibility of persons to which a conventional SMR systems may provide service. Currently, an SMR licensee, whether operating in a trunked or conventional mode, may provide service to individuals for non-business purposes. The restrictions of the aforesaid proposed subparagraph appears to foreclose the provision of service to an individual by a conventional SMR licensee, who has not achieved exclusivity on his/her channel, should the Commission adopt this rule. Therefore, NABER urges the Commission to revise this subparagraph to exclude SMR licensees.

6. Revisions to 800/900 MHz Service Pools. The Commission proposed to re-structure the 800/900 MHz Service Pools in light of its proposal to adopt three service pools and a General Category pool. In the Commission's proposal, channels currently allocated to the Industrial/Land Transportation Service pools would be designated as Non-Commercial Service pools and the channels allocated to the Business Service pool would be designated as "General Category." NABER opposes the reclassification of these pools, especially as the eligibility for licensing of these channels would change. As the Commission indicated, the re-write of Part 90 does not substantively affect the frequencies above 800 MHz. The change in service pool designations would be a significant substantive change in the licensing of 800/900 MHz