

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

**In the Matter of** )  
 )  
**Improving Public Safety Communications in the** )  
**800 MHz Band** ) **WT Docket No. 02-55**  
 )  
**Consolidating the 900 MHz Industrial/Land** )  
**Transportation and Business Pool Channels** )

**To: The Commission**

**COMMENTS OF THE AD HOC WIRELESS ALLIANCE**

The Ad Hoc Wireless Alliance (the “Alliance”) by its counsel, and pursuant to Section 1.415 of the rules and regulations of the Federal Communications Commission (“FCC” or “Commission”) and the invitation extended by the Commission in the Notice of Proposed Rule Making (“NPRM”)<sup>1/</sup> in the above referenced proceeding, hereby submits its comments responsive to the FCC’s request for proposals on how best to remedy interference to 800 MHz public safety systems.

**I. Introduction**

The Alliance consists of the following entities:

Colorado Callcom, Inc.  
Concord Limousine, Inc.  
Intermountain Communications of Southern Idaho, Inc.  
Petroleum Communications, Inc.  
Saia Communications, Inc.  
Tel Aviv Car Service, Inc.  
Texas License Consultants

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<sup>1/</sup> *In the Matter of Improving Public Safety Communications in the 800 MHz Band Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels*, WT Docket No. 02-55, *Notice of Proposed Rulemaking* (rel. March 14, 2002)(“NPRM”).

Each of the Alliance's members is either a licensee of 800 MHz frequency assignments (used for specialized mobile radio ("SMR" or "private communications services") or a provider of two-way radio sales and services, whose customers operate systems in the 800 MHz band.

The NPRM is based on the laudable premise that the FCC must take action to alleviate the interference that has been caused to public safety systems by digital SMR systems that employ spectrum on channels adjacent to those occupied by public safety entities. The NPRM notes that plans to alleviate the interference have been suggested by Nextel Communications, Inc. ("Nextel"), the National Association of Manufacturers ("NAM") and others.<sup>2/</sup> Each of the plans will have some impact on users of 800 MHz spectrum. Accordingly, because each member of the Alliance will be directly or indirectly affected by the proposals contained in the NPRM, the Alliance is pleased to have this opportunity to submit the following comments responsive to these plans and the related matters raised by the NPRM.

## **II. The Commission Should Prefer Measures that Involve no Relocation of Incumbent Licensees**

Several of the plans propose that licensees in the 800 MHz band be relocated to spectrum for which they are not currently licensed. Under the NAM plan, for example, the band 851-856 MHz, which is designated for use by "General Category" licensees, (both auctioned and site specific) would be required to relocate to other segments of the 800 MHz band. Similarly, under the Commission's proposal, the lower segment of the 800 MHz band would be rearranged to create contiguous spectrum for public safety entities, requiring relocation of entities that are currently located in the spectrum that would become designated for public safety use. Most

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<sup>2/</sup> The Alliance notes that on April 26, 2002, the Coalition for Constructive Public Safety Interference Solutions ("Coalition") also submitted a plan designed to restructure the 800 MHz band in a manner designed to alleviate public safety interference.

dramatically, the Nextel proposal contemplates that existing licensees would be relocated to the 700 MHz and 900 MHz bands.

The Commission should not adopt any plan that requires relocation of incumbent licensees.<sup>3/</sup> Any required relocation will involve severe disruption and significant costs to businesses that use 800 MHz either for internal purposes or to provide communications services to others. In virtually every case, relocation – even within the 800 MHz band – would require modification to each base station employed by an existing licensee and modification of every mobile unit employed. These changes cannot be performed over-the-air. Instead, each mobile unit would be required to be serviced, in order to decommission the channels on which the licensee was no longer authorized, and to initiate use of any newly authorized channels. For a licensee of 800 MHz spectrum that employs its channel for internal communications purposes, the loss of productivity during that required retuning would be staggering. For a commercial provider, the damage to customer relations could be irreparable.

The Commission is also reminded that when it determined to auction the spectrum in the “upper” 800 MHz band, it created a scheme pursuant to which incumbent licensees in that band would be relocated elsewhere. The majority of those licensees that were relocated out of the

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<sup>3/</sup> The foregoing notwithstanding, the Alliance assumes that under most plans, public safety entities will require relocation. The Alliance believes that this assumption is accurate because public safety entities should not remain interleaved with other spectrum users. In addition, relocation of public safety entities will promote, among other things, the use of interoperability channels, and the potential allocation of additional spectrum for public safety entities, all of which is desirable. Accordingly, and because the Alliance does not support relocation of any other licensees, it endorses the Coalition’s plan to relocate public safety entities to other than the 800 MHz band. In the event that the FCC adopts this proposal, the Alliance agrees that the spectrum formerly held by public safety entities should be subject to auction, with the auction proceeds used to support public safety relocation. Because the Alliance assumes public safety relocation, these comments do not address issues such as improved receiver characteristics, or frequency coordination, that will be made largely irrelevant by relocation of public safety users.

upper segment of the 800 MHz band are now licensed in the bands that are the subject of most of the 800 MHz reallocation proposals. Accordingly, these licensees – who have likely just completed migration to the lower segment of the 800 MHz band would again be subject to the disruptive and potentially debilitating effects of another required relocation. Equity dictates that these licensees not be required to relocate again.<sup>4/</sup>

As noted above, certain of the relocation proposals envision movement within the 800 MHz band (for example, the FCC’s proposal and the NAM proposal). For the reasons noted above, such relocation would be disruptive to existing licensees and should be rejected in favor of plans that require no relocation of incumbent licensees. Nextel, however, proposes that existing 800 MHz band licensees be relocated to the 700 or 900 MHz band. This proposal is ill-conceived and must be completely rejected by the Commission. As noted above, any relocation requires modification to base station and mobile equipment. Contrary to Nextel’s assertion<sup>5/</sup> relocation to channels in the 700 or 900 MHz band would be more disruptive still – it would require the replacement (not the retuning) of every piece of equipment related to a licensee’s system.

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<sup>4/</sup> When the FCC decided to conduct auctions of the General Category and “Lower 80 SMR” channels, it specifically stated that incumbent licensees would not be required to relocate, but that auction winners would be required to protect incumbent operations. *See In the Matter of Amendment of Part 90 of the Commission’s Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band; Implementation of Sections 3(n) and 322 of the Communications Act – Regulatory Treatment of Mobile Services; Implementation of Section 309(j) of the Communications Act – Competitive Bidding, Second Report and Order*, 12 FCC Rcd 19079, ¶¶ 7, 50, 78 (1997). While a required relocation in this case would be in a different context, it would still amount to a deviation from the expectation created by the Commission for licensees of these bands.

<sup>5/</sup> *Promoting Public Safety Communications – Realigned the 800 MHz Land Mobile Radio Band to Rectify Commercial Mobile Radio – Public Safety Interference and Allocate Additional Spectrum to Meet Critical Public Safety Needs* at 9, 30 (Nov. 21, 2001)(“Nextel Proposal”).

Moreover, Nextel's recommendation ignores the many differences between frequency bands that the Commission would be required to designate for use in order to accomplish such a cross-band relocation. For example, propagation characteristics are not the same in the 800 MHz band, the 900 MHz band or the 700 MHz band. A licensee able to provide certain coverage with one antenna in an 800 MHz system would likely be unable to provide the same coverage with a 900 MHz system using the same antenna and operational parameters. Moreover, 900 MHz band channels are authorized with 12.5 kHz band width, while 800 MHz channels are authorized with 25 kHz bandwidth. Channels with narrower bandwidth may be unable to carry the same type of traffic, or traffic with the same speed as, wider channels. Finally, Nextel's plan does not address the potential unavailability of the 700 MHz band channels in certain areas due to their continued use for broadcast purposes.<sup>6/</sup> Accordingly, if any relocation is required, it must be restricted to relocation within the 800 MHz band.

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<sup>6/</sup> *In the Matter of Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, Gen. Docket No. 01-74, *Report and Order*, 20002 FCC Lexis 323, ¶¶ 54-56 (rel. Dec. 12, 2001) (adopting protection criteria for licensees reallocated in the lower 700 MHz Band and noting that these requirements will last until the end of the transition to DTV, which may extend beyond the 2006 target date."); *See Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communications Requirements through the Year 2010*, WT Docket No. 96-86, *First Report and Order and Third Notice of Proposed Rulemaking*, 14 FCC Rcd 152 ¶ 168 (1998) (adopting criteria to protect incumbent broadcasters from interference by land mobile services in the upper 700 MHz band); *see also* 47 C.F.R. § 90.545 (listing the requirements licensees operating in the upper 700 MHz band must comply with in order to avoid interference to existing broadcast stations transmitting on this band). As the Commission notes, Nextel may not even hold sufficient usable spectrum in the 700 MHz and 900 MHz bands to accomplish a relocation of existing 800 MHz licensees. *NPRM*, ¶ 48. Even if Nextel were licensed for sufficient spectrum generally, it would be required to have a precise geographic match of the spectrum populated by incumbent licensees and its own 700 MHz and 900 MHz spectrum (Nextel may hold sufficient spectrum in some areas but not in others, even assuming the availability of 700 MHz spectrum for which it is licensed). There is no evidence that Nextel has undertaken the analysis to determine if that geographic match exists.

### III. Any Mandated Relocation Must Include Compensation to those Required to Relocate

The Commission asks whether, under any plan that requires incumbent relocation, those incumbents should be reimbursed and by whom.<sup>7/</sup> Nextel's assertions notwithstanding,<sup>8/</sup> the Commission's practices are clear. In all proceedings in which the Commission has required incumbent licensees to relocate, those incumbent licensees have been compensated for the cost of relocation by the entities that would receive the benefit of the new allocation or licensing arrangement.<sup>9/</sup> Thus, in creating the personal communications service ("PCS") from bands formerly populated by operational fixed microwave licensees, the FCC required the PCS providers to compensate incumbent microwave licensees. Similarly, licensees of upper 800 MHz SMR spectrum were required to compensate incumbent licensees required to relocate to other segments of the 800 MHz band for the costs associated with such relocation. There are no circumstances in this proceeding that militate in favor of the FCC deviating from this established procedure.

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<sup>7/</sup> NPRM, ¶¶ 38-41.

<sup>8/</sup> Nextel asserts, relying on 30 year old precedent, that the Commission requires relocation of incumbent licensees without compensation. *See Nextel Proposal at 49 citing to Amendment of the Commission's Rules Relative to the Licensing of Microwave Radio Stations Used to Relay Televisions Signals to Community Antenna Television Systems, First Report and Order and Further Notice of Proposed Rulemaking*, 1 FCC 897 ¶ 32 (1965).

<sup>9/</sup> *See e.g.*, 47 C.F.R. § 90.699(c)(1) (listing the requirements that an EA licensee must comply when an incumbent's system is relocated) 47 C.F.R. § 24.239 (accord); 47 C.F.R. § 101.91 (accord); *see also Amendment of Part 90 of the Commission's Rules to Facilitate the Future Development of SMR Systems in the 800 MHz Frequency Band, First Report and Order, Eight Report and Order, and Second Notice of Proposed Rulemaking*, 11 FCC Rcd 1463, ¶ 79 (1995) (stating that "the EA must guarantee payment of all costs of relocating the incumbent to a comparable facility"); *Amendment of the Commission's Rules Regarding a Plan for Sharing the Costs of Microwave Relocation, First Report and Order*, 11 FCC Rcd 8825, ¶ 5 (1996) (stating that "[i]nvoluntary relocation requires that the emerging technology provider guarantee payment of all costs of relocating the incumbent to a comparable facility").

If the Commission requires incumbent licensees to relocate, Nextel should pay for such relocation. Nextel volunteers that all 800 MHz users be required to participate in relocation costs, and that, consequently, incumbent licensees should pay for their own relocation (and not be reimbursed by it or anyone else for the cost of relocation).<sup>10/</sup> The Commission should recognize that the public safety interference issues addressed by this proceeding have been caused principally by Nextel. As the Commission notes, the public safety spectrum in the lower segment of the 800 MHz band is interleaved with other users. However, that spectrum has been interleaved with those users since the FCC began to license the spectrum in the 1980s. It is only a comparatively recent phenomenon that the interleaved use of the spectrum has resulted in harmful interference to public safety systems. It is Nextel's conversion to cellular architecture and use of "always-on" transmitters that has caused the interleaved nature of the 800 MHz channels to become problematic.<sup>11/</sup> Therefore, Nextel should bear the burden of reimbursing incumbent licensees required to relocate in order to restructure the 800 MHz band in a way designed to eliminate the harmful interference of which Nextel is the principal cause.<sup>12/</sup>

#### **IV. The FCC Should Adopt the PCIA Recommendation**

The Personal Communications Industry Association ("PCIA") recommends that the FCC discontinue the use of separate "pools" for the Business and Industrial/Land Transportation

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<sup>10/</sup> *Nextel Proposal* at 39-41 (asserting that all commercial SMR providers be required to contribute to the costs of relocating the spectrum).

<sup>11/</sup> While other interleaved licensees may be using digital technologies, no licensee occupies the 800 MHz band in the same way, as does Nextel.

<sup>12/</sup> If the Commission requires relocation within the 800 MHz band, and Nextel is thereby required to be relocated within the 800 MHz band, it should bear its own cost of relocation, and pay for relocation of other licensees. Because the Alliance does not believe relocation outside the 800 MHz band is feasible under any circumstances, it does not address the spectrum to which Nextel may be relocated outside of the 800 MHz band. If realignment of the 800 MHz band is necessary, Nextel, like all 800 MHz licensees, should be realigned within the 800 MHz band.

services in the 800 and 900 MHz bands. The Alliance fully supports this proposal and, as noted below, suggests that the FCC permit conversion of these channels in the 900 MHz band for commercial purposes. As the Commission notes, the pool structure has been largely abandoned in the bands below 800 MHz and there is no reason to continue this vestige of a former regulatory scheme in the bands above 800 MHz.

**V. The Commission Should Permit the Commercial Use of 900 MHz B/ILT Channels**

As the Commission notes, it amended the regulations to permit licensees of Business and Industrial/Land Transportation (“B/ILT”) channels in the 800 MHz band to provide commercial mobile radio service (“CMRS”) or to assign their licenses to entities that provide CMRS. The FCC should extend this same ability to B/ILT licensees in the 900 MHz band. As noted above, the Alliance opposes any plan that would require relocation of incumbent 800 MHz licensees out of the 800 MHz band. Therefore, the Commission is not compelled to reserve any of this 900 MHz spectrum for entities relocated from the 800 MHz band.

Moreover, the Commission should reject arguments that this spectrum should continue to be reserved for private entities. The 900 MHz spectrum was first available for licensing by private entities nearly 15 years ago.<sup>13/</sup> There has been ample time for B/ILT users to secure the use of this spectrum. This is particularly true of so-called critical infrastructure industry (“CII”) licensees, whose use and knowledge of communications systems is sophisticated. A utility, for example, cannot now claim that after nearly twenty years of availability (and presumably use of

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<sup>13/</sup> *In the Matter of Amendment of Parts 2 and 22 of the Commission’s Rules Relative to Cellular Communications Systems; Amendment of Parts 2, 15 and 90 of the Commission’s Rules and Regulations to Allocate Frequencies in the 900 MHz Reserve Band for Private Land Mobile Use*, Gen. Docket No. 84-1233, *Report and Order*, 2 FCC Rcd 1825 ¶ 41 (1986)(allocating spectrum in the 900 MHz band to the private land mobile services).

alternative communications facilities) that only unlicensed 900 MHz band channels can satisfy its communications needs.<sup>14/</sup>

The Alliance notes that in the bands below 800 MHz, all channels designated for use under Section 90.35 of the Commission's rules can be employed for commercial operations. Certain of those channels, through frequency coordination requirements, are not often used for commercial purposes. As noted above, the Alliance supports PCIA's recommendation that the FCC combine the Business and Industrial/Land Transportation pools, as they are in the bands below 800 MHz. In order for there to be a parallel approach in the 900 MHz band, the Alliance recognizes that the FCC may wish to continue to afford some protection, as it does for CII operations in the bands below 800 MHz, for 900 MHz channel use. The CII are principally eligible to use channels in the Industrial/Land Transportation pool. Accordingly, to the extent that the Commission believes that 900 MHz B/ILT channels should continue to be reserved for CII, it should reserve *some* segment of the channels formerly associated with the Industrial/Land Transportation pool<sup>15/</sup> and make all of the remaining channels available for commercial operations.

In evaluating this matter, the Commission should not only take into consideration the needs of private wireless licensees, including CII entities, but smaller commercial operators. Converted 900 MHz spectrum represents a valuable opportunity for smaller carriers to obtain spectrum to offer services to the public. As the Commission is aware, most of the spectrum in

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<sup>14/</sup> The Alliance notes that the FCC has already designated certain 900 MHz spectrum for railroad operations. The Alliance does not suggest that the Commission revisit that decision here. Therefore, those channels would continue to be available only for railroad operations in locations specified by the Commission's rules and decisions, and for other (including commercial) uses elsewhere.

<sup>15/</sup> As noted above, the 900 MHz channels have been available for 900 MHz CII uses for nearly 15 years. Therefore, there is no reason that all of the former Industrial/Land Transportation 900 MHz channels should continued to be reserved for this use.

the 800 and 900 MHz band regulated under Part 90 of the FCC's rules that may be used for commercial purposes has been licensed for use by Nextel.<sup>16/</sup> Nextel's service, while valuable for many customers, does not meet the demands of all wireless customers – particularly those with a need for “one to many” communications. There are limited opportunities for smaller commercial operators to obtain spectrum that may be used for services of this nature. Accordingly, the Commission should promote the availability of this spectrum for smaller carriers by allowing 900 MHz spectrum to be used for commercial purposes.

## **VI. Conclusion**

The Ad Hoc Wireless Alliance hereby submits the foregoing comments and urges the Commission to act in a manner consistent with the recommendations made herein.

**Respectfully submitted,**

**The Ad Hoc Wireless Alliance**

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<sup>16/</sup> Including most of the 900 MHz spectrum allocated for SMR purposes, for which Nextel has been licensed but is not using.

\* Admitted in Virginia Only.  
Practicing under the supervision of the members of the Washington office of Mintz Levin.