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

REPLY COMMENTS OF
ASSOCIATION OF PUBLIC-SAFETY COMMUNICATIONS OFFICIALS-INTERNATIONAL, INC.

The Association of Public-Safety Communications Officials-International, Inc. ("APCO") hereby submits the following reply comments in the above-captioned proceeding. APCO has also joined with other public safety organizations, private wireless organizations, and Nextel in joint reply comments which set forth a proposed Consensus Plan for the 800 MHz band.[1]

The following additional reply comments further explain our views regarding that consensus plan and why we believe that it is the most appropriate path for the Commission to follow in this important proceeding. In particular, we emphasize below: (a) the need to modify the 800 MHz band plan to reduce the potential for interference, rather than merely relying upon post-interference corrective measures, (b) the need for a solution that provides ready sources of funding for

[1] As described in the joint reply comments, the Consensus Plan provides for Nextel to vacate all of its operations below 816/861, for non-Nextel licensees in 806-809/851-854 MHz to move either to channels vacated by Nextel in the 809-816/854-861 MHz band or (at their option) to the 900 MHz band, for "NPSPAC" public safety licensees to shift from 821-824/866-869 MHz to 806-809/851-854 MHz while maintaining the allotments in the existing Regional Plans, for remaining channels vacated by Nextel (and other potentially vacated channels) to be available for new public safety operations, and for all low-site cellular operations to be above 816/861. Unlike the original plan set forth in the Nextel White Paper, the Consensus Plan does not require any users to move out the 800 MHz band. The Consensus Plan also greatly reduces the number of licensees that will need to shift frequencies within the band.

implementation, (c) the immediate need for additional public safety radio spectrum, and (d) the need for the Commission to move forward now with solutions consistent with existing legislative authority. The Consensus Plan achieves these goals, and does so without placing undue burdens on existing users of the 800 MHz band.

A. ADDRESSING INTERFERENCE REQUIRES MODIFYING THE 800 MHz BAND PLAN.

Some of the initial comments of other parties suggest that a sufficient solution would be to codify the *Best Practices Guide* and clarify responsibilities for eliminating interference once it occurs. We agree that those are *necessary* steps, but they are far from *sufficient* to address the overall 800 MHz band interference problem. For that, a more comprehensive solution, including a new band plan, is necessary.

We support the recommendations of various parties that the Commission should adopt procedures similar to those in the *Best Practices Guide* to resolve interference problems. Those commenters suggested that the Commission adopt, codify and expand the procedures outlined in the *Best Practices Guide*, that would: (1) impose a duty upon the party causing the interference to take immediate steps to eliminate interference; (2) create a specific timetable for resolution of interference problems; (3) create a centralized database for the collection and analyses of measures taken to eliminate interference; and (4) provide licensees with the necessary regulatory flexibility to engage in channel swaps to eliminate interference.[2] However, these procedures alone are not sufficient for the prevention of interference to public safety users in the 800 MHz band, as they only address interference after it has already occurred.

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[2] *See* Comments of API at 3 and 7, Private Wireless Coalition at 12-13, Lockheed Martin at 3-4, Verizon Wireless at 8-10 and AT&T Wireless at 14-18.

As we explained in our initial comments, interference to critical public safety operations is severe and extremely dangerous to public safety personnel and the general public. Such interference disrupts life-saving communications, and therefore, must be addressed before it occurs. APCO at 9-10. Many public safety agencies echoed APCO's comments.[3] These commenters frequently deal with the day-to-day frustration of poor communications during emergency dispatch communications.[4] Due to the life-threatening nature of public safety communications, such interference must be prevented rather than merely alleviated after it occurs. As the International Association of Fire Chiefs, et al. commented, the interference experienced by public safety agencies is not static, and its severity is increasing.[5] For this reason, the Commission must act quickly in developing and implementing a plan and adopting procedures to prevent interference to critical public safety communications.

The Consensus Plan will provide a comprehensive approach for dealing with the interference issue. First, the plan will eliminate interleaving of channels used by public safety and Nextel's low-site cellular operations, largely eliminating the side-band noise problem. Second, the plan will consolidate low-site cellular operations above 816/861 MHz, and move all public safety use to spectrum below 816/861 MHz (and, in most cases, below 814/859 MHz). That will significantly reduce the potential for intermodulation interference, by reducing the mathematical probability of

[3] *See* Comments of City of New York at 5-6, International Association of Chiefs of Police, et al. at 4-5, Public Safety Improvement Coalition at 2, State of Arizona at 3, Bergen County Police Department at 4, New York City Transit Authority at 2, State of Hawaii at 1, and City of Portland, Oregon at 2-7.

[4] *See* Comments of City of Baltimore, Maryland at 2, Bergen County at 7, San Francisco Bay Area Rapid Transit District at 1, City of Newport News, Virginia, and Utah Communications Agency Network at 3.

[5] International Association of Fire Chiefs, et al. at 2.

intermodulation products falling within channels licensed to public safety.[6] Furthermore, Nextel will be able to better plan its frequency use to further reduce intermodulation problems, and to correct problems should they occur.[7] Finally, the consolidation of public safety between 806-814/851-859 MHz will open the door for equipment design improvements that narrow the range of frequencies capable of producing an interfering intermodulation product into the 806-814/851-859 MHz band.

B. THE CONSENSUS PLAN ADDRESSES THE COST OF SHIFTING PUBLIC SAFETY FREQUENCIES.

Public safety licensees cannot afford, and should not be required to afford, the cost of shifting frequencies to accommodate a revised band plan. Those entities whose operations cause the interference should bear the burden of paying for efforts to eliminate that interference whether on a case-by-case basis or as part of a comprehensive re-banding of 800 MHz channels.

Under the Consensus Plan, Nextel will provide $500 million (to be placed in escrow or made subject to similar security) to pay for the shifting of public safety users within the band. No public safety licensee will be required to shift frequencies without assurances that the costs will be paid from that or other third party funds. The Plan calls for moves to be done on a NPSPAC Region-by-Region basis. While $500 million may not be sufficient to cover the cost of moving all of the

[6] The current interleaving of Nextel and public safety channels below 816/861 creates a high probability that a Nextel site using one or more of those channels will place an intermodulation product on a public safety channel. While moving Nextel above 816/861 MHz will not eliminate the potential for intermodulation, it will reduce the odds of such products falling on public safety channels (especially as you move "down" the band).

[7] By reducing the spread between channels used at a particular site, Nextel will be able to narrow the range of the resulting intermodulation products. While Nextel can try to do that today, the interleaving of public safety and Nextel channels below 816/861 makes it extremely difficult to select channel assignments that do not create an intermodulation product on a public safety channel.

NPSPAC Regions, [8] Nextel will have discretion to provide additional funds if necessary, and may have an incentive to do so to achieve uniform 800 MHz channel use across the nation.

C. THE CONSENSUS PLAN PROVIDES ADDITIONAL SPECTRUM FOR PUBLIC SAFETY.

Our initial comments emphasized the critical need for additional public safety spectrum. The spectrum requirements identified nearly six years ago in the Public Safety Wireless Advisory Committee Report have still not been realized in most of the nation, and public safety communications requirements in a "post-September 11" world are even greater than had been projected in 1996.[9]

The Consensus Plan provides for additional spectrum from channels vacated by Nextel. The net gain of spectrum for public safety will vary from market-to-market, depending upon Nextel's current license holdings in each market.[10] This new public safety spectrum will be invaluable as state and local governments attempt to expand their system capacity and add new, interoperable radio communications systems. As explained in our initial comments, the 800 MHz band provides an ideal opportunity for constructing wide-area, multi-agency radio systems which greatly enhance interoperability.[11]

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[8] Most existing public safety equipment can be "re-tuned" to operate other channels within the 800 MHz band, and need not be replaced. Motorola's initial comments indicated that the cost to public safety of implementing the original Nextel plan would be approximately $1.1 billion. The consensus plan involves considerably less movement of public safety licensees than had been contemplated in the Nextel plan, suggesting that the total cost of the consensus plan will be somewhat closer to Nextel's $500 million pledge.

[9] *See* APCO Comments at 11-19.

[10] For example, the following are estimates of the numbers of new 25 kHz channels anticipated in various markets: New York (18), Los Angeles (9), Chicago (95), Philadelphia (42), Washington (29), Boston (92), Houston (87), Dallas (108), Miami (79), Orlando (68). These numbers could be higher if Business, Industrial, Land Transportation licensees take the opportunity to exchange 25 kHz channels in the 800 MHz band for 50 kHz channels in 900 MHz band, which Nextel will also be vacating under the Consensus Plan.

[11] *See* APCO Comments at 18-19.

The additional spectrum provided under the Consensus Plan, while beneficial, will still fall well short of what is necessary, and does not alter the critical need to expedite nationwide availability of the 24 MHz of spectrum already allocated for public safety in the 700 MHz band. Indeed, new homeland security obligations and the need for enhanced interoperability that includes the Federal Government indicate a need to expand the 700 MHz band public safety allocation beyond the 24 MHz allocated to date. Thus, while we support the Consensus Plan to address 800 MHz issues, we remain steadfast in our advocacy for the statutory changes necessary to establish a firm date for the nationwide availability of 700 MHz spectrum allocated for public safety under the 1997 Balanced Budget Act.

D. THE COMMISSION MUST ACT WITHIN THE CONFINES OF ITS EXISTING STATUTORY AUTHORITY.

A number of parties have suggested that the solution to the 800 MHz interference problem is to move all 800 MHz band public safety licensees to an expanded 700 MHz band.[12] This "new home" for public safety would consist of the 24 MHz already allocated to public safety, plus at least a portion of the spectrum currently allocated by statute for commercial wireless services and required to be licensed via a spectrum auction. While this might be a desirable end result, achieving it would require multiple pieces of major legislation, allocation of an extraordinary amount of public funds, and the complete replacement of many billions of dollars of imbedded public safety systems and infrastructure.

The legislative actions necessary to move public safety to the 800 MHz band would include: (1) changing the statutory allocation of 30 MHz of spectrum from commercial services to public safety; (2) permanent cancellation of the auction of that spectrum and provisions to address the impact on the budget process; (3) the establishment of an early and firm date for all television

[12] *See*, *e.g.*, Comments of CTIA at 9-10.

stations on channels 60-69 to vacate that spectrum;[13] (4) a mandate that thousands of public safety licensees in the 800 MHz band relocate to the 700 MHz band; and (5) the provision of perhaps tens of billions of dollars (far more that is likely to be recovered from an auction of 800 MHz spectrum now occupied by public safety users) to cover the cost of replacing existing 800 MHz equipment with new 700 MHz systems.[14] In addition, the 700 MHz band would still be virtually unusable in much of the heavily populated areas along the Canadian border due to Canadian television allocations on channels 60-69.

These are major legislative and financial challenges, which may someday be overcome. However, the Commission must proceed under its existing statutory authority. The only prudent course is for the Commission to assume that additional spectrum will not be allocated for public safety in the 700 MHz band and, moreover, that existing 700 MHz band public safety allocations will continue to be blocked by incumbent television broadcasters well beyond 2006.

Therefore, the Commission must look to the 800 MHz band to address both the ongoing interference in that band, and the need for additional public safety spectrum. The 800 MHz band must be reconfigured to minimize the potential for interference, and to lay the foundation for equipment and system design changes that will provide more permanent solutions. In addition, the Commission must take this opportunity to address the serious spectrum needs of public safety. The Consensus Plan serves these goals without the need for legislative action.

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[13] This may also require concurrent action to resolve broader DTV transition issues such as cable must-carry and television receiver requirements.

[14] Existing 800 MHz equipment cannot be re-tuned to operate in the 700 MHz band.

CONCLUSION

For the reasons discussed above and in the joint comments, the Commission should adopt the Consensus Plan and implement rules as quickly as possible.

Respectfully submitted,

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By_____

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