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

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

REPLY COMMENTS OF THE BOEING COMPANY

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SUMMARY

In successfully resolving the 800 MHz Public Safety interference problem, the Commission should consider efficacy, technological feasibility, cost, disruption, international impacts, and equity. The ideal solution to the 800 MHz interference problem would include aspects of a rebanding solution (*i.e.,* a limited rebanding in the near term to address immediate interference problems) and the ultimate relocation of 800 MHz Public Safety users to the Upper 700 MHz band, while adequately protecting border area licensees and not rewarding Nextel for the interference and widespread disruption it has caused.

The Commission Should Relocate 800 MHz Public Safety Incumbents to the Upper 700 MHz Band

Relocating Public Safety licensees to 700 MHz will permanently resolve the harmful interference problem, maximize the efficiency of Public Safety spectrum allocations, enable more sophisticated applications, foster interoperability, increase spectrum assigned to Public Safety, minimize the border area problems for B/ILT licensees, and provide an equitable funding mechanism. Considering the heightened legislative and industry attention to the issues of Public Safety interference and the DTV transition, there now exists a unique opportunity to address these dual policy challenges and offer a comprehensive response.

To address concerns regarding auctioning of <u>all</u> of the vacated 800 MHz spectrum to commercial providers, the Commission should sub-band the vacated spectrum by application and auction only contiguous blocks of vacated spectrum. This will help preempt yet another highly interleaved spectrum scenario and avoid future harmful interference to PMRS licensees.

The New Nextel Proposal Should Not Be Adopted

The new Nextel Consensus Proposal is a "quick fix" that does not represent a true solution. Beyond providing an ineffective resolution, 800 MHz incumbents will be forced to play an extended game of "musical chairs" within the band. Also, its disregard for the border region problem is unacceptable because a general reallocation solution may not be feasible given the international considerations and could take years to implement for affected border region licensees. Further, its proposed encroachment on the 2 GHz MSS and UPCS spectrum does not further the Commission's goal of not interfering with existing services. If the Commission grants the Nextel Consensus Proposal, Nextel will be made more than whole – it will benefit from causing interference at the expense of others.

Market Solutions Are Not the Answer to the 800 MHz Interference Problem

It is clear that reliance on market based approaches has failed and will fail again in this crucial situation. The spectrum "swaps" proposed as a means of resolving interference problems within the 800 MHz band are a recipe for failure. Such swaps would inevitably lead to a more unmanageable patchwork of interleaved uses, generate a heightened lack of predictability, and lead to exacerbated and frequently recurring incidences of harmful interference. Spectrum swaps would also permit commercial users to further encroach on the spectrum of private wireless and Public Safety users. The private ad hoc solutions that created the current problem should not be replicated.

Any Solution Should Adequately Address the Border Regions

Any solution that does not account for the unique border region channel assignments would disrupt existing bilateral agreements and cause major problems for many licensees. Because of the existing restrictions and potential delay that would result due to the establishment

of new bilateral agreements, it is imperative that border area licensees' rights are protected. One way to protect border region licensees is through a "Do No Harm" policy for border area incumbents whereby border area licensees may remain "as is" on a primary basis until appropriate international agreements can be reached.

Viable Solutions Do Not Require Spectrum From the 2 GHz MSS Band

Given the alternatives currently before the Commission, there is no need to consider a proposal that implicates the 2 GHz MSS band. In addition to being an unnecessary distraction to the real issue, the Commission very recently determined that a 2 GHz MSS allocation is the highest and best use of the spectrum. 2 GHz MSS licensees require certainty that their significant financial expenditures will not be stranded by capricious reallocation of the subject spectrum. Reallocation of any of the 2 GHz MSS spectrum at this juncture when 2 GHz MSS systems are moving forward would significantly impair MSS licensees' rights, reasonable expectations regarding system implementation, and the future potential to meet reasonable and anticipated demand. Therefore, Boeing urges the Commission to declare expeditiously that it will not consider any reallocation of 2 GHz MSS spectrum as part of its resolution of this proceeding.

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Reply Comments of The Boeing Company

The Boeing Company ("Boeing"), by its attorneys and pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, hereby files these reply comments in response to the Commission's Notice of Proposed Rulemaking ("*NPRM*") in the above-captioned proceeding.[1]

I. INTRODUCTION

The Commission faces the task of determining how best to resolve the issue of interference being experienced by Public Safety users in the 800 MHz band. The general consensus of the initial comments filed in this proceeding is that relocating Public Safety licensees to the 700 MHz band is the most attractive long term alternative. By delaying the Upper 700 MHz auction as the Commission and Congress have done, the Commission now has time to investigate adequately and consider the feasibility and appropriateness of relocating 800

[1] *See Improving Public Safety Communications in the 800 MHz Band; Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels*, Notice of Proposed Rulemaking, WT Docket No. 02-55, 17 FCC Rcd 4783 (2002) ("*NPRM*").

MHz Public Safety users to the Upper 700 MHz spectrum.[2] Boeing encourages the Commission to perform the thorough technical analysis required to reach the best solution to address the 800 MHz interference problem. Public Safety interference should not be permitted to perpetuate due to the implementation of incomplete solutions.

Several guidelines can assist the Commission in its analysis in this proceeding, such as:

(1) The solution should aggressively resolve Public Safety interference at 800 MHz;[3]

(2) The solution should minimize the disruption and cost to spectrum users in the 800 MHz band, and users of any other band that is part of the solution;[4]

(3) The solution should implement equitable solutions for licensees in Canadian/Mexican border regions;[5]

(4) The solution should mandate that interference causer(s) should bear the costs of relocation or retuning;[6]

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[2] *See Auction of Licenses in the 747-762 and 777-792 MHz Bands (Auction No. 31) Postponed Until January 14, 2003*, Public Notice, FCC 02-158; Report No. AUC-02-31-F (rel. May 24, 2002).

[3] *See* Boeing Comments at 5. *See also NPRM* at 61 (Separate Statement of Commissioner Abernathy).

[4] *Id*. *See also* Commissioner Kathleen Q. Abernathy, A Principled Approach to LMCC Spectrum Management**,** Address before the LMCC National Conference, Washington D.C. at 2-3 (Apr. 19, 2002) *available at* http://www.fcc.gov/ Speeches/Abernathy/2002/spkqa209.html ("*Commissioner Abernathy's LMCC Remarks*").

[5] *See* Boeing Comments at 9-10. *See also* Comments of American Electric Power Co. at 6, Cascade Two-Way Radio at 2, Consumers Energy Co. at 24-25, City of San Diego and San Diego County (Public Safety Improvement Coalition) at 6-8, San Diego County at 2-3, Snohomish County (WA) Emergency Radio Sys. at 1, New York Office for Tech. at 14-20, Supreme Radio Communications at 13, and TIA at 2-3.

[6] *See* Boeing Comments at 8-9. *See also* Comments of American Electric Power Co., Inc. at 11-13; Lockheed Martin Corp. at 8; M/A-Com., Inc. at 7-8; Questar Corp. at 2; United Telecom Council at 14-17.

(5) The solution should be limited, to the extent feasible, to the confines of the bands currently used for the services being provided by the incumbents;[7] and

(6) The solution should consolidate Public Safety channels and identify additional interoperability channels if needed.[8]

Several other guidelines have been proposed that should also be taken into consideration.[9] Particularly, Southern LINC and Consumers Energy suggest that the rights and responsibilities of parties should be clearly defined.[10] Further, the Telecommunications Industry Association ("TIA") suggests that: (1) incumbent licensees should not lose their primary status, (2) the Commission should recognize that contiguous spectrum affords users greater flexibility and throughput, and (3) commercial networks frequently do not meet the needs of all businesses.[11]

With these principles in mind, Boeing now provides further comment on several items of concern, specifically: (1) the benefits of relocating incumbent 800 MHz Public Safety licensees to the relatively unencumbered 700 MHz band and the drawbacks of the self-proclaimed "Consensus Proposal,"[12] (2) the disadvantages of relying on market based solutions, (3) the

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[7] *See* Boeing Comments at 4. *See also Commissioner Abernathy's LMCC Remarks* at 2.

[8] *See* Boeing Comments at 5. *See also NPRM* at 61 (Separate Statement of Commissioner Abernathy).

[9] *See, e.g.,* Comments of Consumers Energy Co. at 7-8, International Ass'n of Fire Chiefs/International Mun. Signal Ass'n at 3-4, Joint Comments of ARINC *et al.* at 25-26, Motorola at 3-4; Nextel at 16-18, Southern LINC at 16-22, and TIA at 2-3.

[10] *See* Comments of Consumers Energy Co. at 7-8, Southern LINC at 16-22.

[11] *See* Comments of TIA at 2-3.

[12] The "Consensus Proposal" is submitted by various Public Safety organizations, certain members of the Private Wireless Coalition, and Nextel. The "Consensus Proposal" is hereinafter referred to as the "Nextel Consensus Proposal."

unique requirements of border region incumbents, and (4) the Commission's unwarranted consideration of 2 GHz Mobile Satellite Service ("MSS") spectrum in this proceeding.

The ideal solution to the 800 MHz interference problem would include aspects of a rebanding solution (*i.e.,* a limited rebanding in the near term to address immediate interference problems) and the ultimate relocation of 800 MHz Public Safety users to the Upper 700 MHz band. It would also permanently resolve the interference problem and adequately protect border area licensees while not rewarding Nextel for the interference and widespread disruption it has caused.

II. TO FACILITATE GROWTH AND ENSURE INTERFERENCE-FREE OPERATIONS FOR PUBLIC SAFETY, THE COMMISSION SHOULD MOVE 800 MHz PUBLIC SAFETY LICENSEES TO 700 MHz

The Coalition for Constructive Public Safety Interference Solutions ("Coalition") developed a "relocation" plan that shifts Public Safety to the Upper 700 MHz spectrum.[13] More recently, a coalition led by Cingular Wireless also advocates shifting Public Safety to the Upper 700 MHz band. Boeing supports these plans with one caveat related to auctioning 800 MHz spectrum as discussed further below. Relocating Public Safety licensees to 700 MHz will permanently resolve the Public Safety interference problem and best satisfies the Commission's many objectives.

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[13] *See* Letter from the Coalition for Constructive Public Safety Interference Solutions to The Honorable Michael K. Powell, Chairman, Federal Communications Commission, WT Docket No. 99-168, GN Docket No. 01-74 (filed Apr. 26, 2002). Members of the Coalition include FIRSTCellular; Nokia, Inc.; AT&T Wireless; Southern LINC; Cingular Wireless; and Alltel Corporation.

Opponents of relocating Public Safety to 700 MHz cite future legislative hurdles, lack of equipment, and the presence of incumbent broadcast licensees as reasons for their opposition.[14] It is becoming clear that these hurdles to the 700 MHz proposal can be surmounted. First, Congress recently delayed the 700 MHz auctions and has expressed great interest in the issue and a willingness to take all necessary action to maximize the use of the spectrum.[15] Given the current state of the economy and the renewed emphasis on Public Safety issues in the wake of terrorist activities, it is likely that Congress will support Public Safety relocation to the Upper 700 MHz band. Second, equipment manufacturers could quickly develop new Public Safety equipment that operates in the 700 MHz band. In fact, Motorola is currently shipping Public Safety equipment suitable for 700 MHz operations.[16] Third, never have incumbent broadcasters had such formidable policy competition—Public Safety—to help motivate their transition to digital and expedite their relocation out of the Upper 700 MHz band. Considering the heightened legislative and industry attention to the issues of Public Safety interference and the DTV transition, there now exists a unique opportunity to address these dual policy challenges and offer a comprehensive response.

Fourth, any timing gap to implement the "relocation" plans versus Nextel's "rebanding" plans is rapidly closing. At the outset, metropolitan areas without broadcast Channel 60-69

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[14] *See* Nextel Comments at ii.

[15] *See* Auction Reform Act of 2002, Pub. L. No. 107-195 (delaying the 700 MHz auctions and noting that the "Commission should not hold the 700 megahertz auction before the 800 megahertz interference issues are resolved or a tenable plan has been conceived."). It is ironic that the Nextel Consensus decries the legislative hurdles faced by the 700 MHz relocation advocates because its rebanding alternative also requires implementing legislation.

[16] *See* Motorola Comments at 5-6.

incumbents could convert to digital and relocate immediately or very expeditiously at the Commission's direction. Nextel and the Nextel Consensus optimistically claim that their proposals can be implemented in three years, whereas the Upper 700 MHz encumbered spectrum will not be available until 2006 at the earliest.[17] Assuming, *arguendo*, that the Commission releases an order in this proceeding in the winter of 2002, Nextel's White Paper proposal has no advantage in unencumbered MSAs and would have at most only approximately a one year advantage over the Upper 700 MHz relocation proposals. RCC Consultants note that "[r]estructuring the 800 MHz band would take at least as many years comparatively, yet it would not offer a total solution to the interference problem."[18] Further, the new Nextel Consensus proposal calls for at least four distinct phases of implementation. Each phase has the potential to cause an extensive domino effect of delay. Considering the other factors involved, the efficacy and benefits of the relocation plan, the lack of disruption to 2 GHz MSS licensees, and the possibility that 700 MHz incumbents could be cleared faster, any claimed advantage of expedience is rapidly proving negligible.

Relocating Public Safety licensees to the Upper 700 MHz band best accomplishes the Commission's multiple goals in this proceeding, and, contrary to the Nextel Consensus's claims,[19] widespread industry support exists for relocating 800 MHz Public Safety licensees to

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[17] *See* Nextel Communications, Inc., *Promoting Public Safety Communications – Realigning 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,* White Paper at 47 (filed Nov. 21, 2001)("*Nextel White Paper*").

[18] *See* Comments of RCC Consultants, Inc. at 4.

[19] *See, e.g.,* Paul Kirby, *800 MHz Band Incumbents Seek Consensus Plan to Address Interference to Public Safety Systems*, June 17, 2002 Telecommunications Reports at 5-6.

the Upper 700 MHz band.[20] It will permanently resolve the harmful interference problems afflicting Public Safety licensees at 800 MHz; consolidate and maximize the efficiency of Public Safety spectrum allocations; enable more sophisticated applications; foster interoperability between federal, state, and local Public Safety communications networks without expensive multi-band radios; increase the amount of spectrum assigned to Public Safety by 20.5 MHz; minimize the border area problems for B/ILT licensees because it will not require new bilateral arrangements for the 800 MHz band;[21] free up additional border region channels for use by non-Public Safety licensees; and provide an equitable method to fund Public Safety relocation.

Boeing, however, has a major concern with the 700 MHz proposals related to auctioning of the 800 MHz spectrum given up by relocating Public Safety entities. Specifically, the proposals to relocate Public Safety to the Upper 700 MHz band would slate for auction all of the 800 MHz spectrum vacated by incumbent Public Safety users. That auctioned spectrum would likely be licensed to cellularized CMRS providers. This scenario would be potentially problematic for remaining PMRS incumbents because auctioning of the remaining 800 MHz spectrum would likely lead to increased and widespread occurrence of harmful interference to

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[20] *See, e.g.,* Comments of AT&T Wireless at 10-14; Bergen County Police Dept. at 6; Business Autophones at 2; Cellular Telecommunications and Internet Ass'n at 6-10; Cingular Wireless and ALLTEL Communications at 17-18; Coupe Communications at 3; Electronic Specialties, Computer Car, Inc., California State Auto. Ass'n, Automobile Club of Southern California, US Unwired, Inc., Copper Valley Wireless, RCS Communications, 3M, CC Communications, and Southern Illinois RSA P'ship at 6-7; Fischer Wireless Svcs. at 3; Fresno Mobile Radio at 3-4; Jamestown Communications and Midwest Mgmt. at 6; Kenwood Communications at 11-12; Lockheed Martin Corp. at 3-4; Madison County East Transit Dist. at 8-9; Motient Communications at 16-19; NAM/MRFAC at 4; Private Wireless Coalition at 6-10; Radiosoft at 6; and Southern LINC at 14.

[21] Boeing acknowledges that new border region bilateral agreements may be needed for the Upper 700 MHz band.

the remaining PMRS/SMR incumbents. This, in effect, would perpetuate or even exacerbate the occurrence of harmful interference in the band. The only difference is that PMRS licensees will suffer the interference instead of Public Safety licensees.

Many PMRS licensees use their 800 MHz licensees for critical communications related to safety and security. The potential for interference to critical industrial and industrial safety communications under the auctioning aspect of the Upper 700 MHz plan cannot be tolerated. As an alternative, Boeing recommends sub-banding the vacated spectrum by application (*e.g.,* critical industrial/industrial safety, non-critical B/ILT, non-cellularized SMR). Although it would necessitate some degree of retuning in the residual bands, this will help preempt yet another highly interleaved spectrum scenario and avoid future harmful interference to PMRS licensees post auction. Contiguous blocks of spectrum remaining after the limited rebanding would be auctioned off as proposed to help fund the relocation of Public Safety licensees to the Upper 700 MHz band.

III. THE NEW NEXTEL PROPOSAL IS FLAWED AND SHOULD NOT BE ADOPTED

The Commission should view with appropriate skepticism the so-called "Consensus Proposal" advanced by Nextel, the Private Wireless Coalition, and certain public safety organizations. The proposal is detrimental to PMRS incumbents and does not best achieve the Commission's goals for resolving 800 MHz interference (namely, interference elimination, minimum disruption to existing services, and the provision of sufficient spectrum for public safety).

The Nextel Consensus's proposal is a poor alternative if the Commission's goal is to effectively eliminate interference to Public Safety at 800 MHz. At the outset, it essentially sets the stage to perpetuate interleaving and the interference status quo by contemplating future

contamination of cellularized systems into the proposed non-cellularized blocks. This will do little to help permanently resolve interference in the 800 MHz band. Also, there is a real risk that, under its proposed multi-phased relocation scheme, 800 MHz incumbents will in effect be playing an extended game of "musical chairs" within the band with no real assurances that the exercise will permanently resolve the critical interference issues.

Further, forcing non-interfering B/ILT and SMR licensees to relocate several times in order to remain in the 800 MHz band (possibly at their own expense) does not satisfy the Commission's goal of minimizing disruption to existing users. It forces licensees to choose the lesser of evils between operating in a cramped guard band for at least five years (a "double hop" if some B/ILT licensees want to stay in the 800 MHz band) or relocating to the 900 MHz band. Such multiple relocations would be cost prohibitive to many private licensees and would harm business productivity.

The aspect of the proposal that would encroach on the current spectrum assignments to Unlicensed PCS and 2 GHz MSS users also does not further the Commission's goal of not interfering with existing services. Beyond being "made whole," Nextel has not explained why it asks for a spectrum allocation at 2 GHz or what specifically it will do with its proposed spectrum windfall. Nextel has never stated that it will locate its existing 800 MHz operations to that spectrum. Regardless of what Nextel's justification may be, 2 GHz MSS spectrum should not be given to Nextel. No Nextel justification would overcome the policy rationale predicating the 2 GHz MSS allocation. If the Commission grants the Nextel Consensus Proposal, Nextel will be made more than whole – it will benefit from causing interference at the expense of others. Achieving resolution of the 800 MHz interference problem without making Nextel "whole" or otherwise rewarding Nextel is an appropriate forfeiture.

In sum, the new Nextel Consensus Proposal is a "quick fix" that does not represent a true solution and will lead to additional problems. A comprehensive solution that takes into account the needs of all parties is essential to resolve permanently the 800 MHz interference problem. The Commission should recognize that the primary beneficiary of the "Consensus Proposal" is Nextel—not Public Safety. Instead, the proposal to relocate the Public Safety licensees to 700 MHz is a much more effective approach to prevent long term interference to Public Safety communications.

IV. THE COMMISSION SHOULD NOT RELY ON MARKET SOLUTIONS TO RESOLVE THE 800 MHz INTEFERENCE PROBLEMS

Several parties suggest that the Commission should allow market solutions to fix the regulatory failure that has lead to the 800 MHz Public Safety interference problem.[22] Examples of market solutions include the creation of an 800 MHz antenna database, use of flexible channel swaps, technical fixes, and arbitration mechanisms. Reliance on such market mechanisms, however, would entail a lengthy resolution process, is unnecessary, and unwise. Relying on market forces alone would inevitably lead to many errors and to new problems that would be costly in terms of their rectification and their breadth of impact to licensees. Further, such an approach could lead to undue delay in resolving instances of harmful interference to Public Safety systems. It was exactly such a market based approach that ultimately caused many of the problems currently being experienced in the 800 MHz band, and it is clear that reliance on market based approaches have failed and will fail in this crucial situation.

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[22] *See, e.g.,* Comments of Cinergy Corp. at 9-22, Consumers Energy Co. at 7-19, DelMarva Power & Light Co./Atlantic City Electric Co. at 16, Exelon Corp. at 8, Questar Corp. at 3, Scana Corp. at 6-22, Southern LINC at 16-22.

The spectrum "swaps" proposed by some as a means of resolving interference problems either permanently or temporarily within the 800 MHz band are a recipe for failure.[23] These swaps could occur regardless of the current allocation of channels. As a result, commercial providers could operate on Public Safety (including NPSPAC) channels and Public Safety licensees could operate on B/ILT, General Category, or SMR channels. At the very least, intensive frequency coordination efforts would be required and constant shifting of spectrum would ensue. Such swaps would inevitably lead to an even more unmanageable patchwork of interleaved uses, generate a heightened lack of predictability, and lead to exacerbated and frequently recurring incidences of harmful interference. The private ad hoc solutions that created the current problem should not be replicated.

Boeing opposes continuing a practice whereby PMRS and Public Safety spectrum in the 800 MHz band would be transformed into a commodity for commercial interests.[24] Allowing spectrum swaps between categories of users in the 800 MHz band would permit commercial users to further encroach and cause interference to the spectrum of private wireless and Public Safety users. The inevitable outcome of such an approach would be to promote the commercial use of the spectrum to the detriment of quasi-public good private spectrum users.[25] Such encroachment is unacceptable.

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[23] *See, e.g.,* Comments of Southern LINC at 24-25, Consumers Energy Co. at 16.

[24] *See* Boeing Comments at 24-25.

[25] As previously discussed in many dockets, CMRS licensees have a long history of encroachment on PMRS spectrum. *See* Boeing Comments at 8, 24-25. This encroachment has occurred despite the fact that significant additional spectrum has been allocated to commercial mobile use as opposed to spectrum allocated to private use.

V. THE SPECIAL NEEDS OF BORDER AREA LICENSEES REQUIRE AN EQUITABLE SOLUTION AND ADEQUATE TIME FOR RESOLUTION

Any spectrum retuning or rebanding solution that does not account for the unique border region channel assignments would cause major problems for many licensees.[26] Shifting channel assignments within the 800 MHz band or to adjacent spectrum bands would likely violate existing bilateral agreements by shifting many licensees to channels currently assigned to Canada or Mexico. Because of the restrictions and potential delay that would result due to the establishment of new bilateral agreements, it is imperative that border area licensees' rights are protected.

Many commenters share Boeing's concern regarding the need to address border area considerations as part of any plan to resolve the 800 MHz Public Safety interference problem.[27] For example, the City of San Diego commented that "Mexican and Canadian border areas represent the greatest challenge to the changes being proposed."[28] Cascade Two Way Radio notes that a "distinctly different approach in the[] border areas" will be required.[29]

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[26] *See* Boeing Comments at 10-16.

[27] *See, e.g.,* Comments of American Electric Power Co. at 6, Cascade Two-Way Radio at 2, Consumers Energy Co. at 24-25, City of San Diego and San Diego County (Public Safety Improvement Coalition) at 6-8, San Diego County at 2-3, Snohomish County (WA) Emergency Radio Sys. at 1, New York Office for Tech. at 14-20, Supreme Radio Communications at 13, and TIA at 2-3.

[28] *See* Comments of City of San Diego (Public Safety Improvement Coalition) at Appendix A.

[29] *See* Comments of Cascade Two Way Radio at 1. Further, it notes that "without agreement with Canada, the plans proposed by both NEXTEL and NAM/MRFAC are unrealistic for this area and simply do not offer a practical solution for United States-Canada border area" and that "[t]reaty modifications or other special agreements would be required with Industry Canada." *Id.* at 2.

Even Nextel briefly acknowledges the issue, suggesting that the Commission should "renegotiate these [bilateral] agreements as necessary to accommodate the realignment plan" and that "[u]ntil that time, 800 MHz band licensees could implement those portions of the realignment plan that are consistent with international agreements."[30] Despite Nextel's apparent recognition of the problem, however, the Nextel Consensus Proposal does not address the border area issue. Instead, it downplays the problem and delays its resolution. This disregard for the border region problem is unacceptable because a general reallocation solution may not be feasible given the international considerations and could take years to implement for affected border region licensees. In the complicated border areas, advance consideration and planning for a sufficient solution that resolves interference without extensive rebanding is required.

The Commission must take border area issues into full consideration when making its decisions on how to resolve the 800 MHz Public Safety interference problem. As indicated in Boeing's comments, one way to protect border region licensees is through a "Do No Harm" policy for border area incumbents where, regardless of the solution chosen by the Commission, border area licensees may remain "as is" on a primary basis until appropriate international agreements can be reached that will allow for successful relocation and/or retuning. Only after the necessary international agreements are reached should the Commission require border region incumbents to move to new spectrum. Under this "Do No Harm" policy, border region interference issues would be addressed by localized, site-by-site solutions crafted by frequency coordinators and the affected parties.

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[30] *See* Nextel Comments at 4 n.10.

VI. VIABLE SOLUTIONS TO THE 800 MHz INTEFERENCE PROBLEM DO NOT REQUIRE SPECTRUM FROM THE 2 GHz MSS BAND

The comments submitted in this docket and related activities evince a wide array of options from the industry, the Commission, and even Congress. All of these options have the same goal—to resolve 800 MHz Public Safety interference. Besides Nextel's White Paper proposal (and now, the "Consensus Proposal"),[31] *none* of the options implicate the 2 GHz MSS spectrum allocation.[32] The MSS allocation at 2 GHz is in no logical way related to the resolution of Public Safety interference in the 800 MHz band. Due to the alternatives currently before the Commission, there is no need to consider a proposal that implicates the 2 GHz MSS band.

Several commenters share Boeing's view that Nextel's initial proposal to reallocate 10 megahertz of 2 GHz MSS spectrum is both unwise and entirely unwarranted.[33] For example, Iridium maintains that the "800 MHz Public Safety service can be 'saved' without sacrificing the 2 GHz MSS licensees."[34] Other commenters characterize Nextel's proposal as a "spectrum grab."[35] Boeing fully agrees with these comments. Now, the Nextel Consensus Proposal would

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[31] *See supra* n. 12.

[32] *See, e.g.,* the proposals offered by the Commission in its *NPRM* at ¶¶26-28; NAM/MRFAC at ¶¶21-22; the Private Wireless Coalition; the Coalition for Constructive Public Safety Interference Solutions; the Cingular Joint Commenters, etc.

[33] *See, e.g.,* Comments of CTIA at 5, Cingular Wireless and Alltel at 12-13, Southern LINC at 44-47, and AT&T Wireless at 20-22.

[34] *See* Iridium Comments at 4.

[35] *See* Comments of AT&T Wireless at 20 (describing Nextel's 2 GHz proposal as a "blatant spectrum grab" that "does not relate in any way to the interference problems confronting public safety"); Cingular Wireless LLC and ALLTEL Communications, Inc. at 12-13 (characterizing Nextel's request as "disingenuous" and an "unwarranted grab of 2.1 GHz spectrum for its

take five megahertz of MSS spectrum and five megahertz of Unlicensed PCS spectrum and make it available exclusively to Nextel. This is inappropriate for the same reasons that Boeing opposes the original Nextel proposal. Boeing urges the Commission to declare expeditiously that it will not consider any reallocation of 2 GHz MSS spectrum as part of its resolution of this proceeding.

There are many reasons why the Commission should not involve the 2 GHz MSS spectrum as part of any solution in this proceeding. In addition to being an unnecessary distraction to the resolution of the real issue at hand, the Commission very recently determined that a 2 GHz MSS allocation is the highest and best use of the spectrum.[36] Further, practical consideration of the request is preempted by the pending *3G* and the *MSS Flexible Use* proceedings that are already addressing major issues related to the 2 GHz MSS allocation.[37] This proceeding is not an appropriate venue for reallocating 2 GHz spectrum, and the mutual exclusivity and auctioning issues that would inevitably arise make it prohibitively difficult to pursue this additional objective in this proceeding.

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exclusive use"); and Southern LINC at 50 (categorizing Nextel's 2 GHz proposal as "a spectrum grab that is contrary to the public interest and far removed from sound spectrum policy").

[36] *See Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service,* First Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 7388, 7394 (1997), *aff'd on recon.*, Memorandum Opinion and Order and Third Notice of Proposed Rule Making and Order, 13 FCC Rcd 23949 (1998) ("*2 GHz MSS Allocation Order*").

[37] *See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3G for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems,* Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 16043, 16054-56 (2001)("*3G Proceeding*"); *Flexibility for Delivery of Mobile Satellite Services in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Band,* Notice of Proposed Rulemaking, 16 FCC Rcd 15532, 15543 (2001)("*MSS Flexibility Proceeding*").

Additionally, the current 2 GHz MSS licensees (including Boeing) are currently implementing their systems. The *first* milestone for 2 GHz MSS licensees—establishment of a non-contingent satellite manufacturing contract—was *July 17, 2002*—three weeks ago.[38] Early reports appear to indicate that all licensees have met their milestones. Consideration of reallocating 2 GHz MSS spectrum to Nextel would be patently inconsistent with the Commission's policy and expectations of strict compliance with its milestone requirements. Given the significant financial expenditures required to implement any satellite system, licensees require substantial certainty that their investments will not be stranded by capricious reallocation of the subject spectrum.

Reallocation of any of the 2 GHz MSS spectrum at this juncture when 2 GHz MSS systems are moving forward would significantly impair MSS licensees' rights, reasonable expectations regarding system implementation, and the future potential to expand 2 GHz MSS systems to meet reasonable and anticipated demand. In the specific case of 2 GHz MSS, Boeing will use its initial assignment of 3.5 MHz of spectrum in each direction to implement its planned service, and anticipates to eventually seek access to the entire spectrum request that Boeing included in its original application (just over 8 MHz in each direction) in order to continue to provide 2 GHz MSS service into the future. Boeing is relying on the Commission's representations regarding the ability to access adequate additional spectrum from the 2 GHz MSS allocation when moving forward with its 2 GHz MSS system.[39] Allowing the 2 GHz MSS

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[38] *See id.* ¶ 48.

[39] *See The Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, Report and Order, 15 FCC Rcd 16127, 16139, 16146-47 (2000).

allocation to be treated like a "grab bag" for commercial wireless use jeopardizes this trust and the ultimate ability of 2 GHz MSS licensees to meet consumer demand.

The 2 GHz MSS licensees are already being harmed by the regulatory uncertainty caused by this and related proceedings. For example, due to the existing regulatory uncertainty, the Broadcast Auxiliary Service ("BAS") community[40] and the National Association of Broadcasters ("NAB") and the Association for Maximum Service Television, Inc. ("MSTV")[41] requested—and the Commission granted—a stay of the current two-year mandatory negotiation period between broadcasters and MSS providers that was scheduled to expire on September 6, 2002.[42] Because of the existing harm and potential for future harm to 2 GHz MSS systems, the Commission should immediately declare 2 GHz MSS "off the table" in this proceeding.

VII. CONCLUSION

The Commission should resolve the harmful interference being experienced by Public Safety in the 800 MHz band in a manner that provides a permanent and equitable solution, that fully considers the unique circumstances faced by border region licensees, and that does not include reallocation of any 2 GHz MSS spectrum. An ideal solution would include rebanding in certain areas to address immediate interference problems, combined with the ultimate relocation

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[40] *See* Comments of the Society of Broadcast Engineers ("SBE") at 3-4.

[41] *See, e.g.,* Letter from Edward O. Fritts, President & CEO, NAB and David L. Donovan, President, MSTV to The Honorable Michael Powell, Chairman, FCC, ET Docket No. 95-18 (submitted June 6, 2002).

[42] *See Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service*, Order, ET Docket No. 95-18, FCC 02-221 (rel. Aug. 2, 2002).

of Public Safety licensees to the Upper 700 MHz band and a limited post-relocation 800 MHz rebanding to minimize future incidences of harmful interference to private licensees.

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