

Before The  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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

**COMMENTS OF VERIZON WIRELESS**

**SUMMARY**

In accordance with the Commission's Public Notices of September 6, 2002 and September 18, 2002, Verizon Wireless respectfully submits these comments in response to various proposals filed with the Commission in the above-referenced proceeding.<sup>1</sup> These submissions include a "Consensus Plan," proposed by Nextel and other Joint Commenters, which proposes to resolve the interference problems experienced by public safety licensees through a realignment of the 806-824/851-869 MHz ("800 MHz") band.<sup>2</sup>

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<sup>1</sup> *Wireless Telecommunications Bureau Seeks Comment on "Consensus Plan" Filed In The 800 MHz Public Safety Interference Proceeding*, FCC Public Notice, DA 02-2202, rel. Sep. 6, 2002; *Wireless Telecommunications Bureau Clarifies Scope Of Comments Sought In 800 MHz Public Safety Interference Proceeding (WT Docket 02-55)*, FCC Public Notice, DA 02-2306, rel. Sep. 17, 2002; *In the Matter of Improving Public Safety Communications in the 800 MHz Band, Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels*, Notice of Proposed Rulemaking ("NPRM"), FCC 02-81 (rel. Mar. 15, 2002).

<sup>2</sup> See Reply Comments of Aeronautical Radio, Inc. (ARINC), The American Mobile Telecommunications Association (AMTA), The American Petroleum Institute (API), The Association of American Railroads (AAR), The Association of Public-Safety Communications Officials-International, Inc. (APCO), The Forest Industries

Though Nextel is the primary cause of these interference problems, it proposes to pay only a small portion of the costs of the proposed realignment. In the process, it would receive a substantial and unjustified spectrum windfall.

The Consensus Plan is an inaccurately labeled proposal that masks serious disagreements over the realignment of the 800 MHz band. The plan has the same flaws as Nextel's original proposal: (1) it provides no real solution to the Commission because it will not eliminate interference to public safety licensees; (2) it cannot be funded with the monies promised from Nextel but offers no funding mechanism for the relocation costs it would impose; and (3) it is nothing more than yet another attempt on the part of Nextel to acquire more spectrum for free. Far from achieving any consensus, Nextel's plan to realign the 800 MHz band has provoked major opposition from numerous parties, as characterized by the following comments by Small Business in Telecommunications:

“Nextel, therefore, is the primary source of the anxiety and lack of reliability of public safety and other affected systems. Nextel knows this to be true, the same way all of the commenting parties know this to be true. Having created by its own unilateral and irresponsible acts the uncertainty for future operations of analog systems within the 800 MHz band, Nextel's proposals are even more incredible in the audacity of its suggestions. That Nextel has lured some public safety commenters to its cause is unfortunate in the extreme. It appears that Nextel has created the threat and now chooses to be rewarded for its creation of the threat by making a deal with public safety victims to act in a concerted manner which is highly disadvantageous to other, innocent analog operators.”<sup>3</sup>

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Telecommunications (FIT), The Industrial Telecommunications Association, Inc. (ITA), The International Association of Chiefs of Police (IACP), The International Association of Fire Chiefs, Inc. (IAFC) and International Municipal Signal Association (IMSA), The Major Cities Chiefs Association (MCC), The Major County Sheriff's Association (MCSA), The National Sheriff's Association (NSA), Nextel Communications, Inc., The Personal Communications Industry Association (PCIA), and The Taxicab, Limousine and Paratransit Association (TLPA) (filed Aug. 7, 2002) (“Consensus Plan”), in response to the NPRM.

<sup>3</sup> See Reply Comments of Small Business in Telecommunications (filed Aug. 1, 2002) (“SBT Reply Comments”), in response to NPRM, at 42.

Verizon Wireless urges the Commission to reject the Consensus Plan as a radical, enormously costly, and disruptive approach. It is discriminatory and unlawful, and, fatally, will not accomplish the Commission's objectives in resolving interference problems in the 800 MHz band. There is simply no reason why the Commission should buy in to what will be a tortuous approach, of questionable benefit, when there are simpler solutions that are likely to be equally if not more effective. Instead, the Commission should implement a long-term plan for public safety that ensures it has sufficient spectrum resources that are not subject to harmful interference. It should implement this plan in a cost-effective manner, with minimal disruption to existing licensees, and without granting a windfall to any individual licensee.

**I. THE "CONSENSUS PLAN" PROPOSED BY NEXTEL DOES NOT REPRESENT A "CONSENSUS" AT ALL.**

Verizon Wireless appreciates the efforts of APCO, IACP, IAFC, MCC, and other Joint Commenters, as well as many other public safety and commercial interests that filed submissions in response to the NPRM. The information submitted to the Commission throughout this proceeding includes a variety of thoughtful and varied proposals for resolving interference to public safety operations in the 800 MHz band. There appears to be no clear consensus on how to resolve this complex problem.

Subsequent to filing Comments with the Commission on May 6, 2002, some commenters worked to develop a "compromise" proposal that they hoped would form the basis for a solution and could be supported by all interested parties. This "compromise" proposal was renamed the Consensus Plan when it was submitted to the Commission on August 7, 2002. However, simply calling it a "Consensus" Plan does not make it so.

The parties to this proceeding clearly agree on one thing – that Nextel is the predominant cause of interference to public safety systems, and is the sole cause of interference in many cases.<sup>4</sup> However, this is about where the “consensus” ends. There is not even wide agreement on the extent of the interference experienced by licensees in the 800 MHz band, let alone agreement on the best means for resolving this interference. The City of Baltimore, Maryland, for example, states “that the interference problem may have been overstated by commercial parties who see an opportunity to gain valuable blocks of spectrum,” and “it may not be possible to come up with a ‘one-size-fits-all’ solution such as the proposals currently on the table.”<sup>5</sup>

The Joint Commenters believe that their Consensus Plan represents the best means for achieving the Commission’s objectives – i.e., eliminating harmful interference to public safety licensees with minimal disruption to existing services. However, there is clearly not consensus, even among public safety entities, that this proposal will accomplish these objectives.

The wireless industry has long made known its view that a realignment of the 800 MHz band alone would not eliminate interference to public safety operations.<sup>6</sup> However,

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<sup>4</sup> SBT Reply Comments at 1; *see also* Comments of the City of Portland, Oregon (filed May 6, 2002) (“Portland Comments”), in response to the NPRM, at 3; *see also* Comments of the City of Baltimore, Maryland (filed May 6, 2002) (“Baltimore Comments”), in response to the NPRM, at 2; *see also* Comments of the City of Newport News (filed May 4, 2002), in response to the NPRM at 1; *see also* Comments of the Department of Information Technology, Fairfax County, Virginia (filed April 30, 2002) (“Fairfax County Comments”), in response to the NPRM, at 2.

<sup>5</sup> Baltimore Comments at 6.

<sup>6</sup> *See* Comments of Verizon Wireless (filed May 6, 2002) (“Verizon Wireless Comments”), in response to NPRM, Attachment at 3; *see also* Comments of Cingular Wireless LLC and ALLTEL Communications, Inc. (filed May 6, 2002) (“Cingular/ALLTEL Comments”), in response to NPRM, Attachment A at 10; *see also*

other commenters, including public safety entities, have expressed the same view.<sup>7</sup> The City of Portland, Oregon, for example, states, “the band realignment approach would not resolve the interference problems currently being experienced by the Portland mobile data system.”<sup>8</sup> It also notes that such a realignment “will create intra- and inter-system frequency coordination problems” that do not exist today.<sup>9</sup> The City of Baltimore states, “It is clear from the record that there are substantial questions of fact concerning the extent of the public safety interference problem and whether there are technical solutions to the interference problem short of a wholesale reorganization of the spectrum.”<sup>10</sup> The Department of Information Technology in Fairfax County, Virginia is generally opposed to any reorganization or restructuring of the 800 MHz band, stating, “There is no guarantee that all interference to public safety communications will be resolved by this drastic and complicated measure.” Fairfax County concludes from its own experiences that “interference that does occur can be effectively mitigated using good engineering practice and the techniques described in the ‘Best Practices Guide’.”<sup>11</sup>

Clearly, there is no consensus that any realignment of the 800 MHz band, including the one proposed by the Joint Commenters, would eliminate interference to public safety operations. In fact, many commenters, including some public safety

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Comments of AT&T Wireless Services, Inc. (filed May 6, 2002) (“AT&T Comments”), in response to NPRM, at 16.

<sup>7</sup> See Reply Comments of Consumers Energy Company (filed Aug. 7, 2002) (“Consumers Energy Replies”), in response to NPRM, at 18; SBT Reply Comments at *i*.

<sup>8</sup> See Reply Comments of the City of Portland (filed August 7, 2002) (“Portland Reply Comments”), in response to NPRM, at 4.

<sup>9</sup> *Id* at 3.

<sup>10</sup> Baltimore Comments at 3.

entities, believe that the best long-term plan for resolving such interference is to relocate public safety systems out of the 800 MHz band – i.e., to 700 MHz.<sup>12</sup>

Even if a realignment of the 800 MHz band would significantly mitigate interference, there is no agreement (particularly from public safety) that the plan recommended by the Joint Commenters would accomplish this objective with minimal disruption to incumbent licensees.<sup>13</sup> To the contrary, the Public Safety Improvement Coalition correctly notes that this plan “places a particularly heavy burden on NPSPAC licensees.”<sup>14</sup> Many of these licensees have already constructed, or will soon begin to construct, public safety systems operating in the 821-824/866-869 MHz bands. Under the Consensus Plan, these licensees would be required to relocate their systems to the 806-809/851-854 MHz bands, causing many public safety licensees to “face the expense and disruption of re-programming a major system shortly after putting it into service.”<sup>15</sup> This expense and disruption would be exacerbated by a second relocation if it were determined in the future that moving public safety systems to 700 MHz was necessary to eliminate interference entirely.

There are other aspects of the Consensus Plan that do not have wide support from the commenters in this proceeding. For example, the Joint Commenters propose that public safety and Business / Industrial Land Transportation (“B/ILT”) licensees in the

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<sup>11</sup> Fairfax County Comments at 5.

<sup>12</sup> See Reply Comments of the Public Safety Improvement Coalition (filed Aug. 7, 2002) (“PSIC Reply Comments”), in response to NPRM, at 7; Portland Reply Comments at 5; Cingular/ALLTEL Comments at 17.

<sup>13</sup> Consumers Energy Replies at 24.

<sup>14</sup> PSIC Reply Comments at 6.

<sup>15</sup> *Id.*

realigned 800 MHz band be prohibited from operating systems that are “cellular-like,” i.e., systems with hand-off capability, sites with antenna heights of less than 100 feet or HAATs of less than 500 feet, and sites with more than 20 paired frequencies.<sup>16</sup> Verizon Wireless believes that such restrictions would substantially inhibit an incumbent licensee’s ability to innovate and make the most efficient use of its assigned spectrum. We are not alone in this view, as evidenced by the following comments from two public safety entities:

“There are site-by-site cases where public safety must put in place cellular-like architectures. Some examples of this are convention centers, underground facilities, high-rise buildings, trolley stations and other structures that are not covered by high-site, high-power system architecture.” (Public Safety Improvement Coalition).<sup>17</sup>

“Many large public safety systems use spectrum efficient “simulcast” technology where they use a smaller number of channels to cover a large area. Simulcast technology uses special engineering and technical systems to allow multiple transmitters on the same frequency to operate in a coordinated fashion. This allows a single set of frequencies to be used over a large geographic area without resorting to sites with large heights above average terrain. In many cases, this also allows lower individual site ERPs to be used because multiple sites are used to provide the coverage.” (City of Portland, Oregon)<sup>18</sup>

In short, the “Consensus” Plan’s position on restricting the deployment of “cellular-like” systems by public safety and private mobile licensees is not in accord with some public safety entities.

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<sup>16</sup> Consensus Plan at 10.

<sup>17</sup> PSIC Reply Comments at 6.

<sup>18</sup> Portland Reply Comments at 3.

## **II. THE COMMISSION SHOULD REJECT THE “CONSENSUS PLAN.”**

The Consensus Plan is just the latest of Nextel’s attempts to transform a problem of its own making (interference to public safety operations) into a substantial spectrum windfall. It has the same flaws as the original proposal made by Nextel 10 months ago: (1) it would not eliminate interference in the band over the long-term; (2) it would grant an unjustified and unlawful windfall to Nextel; and (3) it would provide no clear path for funding the relocations that would be required to support this enormous undertaking.

### **A. The Consensus Plan Will Not Eliminate The Potential For Interference To Public Safety Systems Over The Long-Term.**

As discussed supra and in Verizon Wireless’ initial comments, the realignment of the 800 MHz band, based on the Consensus Plan or any other proposal, would not eliminate the potential for harmful interference to public safety operations. As long as public safety licensees operate high-site, high-power systems in frequency bands that are in close proximity to those used by commercial operators for low-site, lower power systems, there will be a potential for interference.<sup>19</sup> Even the Joint Commenters acknowledge that the potential for interference cannot be eliminated.<sup>20</sup> “Rearranging the deck chairs” will not solve this problem. It is the wrong remedy.

Verizon Wireless continues to believe that unless additional measures are taken, e.g., improving the robustness of public safety communications systems and utilizing public safety mobile receivers that are less susceptible to interference, a realignment of the 800 MHz band will not result in significant reductions in interference, let alone

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<sup>19</sup> *Id* at 5.

eliminate it entirely. Many commenters agree that implementing such measures would provide substantial improvements, and that some improvements would occur, and in fact have occurred, without realigning the band. For example, after completing extensive field tests, the City of Portland concluded that its existing portable MTS receivers had relatively poor performance when it came to dealing with intermodulation interference from commercial operators.<sup>21</sup> It determined that receiver performance could be improved “with only a few additional cents or dollars in parts.”<sup>22</sup> By replacing only a single component in the MTS receiver AGC circuit, at a cost of less than a dime per unit, the City of Portland was able to eliminate most of the interference.<sup>23</sup>

**B. The Consensus Plan Would Yield A Substantial And Unjustified Spectrum Windfall To Nextel.**

Like the original Nextel proposal, the Consensus Plan proposes to realign the 800 MHz band into two separate contiguous paired blocks of spectrum.<sup>24</sup> The lower portions of the bands (806-816/851-861 MHz) would be used for non-cellularized systems, i.e., the high-site, high-power systems deployed by public safety and B/ILT licensees. The upper portions of the bands (816-824/861-869 MHz) would be used for cellularized systems, i.e., the low-site, low-power systems deployed by Enhanced Specialized Mobile Radio (“ESMR”) licensees. The vast majority of this band would go to Nextel.

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<sup>20</sup> Consensus Plan at 23.

<sup>21</sup> Portland Reply Comments at 6-7.

<sup>22</sup> Portland Comments at 11.

<sup>23</sup> *Id* at 5.

<sup>24</sup> Consensus Plan at 9.

To facilitate implementation of the plan, Nextel proposes to return its 4 MHz of Guard Band spectrum at 700 MHz and its approximately 4 MHz of SMR spectrum at 900 MHz, while also contributing 2.5 MHz of spectrum at 800 MHz.<sup>25</sup> The returned 700 MHz Guard Band and 800 MHz spectrum would be re-designated for public safety use. The returned 900 MHz spectrum would be re-designated for B/ILT and traditional SMR use. The Joint Commenters argue that Nextel should be “made whole” in this process by receiving 10 MHz of contiguous spectrum at 1910-1915/1990-1995 MHz, the band immediately adjacent to spectrum used for the Personal Communications Service (“PCS”)<sup>26</sup>.

As Verizon Wireless has previously noted, the kind of MHz-for-MHz spectrum exchange that Nextel proposes is both unfair and absolutely unjustified, and thus, clearly illegal.<sup>27</sup> It is not at all necessary to “make it whole.” Much of the spectrum licensed to Nextel is either non-contiguous, heavily encumbered, or both. Nextel itself has acknowledged the greater value of exclusive-use, contiguous spectrum, and past Commission action supports this conclusion.<sup>28</sup> There is no lawful basis for allowing Nextel to “trade” encumbered, non-contiguous spectrum for an equal amount of exclusive-use, contiguous spectrum. To do so would yield a substantial illegal windfall to Nextel. Such an action would violate Commission principles of competitive parity, and would violate Section 309 and other provisions of the Communications Act. As SBT notes, such an action “is without precedent and it comes too close to resembling a type of

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<sup>25</sup> *Id* at v.

<sup>26</sup> *Id*.

<sup>27</sup> Verizon Wireless Comments at 13.

payoff for Nextel's participation in resolving a problem of Nextel's own making."<sup>29</sup> Put simply, Nextel should not be rewarded for causing harmful interference to public safety systems.

The "spectrum trade" that forms the basis for the Consensus Plan realignment proposal presupposes that Nextel holds title to substantial amounts of spectrum in the 700 MHz, 800 MHz, and 900 MHz bands. However, there is considerable evidence in the record that refutes this claim. At 800 MHz, Nextel holds licenses for a patchwork quilt of radio channels, and it holds only a minority interest in many of these channels.<sup>30</sup> Incumbent public safety and private mobile licensees continue to operate systems on frequencies for which Nextel holds authorizations, and Nextel is required by Commission rule to protect these incumbent systems. At 700 MHz, Nextel holds authorizations in only 40 markets, and these authorizations are conditioned on Nextel's use of the band as a "band manager." Nextel is only allowed to use half of this spectrum (2 MHz) for its own purposes, while employing the remainder for third party uses. SBT argues that Nextel's proposal to "trade" its 700 MHz spectrum is evidence that it does not plan to fulfill its responsibilities as a band manager. Consequently, it is no longer qualified to hold the 700 MHz licenses and the licenses should be rescinded.<sup>31</sup> Similarly, SBT argues that Nextel has not satisfied the construction requirements for its 900 MHz licenses, and that those licenses should also be canceled.<sup>32</sup> Because Nextel's rights to full use of its

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<sup>28</sup> *Id* at 14-15.

<sup>29</sup> SBT Reply Comments at 48.

<sup>30</sup> *Id* at 45-46.

<sup>31</sup> *Id* at 46.

<sup>32</sup> *Id* at 52.

700 MHz, 800 MHz, and 900 MHz licenses are unclear, a plan that would “trade” these licenses for clear title to contiguous spectrum within the 800 MHz band and 10 MHz of spectrum in the 1.9 GHz band is nothing short of a spectrum grab.

In short, the current record fails to document exactly what spectrum Nextel holds, under what conditions or restrictions. Nextel has not placed requisite information on the record as to its precise holdings. On the present record, the Commission has no rational basis to determine what spectrum Nextel is entitled to receive as part of any band consolidation.

**C. The Consensus Plan Is Unattainable, Because There Is No Clear Path To Funding Public Safety Relocations.**

Under the Consensus Plan, Nextel would pay \$500 million toward the relocation of public safety systems in the 800 MHz band. However, the record in this proceeding suggests that the cost of relocating public safety systems under any band realignment is likely to be substantially greater.<sup>33</sup> When the additional expense of relocating private mobile systems is added, it is clear that Nextel’s \$500 million will fall well short of what is required to implement the plan. Other than Nextel, the Joint Commenters do not offer to incur relocation expense themselves, yet they fail to offer any proposals for alternate funding. This is fatal to their proposal, because the Commission cannot hope to implement the Consensus Plan without a clear path to funding the relocations it requires.

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<sup>33</sup> See Comments of Association of Public-Safety Communications Officials-International, Inc. (“APCO”), National Association of Counties, National League of Cities, National Association of Telecommunications Officers and Advisors (filed May 6, 2002) (“APCO Comments”), in response to NPRM at 25; *see also* Reply Comments of the United Telecom Council (“UTC”) (filed Aug. 7, 2002) (“UTC Reply Comments”), in response to NPRM, at 12.

**D. The Objective Of This Proceeding Should Not Be To Provide More Spectrum For 800 MHz Licensees.**

The purported objective of the Consensus Plan to resolve harmful interference to public safety licensees masks the more fundamental objective of its proponents – to get more spectrum for themselves. Many commenters have duly noted the unjustified windfall to Nextel. However, the Consensus Plan would also yield additional spectrum to B/ILT and public safety licensees. Public safety licensees would get a total of 73 MHz of spectrum in the 700 MHz and 800 MHz bands, more than 5 times the amount of spectrum currently used for public safety operations at 800 MHz.<sup>34</sup> Commenters fail to provide any basis for these increases in allocations. There is certainly no correlation between the allocation of additional spectrum for public safety licensees and the potential for reducing harmful interference.<sup>35</sup>

The current proceeding is not the appropriate time to determine whether existing 800 MHz licensees, including public safety, require additional spectrum. Numerous commenters have noted the opportunism of some entities to use this proceeding as a way to increase their own spectrum holdings, and have also urged the Commission to separate the interference issues from the question of whether existing 800 MHz licensees require additional spectrum.<sup>36</sup> Verizon Wireless shares these concerns, because this proceeding is not about increasing anyone's spectrum – it is about reducing harmful interference. It

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<sup>34</sup> This includes approximately 10 MHz at 800 MHz that is being used today, a minimum of 2.5 MHz at 800 MHz that would be reallocated, 24 MHz at 700 MHz that has been allocated but is not yet being used, and 36 MHz at 700 MHz that would be reallocated.

<sup>35</sup> See Reply Comments of Delmarva Power & Light Company and Atlantic City Electric Company (filed Aug. 7, 2002) (“Delmarva/Atlantic Reply Comments”), in response to NPRM, at 7.

<sup>36</sup> SBT Reply Comments at 21-22; Delmarva/Atlantic Reply Comments at 11.

is clear from the record in this proceeding that the strategy of some entities is to hold hostage their support of any proposal to resolve interference unless the resolution provides additional spectrum for them.<sup>37</sup> This posture severely undermines the primary objective of this proceeding and only makes it more difficult to resolve interference in the 800 MHz band by eliminating reasonable and cost effective alternatives simply because they do not provide additional spectrum for incumbent licensees.<sup>38</sup> The Commission should not let these entities prevail in their strategy, and should ensure that the focus in this proceeding is on resolving interference to public safety operations.

Verizon Wireless is not opposed to additional spectrum allocations for public safety uses. In fact, as discussed *infra*, we believe there is merit in allocating some portion of the 700 MHz band for such purposes if it will help to resolve the interference problems at 800 MHz by allowing public safety licensees to relocate out of the band. However, there is no evidence in the record of this proceeding to support the allocation of additional public safety spectrum in the 800 MHz band plus a reallocation of 36 MHz of spectrum at 700 MHz. The Commission must resist these efforts to vastly increase

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<sup>37</sup> *See e.g.*, Comments of the Forestry Conservation Communications Association (“FCCA”) (filed May 6, 2002) (“FCCA Comments”), in response to NPRM, at 2. Notably, the majority of private mobile entities that now support the Consensus Plan – ARINC, AAR, FIT, ITA, and PCIA – previously told the Commission “that this proceeding should not be about the location of additional spectrum for public safety.” It would appear that they find the concept more acceptable now that the proceeding is also about more spectrum for their constituents. *See* Comments of the Private Wireless Coalition (filed May 6, 2002) (“PWC Comments”), in response to NPRM, at 2.

<sup>38</sup> The Consensus Plan’s inclusion of spectrum outside the 800 MHz band, i.e., 700 MHz Guard Band and 900 MHz spectrum, is only necessary to advance its proponents’ objectives to acquire more spectrum – for public safety, private mobile, and Nextel. If the Commission focuses only on resolving harmful interference to public safety, it can identify solutions that do not implicate either of these bands.

spectrum allocations for public safety and confine its action to what will provide the greater interference relief at the least cost and disruption.

**III. THE COMMISSION SHOULD RESOLVE INTERFERENCE AT 800 MHz IN A MANNER THAT IS VIABLE OVER THE LONG-TERM AND IS FAIR TO EXISTING LICENSEES.**

The availability of reliable public safety communications is absolutely vital.

However, the Commission should not adopt a short-term fix for a problem that requires a long-term solution. A realignment solution that reduces interference to public safety systems today but does not prevent such problems from reoccurring in the future is no solution at all. Verizon Wireless believes that an effective long-term plan must satisfy the following fundamental principles:

1. Eliminate Interference. The plan must ensure that harmful interference to public safety systems is eliminated, not just reduced, to the greatest extent possible.
2. Minimize Cost and Disruption. The plan must be implemented in a cost-effective manner without disruption to existing licensees, particularly public safety licensees for which reliable communications is vital.
3. Provide Adequate Funding. The plan must provide a clear path to fund any relocations or other modifications necessary to eliminate interference.
4. No Spectrum Windfalls. The plan should not be used by some as a cloaked attempt to gain more spectrum or otherwise improve the spectrum holdings they already have.

Verizon Wireless urges the Commission to develop a plan that meets these important principles. Any proposal that falls short of meeting these requirements cannot be expected to provide a fair and lawful long-term solution that will ensure reliable public safety communications now and for the future.

**A. Public Safety Licensees Should Be Cleared From The 800 MHz Band Over The Long-Term.**

In the short term, Verizon Wireless believes that implementation of certain palliative measures, including those set forth in the *Best Practices Guide*, is likely to be the best means for resolving harmful interference to public safety operations. This may require actions on the part of Nextel, or another commercial operator, to reduce the interference it causes, or on the part of public safety licensees to reduce their susceptibility to interference. As we detailed in our initial comments, the Commission can and should implement these measures now.

Over the longer term, however, we believe it will be necessary to relocate public safety systems out of the 800 MHz band. Some commenters have suggested that public safety licensees be relocated to the 700 MHz band.<sup>39</sup> Verizon Wireless believes that this proposal has substantial merit. The Commission has already allocated 24 MHz of spectrum in that band for public safety use, more than twice as much spectrum as that allocated to public safety at 800 MHz. Consolidating Public Safety's 700 MHz and 800 MHz allocations into a single band would yield considerable benefits in the form of reduced interference, reduced equipment costs, and improved interoperability. While the remainder of the 700 MHz band is allocated for commercial use, the auctions for awarding licenses have been delayed indefinitely, thus, providing the Commission and other policy makers an opportunity to reconsider the future use of this important band.

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<sup>39</sup> Cingular/ALLTEL Comments at 17; Portland Reply Comments at 2; PSIC Reply Comments at 7; SBT Reply Comments at 28; *see* Comments of Madison County East Transit District (filed May 3, 2002), in response to NPRM, at 9. It is notable that a significant number of the Joint Commenters had just four months ago urged the

The Joint Commenters oppose the relocation of public safety systems to 700 MHz on the grounds that it would require three critical, and presumably hard to obtain, pieces of Federal legislation.<sup>40</sup> First, the band would need to be re-designated for public safety use. Second, alternative mechanisms for funding public safety relocations would need to be legislated. Third, Congress would have to set a date certain by which television broadcasters in the 700 MHz band must complete their transition to digital TV.

Importantly, these same three initiatives are required to implement the Consensus Plan and to provide the additional spectrum allocations for public safety that the Joint Commenters indicate are necessary.<sup>41</sup> Legislation would be required to re-designate Nextel's 700 MHz Guard Band spectrum for public safety use, as proposed by the Consensus Plan. Legislation would also likely be required to provide the funding needed to implement the plan, since, as discussed supra, the plan fails to provide adequate funding resources. Finally, setting aside any further allocations in the 700 MHz band, public safety's current 24 MHz allocation in the band and its reliance on this spectrum to meet future spectrum requirements necessitates that the 700 MHz band be cleared of broadcasters in a timely manner.

Verizon Wireless recognizes the legislative challenges involved in reallocating the 700 MHz band for public safety use and making it available in a timely manner to

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Commission to move public safety operations to 700 MHz, noting that relocation was the best long-term solution; PWC Comments at 2.

<sup>40</sup> Consensus Plan at 6.

<sup>41</sup> *Id* at 27. While the Joint Commenters oppose any relocation of public safety to 700 MHz and point to the many difficulties in obtaining legislation that would facilitate such a move, they stress the importance of having the entire band reallocated for public safety's long-term use.

support the relocation of public safety systems out of 800 MHz. However, we believe that such challenges can be met if the legislative initiatives are designed to support a fair and equitable long-term solution that will ensure reliable public safety communications into the future. Importantly, progress is already being made on legislation that would clear the band of all incumbent broadcasters by the end of 2006.<sup>42</sup>

**B. Some Minimal Band Realignment May Be Appropriate As An Interim Step.**

Verizon Wireless recognizes that it may take 4-6 years to relocate all public safety systems out of the 800 MHz band, given the current status of TV broadcasters at 700 MHz. To the extent that the Commission believes case-by-case technical solutions will not adequately resolve the harmful interference to public safety licensees during this time, we believe that some minimal band realignment may be appropriate as an interim step. In fact, such realignment may facilitate a more efficient and timely relocation out of 800 MHz.

As discussed supra, to be effective, any band realignment must (1) significantly reduce harmful interference to public safety operations, (2) minimize cost and disruption to incumbent licensees, (3) provide a clear path for funding, and (4) not grant a windfall to any individual licensee. Verizon Wireless and others have already noted the Consensus Plan's deficiencies in meeting these objectives. Some of the other proposals submitted to the FCC in the NPRM come closer to meeting these objectives, but fall short in one aspect or another.

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<sup>42</sup> Brigitte Greenberg and Michael Feazel, *House Bill Would Enforce Original 2006 Deadline For Broadcasters*, Communications Daily (Sept. 20, 2002), at 1-3.

### 1. 700 MHz Plan.

Some wireless companies, for example, propose that public safety systems be relocated to 700 MHz and the vacated spectrum be auctioned for commercial purposes.<sup>43</sup> There are two benefits of this “700 MHz Plan” that are particularly noteworthy. First, it provides the best means for eliminating interference to public safety systems over the long-term. Second, it addresses the need for significant funding by proposing to auction vacated public safety channels at 800 MHz and to use the proceeds from the auction to pay for relocation to 700 MHz.

There are, however, two potential problems with the “700 MHz Plan.” First, much of the 700 MHz band will be unavailable for public safety use prior to 2007. This leaves the Commission without a short-term solution to the interference problems, to the extent that it believes that technical solutions alone are not sufficient. Second, the proposed auctioning of vacated public safety channels at 800 MHz may not raise sufficient funds to pay for the proposed relocation to 700 MHz. The vacated channels in the lower portions of the band that are interleaved with Nextel would likely be of little interest to anyone other than Nextel, and therefore would likely raise minimal funds. By comparison, the NPSPAC channels would be of substantially greater interest since they offer more contiguous spectrum and lie between the spectrum currently used by Nextel and various cellular operators. However, the value of such spectrum would be limited because the available spectrum (2 x 3 MHz) would be less than the minimum that the

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<sup>43</sup> See Reply Comments of ALLTEL Communications, Inc., AT&T Wireless Services, Inc., Cingular Wireless LLC, Coupe Communications, Inc., First Cellular, Nokia Inc., Southern LINC, United States Cellular Corporation (filed Aug. 7, 2002), in response to NPRM, at 15-16.

wireless industry has concluded is necessary to support future advanced wireless services (i.e., 2 x 5 MHz).<sup>44</sup>

## **2. Motorola Plan.**

Motorola proposes a plan that realigns the 800 MHz band in a manner that is similar to the Consensus Plan, though it does not allow Nextel to “trade” encumbered, non-contiguous spectrum at 800 MHz for exclusive-use, contiguous spectrum in the 1.9 GHz band.<sup>45</sup> As a result, it is significantly more palatable than the Consensus Plan. However, the “Motorola Plan” does have some significant deficiencies. First, it does not provide a long-term solution for resolving interference to public safety operations, because it does not require public safety to relocate out of the 800 MHz band. Second, it provides no clear path for funding the proposed realignment of 800 MHz. Motorola proposes to keep all incumbent licensees “whole” in the process, with no individual licensee getting any more or less spectrum than they currently have.<sup>46</sup> As a result, there is no vacated spectrum to auction as with the “700 MHz Plan.” Third, by allowing Nextel to “trade” 800 MHz spectrum that is encumbered and non-contiguous for an equal amount of spectrum at 800 MHz that is clear and contiguous, Motorola is effectively granting Nextel a significant windfall, though it would not be as substantial as that proposed by the Consensus Plan.

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<sup>44</sup> See Comments of TIA (filed Feb. 22, 2001), *In the Matter of Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Systems, Including Third Generation Wireless Systems*, ET Docket No. 00-258, at 14.

<sup>45</sup> See Reply Comments of Motorola, Inc. (filed Aug. 7, 2002) (“Motorola Reply Comments”), in response to NPRM, at 9.

<sup>46</sup> *Id* at 6.

Verizon Wireless is not opposed to Nextel receiving contiguous spectrum in the 800 MHz band if realignment is considered necessary to resolve harmful interference to public safety. However, the amount of contiguous spectrum it receives should consider the greater efficiencies of contiguous spectrum and the fact that much of the spectrum previously licensed to Nextel is encumbered, and therefore not fully available for its use.

Unfortunately, it is not even clear how much spectrum is licensed to Nextel, let alone how much is actually available for its use. Nextel states that it holds licenses for a “running average” of 18 MHz of spectrum in the 800 MHz band (whatever this means).<sup>47</sup> However, it holds significantly less than this amount in many markets in which it holds licenses.<sup>48</sup> Moreover, only 10 MHz of this amount is contiguous (816-821/861-866 MHz) and largely unencumbered. The remaining 8 MHz (or less) is non-contiguous and largely encumbered. If the Commission decides to assign Nextel contiguous spectrum as part of any 800 MHz band realignment, it must determine how much contiguous spectrum would be equivalent to the encumbered, non-contiguous spectrum that Nextel holds.

### **3. Recommended Band Realignment Principles**

Verizon Wireless believes that a band realignment plan may be beneficial, and that such a plan should include the positive attributes of those plans that have already been proposed. In order to be an effective interim strategy, however, particular care must be taken to ensure that the benefits of realignment outweigh the costs of realignment, since further relocations (i.e., to 700 MHz) will occur (or should occur) in the future.

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<sup>47</sup> See Reply Comments of Nextel Communications, Inc. (filed Aug. 7, 2002) (“Nextel Reply Comments”), in response to NRPM, at 10.

<sup>48</sup> Nextel Reply Comments at Appendix I.

Verizon Wireless agrees with Motorola that some reductions in harmful interference can be obtained through a consolidation of the spectrum assignments in the 806-816/851-861 MHz bands.<sup>49</sup> We do not agree that band realignment, if it is implemented as an interim strategy, must necessarily include the NPSPAC channels at 821-824/866-869 MHz. While there may be some harmful interference experienced by public licensees operating in the NPSPAC channels, we believe that this interference can generally be resolved on a case-by-case basis and that the most problematic cases of interference involve the interleaved channels at 810-816/855-861 MHz. Consequently, we believe that the non-cellularized uses of public safety and private mobile licensees should be consolidated in the lower portion of the 806-816/851-861 MHz bands while the cellularized uses of Nextel and other SMR operators should be consolidated near Nextel's allocations at 816-821/861-866 MHz.

As discussed supra, Verizon Wireless does not believe that Nextel should receive an equal amount of contiguous spectrum in exchange for its current holdings of non-contiguous spectrum. For example, if the Commission determines that Nextel does, in fact, have 8 MHz of non-contiguous spectrum at 800 MHz, we believe that it should receive substantially less spectrum "in trade" when it is consolidated with its existing 10 MHz of contiguous spectrum in the band. The amount of contiguous spectrum that Nextel should receive should take into consideration the existing encumbrances affecting Nextel's licenses and the anticipated efficiencies of contiguous spectrum. While we do not know exactly how this analysis will come out, we believe that the record demonstrates that much of Nextel's spectrum holdings are substantially encumbered and

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<sup>49</sup> Motorola Reply Comments at 9-10.

that the efficiencies associated with contiguous spectrum are significant. As a result, Nextel should receive no more than 4 MHz (and possibly less) of contiguous 800 MHz spectrum in exchange for its 8 MHz of non-contiguous spectrum.

In deciding how the 800 MHz band should be consolidated, the Commission should take into account the future relocation of public safety systems to 700 MHz and the need to fund relocations by auctioning the vacated spectrum. Auction revenues would be maximized if relatively large blocks of contiguous spectrum were made available for new commercial uses. For example, rather than auctioning off only the vacated NPSPAC channels (821-824/866-869 MHz), as proposed by the “700 MHz Plan,” the value of the auction would be substantially increased if the 819-821/864-866 MHz bands were also cleared and available for use. This would result in the auction of 10 MHz of contiguous spectrum for new commercial uses.

Of course, the auctioning of the 819-824/864-869 MHz bands would require Nextel to relocate its systems out of 819-821/864-866 MHz. However, as discussed supra, Nextel’s total spectrum holdings at 800 MHz should be expected to decrease as a result of any band consolidation. Otherwise, Nextel would receive an unfair and unjustified windfall. For illustrative purposes, assuming that the Commission determines that Nextel should receive 14 MHz of contiguous spectrum in exchange for the 18 MHz of contiguous (10 MHz) and non-contiguous (8 MHz) spectrum it currently holds, the Commission could consolidate Nextel’s holdings into the 812-819/857-864 MHz bands, leaving the 806-812/851-857 MHz bands for mixed public safety and private mobile

use.<sup>50</sup> Private mobile licensees could continue to operate in this band even after the relocation of public safety to 700 MHz has been completed.

The adoption of a realignment plan consistent with the principles described here would provide public safety licensees with spectrum that is sufficient to meet their long-term needs without the threat of harmful interference, with minimal disruption and no cost to them. Private mobile licensees would be able to remain in the 800 MHz band, with minimal disruption and no cost to them. Nextel would have its interference troubles resolved, while receiving an appropriate amount of contiguous spectrum. And, in the process, additional spectrum will be made available to commercial operators that will help to spur the continued growth of the wireless industry.

## **CONCLUSION**

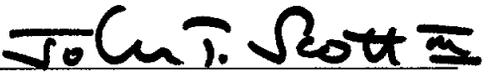
Verizon Wireless urges the Commission to reject the Consensus Plan, because it does not eliminate the potential for interference to public safety operations, it imposes substantial costs and burdens on incumbent licensees, it does not provide a clear path to fund public safety relocations, and it grants a substantial windfall to Nextel. To the extent that the Commission believes that technical solutions are not sufficient to resolve harmful interference to public safety operations on a case-by-case basis, we recommend the adoption of a fair and equitable long-term plan that provides a real solution to the

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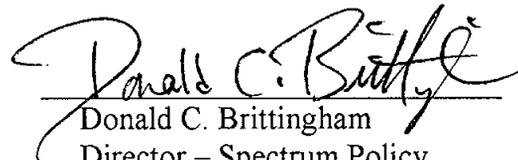
<sup>50</sup> Public safety licensees would continue to operate systems in the NPSPAC channels until they are relocated to the 700 MHz band after the band is cleared of TV broadcasters. Importantly, the relocation of Nextel's systems out of the 819-821/864-866 MHz bands could substantially reduce the potential for intermodulation interference to NPSPAC systems because fewer IM products would be produced in the 866-869 MHz band. See Nextel Reply Comments at Appendix II.

problems faced by public safety licensees. This should include the relocation of public safety systems from the 800 MHz band to the 700 MHz band. To the extent that the Commission deems it necessary, it should implement a limited realignment of the 800 MHz band as an interim measure.

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Dated: September 23, 2002

### Certificate of Service

I hereby certify that on this 23<sup>rd</sup> day of September copies of the foregoing "Comments of Verizon Wireless" in WT Docket 02-55 were sent by hand delivery, or e-mail, to the following parties:

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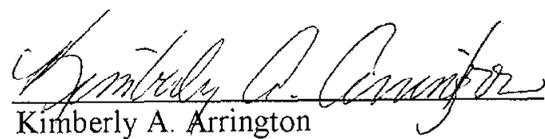
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