

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Fixed and Mobile Services in the Mobile	)	ET Docket No. 10-142
Satellite Service Bands at 1525-1559 MHz	)	
and 1626.5-1660.5 MHz, 1610-1626.5 MHz	)	
and 2483.5-2500 MHz, and 2000-2020 MHz	)	
and 2180-2200 MHz	)	
	)	
Service Rules for Advanced Wireless Services	)	WT Docket No. 04-356
in the 1915-1920 MHz, 1995-2000 MHz,	)	
2020-2025 MHz and 2175-2180 MHz Bands	)	
	)	
Service Rules for Advanced Wireless Services	)	WT Docket No. 07-195
in the 2155-2175 MHz Band	)	
	)	
Spectrum Task Force Invites Technical Input	)	
on Approaches to Maximize Broadband Use	)	
of Fixed/Mobile Spectrum Allocations in the	)	
2 GHz Range	)	

**COMMENTS OF SPRINT NEXTEL CORPORATION**

Lawrence R. Krevor,  
*Vice President, Government Affairs*  
Trey Hanbury,  
*Director, Government Affairs*  
Richard Engelman,  
*Director, Spectrum Resources*  
Sprint Nextel Corporation  
900 7<sup>th</sup> Street, NW Suite 700  
Washington, DC 20001  
(703) 433-8525

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**COMMENTS OF SPRINT NEXTEL CORPORATION**

**I. INTRODUCTION AND SUMMARY**

Sprint Nextel Corporation (“Sprint Nextel”) hereby respectfully submits these comments in response to the May 20, 2011 Public Notice in the above-captioned proceeding.<sup>1</sup> In the Public Notice, the Spectrum Task Force seeks comment on “developing a cohesive approach that maximizes the terrestrial mobile broadband potential” of the 2 GHz spectrum.<sup>2</sup> Specifically, it seeks to develop options (including “synergies with neighboring bands”) on potential 2 GHz band plans and assignment mechanisms, as well as numerous technical matters such as spectrum

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<sup>1</sup> See *Spectrum Task Force Invites Technical Input on Approaches to Maximize Broadband Use of Fixed/Mobile Spectrum Allocations in the 2 GHz Range*, ET Docket No. 10-142; WT Docket Nos. 04-356, 07-195, Public Notice, DA 11-929 (WTB, IB, and OET rel. May 20, 2011) (“Public Notice”).

<sup>2</sup> *Id.* at 1.

pairing, uplink/downlink schemes, interference issues, international harmonization, and co-existence of different services.<sup>3</sup>

Sprint Nextel holds the nationwide Personal Communications Services (“PCS”) G Block license (and other nearby PCS licenses) and has been an active participant in the Commission’s related proceedings involving the 2 GHz band.<sup>4</sup> A significant amount of additional spectrum will need to be made available in the next few years to meet the growing demand for mobile broadband services, and the 2 GHz band is well-suited for such services. The Federal Communications Commission (“FCC” or “Commission”) must ensure, however, that incumbent licensees in and around the 2 GHz band – including Sprint Nextel – are adequately protected against interference from new mobile broadband services. It must also enforce its existing relocation rules and require 2 GHz Mobile Satellite Service (“MSS”) entrants to pay their *pro rata* share of the Broadcast Auxiliary Service (“BAS”) relocation costs incurred by Sprint Nextel pursuant to the Commission’s *800 MHz Rebanding Order*.<sup>5</sup> In addition, the Commission should take a comprehensive look at the 2 GHz band, consider a variety of band plans, and review

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<sup>3</sup> *Id.* at 2-4.

<sup>4</sup> *See, e.g.*, Reply Comments of Sprint Nextel Corporation, WT Docket No. 04-356 (filed Aug. 11, 2008) (“Sprint Nextel 2008 H Block and AWS-3 Reply Comments”); Comments of Sprint Nextel Corporation, WT Docket 04-356 (filed Jul. 25, 2008) (“Sprint Nextel 2008 H Block and AWS-3 Comments”); Reply Comments of Sprint Nextel Corporation, WT Docket No. 07-195 (filed Jan. 14, 2008); Comments of Sprint Nextel Corporation, WT Docket No. 07-195 (filed Dec. 14, 2007); Reply Comments of Sprint Nextel Corporation, IB Docket No. 05-221 (filed Aug. 15, 2005).

<sup>5</sup> *See, e.g., Improving Public Safety Communications in the 800 MHz Band*, Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, 19 FCC Rcd 14969 (2004) (“*800 MHz Rebanding Order*”). The entities owning and operating the two MSS systems have each filed petitions under Chapter 11 of the Bankruptcy Code, and “are required to obtain the Commission’s consent to any transfer of control or license assignment that may occur in connection with their emergence from bankruptcy.” Public Notice at 3 n.12 (*citing* 47 U.S.C. §§ 214, 310(d)). Sprint Nextel expressly acknowledges that the automatic stay imposed by the Bankruptcy Code currently protects TerreStar (and its affiliates). Sprint Nextel is not requesting that the Commission take or request any action that might be construed as violating 11 U.S.C. § 362.

carefully the effects of any changes to the band plan, service rules, or technical rules before moving forward with a specific approach.

**II. THE COMMISSION SHOULD ENSURE THAT NEW 2 GHz USES ADEQUATELY PROTECT EXISTING PCS OPERATIONS AGAINST HARMFUL INTERFERENCE.**

In the Public Notice, the Spectrum Task Force seeks comment on technical matters related to potential 2 GHz band plans, including interference challenges.<sup>6</sup> To the extent the Commission modifies the 2 GHz band plan, it should adopt band plans and service rules that protect against harmful interference to already licensed spectrum, including to Sprint Nextel's nationwide PCS G Block spectrum.

Depending on the final band plan and rules adopted, the 2 GHz band could be put to productive use rapidly to support the growing demand for mobile broadband services. The spectrum is located near existing PCS and Advanced Wireless Services ("AWS") allocations that are already being used by numerous wireless carriers, and compatible handsets likely could be produced relatively quickly to support innovative wireless services. Moreover, some of the spectrum is internationally harmonized for terrestrial wireless use, underscoring the conducive propagation characteristics of the band and enhancing the potential for new 2 GHz devices to interoperate with existing PCS and AWS operations.

These benefits and the Commission's broadband goals would be undermined, however, if the Commission authorized new 2 GHz operations that interfere with existing PCS operations. For example, there is potential for interference to the PCS G Block under some of the proposals in the Public Notice for the 1995-2000 MHz band (currently for AWS H Block downlink

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<sup>6</sup> Public Notice at 3.

transmissions) and the 2000-2020 MHz band (currently for MSS uplink transmissions).<sup>7</sup> Those proposals contemplate having spectrum used for downlink transmissions (*i.e.*, mobile receive) adjacent to spectrum used for uplink transmissions (*i.e.*, mobile transmit), which could result in: (1) out-of-band emissions (“OOBE”) interference from mobile transmitters in new frequency bands falling into the existing PCS mobile receive frequency bands; and (2) potential PCS mobile receiver overload from nearby mobile transmitters on adjacent spectrum. In addition, uplink base station receivers could be susceptible to interference from existing PCS downlink base station transmitters. Filters may be able to ameliorate some of these concerns; others may require the Commission to establish guard bands or transition bands between prospective 2 GHz terrestrial broadband operations and existing PCS networks.

As Sprint Nextel has explained in prior filings, H Block uplink operations at 1915-1920 MHz would pose a serious interference threat to G Block transmissions and other PCS operations.<sup>8</sup> At a minimum, new 1917-1920 MHz users would need to be subject to restrictive transmitter power and OOBE limits to protect the millions of existing PCS devices operating in the 1930-1990 MHz band from harmful intermodulation interference.<sup>9</sup>

Whatever ultimate band plan the Commission adopts for the 2 GHz band, it is critical that the Commission protect the PCS G Block and other nearby PCS spectrum against harmful

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<sup>7</sup> See *id.* at Appendix.

<sup>8</sup> See, *e.g.*, Sprint Nextel 2008 H Block and AWS-3 Reply Comments at 2-8; Sprint Nextel 2008 H Block and AWS-3 Comments at 2-11.

<sup>9</sup> Because the threat of harmful interference is greatest from devices in the 1917-1920 MHz portion of the H Block, Sprint Nextel and other parties have previously recommended that the Commission adopt bifurcated mobile transmit power limits. The Commission should limit mobile and portable devices to 6 dBm EIRP in the 1917-1920 MHz portion of the band but permit those devices to operate at up to 30 dBm EIRP in the 1915-1917 MHz portion where interference is less likely to be generated. Sprint Nextel also recommends an OOBE limit of -76 dBm/MHz (derived as an average RMS measurement). See, *e.g.*, Sprint Nextel 2008 H Block and AWS-3 Reply Comments at 2-8; Sprint Nextel 2008 H Block and AWS-3 Comments at 3-15.

interference. For example, if the H Block is auctioned as currently configured, the Commission will need to adopt rules that avoid intermodulation interference to PCS operations. If the H Block is repurposed (*e.g.*, the downlink band becomes an uplink band), the Commission should ensure that new services in the band do not interfere with the G Block.

### **III. THE COMMISSION SHOULD CONFIRM AND ENFORCE EXISTING SPECTRUM RELOCATION REIMBURSEMENT OBLIGATIONS BEFORE ANY VOLUNTARY AUCTION, RETURN OF SPECTRUM RIGHTS, OR SIMILAR APPROACH.**

#### **A. The MSS Entrants Continue to Owe Sprint Nextel Reimbursement for Successfully Relocating 2 GHz BAS Incumbents.**

In its Public Notice, the Spectrum Task Force also indicated that possible voluntary approaches to license assignments could include incentive auctions or the voluntary return of MSS spectrum rights.<sup>10</sup> As the Commission is aware, Sprint Nextel is owed reimbursements by the current MSS entrants for expenses incurred in Sprint Nextel's successful clearing of 2 GHz incumbent BAS licensees. In exchange for its relocation efforts and consistent with the *Emerging Technologies* doctrine,<sup>11</sup> the FCC entitled Sprint Nextel to seek reimbursement from

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<sup>10</sup> Public Notice at 3; *see also Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz*, Notice of Proposed Rulemaking and Notice of Inquiry, 25 FCC Rcd 9481, 9493 ¶ 28 (2010). Congressional authority would be required before the FCC could conduct incentive auctions. *Id.* ¶ 28.

<sup>11</sup> The FCC's *Emerging Technologies* doctrine was originally adopted in the early 1990s as a policy for clearing spectrum for advanced technologies. It was first applied to clear spectrum used by incumbent microwave service licensees to make way for advanced mobile wireless broadband services. *See Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for use by the Mobile Satellite Service*, Third Report and Order and Third Memorandum Opinion and Order, 18 FCC Rcd 26338, 26344-55 ¶¶ 7-10 (2003) (noting that the BAS Relocation was intended to follow principles embodied in the *Emerging Technologies* proceeding); *see also Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, First Report and Order and Third Notice of Proposed Rule Making, 7 FCC Rcd 6886 (1992); Second Report and Order, 8 FCC Rcd 6495 (1993); Third Report and Order and Memorandum Opinion and Order, 8 FCC Rcd 6589 (1993); Memorandum Opinion and Order, 9 FCC Rcd 1943 (1994); Second Memorandum Opinion and Order, 9 FCC Rcd 7797 (1994); *aff'd Ass'n of Public Safety Commc'ns Officials-International, Inc. v. FCC*, 76 F.3d 395 (D.C. Cir. 1996) (collectively, the "*Emerging Technologies*" proceeding).

the MSS entrants on a *pro rata* basis for the costs Sprint Nextel incurred in relocating BAS incumbents from the spectrum to be occupied by the MSS entrants.<sup>12</sup> Sprint Nextel successfully completed the BAS relocation on July 15, 2010.<sup>13</sup> However, the entering MSS operators have never paid the required reimbursement amounts to Sprint Nextel, and instead have made collateral attacks on the FCC's orders in various court proceedings.

In 2010, following referral of reimbursement issues back to the FCC by a federal district court, the FCC issued a Report and Order and Declaratory Ruling which reaffirmed the MSS entrants' obligation to share in the relocation costs.<sup>14</sup> The Commission also rejected a variety of efforts by the MSS entities to avoid or minimize their reimbursement obligations, including the MSS entrants' claim that their cost sharing obligations had expired.<sup>15</sup> The *2010 Declaratory Ruling* further explained that "nothing in the text of the relevant orders suggests that the Commission limited the time in which Sprint Nextel could seek reimbursement in order to provide MSS entrants with a benefit."<sup>16</sup> As a result, the Commission reaffirmed that any MSS entrant that entered the cleared spectrum prior to December 9, 2013, would be obligated to pay Sprint Nextel its *pro rata* share of the relocation costs.<sup>17</sup> Both MSS entrants have already entered the spectrum and Sprint Nextel has provided them with reimbursement requests and

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<sup>12</sup> See *800 MHz Rebanding Order* at 15099 ¶ 261 (2004).

<sup>13</sup> Sprint Nextel Letter Regarding Completion of Broadcast Auxiliary Service Transition, *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55 (July 15, 2010), at 1.

<sup>14</sup> See *Improving Public Safety Communications in the 800 MHz Band; Consolidating the 800 and 900 MHz Industrial/Land Transportation and Business Pool Channels*, Fifth Report and Order, Eleventh Report and Order, Sixth Report and Order, and Declaratory Ruling, 25 FCC Rcd 13874, 13881-82 ¶ 21 (2010) ("2010 Declaratory Ruling").

<sup>15</sup> *Id.* at 13883 ¶ 24.

<sup>16</sup> *Id.* at 13902 ¶ 26. The Commission also determined that the MSS entrants suffered minimal harm from the delay in the BAS relocation and should not financially benefit at the expense of Sprint Nextel. *Id.* at 13902, 13896 ¶¶ 26, 57.

<sup>17</sup> *Id.* at 13893 ¶ 42.

related documentation in conformity with the Commission's specifications; however, neither MSS licensee has reimbursed Sprint Nextel for any of its band-clearing expenses.

**Upholding the MSS Entrants' Reimbursement Obligations Protects the Commission's Longstanding Policies.** The FCC has noted that its determinations regarding reimbursement are critical not only for the MSS entrants and Sprint Nextel, but also for the overall process of clearing spectrum to make way for advanced wireless broadband services.<sup>18</sup> One of the guiding principles of the *Emerging Technologies* doctrine is that "licensees that ultimately benefit from the spectrum cleared by the first entrant shall bear the cost of reimbursing the first entrant for the accrual of that benefit."<sup>19</sup> The *Emerging Technologies* doctrine provides clarity to all parties and advances the Commission's public interest goals by encouraging the equitable treatment of parties that undertake complex and expensive band clearance efforts for the benefit of other spectrum users. To permit an MSS entrant or acquiring entrants to potentially utilize the Spectrum Task Force's voluntary license assignment proposals to avoid its or its assignees' reimbursement obligation would undermine the Commission's spectrum management policies and would unjustly disadvantage Sprint Nextel. As a consequence, Sprint Nextel requests that the Commission confirm the BAS spectrum clearing reimbursement obligations of the MSS entrants and any subsequent assignees of their licenses.

Moreover, the reimbursement obligations arise not just from sound policy, but also as a condition of the MSS entrants' licenses.<sup>20</sup> The obligation should be satisfied in full before any

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<sup>18</sup> *Id.* at 13892 ¶ 41 ("We are concerned that were we to stray from the traditional application of the *Emerging Technologies* relocation policy, future licensees might be unwilling or unable to assume the burden and cost of clearing spectrum quickly if they were unsure of the likelihood that they will be reimbursed by other new entrants.").

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

<sup>20</sup> *Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile Satellite Service, Second Report and Order and Second Memorandum Opinion and Order*, 15

MSS entrant is permitted to return or terminate its license through an incentive auction, voluntary spectrum return program, or other similar program. As Sprint Nextel has also perfected its reimbursement claims with regard to the cleared MSS spectrum, the Commission should also ensure that any new entrants to that spectrum are liable for any unpaid reimbursement amounts as a condition of any license transfers.

**B. The Commission Should Also Condition Any License Transfers on Immediate Fulfillment of the Unpaid Reimbursement Obligations by the New Entrant.**

Although the MSS spectrum is currently occupied by the two MSS entrants, the Commission correctly anticipated that other entities might also enter the band through acquisitions or other corporate activities. In the *2010 Declaratory Ruling*, the Commission clarified that “an assignee would be considered a new entrant and is responsible for unpaid cost sharing associated with a particular portion of the [BAS] spectrum.”<sup>21</sup> In addition, to the extent an entrant seeks to assign its license to a third party prior to satisfying its reimbursement obligation, the “assignor and assignee would be jointly and severally liable for the reimbursement costs until paid.”<sup>22</sup>

The Commission should ensure that these policies are maintained and enforced by confirming that any new entrants seeking to obtain the spectrum through acquisitions of the MSS entrants or their assets cannot avoid repaying Sprint Nextel for unpaid reimbursement amounts tied to that spectrum. While the *2010 Declaratory Ruling* indicated that reimbursement requests for new MSS or AWS entrants should be submitted prior to December 9, 2013,<sup>23</sup> this temporal

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FCC Rcd 12315, 12338 ¶ 69 (2000) (“All MSS licensees who benefit from relocation of BAS are responsible for contributing, as a condition of their licenses.”) (emphasis added).

<sup>21</sup> *Id.* at 12336 ¶ 63.

<sup>22</sup> *Id.*

<sup>23</sup> *2010 Declaratory Ruling* at 13901 ¶ 65 n.156.

limitation should not apply to subsequent assignees of the current MSS entrants' licenses, as Sprint Nextel has already perfected its claims with respect to that spectrum, and the obligation to satisfy Sprint Nextel's reimbursement claim and otherwise comply with the Commission's orders are conditions of the licenses. The Commission should confirm that assignees of such licenses cannot hope or expect that the use of voluntary license returns or auctions, license transfers, or delaying tactics might afford an opportunity to avoid paying reimbursement obligations that have already been incurred and requested. Instead, such assignees will be required to fulfill unpaid reimbursement amounts due to their own entry into the band through any license transfer.

Conditioning future license transfers will uphold the *Emerging Technologies* doctrine and the FCC's orders, as well as comport with the public interest. License transfers must not only satisfy the Communications Act and Commission rules, but also not create public interest harms by "substantially frustrating or impairing the objectives or implementation of the Act or related statutes."<sup>24</sup> Permitting the MSS entrants to assign or terminate their licenses and transfer them to new entrants without Sprint Nextel receiving full reimbursement of its costs in clearing that spectrum would clearly frustrate the *Emerging Technologies* doctrine and implementation of the Act by encouraging licensees to continue resisting reimbursement payments and thereby challenge the FCC's authority. This result would also harm the public interest by discouraging companies from assisting in any future necessary band clearing efforts.<sup>25</sup>

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<sup>24</sup> *Iridium Holdings LCC and Iridium Carrier Holdings LLC, Transferors, and GHL Acquisition Corp., Transferee*, Memorandum Opinion and Order and Declaratory Ruling, 24 FCC Rcd 10725, 10731-32 ¶ 14 (2009).

<sup>25</sup> See 2010 Declaratory Ruling, 25 FCC Rcd at 13892 ¶ 41.

#### **IV. THE COMMISSION SHOULD CONTINUE TO EXPLORE OPTIONS FOR THE HIGHEST AND BEST USE OF THE 2 GHz BAND.**

In the Public Notice, the Spectrum Task Force proposes three “terrestrial spectrum concepts” for the 2 GHz band involving different combinations of spectrum extending from 1995-2025 MHz and 2170-2200 MHz.<sup>26</sup> Any Commission action in the 2 GHz band could have a significant effect on Sprint Nextel and numerous other members of the wireless ecosystem, including carriers and equipment manufacturers. Thus, the Commission should continue to explore these and other potential band plans, as well as evaluate ways in which it can put the 2 GHz band to its highest and best use to support mobile broadband services while at the same time providing reasonable protection to incumbent users. It should also collaborate with NTIA and the wireless industry before moving forward with a specific 2 GHz band plan proposal (potentially enabling the pairing of the 1755-1780 MHz government band with the 2155-2180 MHz band currently identified for AWS-3 and AWS J Block use).

Sprint Nextel encourages the Commission to study closely the relative pros and cons of each concept identified in the Public Notice, as well as other possible concepts. We provide the following feedback on the FCC’s three initial concepts.

- **Concept 1 – 40 Megahertz:** The Commission should seriously consider the reallocation of the 2 GHz MSS spectrum at 2000-2020 MHz and 2180-2200 MHz. A reallocation (whether through voluntary incentives to MSS entrants or other means) would provide a large contiguous swath of paired spectrum for mobile broadband use, which could be used by wireless carriers as a key “building block” to address the rising demand for mobile broadband services. However, as discussed above, if the 2000-2020 MHz band is used as an uplink band for terrestrial services, it could cause significant harmful interference to

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<sup>26</sup> Public Notice at 2 and Appendix.

downlink PCS G Block operations at 1990-1995 MHz because of the proximity of those bands to one another. Additional technical analysis would be needed to identify fully the potential interference risks from this approach.

- **Concept 2 – 50 Megahertz:** Adding the AWS J Block to the 2 GHz MSS spectrum would provide an even larger block of paired spectrum, further facilitating its use for innovative mobile broadband services. The J Block has been designated for AWS since 2004, and the Commission has developed a voluminous record supporting its use for terrestrial wireless services.<sup>27</sup> Whether offered as part of a 50 MHz block or through a different configuration, the AWS J Block could be another building block to help meet demand for mobile broadband services. As with Concept 1, however, this configuration could also create interference to PCS G Block operations and requires further study and technical analysis.
- **Concept 3 – 60 Megahertz:** Although adding parts of the AWS H Block and AWS-3 Block to the 50 MHz structure of Concept 2 would provide two 30 MHz blocks of paired spectrum for terrestrial mobile broadband services, Concept 3 raises significant interference concerns, as detailed above. For example, converting the H Block at 1995-2000 MHz into an uplink band would pose a serious interference threat to downlink G Block transmissions and other PCS operations. New terrestrial operations could also create potential intermodulation interference problems that hinder PCS operations in the 2 GHz band.

As recognized in the Public Notice, these three concepts are just examples of potential 2 GHz band plans that could be considered. Another approach would be for the Commission to reverse the uplinks and downlinks in the existing 2 GHz MSS band if it is repurposed for terrestrial use. Doing so would help avoid potential interference problems between the downlink

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<sup>27</sup> See, e.g., *Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz, and 2175-2180 MHz Bands*, Notice of Proposed Rulemaking, 19 FCC Red 19263 ¶ 7 (2004).

bands at 1930-2000 MHz and the uplink bands at 2000-2025 MHz. An uplink band at 2175-2200 MHz could, however, cause similar interference problems for the downlink band at 2155-2175 MHz, particularly if the Commission is able to pair the 2155-2175 MHz band with the 1755-1775 MHz band in the future.<sup>28</sup>

Finally, another option – and one that may be preferable to those described above, would be to make the entire current 2 GHz MSS band a downlink-only band. This approach would avoid uplink/downlink interference issues in the band and facilitate additional downlink capacity. New fourth-generation WiMAX and LTE technologies permit carrier aggregation (or “channel bonding”), and having additional downlink spectrum could support and facilitate broadband video applications.<sup>29</sup> Again, this is just one of many approaches that the Commission should study.

## V. CONCLUSION

For the foregoing reasons, Sprint Nextel supports the Commission’s efforts to promote broadband deployment in the 2 GHz band while protecting incumbent licensees against interference. In addition, the Commission should confirm the BAS spectrum clearing reimbursement obligations of the MSS entrants and any subsequent assignees of their licenses, and also confirm that any new entrants seeking to obtain the spectrum through acquisitions of the MSS entrants or their assets must comply with all Commission rules, regulations, and conditions

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<sup>28</sup> Some parties have suggested pairing the 1755-1780 MHz band with the 2155-2180 MHz band to create a larger paired AWS-3 band. *See, e.g.*, Comments of CTIA – The Wireless Association®, ET Docket No. 10-123, 6-9 (filed Apr. 22, 2011); Comments of T-Mobile USA, Inc., ET Docket No. 10-123, 8-9 (filed Apr. 22, 2011). Concept 3 in the Public Notice could also preclude such a pairing.

<sup>29</sup> *See, e.g., Ericsson demos LTE Advanced, shows 10x boost in speed over LTE*, Fierce Broadband Wireless (June 30, 2011), at <http://www.fiercebroadbandwireless.com/story/ericsson-demos-lte-advanced-shows-10x-boost-speed-over-lte/2011-06-30>.

imposed on upon the 2 GHz band. Finally, it should continue exploring options for maximizing use of the band and proceed cautiously before moving forward with a specific approach.

Respectfully submitted,

/s/ Lawrence R. Krevor

Lawrence R. Krevor,  
*Vice President, Government Affairs*  
Trey Hanbury,  
*Director, Government Affairs*  
Richard Engelman,  
*Director, Spectrum Resources*  
Sprint Nextel Corporation  
900 7<sup>th</sup> Street, NW Suite 700  
Washington, DC 20001  
(703) 433-8525

July 8, 2011