

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

In the Matter of)	
)	
Amendment of Part 2 of the)	
Commission's Rules to Allocate)	
Spectrum Below 3 GHz for Mobile)	ET Docket No. 00-258
and Fixed Services to Support the)	
Introduction of New Advanced)	
Wireless Services, including Third)	
Generation Wireless Systems)	
)	

COMMENTS ON NTIA REPORT

BellSouth Corporation, Nucentrix Broadband Networks, Inc., Sprint Corporation, and WorldCom, Inc. (who collectively hold 2150-2162 MHz Multipoint Distribution Service (“MDS”) licenses covering the vast majority of the population of the country), together with the Wireless Communications Association International, Inc. (the trade association of the MDS industry) (collectively, the “MDS Commenters”), hereby submit their comments on the final report, *“An Assessment of the Viability of Accommodating Advanced Mobile Wireless (3G) Systems in the 1710-1770 MHz and 2110-2170 MHz Bands”* released by the National Telecommunications and Information Administration (“NTIA”) on July 23, 2002 (*“NTIA Report”*).¹

The *NTIA Report* represents a significant step by the United States Government to identify spectrum that can be added to the more than 425 MHz of spectrum already available for

¹ This filing is submitted in response to the Commission's solicitation of comments on the *NTIA Report*. See “FCC Seeks Comment on the National Telecommunications and Information Administration's Report ‘An Assessment of the Viability of Accommodating Advanced Mobile Wireless (3G) Systems in the 1710-1770 MHz and 2110-2170 MHz Bands,’” *Public Notice*, DA 02-1780 (rel. July 24, 2002).

advanced wireless services.² NTIA concludes that an additional 90 MHz of spectrum – 45 MHz at 1710-1755 MHz and 45 MHz to be identified from the 2110-2170 MHz band – can be reallocated for 3G services.³ Yet, while the *NTIA Report* provides extensive analysis of the viability of freeing the 1710-1755 MHz band for 3G services, it offers far less detail regarding the contemplated reallocation of 45 MHz within the 2110-2170 MHz band.⁴ Indeed, in discussing the difficult problem of relocating the current licensees in the band to alternative spectrum, the *NTIA Report* merely lists the relocation options proposed in ET Docket No. 00-258 and concludes that the “adequacy of relocation spectrum should not present an insurmountable challenge.”⁵

Although not specifically discussed in the *NTIA Report*, the record in ET Docket No. 00-258 leaves no doubt that any effort to make available 45 MHz of the 2110-2170 MHz band for 3G will require relocation of MDS from the 2150-2162 MHz band.⁶ Anticipating that NTIA

² That spectrum is identified in note 1 of the *NTIA Report*.

³ See *NTIA Report*, at 1-2.

⁴ See *id.* at 4, 22-23.

⁵ See *id.* at 22-23.

⁶ The overlap between the 2110-2155 MHz band and MDS channel 1 at 2150-2156 MHz obviously mandates a relocation of MDS channel 1. Moreover, the record in ET Docket No. 00-258 provides ample evidence that there must be a material guardband between the current MDS channels and spectrum used for downstream 3G communications, a guardband requirement which effectively dictates a relocation of all MDS channel 2/2A licensees as well. The March 30, 2001 report by the Commission’s staff – *Final Report*, “Spectrum Study of the 2500-2690 MHz Band: The Potential for Accommodating Third Generation Mobile Systems” [*Final Report*] – concludes that guard bands of up to 4 MHz will be needed to prevent interference between adjacent channel 3G systems (which have operating characteristics not dissimilar to those of PCS) and MDS stations. *Final Report* at 47-52. In response to the Commission’s *Public Notice* soliciting comments from the public on the *Final Report*, “FCC Releases Staff Final Report ‘Spectrum Study of 2500-2690 MHz Band: The Potential for Accommodating Third Generation Mobile Systems,’” *Public Notice*, DA 01-786 (rel. Mar. 30, 2001), WCA took issue with that conclusion, noting in pertinent part that somewhat larger guardbands might be required. See Comments of Wireless Communications Ass’n Int’l on FCC Final Report, ET Docket No. 00-258, at 4-5 (filed April

would conclude that the 1710-1755 MHz band could be reallocated for 3G use, on July 7, 2002 the MDS Commenters submitted to the Commission a compromise proposal for the relocation of MDS from 2150-2162 MHz to 1910-1916/1990-1996 MHz.⁷ While stressing their strong preference for MDS to remain at 2150-2162 MHz, the MDS Commenters acknowledged that the Commission may nonetheless desire to relocate MDS from this spectrum to accommodate an auction of paired spectrum in the 1.7 and 2.1 GHz bands for Frequency Division Duplex 3G services and expressed a willingness to relocate to the 1910-1916/1990-1996 MHz bands if certain conditions were met. They noted that:

Although the Commission first sought comment on the possibility of such a relocation in the *Notice of Proposed Rulemaking* (“*NPRM*”) adopted in late 2000 in ET Docket No. 00-258, the proponents of relocating MDS have yet to present a viable plan for relocation. Meanwhile, the continuing uncertainty over the future of the 2150-2162 MHz band is impeding the development of advanced MDS technology for these channels. [The MDS Commenters] have joined together to “jump start” the debate by advancing a proposal that, while not perfect, would be an acceptable compromise *if implemented quickly*.⁸

16, 2001). *See also* Comments of Sprint, ET Docket No. 00-258, at 4-5 (filed April 16, 2001). Similar concerns have been expressed by many others. *See, e.g.* Comments of Verizon Wireless, ET Docket No. 00-258, at 9-10 (filed Oct. 19, 2001), Comments of Cisco Systems, Inc., ET Docket No. 00-258, at 9-10 (filed Feb. 22, 2001); Comments of WorldCom, ET Docket No. 00-258, at 18 (filed Oct. 22, 2001). In response to the *FNPRM* in this proceeding, Cingular has suggested that 5 MHz guardbands are required between TDD (and, remember, MDS has the flexibility to operate utilizing TDD) and PCS/3G. *See* Comments of Cingular Wireless, ET Docket No. 00-258, at 12-13 (filed Oct. 22, 2001). Motorola goes even further, arguing that a guardband of even 5-10 MHz may be inadequate to prevent interference between a station utilizing TDD and a PCS base station. *See* Comments of Motorola, ET Docket No. 00-258, at 16-173 (filed Oct. 22, 2001). For present purposes, even acceptance of the Commission’s 4 MHz guardband figure precludes MDS channel 2/2A operations at 2156-2162 MHz.

⁷ *See* Letter from BellSouth Corp., *et al* to Michael K. Powell, ET Docket No. 00-258, at 1-2 (filed July 11, 2002) and “A Compromise Solution for Relocating MDS from 2150-2162 MHz” attached thereto [the “*MDS Industry Compromise*”]

⁸ *Id.* at 1(emphasis added).

As is explained in more detail in that filing, the willingness of the MDS industry to accept spectrum that is inferior in some respects to the 2150-2162 MHz band is premised on the Commission rapidly lifting the cloud of regulatory uncertainty that has hampered development of the 2150-2162 MHz band for the past two years and permitting MDS system operators to quickly deploy services in the new band if they so choose.⁹ Thus, the MDS Commenters are troubled by the suggestion in the *NTIA Report* that “the FCC will initiate a rulemaking for allocation and service rules that will make 45 MHz [within the 2110-2170 MHz band] available for advanced wireless services.”¹⁰ Even if conducted on an expedited basis, the time it would take to conduct a new notice and comment rulemaking proceeding would undermine an essential predicate to the compromise.

Contrary to the implication of the *NTIA Report*, there is no legal or other requirement for the Commission to initiate a new rulemaking proceeding either to reallocate 45 MHz within the 2110-2170 MHz band or to adopt the compromise proposal advanced by the MDS Commenters. The possibility of reallocating the 2150-2162 MHz band as part of a larger spectrum block for paired 3G use and relocating MDS channel 1 and 2/2A to alternative spectrum was expressly raised in the December 2000 *Notice of Proposed Rulemaking* in this docket.¹¹ Those same issues were addressed again in the August 2001 *Further Notice of Proposed Rulemaking* (the “*Further Notice*”), which inquired, in pertinent part:

⁹ See *id.* at 4 n. 13, 6-7, 14.

¹⁰ See *NTIA Report*, at 4.

¹¹ See *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 Services, including Third Generation Wireless Systems*, 16 FCC Rcd 596, 619 (2001).

We seek comment on the impact of reallocating this [MDS] spectrum for new advanced wireless services or for relocation purposes. We also request that commenters identify other frequency bands that could accommodate incumbent MDS services.¹²

Moreover, the *Further Notice* specifically solicited comment regarding the possibility of using the 1910-1930 MHz and/or 1990-2025 MHz bands as relocation spectrum for existing licensees displaced from spectrum for paired 3G use.¹³ As is discussed in detail in the *MDS Industry Compromise*, several parties specifically suggested the 1910-1930 MHz unlicensed PCS band and the 1990-2025 MHz Mobile Satellite Service band as possible relocation spectrum for displaced 2150-2162 MHz MDS licensees in response to the *Further Notice*.¹⁴ As a result, the relocation of MDS from 2150-2162 MHz to 1910-1916/1990-1996 MHz as proposed in the *MDS Industry Compromise* can be accomplished consistent with the Administrative Procedures Act without the commencement of any new proceeding or the issuance of a second further notice in this proceeding.

Delay in adopting the *MDS Industry Compromise* is not only unnecessary from a legal perspective, but would represent poor spectrum management policy. The MDS Commenters appreciate that portions of the 1710-1755 MHz band will not be available for commercial use until 2008, and that this fact may cause some in the mobile wireless industry to call for delaying

¹² See *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 Services, including Third Generation Wireless Systems*, 16 FCC Rcd 16043, 16061 (2001).

¹³ See *id.* at 16048 (“We seek comment on whether some or all of the 1910-1930 MHz band should be reallocated for new advanced wireless services use or for incumbents displaced by advanced wireless services”) and 16055 (“this spectrum [1990-2025 MHz] could be made available for displaced incumbents.”).

¹⁴ *MDS Industry Compromise*, at 9-12.

any auction of the 90 MHz of new 3G spectrum into 2004 or beyond. Be that as it may, MDS licensees should not be forced to remain in their current regulatory limbo. The *MDS Industry Compromise* details the difficulties currently being faced by MDS licensees who in many cases are unable to make productive use of the 2150-2162 MHz band as a direct result of the proposed reallocation of that band.¹⁵ In the interest of brevity, that discussion need not be repeated here. Suffice it to say that the *MDS Industry Compromise* contemplated the possibility that the 3G auction would not occur for some time, and provides a mechanism by which an MDS system operator can, if it chooses, rapidly vacate the 2150-2162 MHz band and commence use of 1910-1916/1990-1996 MHz subject to reimbursement of its costs following the 3G auction. Whatever reasons may justify delaying the 3G auction, there are no reasons not to immediately implement the *MDS Industry Compromise*.

Finally, the MDS Commenters are troubled by the suggestion in the NTIA Report that “it may also be possible for DOD to operate [Tactical Radio Relay (“TRR”)] on a non-interference, coordinated basis in the 1350-2690 MHz band at all locations.”¹⁶ It does not appear from the NTIA Report that there has been any technical analysis conducted that supports this statement, and certainly no technical analysis has been made public for scrutiny by potentially-affected non-Governmental licensees. Indeed, as it relates to MDS and Instructional Television Fixed Service (“ITFS”) operations in the 2500-2690 MHz band, the above-quoted language is impossible to

¹⁵ *See id.* at 4, 7, 14-15.

¹⁶ *NTIA Report.* at 16. *See also id.* at 3.

square with NTIA's conclusion that ground-based TRR systems must be cleared from the 1710-1755 MHz band if that band is to be used for advanced wireless services.¹⁷

The Appendix to the *NTIA Report* explains the conclusion that advanced wireless services in the 1.7 GHz band and TRR are incompatible as follows:

Terrain-based propagation models were used to analyze the potential interference from the TRR fixed link systems. The results showed that the exclusion zones are generally comparable to the identified "protected areas" which range from 100 km to 240 km in diameter. Many of these "protected areas" include, or are in close proximity to, cities, major interstate highways, or other areas where wireless services would be anticipated. The propagation analysis showed that continued operation of the TRR systems in these areas would make commercial service inaccessible in those areas.

Since second generation MDS/ITFS systems are being deployed in the 2500-2690 MHz band across the country utilizing technology and operational parameters not materially different from those of PCS systems,¹⁸ it stands to reason that these MDS/ITFS systems are equally incapable of

¹⁷ See *id.* at 9, 15-16, 18.

¹⁸ See *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable And Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, 17 FCC Rcd 2844, 2924 n. 451 (2002); Comments of Wireless Communications Ass'n Int'l, ET Docket No. 98-153, at 4-7 (filed July 31, 2002). See also *Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, Report and Order, 13 FCC Rcd 19112, 19121 (1998)(authorizing use of CDMA by MDS/ITFS licensees providing two-way services); *Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, Report and Order on Reconsideration, 14 FCC Rcd 12764, 12776-81 (1999)(authorizing use of CPE for MDS/ITFS systems that is low-powered and utilized close to ground levels); "Sprint Conducts Trials with Next Generation Broadband Wireless Technology," Sprint Corporation Press Release (May 7, 2001); Charny, "Can Your Net Access Travel Through Walls?" *CNET News.com* (May 7, 2002); Blackwell, "What the Licensed Competition is Doing," at http://isp-planet.com/fixed_wireless/business/2002/spring_020528.html (May 28, 2002); "NextNet Announces Industry's First Commercial Deployment of Next Generation NLOS Broadband Wireless Access," at http://www.nextnetwireless.com/press_releases_23_bottom.html (Jan. 10, 2002) (announcing launch of commercial MDS/ITFS broadband service with second generation equipment in Pocahontas, Iowa); Mansell, "IP Wireless Gaining Customers," *Kagan Broadband Fixed Wireless*, at 6 (May 6, 2002) (discussing roll-out by Montana Wireless TV of Missoula of second generation equipment); Sing, "Next-Generation Wireless Comes to Maui," *Pacific Business News* (Apr.

coexisting with ground-based TRR systems. As a result, the Commission must take the *NTIA Report's* assumptions regarding the sharing of the MDS/ITFS band with TRR with the proverbial grain of salt and should, at a minimum, require the submission of detailed technical analyses by the proponents of such sharing before even formally proposing any modification of the Table of Allocations to permit TRR use of the 2500-2690 MHz band.

In conclusion, the *NTIA Report* represents an important step towards adding spectrum to that already available in the United States for advanced wireless services. In implementing the proposals advanced by the *NTIA Report*, however, the Commission must act in a manner that is fair not only to those who covet this additional spectrum, but also to incumbent licensees (like the MDS licensees at 2150-2162 MHz) whose current and future operations are threatened as a result.

Respectfully submitted,

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19, 2002), at <http://pacific.bizjournals.com/pacific/stories/2002/04/22/story1.html> (discussing launch of 3G-based mobile broadband service over MDS/ITFS spectrum in Maui, Hawaii).

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