

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)	ET Docket No. 00-258
for Mobile and Fixed Services to Support)	
the Introduction of New Advanced)	
Wireless Services, including Third)	
Generation Wireless Systems)	
)	
Amendment of Section 2.106 of the Commission's)	
Rules to Allocate Spectrum at 2 GHz for Use)	ET Docket No. 95-18
By the Mobile-Satellite Service)	
)	
The Establishment of Policies and Service Rules)	IB Docket No. 99-81
for the Mobile-Satellite Service in the 2 GHz Band)	
)	
Petition for Rule Making of the Wireless)	
Information Networks Forum Concerning the)	RM-9498
Unlicensed Personal Communications Service)	
)	
Petition for Rule Making of the UTStarcom, Inc.,)	
Concerning the Unlicensed Personal)	RM-10024
Communications Service)	

COMMENTS ON FURTHER NOTICE OF PROPOSED RULEMAKING

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EXECUTIVE SUMMARY

With the *Further Notice of Proposed Rulemaking* in this proceeding, the Commission has solicited comment on the possible use of the 1910-1930 MHz, 1990-2025 MHz, 2150-2160 MHz, 2165-2200 MHz and/or 2390-2400 MHz frequency bands “to support the introduction of new advanced mobile and fixed terrestrial wireless services (advanced wireless services).” The record already developed in response to the *Notice of Proposed Rulemaking* in this proceeding establishes that the Multipoint Distribution Service (“MDS”) channels in the 2150-2162 MHz band (the rights to which were auctioned five years ago) are critical components of systems that also employ MDS and Instructional Television Fixed Service (“ITFS”) spectrum in the 2500-2690 MHz band (the “2.5 GHz band”) to deliver data and video services. The MDS/ITFS industry has invested substantial time and resources into deploying services utilizing the 2150-2162 MHz band, and hundreds of thousands of consumers are today receiving data or video services delivered over MDS channels 1 and 2/2A. Thus, MDS licensees would strongly prefer to remain at 2150-2162 MHz.

WCA recognizes, however, that in light of the October 5, 2001 agreement among the Commission, the National Telecommunications and Information Administration, the Department of Defense and other Executive Branch agencies to identify spectrum for advanced wireless services, an effort is underway to designate the 1710-1770 MHz and 2110-2170 MHz bands for use by advanced wireless services, including 3G. To date, no compelling argument has been advanced as to why MDS licensees should be relocated from the 2150-2162 MHz band, as opposed to making the band available for possible 3G use by affording 2150-2162 MHz band MDS licensees the same flexible use rights granted 2.5 GHz MDS licensees in the *First Report and Order*. Nonetheless, WCA recognizes that the Commission may seek to clear and then auction the 1710-1770 MHz and 2110-2170 MHz bands on a paired basis. Should the Commission pursue that alternative, any relocation of 2150-2162 MHz MDS licensees must be subject to the following conditions:

- The Commission must first identify truly comparable spectrum to which MDS licensees in the 2150-2162 MHz band could be relocated. As a practical matter, if the 1710-1770 MHz/2110-2170 MHz pair are to be auctioned for 3G use, the options are limited to the unlicensed Personal Communications Service spectrum at 1910-1930 MHz, the 1990-2025 MHz band allocated to the Mobile Satellite Service (“MSS”), and/or the 2170-2200 MHz band allocated to the MSS.
- The replacement spectrum must be a full 12 MHz of usable spectrum. In fifty major urban markets, MDS channel 1 is allocated the 2150-2156 MHz band, while MDS channel 2 is allocated the 2156-2162 MHz band.
- Those seeking to clear MDS from the 2150-2162 MHz band must pay *all* associated costs, including the costs of clearing the identified replacement spectrum of any incumbents and of relocating MDS operations to the replacement spectrum once it has been cleared.

- The transition must be designed to provide certainty and avoid burdens on the MDS/ITFS community. The Commission should establish a date certain by which auction winner(s) must clear the replacement band of all incumbents. MDS licensees should have no responsibility for or involvement in that band-clearing effort. On the pre-determined date by which the replacement spectrum must be cleared, the migration of MDS channels 1 and 2/2A can begin. The Commission must provide for the simultaneous migration of *all* MDS licensees in the 2150-2162 MHz band to new spectrum and not allow third parties to pick and choose which stations will be relocated. The Commission should impose the obligation to pay the costs of clearing the replacement band and of relocating MDS operations upon all winners in the 1710-1770/2110-2170 MHz auction equally, not just on the winner(s) of licenses that include the 2150-2162 MHz channels. In that manner, the Commission can assure that the clearing of the replacement band and the migration occur on schedule, regardless of whether any one auction winner defaults on its obligations.
- The Commission’s relocation and reimbursement policies must be modified substantially to account for cost considerations never before presented in a forced relocation. For the first time, (i) the spectrum at issue is utilized to provide a mass-market service to large numbers of consumers (some of whom are purchasing their consumer premises equipment at retail) and (ii) in some cases the spectrum is being leased from licensees to system operators who actually provide that service to consumers. Because existing equipment cannot be tuned to any of the possible replacement bands, the system operator will have to be reimbursed for expenses in notifying subscribers that their customer premises equipment must be replaced, to schedule appointments for the replacement, and to then schedule, supervise and successfully complete truck rolls and equipment change-outs. Operators will have to be reimbursed for expenses in diverting their existing personnel from the task of marketing and installing service to new customers, or for adding additional personnel to perform relocation-related tasks. To the extent that subscribers are lost in the transition, compensation will have to be provided.
- The Commission must assure that the new “spectral neighbors” of relocated MDS licensees are not authorized to use their spectrum for incompatible purposes, or in a manner that otherwise creates interference to MDS/ITFS services. Maximum power levels, spectral masks, frequency stability restrictions, guardbands and coordination guidelines with Canada and Mexico all must be established now to assure a benign operating environment in the replacement spectrum equivalent to that present today at 2150-2162 MHz.
- The Commission’s rules for relocated MDS licensees must preserve the rights sold at the MDS Basic Trading Area (“BTA”) auction, *i.e.*, the exclusive right to apply for authority to construct and operate new facilities on relocation spectrum within their BTAs, the exclusive right to construct and operate commercial stations on up to eight available ITFS channels within their BTAs, and the exclusive right to construct new stations on forfeited MDS facilities.

- If MDS licensees are to be cleared out of the 2150-2162 MHz band to facilitate a 3G auction, the Commission should bring the issue to closure as soon as possible. As already recognized in the *First Report and Order*, the specter of relocation creates regulatory uncertainty that discourages investment and risks putting the MDS/ITFS community in a perpetual state of limbo that disserves the millions of consumers, educators and students who have little or no access to broadband service. A lengthy delay in resolving the relocation issue will only prolong that uncertainty and increase the cost of relocation, with no countervailing benefit to the public.

Finally, WCA believes that a flexible use allocation for MDS channels 1 and 2/2A (wherever they are ultimately located) would be appropriate now that the Commission has decided in the *First Report and Order* to add a mobile allocation to the 2.5 GHz band. Every legal, economic and public policy argument supporting the addition of a flexible use allocation for the 2.5 GHz band applies equally to MDS channels 1 and 2/2A and, since the two bands are companion spectrum deployed for the same wireless broadband service, there is no logical reason for the Commission to extend full flexible use rights to one and not the other.

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COMMENTS ON FURTHER NOTICE OF PROPOSED RULEMAKING

The Wireless Communications Association International, Inc. (“WCA”) hereby submits its comments in response to the Commission’s *Further Notice of Proposed Rule Making* (the “*FNPRM*”) in the above-captioned proceeding.¹

¹ FCC 01-224 (rel. Aug. 20, 2001).

I. INTRODUCTION.

In its initial *Notice of Proposed Rulemaking* in this proceeding (the “*NPRM*”), the Commission requested comment on, *inter alia*, whether the public interest would be served by displacing Multipoint Distribution Service (“MDS”) and Instructional Television Fixed Service (“ITFS”) licensees in the 2150-2162 MHz band and the 2500-2690 MHz band (the “2.5 GHz band”) and re-auctioning their spectrum for “advanced wireless services.”² Recognizing that the MDS/ITFS industry is evolving from a video programming distributor to “two-way digital ITFS/MMDS systems [that] will provide Americans with another option for high-speed broadband access, furthering competition with other services such as digital subscriber line (“DSL”), cable modem, or satellite-based services,”³ the *First Report and Order and*

² 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, 619-622 (2001).

³ 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*, ET Docket No. 00-258, at ¶ 19 (rel. Sept. 24, 2001)[“*First R&O*”]. Indeed, Verizon recently observed that:

Fixed wireless, . . . , is rapidly emerging as a major broadband competitor. The Commission noted over a year ago that broadband fixed wireless services are being marketed to business customers and “this technology will be marketed to residential customers in the near future.” . . . [F]ixed wireless has promise to provide broadband services to business and residence customers “that are beyond the reach of wireline DSL,” and is therefore well-suited to deployment in rural areas where low densities may make wireline technologies cost-prohibitive.

Comments of Verizon on the Third Notice of Inquiry, CC Docket No. 98-146, at 5-6 (filed Sept. 24, 2001) (footnotes omitted). Recent market data confirms that wireline incumbents remain by far the dominant providers of broadband service and remain free of significant competition from non-wireline technologies and competitive wireline carriers. See “Falling Through The Net: Toward Digital Inclusion,” NTIA White Paper, <http://search.ntia.doc.gov/pdf/ftn00.pdf>, at 23 (October 2000) (finding that over 95% of broadband households subscribed to cable modem (50.8%), DSL (33.7%) or ISDN (10.9%) service); “High-Speed Services for Internet Access: Subscribership as of December 31, 2000,”

Memorandum Opinion and Order (the “*First R&O*”) properly found that incumbent MDS and ITFS licensees in the 2.5 GHz band should not be displaced.⁴ WCA applauds the Commission for removing this cloud of uncertainty that had plagued MDS/ITFS licensees in the 2.5 GHz band since the commencement of this proceeding, and for paving the way for further development and deployment of the 2.5 GHz band for MDS/ITFS-based commercial and educational broadband services in unserved and underserved areas.

With the *FNPRM*, the Commission now turns its attention to whether MDS licensees in the 2150-2162 MHz band -- many of whom paid at the Commission’s 1996 MDS Basic Trading Area (“BTA”) auction for the right to use their newly-acquired spectrum in a flexible manner subject only to compliance with or waiver of the Commission’s technical rules⁵ -- should be

Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division, Table 4 (RBOCs provide 86.3% of all ADSL lines) [“*2001 High-Speed Internet Access Report*”]. Moreover, due to the paucity of competition between cable modems and DSL, some cable providers and ILECs have increased the price for residential broadband services since the recent demise of many competitive DSL providers. See Stern, “Comcast to Raise Internet Service Fees,” *The Washington Post*, at E11 (Sept. 19, 2001) (discussing Comcast’s cable modem service fee increase from \$32.95 to \$39.95 per month); Young, “Choose a Cable Modem or DSL?,” at <http://interactive.wsj.com/archive> (Sept. 10, 2001); Plosinka and Coffield, “Top-Dollar DSL,” *Interactive Week*, at 14-15 (Feb. 19, 2001). The situation outside of the largest cities is little better: the Commission’s *2001 High-Speed Internet Access Report* confirms that substantial portions of states having significant non-urban populations still have no high-speed Internet access service, as defined by the Commission. *2001 High-Speed Internet Access Report*, Table 9 (August 2001) (stating that no high-speed Internet access lines are in service in 59% of the zip codes in Arkansas – percentages for additional states are as follows: Alaska (78%), North Dakota (60%), Kentucky (50%), Montana (51%), South Dakota (49%), Nebraska (49%), Iowa (48%), Oklahoma (48%), Missouri (47%), Kansas (41%), Mississippi (37%), Louisiana (36%), New Mexico (34%)).

⁴ See *First R&O*, at ¶ 2.

⁵ See *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Fixed Television Service and Implementation of Section 309(j) of the Communications Act*, 10 FCC Rcd 9589, 9619 (1995) (“[U]nless otherwise directed or conditioned in the applicable instrument of authorization, Multipoint Distribution Service stations may render any kind of communications service consistent with the Commission’s rules on a common carrier or non-common carrier basis.”) [*MDS Auction Report and Order*]; *on recon.*, 10 FCC Rcd 13821, 13824 (1995) (“[T]he present regulations allow for use of MDS frequencies for ‘any kind of

cleared out of that band to permit a re-auctioning of that spectrum.⁶ The record already developed in response to the *NPRM* establishes that the MDS channels in the 2150-2162 MHz band are critical components of systems that also employ MDS and ITFS spectrum in the 2.5 GHz band.⁷ While in the interest of brevity WCA will refrain in these comments from repeating in detail the information that it and others have already submitted into the record regarding the 2150-2162 MHz band,⁸ it is worth noting here that every two-way broadband system launched to date with MDS/ITFS spectrum has utilized MDS channels 1 and 2/2A, and that hundreds of thousands of consumers are today receiving data or video services delivered over MDS channels 1 and 2/2A. Any efforts to migrate those services to alternative spectrum will be costly, time

communications service' . . . [and] applicants may need to seek waiver of MDS technical rules precluding alternative uses.") (internal citations omitted) [*"MDS Auction Reconsideration Order"*].

⁶ *FNPRM* at ¶¶ 37-41. WCA notes that the *FNPRM* only discusses this issue with respect to the 2150-2160 MHz band, while the 2160-2165 MHz band is addressed in the *NPRM*. MDS licensees use two full six-megahertz channels in fifty large urban markets identified in Section 21.903 of the Commission's Rules, *i.e.*, MDS channel 1 (2150-2156 MHz) and the full MDS Channel 2 (2156-2162 MHz). *Id.* at ¶ 37 n. 82. Since in the fifty large markets a full 12 MHz of replacement spectrum is required to make MDS licensees whole in the event of relocation, the Commission must migrate MDS channel 2 in its entirety if it determines that the cost of relocating MDS licensees and potential disruption of commercial and educational MDS/ITFS services are outweighed by the putative benefits of a reauction. Hence, for purposes of these comments, WCA will address the relocation issues in the *FNPRM* under the assumption that they apply equally to the entire 12 MHz of spectrum at 2150-2162 MHz.

⁷ *See, e.g.*, Comments of the Wireless Communication Association International, Inc., ET Docket No 00-258, at 40-44 (filed Feb. 22, 2001). [*"WCA Comments"*]; Comments of Sprint Corporation, ET Docket No. 00-258, at 20-32 (filed Feb. 22, 2001) [*"Sprint Comments"*]; Comments of WorldCom, Inc., ET Docket No. 00-258, at 16-21, 23-24 (filed Feb. 22, 2001) [*"WorldCom Comments"*]; Comments of Nucentrix Broadband Networks, Inc., ET Docket No. 00-258, at 20-22 (filed Feb. 22, 2001) [*"Nucentrix Comments"*].

⁸ *See, e.g.*, WCA Comments at 40-44 and at Appendix B, "HAI Consulting, Inc., 'MDS/MMDS/ITFS Two-Way Fixed Wireless Broadband Service: Spectrum Requirements and Business Case Analysis,'" at 4-6; WorldCom Comments at 23-24; Nucentrix Comments at 20-22, Sprint Comments at 20-23.

consuming and highly disruptive to licensees, system operators and consumers. Thus, licensees of MDS channels 1 and 2/2A would strongly prefer to remain at 2150-2162 MHz.

WCA recognizes, however, that in light of the October 5, 2001 agreement among the Commission, the National Telecommunications and Information Administration, the Department of Defense and other Executive Branch agencies to identify spectrum that can be deployed for advanced wireless services, an effort is underway to designate and auction the 1710-1770 MHz and 2110-2170 MHz bands for use by advanced wireless services, including 3G.⁹ To date, no compelling argument has been advanced as to why MDS licensees should be relocated from the 2150-2162 MHz band, as opposed to making the band available for possible 3G use through affording 2150-2162 MHz band MDS licensees the same flexible use rights granted to 2.5 GHz MDS licensees in the *First R&O*.¹⁰ Nonetheless, WCA understands that the Commission may seek to clear the 2150-2162 MHz band to facilitate an auction of the 1710-1770 MHz and 2110-2170 MHz bands on a paired basis for advanced wireless services.

Should the Commission elect to clear the 2150-2162 MHz band, WCA would not oppose relocation of MDS licensees from that spectrum if, and only if, the Commission: (1) identifies 12 MHz of truly comparable replacement spectrum that is capable of being cleared of incumbent users; (2) establishes a transition mechanism that provides certainty and avoids burdens on the MDS/ITFS community; (3) requires those seeking to clear the 2150-2162 MHz band to bear all costs associated with relocating any incumbents that already occupy the replacement spectrum

⁹ “NTIA Statement Regarding New Plan to Identify Spectrum for Advanced Wireless Mobile Services (3G),” at http://www.ntia.doc.gov/ntiahome/threeg/3gplan_100501.htm.

¹⁰ See *First R&O*, at ¶¶ 19-30.

identified for MDS channels 1 and 2/2A, and assures that MDS licensees, system operators and subscribers are fully reimbursed for *all* costs associated with any relocation from the 2150-2162 MHz band; (4) adopts rules and policies that sufficiently protect relocated MDS stations in the replacement spectrum from interference caused by their new spectral neighbors (*e.g.*, guardbands, power limits, spectral masks, coordination with Canada and Mexico, etc.); (5) fully preserves the rights MDS licensees acquired at the Commission's nationwide MDS BTA auction; and (6) resolves all relocation issues promptly, thereby removing the remaining cloud of uncertainty over MDS/ITFS wireless broadband service and minimizing the disruption that will inevitably be caused to MDS licensees, MDS/ITFS system operators, and consumers by migrating MDS licensees from the 2150-2162 MHz band to other spectrum. The remainder of these comments will be devoted to these issues.

II. DISCUSSION.

A. The Commission May Only Migrate MDS Licensees In The 2150-2162 MHz Band To Truly Comparable Relocation Spectrum.

It is well established that the fundamental objective of any relocation policy is to make the victim of the forced migration “whole” in all respects.¹¹ No participant in this proceeding has seriously contested that in order to accomplish that objective, the Commission must provide relocated MDS channel 1 and 2/2A licensees with comparable spectrum. Moreover, the Commission must identify a full 12 MHz that can be used as replacement spectrum for MDS licensees at 2150-2162 MHz, since MDS licensees have access to the entire 2150-2162 MHz

¹¹ See, *e.g.*, *Amendment to the Commission's Rules Regarding a Plan for Sharing the Costs of Microwave Relocation*, 11 FCC Rcd 8825, 8843 (1997) (“our goal is to ensure that incumbents are no worse off than they would be if relocation were not required”) [the “*Microwave Cost-Sharing Order*”].

band in the fifty large urban markets identified in Section 21.903 of the Commission's Rules and in other markets pursuant to waivers granted through the years.¹²

Although WCA will await any specific proposals submitted in response to the *FNPRM* before commenting in greater detail on this issue, as a practical matter it appears that of the possible candidate bands identified in the *NPRM* and the *FNPRM*, only the unlicensed Personal Communication Service spectrum at 1910-1930 MHz, the 1990-2025 MHz band allocated to the Mobile Satellite Service ("MSS") and/or the 2170-2200 MHz portion of the band allocated to the MSS could possibly prove comparable, as those are the only bands with propagation characteristics at least equal to those of the 2150-2162 MHz band.¹³ However, the current and future uses of these and neighboring bands and a variety of technical issues will need to be

¹² Should such replacement spectrum be identified, WCA believes it would be appropriate for the Commission to consider lifting the "fifty large markets" limitation on usage of the full MDS channel 2 (2156-2162 MHz). The Commission adopted that limitation over twenty-five years ago, out of concern that the larger markets were the only geographic areas where MDS usage of the 2160-2162 MHz band would not cause harmful interference to point-to-point microwave services in the 2 GHz band. *Amendment of Parts 1, 2, 21, and 43 of the Commission's Rules and Regulations to Provide for Licensing and Regulation of Common Carrier Radio Stations in the Multipoint Distribution Service*, 45 FCC 2d 616, 619-620 (1974) [*"1974 MDS Report and Order"*]. That concern, obviously, would no longer be relevant as the potential for such interference would not exist on whatever 12 MHz of replacement spectrum is identified for MDS licensees operating at 2150-2162 MHz.

¹³ WCA is aware that the unlicensed PCS spectrum at 1910-1930 MHz is the subject of pending petitions for rulemaking filed by the Wireless Information Networks Forum and UTStarcom, Inc. See *Petition for Rulemaking of Wireless Information Networks Forum*, RM-9498 (filed Jan. 8, 1999); *Petition for Rulemaking of UTStarcom, Inc.*, RM-10024 (filed Nov. 6, 2000). While WCA takes no position on the merits of these petitions at the present time, at a minimum the Commission should not take any action that would increase the number of incumbents in the 1910-1930 MHz band that would need to be relocated if all or part of the 1910-1930 MHz band is ultimately identified as 3G or replacement spectrum.

addressed in detail before they can be seriously considered as replacement spectrum for the 2150-2162 MHz band.¹⁴

As part of that consideration, the Commission must assure that the new “spectral neighbors” of relocated MDS incumbents are not authorized to use their spectrum for incompatible purposes, or otherwise in a manner that creates interference to MDS operations. As the Commission is learning from the ongoing dispute between Wireless Communications Service licensees and satellite Digital Audio Radio Service licensees who want to utilize high-power terrestrial repeaters on adjacent spectrum, it will be essential that technical rules be crafted early on in the process to assure relocated MDS licensees an interference-free operating environment. Again, WCA will comment on specific proposals that may be filed in response to the *FNPRM*. For now, however, suffice it to say that maximum power levels, the spectral mask, and frequency

¹⁴ A few commenters have already suggested that MDS channels 1 and 2/2A be moved slightly upward to 2155-2165 MHz so that the Commission could combine the 2110-2150 MHz and 2160-2165 MHz bands into a single contiguous band that could be auctioned for 3G. *See* Comments of AT&T Wireless Comments, ET Docket No. 00-258, at 12 (filed Feb. 22, 2001); Comments of Verizon Wireless, ET Docket No. 00-258, at 15 (filed Feb. 22, 2001). WCA has already demonstrated that the proposal otherwise is seriously flawed. *See* Reply Comments of The Wireless Communications Association International, Inc., ET Docket No. 00-258, at 31-34 (filed Mar. 9, 2001). Most obviously, the 2155-2165 MHz band does not provide the 12 MHz of spectrum necessary to make MDS licensees in the 2150-2162 MHz band whole in the fifty large markets where the entire band is used. Also, because the 2150-2162 MHz and 2155-2165 MHz bands overlap, it would be impossible to seamlessly transition MDS licensees from the former to the latter, since a broadband service provider would not be able to operate simultaneously in both bands for a transitional period during which customer premises equipment would be swapped out. Finally, relocation of MDS licensees from the 2150-2162 MHz band to the 2155-2165 MHz band would eliminate the essential *de facto* guardband between MDS channel 2 and the MSS, which has been allocated downlink spectrum at 2165-2200 MHz. WCA has pending before the Commission a petition for reconsideration in IB Docket No. 99-81, in which WCA has demonstrated that MDS operations in the 2150-2162 MHz band will be subject to interference from MSS and that therefore the Commission must revise the MSS spectral mask to limit aggregate MSS power flux density in the 2150-2162 MHz band at the earth’s surface to -172 dBW/m² using a 4 kHz resolution bandwidth. Petition of The Wireless Communications Association International, Inc. for Reconsideration, IB Docket No. 99-81 (filed Nov. 3, 2000). If the guardband between MSS and MDS were reduced or eliminated, MSS would have to either utilize more sophisticated filtering in its downlink transmitters or devote a portion of the MSS spectrum as a guardband in order to meet the proposed mask.

stability must ensure that harmful interference (whether adjacent channel interference, brute force overload or interference due to intermodulation) to the newly relocated MDS is avoided. As recognized in the *Final Report*, guardbands between MDS and its new spectrum neighbors will be necessary to protect against harmful interference, and the size of those guardbands will impact the parameters at which MDS's new spectrum neighbors can operate without causing interference.¹⁵ Further, in order for replacement spectrum to be truly comparable, it must be coordinated with Canada and Mexico well in advance to avoid delays in migrating 2150-2162 MHz licensees to the new spectrum near border areas.¹⁶ Obviously, if the spectrum identified as potential replacement spectrum cannot be readily coordinated with Canada and Mexico, it is not comparable and therefore does not satisfy the conditions for relocation set forth above. It is incumbent upon anyone submitting a relocation proposal in response to the *FNPRM* to address each of these essential considerations.

B. All Costs Incurred In Connection With A Forced Relocation Of MDS Licensees From The 2150-2162 MHz Band Must Be Paid By Those Benefiting From The Relocation.

Pursuant to the fundamental principle that those benefiting from a forced migration of licensees to replacement spectrum must bear all associated costs, any relocation rules and procedures adopted in this proceeding for MDS licensees in the 2150-2162 MHz band must

¹⁵ See *Final Report*, at 46-50.

¹⁶ In Canada, for example, the 2150-2160 MHz band has been licensed for MDS or MDS-like operation, and thus would be vulnerable to interference from non-compatible uses near the U.S.-Canadian border. See Comments of Radio Advisory Board of Canada, ET Docket No. 00-258, at 11 (filed Feb. 22, 2001); *1974 MDS Report and Order*, 45 FCC 2d at 626 “[I]t has come to our attention that proposed MDS stations located near the U.S./Canadian border may encounter international interference problems. . . Pursuant to the U.S. Canadian frequency coordination agreement, proposed assignments in many frequency bands, including the band 2150-2162 MHz, within 35 miles of the border will be formally coordinated between the two Governments.” (footnotes omitted).

conform to two essential principles – (i) whatever comparable replacement spectrum is identified must be cleared of incumbents at no cost to MDS licensees prior to the relocation of MDS channels 1 and 2/2A, and (ii) the MDS licensees, system operators to whom they lease capacity, and consumers who suffer financial loss as a result of the forced migration must be fully compensated. The willingness of MDS licensees to accept a compromise that includes a forced migration of MDS channels 1 and 2/2A is predicated on these two principles.¹⁷

The Commission has requested comment on how the relocation procedures it adopted in its *Emerging Technologies* proceeding could be applied to this situation, and on the “types and magnitudes of costs to relocate incumbent [MDS] operations.”¹⁸ The simple answer, which WCA previously presented in response to the *NPRM*,¹⁹ is that the *Emerging Technologies* rules are wholly inadequate here because they fail to address many of the types of costs that will be encountered as a result of any forced migration.

The Commission’s relocation policies have, to date, been applied to services, such as point-to-point microwave, broadcast auxiliary service (“BAS”) and land mobile radio, that are fundamentally different in nature from the various types of services being offered over

¹⁷ Cf. “U.S. Deployment of Third Generation Wireless Services: When Will It Happen and Where Will It Happen?”, Testimony of Thomas E. Wheeler, President and Chief Executive Officer, Cellular Telecommunications and Internet Association, before the United States House of Representatives, Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet (July 24, 2001) (“If incumbents were guaranteed that their needs would be accommodated and paid for, . . . , they would have a greatly increased incentive to turn back spectrum that could be auctioned.”).

¹⁸ *FNPRM*, at ¶ 40.

¹⁹ See WCA Comments at 48-53

MDS/ITFS.²⁰ As a result, those policies fail to address considerations that may not have been relevant in the past, but are highly relevant to making existing MDS/ITFS licensees, the system operators who lease MDS/ITFS channels, and consumers whole. Without repeating all of the issues that WCA has already addressed, it is worth noting:

- MDS would be the first mass-market consumer service to be relocated by the Commission. Since relocation is unlikely to commence for several years (as the relocation spectrum would have to be cleared and that cannot commence until after the auction of the 1710-1770/2110-2170 MHz bands, which is likely to be delayed until 2004),²¹ in the interim, system operators will continue to deploy facilities across the United States. Operators will incur extraordinary expenses to notify potentially millions of subscribers that their customer premises equipment must be replaced,²² to schedule appointments for such replacement, and to then supervise and successfully complete potentially millions of truck rolls and equipment change-outs. In addition to the costs associated with acquiring new customer premises equipment to replace existing equipment (which obviously must be reimbursed), operators will incur expenses in connection with either the diversion of their own personnel from the task of marketing and installing new subscribers to the task of relocation or hiring additional personnel to perform relocation-related functions. Although in the past the Commission has not provided for reimbursement of internal costs, such a policy would be grossly unfair under these circumstances.²³ Moreover, because system operators do not have unlimited resources to devote to relocation *and* expanding their existing operations, every resource

²⁰ See, e.g., *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, 7 FCC Rcd 6886 (1992); *Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, 15 FCC Rcd 16127 (2000); *Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service*, 15 FCC Rcd 12315 (2000); *Amendment of Part 90 of the Commission's Rules to Implement the 1900-2000 kHz Frequency Band in the Radiolocation Service*, PR Docket No. 84-874, FCC 85-574, 59 R.R.2d 196, 50 Fed. Reg. 46048 (rel. Oct. 31, 1985).

²¹ See, e.g., Smith, "Military Tightens Grip on Spectrum," at <http://www.wirelessweek.com> (Sept. 24, 2001).

²² The design of existing MDS/ITFS broadband customer premises equipment does not allow for retuning of a subscriber's existing equipment to any of the candidate replacement bands. Accordingly, the subscriber's equipment must be changed out in its entirety to permit operation on any identified replacement spectrum.

²³ Cf. 47 C.F.R. § 101.75(a)(1) (no reimbursement required for "internal resources devoted to the relocation process").

that an MDS/ITFS operator devotes to relocation is one *not* devoted to marketing MDS/ITFS fixed wireless broadband service aggressively in direct competition with cable modem and DSL service (including DSL provided by the ILECs who, through their wireless subsidiaries and affiliates, are the very same entities attempting to relocate MDS incumbents out of the 2150-2162 MHz band). Because the personnel that have been hired, trained, and paid to add new subscribers will be diverted to the relocation effort, MDS/ITFS-based broadband systems will inevitably lose potential subscribers to competing cable modem and DSL services.

- A relocation of MDS from the 2150-2162 MHz band would represent the first relocation of a service in which licensees routinely lease capacity to system operators who invest substantial sums in reliance on the availability of that capacity. Thus, the Commission's policies would require a substantial overhaul to assure that the lessees are made whole, as well as the MDS licensees. Particularly at a time when the Commission is attempting to promote the use of secondary market transactions such as leasing to alleviate spectrum shortages, it would be unthinkable for the Commission to leave lessees without redress in the case of a forced relocation.²⁴
- At least one operator of MDS-based broadband services is engaged in retail sales of customer premises equipment,²⁵ and many operators are planning on such sales in the near future. As a result, the Commission's relocation policy will need to be expanded to assure that consumers who have purchased customer premises equipment are made whole.
- An MDS/ITFS system (whether a broadband system or a video system) is comprised of facilities licensed to multiple licensees operating on multiple channels. Historically, the Commission has utilized a "selective relocation" policy under which the newcomer was free to pick and choose the facilities it would relocate (so long as no interference was caused).²⁶ Such a policy could be disastrous here, as it threatens to Balkanize MDS/ITFS deployment into multiple bands that would vary from market-to-market, depriving the MDS/ITFS industry of economies of scale in the design and manufacturing of equipment. The Commission must provide for a simultaneous migration of all MDS channel 1 and

²⁴ See *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, 15 FCC Rcd 24203 (2000).

²⁵ See *Sprint Launches First Broadband Wireless Market in Phoenix*, Sprint Press Release (May 8, 2000), at http://www3.sprint.com/PR/CDA/PR_CDA_Press_Releases_Detail/1,1694,814,00.html.

²⁶ See *Microwave Cost-Sharing Order*, 11 FCC Rcd at 8845; see also 47 C.F.R. § 101.75(a).

2/2A licensees to any new spectrum, and not allow someone else to pick and choose which stations will be relocated.²⁷

- A relocation of 2150-2162 MHz licensees would present the first case in which the Commission has forced entities that purchased spectrum at auction to relocate. Any Commission rules for relocating MDS licensees in the 2150-2162 MHz band must preserve the rights that were acquired at auction, *i.e.*, the exclusive right to apply for authority to construct and operate new facilities on relocation spectrum within their BTAs, the exclusive right to construct and operate commercial stations on up to eight available ITFS channels within their BTAs, and the exclusive right to construct new stations on forfeited MDS facilities.

WCA cannot at this time provide a meaningful estimate as to what it will cost to reimburse relocated MDS licensees under the criteria set forth above. To do so will require identification of the specific replacement spectrum and the operating characteristics of those services that will neighbor the replacement spectrum, since those factors will dictate equipment replacement costs. Moreover, further information is needed as to the likely timing of a decision in this proceeding, the likely timing of the 3G auction, and the likely delays that will be encountered in clearing the replacement spectrum of incumbents (all of which will impact when relocation actually occurs and the number of subscribers that will have to be moved). There is no doubt that relocation will be a time consuming process, as the Commission will have to resolve the issues presented in this proceeding, establish technical rules for the bands adjacent to the MDS relocation spectrum (which under many scenarios will be 3G spectrum for which no technical rules exist), conduct the 3G auction to identify those responsible for clearing the relocation spectrum, provide those auction winners with the time necessary to clear the

²⁷ Indeed, the Commission adopted its “selective relocation” policy because, among other things, many point-to-point microwave incumbents were already operating networks that consisted of both 2 GHz and 6 GHz links, and thus were already equipped for operation on relocation spectrum. *Microwave Cost-Sharing Order*, 11 FCC Rcd at 8845. Obviously, that is not the case with respect to MDS licensees in the 2150-2162 MHz band.

relocation spectrum (recognizing that it may take some time for the vendor community to develop the equipment for those incumbents to operate on their replacement spectrum), and then provide a period of time to transition subscribers served over MDS channels 1 and 2/2A. Simultaneously, the MDS industry would be required to develop a new generation of transmission and reception equipment to operate on its new spectrum – a process that could take substantial time.

In light of the experience in past auctions, WCA is concerned that the relocation process could be disrupted should financial problems be encountered by those responsible for funding the dual relocations. To minimize that risk, the Commission should impose the obligation to pay the costs of clearing the replacement band and of relocating MDS operations upon all winners in the 3G auction equally, not just on the winner(s) of licenses that include the 2150-2162 MHz channels. In that manner, the Commission can enhance the odds that the clearing of the replacement band and the migration occur on schedule, regardless of whether any one auction winner defaults on its obligations.

C. The Commission Should Give Licensees Of MDS Channels 1 And 2/2A The Same Flexible Use Rights It Has Already Given To MDS Licensees In The 2.5 GHz Band.

The Commission asks for comment on whether it should add a flexible use allocation to the 2150-2162 MHz band.²⁸ WCA believes that the Commission essentially has answered this inquiry in the *First R&O*, where it determined that the public interest would be served by adding

²⁸ *FNPRM*, at ¶ 41.

a flexible use allocation to MDS channels in the 2.5 GHz band.²⁹ Simply put, every legal, economic and public policy justification in the *First R&O* for extending flexible use to MDS licensees in the 2.5 GHz band applies with equal force to MDS channels 1 and 2/2A, whether they be located in the 2150-2162 MHz band or elsewhere. Moreover, since MDS channels 1 and 2/2A and MDS channels in the 2.5 GHz band are companion spectrum used to deploy the same wireless broadband service, there is no logical reason to extend full flexible use to one group of channels and not the other. Accordingly, WCA believes that the Commission can and should add a flexible use allocation to MDS channels 1 and 2/2A, regardless of where they are ultimately located.

III. CONCLUSION.

Once again, WCA commends the Commission for its decision to lift the cloud of uncertainty over the future of the 2.5 GHz band.³⁰ The fact remains, however, that such

²⁹ See *First R&O*, at ¶ 2. The notion of extending flexible use to MDS is not a novel concept. *Id.*, at ¶ 21. The Commission has previously acknowledged that under Section 21.903(b) of its Rules, “unless otherwise directed or conditioned in the applicable instrument of authorization, Multipoint Distribution Service stations may render any kind of communications service consistent with the Commission’s rules on a common carrier or on a non-common carrier basis . . .,” and confirmed that “nothing in this *Report and Order* precludes either new licensees or incumbents from using MDS frequencies for other kinds of services pursuant to 47 C.F.R. 21.903(b).” *MDS Auction Report and Order*, 10 FCC Rcd at 9619. Indeed, the Commission specifically cited its flexible use policy for MDS as a justification for giving Commercial Mobile Radio Service (“CMRS”) the flexibility to deploy their spectrum for fixed services on a co-primary basis. See *Amendment of the Commission’s Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services*, 11 FCC Rcd 8965, 8970 (1996). Arguably, then, the formal addition of a flexible use allocation to the 2.1 and 2.5 GHz bands merely makes explicit the flexible use rights MDS licensees already have under the Commission’s Rules.

³⁰ See *First R&O*, at ¶ 1 (“We recognize that consideration of [the 2.5 GHz] band for advanced wireless services has created uncertainty about the future of the new broadband fixed services being developed under the current allocation and service rules. Because we believe it is important to remove this uncertainty, we are now separately addressing and resolving the allocation issues involving this band. . .”).

uncertainty will persist (and deployment of MDS/ITFS-based broadband services will suffer) unless and until the future of MDS channels 1 and 2/2A is resolved. There also is little doubt that the significant time delays between now and the completion of any relocation of MDS channels 1 and 2/2A will substantially increase the financial and public interest costs of relocating MDS licensees. Thus, regardless of how the relocation issue is resolved, it is imperative that the Commission bring the matter to closure as quickly as possible.

Respectfully submitted,

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