

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC**

In the matter of)	
)	
Amendment of Part 2 of the Commission's)	ET Docket No. 00-258
Rules to Allocate Spectrum Below 3 GHz for)	
Mobile and Fixed Services to Support the)	
Introduction of New Advanced Services,)	
including Third Generation Wireless Systems)	
)	
The Establishment of Policies and Service)	IB Docket No. 99-81
Rules for the Mobile-Satellite Service in)	
the 2 GHz Band)	
)	
Amendment of the U.S. Table of Frequency)	RM-9911
Allocations to Designate the 2500-2520/)	
2670-2690 MHz Frequency Bands for the)	
Mobile-Satellite Service)	
)	
Petition for Rule Making of the Wireless)	RM-9498
Information Networks Forum Concerning)	
the Unlicensed Personal Communications)	
Service)	
)	
Petition for Rule Making of UTStarcom, Inc.)	RM-10024
Concerning the Unlicensed Personal)	
Communications Service)	

To: The Commission, *en banc*

**REPLY COMMENTS OF AD HOC MDS ALLIANCE
IN RESPONSE TO THIRD NOTICE OF PROPOSED RULEMAKING**

AD HOC MDS ALLIANCE (Ad Hoc), by and through two of its undersigned members, respectfully submits its reply in the captioned proceedings to the Federal Communications Commission in response to the comments on the Third Notice of Proposed Rulemaking (TNPR) portion of the Third Report and Order, Third Notice of Proposed Rulemaking and Second

Memorandum Opinion and Order (the “Order”), FCC 03-16, adopted January 29, 2003 and released February 10, 2003. As its reply in response to the comments on the TNPR, Ad Hoc respectfully states:

Background and Summary

In the Order, in pertinent part, the Commission reallocated 30 MHz of Mobile-Satellite Service (MSS) spectrum in the 1990-2000/2020-2025 MHz and 2165-2180 MHz bands for Fixed and Mobile services. Additionally, in the TNPR portion of the Order, the Commission posed a series of questions for public comment relating to the specific uses for the reallocated and related spectrum. Specifically included in the issues raised in the TNPR is the relocation spectrum for MDS operations from the 2150-2160/62 MHz band.

As the Commission knows from previous filings, Ad Hoc is comprised of small, independent enterprises and minority-owned businesses who are MDS Channel 1¹ and MDS Channel 2² licensees in 17 major markets³ covering a population of approximately 80 million persons throughout the United States. It has been an active participant and commenting party throughout these proceedings, encouraging the Commission to adopt policies that mitigate the harm to licensees of MDS Channel 1 and MDS Channel 2 arising from the reallocation the 2150-2162 MHz band for advanced wireless services.⁴ With Ad Hoc’s concurrence, a compromise proposal for

¹ 2150-2156 MHz.

² 2156-2162 MHz.

³ Atlanta, GA; Chicago, IL; Columbus, OH; Detroit, MI; Houston, TX; Indianapolis, IN; Los Angeles, CA; Milwaukee, WI; Minneapolis, MN; New York, NY; Oklahoma City, OK; Phoenix, AZ; Sacramento, CA; San Diego, CA; San Francisco, CA; St. Louis, MO; and Washington, DC. Ad Hoc thus constitutes 17 of the 27 stations licensed on a primary basis in the 2150-2162 MHz band, which the Commission acknowledges are “entitled to relocation”. TNPR at ¶72 & n. 178. However, Ad Hoc also includes BTA holders and smaller market MDS licensees.

⁴ See, e.g., Comments of the Ad Hoc MDS Alliance on the Further Notice of Proposed Rule Making, ET Docket No. 00-258, *et al.*, October 22, 2001 (the “Ad Hoc Comments”); Reply Comments of the Ad Hoc MDS Alliance on the Further Notice of Proposed Rule Making, ET Docket No. 00-258, *et al.*, November 8, 2001 (the “Ad Hoc Reply Comments”). See also Comments of the Ad Hoc MDS Alliance Supporting the NTIA Report, ET Docket No. 00-

relocating MDS licensees from the 2150-2162 MHz band to the 1910/1990 MHz band was advanced in this proceeding on July 11, 2002, jointly by BellSouth Corporation, Nucentrix Broadband Networks, Inc., Sprint Corporation, WorldCom, Inc. and The Wireless Communications Association International, Inc. in their *MDS White Paper*⁵. Against this background, Ad Hoc submitted in its comments herein the following resolutions to the specific issues on which the Commission sought comment in the TNPR:

1. The only reasonable alternative for the Commission is to pair 1910 MHz with 1990 MHz and designate them as the replacement spectrum for MDS Channels 1 and 2.
2. The remainder of the 1910-1920 MHz band not used for MDS should be retained for Unlicensed Personal Communications Services (UPCS) and should be afforded such additional flexibility, such as isochronous operations, as the Commission deems appropriate. Such use for the remainder of 1910-1920 MHz band can coexist with relocated MDS stations, just as the relocated MDS stations in the 1.9 GHz band can coexist with adjacent PCS base stations without a guardband.
3. The MSS uplink band at 2020-2025 MHz should be used as replacement spectrum for the displaced UPCS band at 1.9 GHz.⁶
4. The 10 MHz block that is upper adjacent to the existing 45 MHz of AWS at 2110-2155 MHz should be made available for new services, particularly AWS.

258, August 8, 2002; and Comments of the Ad Hoc MDS Alliance in Response to Third Notice of Proposed Rule-making, ET Docket No. 00-258, *et al.*, April 14, 2003.

⁵ “A Compromise Solution for Relocating MDS from 2150-2162 MHz,” ET Docket No. 00-258, *et al.*, July 11, 2002. It is also attached for convenient reference in this proceeding as Attachment A to the comments of The Wireless Communications Association, Inc.

⁶ Others, such as Motorola (at pp. 13-14) and Verizon Wireless (at pp. 8-9) recommend that 2020-2025 MHz should be reallocated for DOD use as an expansion of the 2025-2110 MHz band. Ad Hoc would also support such a reallocation.

5. The best use of the 2165-2180 MHz band would be to retain it for future AWS services.

6. MDS should be relocated to the 1.9 GHz band. The alternative of 2155-2180 MHz would require substantial, spectrally inefficient guardbands and would be incongruous with the worldwide plan for this spectrum. Relocation of MDS to 1.9 GHz requires no substantive rule changes since the licensees have already agreed to operate under existing PCS rules and power levels. Such relocation also is the fastest way to clear the 2150-2162 MHz band in one national clearing, thereby expediting the auctioning of spectrum for AWS and facilitating more rapid introduction of the advanced new services to the public by both AWS and MDS licensees.

When the comments are distilled and synthesized, it is abundantly clear once again, as stated by Ad Hoc in its comments, that there is no practicable or reasonable alternative to relocating MDS to 1.9 GHz. First, there is virtually unanimous agreement that the 1910 MHz band should be paired with the 1990 MHz band and allocated for fixed and mobile services that are technically compatible with the adjacent PCS band.⁷ While some UPCS representatives have entered a token objection to authorizing PCS-compatible services in a portion of the 1910-1920 MHz band, they do not attempt to refute the TNPR's observation that existing UPCS usage in this band is virtually nonexistent. Nor do they deny that prospective UPCS usage can be accommodated in the existing 1920-1930 MHz band, combined with the remaining portion of the 1910-1920 MHz band that is not required for PCS-compatible fixed and mobile services.

Second, while others argue that the paired 1910/1990 MHz band should be allocated for PCS (or, in Nextel's case, *solely* to Nextel), they either ignore altogether the fact that MDS must be relocated *somewhere*, or they are content to offer the obviously unworkable suggestion that

⁷ Similarly, there is virtually unanimous agreement that for technical interference reasons the *entire* 1910-1920 MHz and 1990-2000 MHz bands cannot be used for PCS-compatible services, and that the spectrum blocks made available for PCS-compatible services should be adjacent to 1910 MHz and 1990 MHz.

MDS should remain somewhere in the 2155-2180 MHz band. The equities supporting relocation of MDS to 1910/1990 MHz are far more compelling in any event than for Nextel or for using it simply as an additional PCS band. When combined with the fact -- vividly demonstrated in this record once again -- that there is no plausible alternative for MDS, the case for relocating MDS operations from 2150-2160/2162 MHz to 1910/1990 MHz becomes overwhelming.

Reply Comments

At the outset, it is important to underscore that there is a substantial consensus, even among the non-MDS commenting parties, that the 1910 MHz band should be paired with the 1990 MHz band, and should be allocated for fixed and mobile services that are technically compatible with the adjacent PCS operations. Cingular explicitly supports relocating MDS to the 1910-1916/1990-1996 MHz band under the terms of the *MDS White Paper*, as do the MDS commenting parties.⁸ Others support establishment of a so-called G block of spectrum at 1910-1915/1990-1995 MHz for PCS or PCS-compatible fixed and mobile services, without further specifying who should be awarded the spectrum;⁹ while Nextel alone insists that the G block should be established and awarded exclusively to it.¹⁰

Some UPCS representatives do request instead that the existing isochronous UPCS sub-band be extended from 1920-1930 MHz to the entire 1910-1930 MHz band.¹¹ However, they agree that the existing UPCS band at 1910-1920 MHz is unused; and they do not attempt to show

⁸ Comments of Cingular Wireless, LLC (Cingular) at pp. 4-6. The MDS commenting parties include The Wireless Communications Association International, Inc. ("WCAI"), DCT of Los Angeles, LLC ("DCT"), and Nucentrix Broadband Networks, Inc. ("Nucentrix"), in addition to Ad Hoc.

⁹ Comments of Motorola, Inc. (Motorola) at pp. 2-7; Comments of Ericsson, Inc. (Ericsson) at pp. 2-5; Comments of Cellular Telecommunications & Internet Association (CTIA) at pp. 2-5; Comments of Verizon Wireless (Verizon Wireless) at p. 5.

¹⁰ Comments of Nextel Communications, Inc. (Nextel) at pp. 5-15.

¹¹ Comments of UTStarcom, Inc. (UTStarcom) at p. 2.; Comments of Siemens Corporation (Siemens) at pp. 1-5. Comments of Ascom Tateco AB (Ascom); Comments of PHS MoU Group (PHS).

that such usage cannot be accommodated if the 1920-1930 UPCS band is extended to include the upper portion of the 1910-1920 MHz band that is not utilized for paired 1910/1990 MHz PCS-compatible fixed and mobile services. Indeed, Arraycomm candidly admits that “[a]ny of the bands specified by the Commission in the Third Notice could be a home for TDD-based services.”¹² The fact remains, therefore, that pairing the 1910/1990 MHz bands for PCS-compatible fixed and mobile services is overwhelmingly supported by carriers, manufacturers and MDS operators alike, and is not mutually exclusive with accommodating the legitimate requirements of the UPCS interests. The converse is not true, however, as discussed below.

Additionally, once it is acknowledged that the 1910 MHz band should be paired with the 1990 MHz band for PCS-compatible fixed and mobile services, the record clearly confirms that using the spectrum for MDS operations relocated from the 2150-2160/2162 MHz band, under the terms and conditions set forth in the *MDS White Paper*, is the only practical and reasonable solution. Nextel is not being relocated from its existing spectrum, unlike the MDS operations; instead, Nextel is rather transparently attempting to bootstrap a spectrum interference problem of its own making in the 800 MHz band into a blatant grab of nationwide PCS spectrum at 1.9 GHz. There admittedly are alternative solutions to Nextel’s 800 MHz interference problem that do not require giving Nextel a spectrum largesse at 1.9 GHz; but there are *not* workable alternatives to relocating MDS operations to 1.9 GHz. Tellingly, Nextel itself is totally silent on the subject of where MDS should be relocated if not to 1.9 GHz; and, equally telling, no one objected to dedicating PCS-compatible operations at 1.9 GHz to MDS relocation.

¹² Comments of Arraycomm, Inc. (“Arraycomm”), at p. 3. (Emphasis added). This would include the 2020-2025 MHz band as suggested by Ad Hoc and others.

Relocation spectrum for MDS operations is one of the issues specifically raised in the TNPR by the Commission. Yet, of the parties not explicitly supporting relocation of MDS to 1.9 GHz, most – like Nextel -- simply ignore the issue altogether. The suggestions offered by other parties require placing MDS in some portion of the 2155-2180 MHz band,¹³ a “solution” which Motorola and Cingular explicitly reject as spectrally inefficient and otherwise improvident,¹⁴ and others would foreclose by proposing that the band be allocated exclusively for Advanced Wireless Services (AWS).¹⁵ Obviously, the issue of relocating MDS operations will not and cannot be resolved by ignoring it; and it remains that the *only* realistic option for MDS identified in the record herein is relocating MDS operations to 1.9 GHz under the terms and conditions set forth in the *MDS White Paper*.

The record also demonstrates unequivocally that the only other identified alternative for the 1910/1990 MHz band, designating it for a PCS auction, would be similarly improvident. Doing so would diminish the attractiveness of the AWS band at 2155-2180 MHz for potential bidders, because it would preclude a rapid nationwide clearing of the 2150-2155 MHz AWS band. It would also substantially diminish the spectrum available for AWS in the 2110-2180 MHz

¹³ Ericsson suggests pairing 2020-2025 MHz with 2175-2180 MHz, and evidently is suggesting it as a possible alternative to the 1.9 GHz option for relocation of MDS. However, the suggestion is unacceptable as a technical matter because, as Motorola points out, “base station transmissions [in the 2020-2025 MHz band] would cause interference into adjacent MSS/ATC base station receivers, necessitating a guard band of at least 5 MHz, and likely greater.” (Motorola Comments at p. 13). That band is similarly unacceptable as a technical matter for “uplink” (customer-to-base) transmissions, as pointed out by WCAI, due to “debilitating interference from Broadcast Auxiliary Service (‘BAS’) operations in the immediately adjacent 2025-2110 MHz band.” (WCAI Comments at p. 23). Therefore, the 2020-2025 MHz band cannot seriously be considered as replacement spectrum for MDS operations.

¹⁴ As Ad Hoc and other parties have previously explained, leaving MDS in any portion of the 2155-2180 MHz band would require large, spectrally inefficient guardbands between their operations and adjacent AWS operations; and would be incongruous with worldwide AWS designations. Motorola notes at p. 17 that “relocation of MDS incumbents within the [2155-2180 MHz] band would not be feasible due to the significant likelihood of interference from AWS transmitters into MDS receivers” and that “[w]ith current technology, a guard band of 3-5 MHz would be necessary between AWS and MDS spectrum” and “is not feasible”. Cingular similarly dismisses this option (at p. 6) as “technically problematic and unworkable”.

¹⁵ E.g., CTIA at pp. 6-7; Verizon Wireless at pp. 7-8.

band, due to the need to excise from the AWS allocation enough spectrum for the MDS band itself, *as well as* enough spectrum for suitable guardbands for MDS operations. As a result, the AWS allocation at 2110-2180 MHz would be diminished by far more than the PCS allocation at 1.9 GHz would gain, and the diminution of AWS would be directly reflected in substantially lower AWS auction revenues. In short, designating the 1910/1990 MHz band for a PCS auction would be no more than penny wise, but most assuredly would be pound foolish.

Two other points in this regard should be reiterated briefly. In relevant part, Section 257 of the Communications Act, 47 U.S.C. §257, enjoins the Commission to “identify[] and eliminat[e] . . . market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services”. Ad Hoc is the *only* representative of small and minority-owned businesses whose very existence is at stake in this proceeding; and the Commission’s choices present it a classic opportunity to give substance to the public policy embodied in Section 257. If the Commission does not provide MDS operators in the 2150-2160/2162 MHz band with reasonably comparable spectrum, i.e., relocate them to the 1.9 GHz band, the Commission will have *erected* yet additional barriers for entrepreneurs and other small businesses, rather than *eliminated* them as mandated by Section 257 of the Communications Act.¹⁶

Similarly, failure to provide MDS operators in the 2150-2160/2162 MHz band with appropriate replacement spectrum will absolutely destroy their existing businesses and contractual relations with their lessees. Such a harsh result would be directly contrary to long-established policy that the government should avoid interfering with contractual relationships except as a last

¹⁶ While the TNPR suggested (at ¶72), that the Commission might be able to provide less replacement spectrum for MDS relocation, due to advances in technology, none of the commenting parties agreed with this unprecedented and facially abhorrent notion. The BAS example cited by the TNPR is clearly distinguishable on its facts and does not support the TNPR’s suggestion; and the DTV transition is but the latest in a long and unbroken policy of replacing spectrum lost by licensees to a reallocation with equivalent bandwidth. There is absolutely no basis for departing from that policy in the case of MDS operations in the 2150-2160/2162 MHz band.

resort, and could not be justified under any other public interest standard. MDS operators are the *only* stakeholders in this proceeding that face such dire consequences as the result of the Commission's decisions herein; others are seeking to supplement what they already have without having to forfeit their existing operations. For that reason alone the equities of the MDS operators are entitled to utmost consideration.

Conclusion

Three basic facts are unassailably established by the comments in response to the TNPR: First, pairing the 1910-1916 MHz and 1990-1996 MHz bands for PCS-compatible fixed and mobile services is overwhelmingly supported by the commenting parties and does not foreclose granting the reasonable requests of the remaining parties, who seek expansion of the UPCS band at 1920-1930 MHz. The only real question is whether the paired 1.9 GHz band is used for MDS relocation; whether it is awarded to Nextel; or whether it is auctioned for an additional PCS band. Second, relocating MDS operations from the 2150-2160/2162 MHz band to 1.9 GHz is explicitly supported by many of the commenting parties, is consistent with the positions taken by all parties advocating creation of a G block except Nextel, and is overwhelmingly dictated by analysis of the equities supporting the alternative uses for 1.9 GHz. This option enhances the AWS allocation, provides for immediate clearing of the AWS band without litigation, and vastly facilitates the rapid introduction of AWS to the public. Third and finally, no plausible alternative to relocating MDS operations to the 1.9 GHz band has yet been identified, despite numerous opportunities and repeated invitations by the Commission for interested parties to do so.

Under all of these circumstances, the Commission's decision is not a difficult one; it should promptly issue its decision providing for the relocation of MDS operations from the

2150-2160/2162 MHz band to the 1910-1916/1990-1996 MHz band pursuant to the terms and conditions set forth in the *MDS White Paper*.

Respectfully submitted,

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