

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

In the Matter of

Amendment of Part 2 of the Commission's Rules)	ET Docket No. 00-258
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)	
)	
Amendment of Section 2.106 of the Commission's)	ET Docket No. 95-18
Rules to Allocate Spectrum at 2 GHz for Use)	
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)	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)	

**REPLY COMMENTS OF
THE CELLULAR TELECOMMUNICATIONS & INTERNET ASSOCIATION**

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**REPLY COMMENTS OF THE CELLULAR TELECOMMUNICATIONS
& INTERNET ASSOCIATION**

The Cellular Telecommunications & Internet Association ("CTIA")^{1/} hereby replies to the comments filed on the Further Notice released in the above-captioned proceeding.^{2/}

^{1/} CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the association covers all Commercial Mobile Radio Service ("CMRS") providers and manufacturers, including cellular, broadband PCS, and ESMR, as well as providers and manufacturers of wireless data services and products.

^{2/} 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, Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use By the Mobile-Satellite Service, The Establishment of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band, Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications Service, Petition for Rule Making of UTStarcom, Inc.,

INTRODUCTION AND SUMMARY

The vast majority of the commenters agree with CTIA that the mobile satellite service (“MSS”) and multipoint distribution service (“MDS”) bands proposed in the Further Notice should be reallocated for use by new advanced wireless services. Given the dubious future of MSS services, these commenters believe that the MSS bands should be reallocated for services with more clearly demonstrated needs. Many commenters also agree with CTIA that MDS operators using the 2150-2160 MHz band should be relocated and the band combined with other reallocated spectrum to create a large block of contiguous spectrum for advanced wireless services. Most commenters also agree with CTIA that the 1910-1930 MHz band is of limited usefulness for advanced wireless services because of the need to avoid interference with the adjacent PCS bands, and that the 2390-2400 MHz band lacks sufficient capacity to provide significant spectrum for advanced mobile wireless services.

Most commenters also support the Commission’s proposal to pair the 1710-1770 MHz band with the 2110-2170 MHz band. As the commenters explain, pairing these bands will promote global harmonization and make spectrum available for advanced wireless services sooner than under other scenarios the Commission has proposed previously. Given the general consensus on the Commission’s reallocation and pairing proposals, CTIA urges the Commission to complete this proceeding as quickly as possible in order to respond to the immediate need for additional spectrum for advanced wireless services.^{3/}

Concerning the Unlicensed Personal Communications Service, ET Docket No. 00-258, ET Docket No. 95-18, IB Docket No. 99-81, RM-9498, RM-10024, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, FCC 01-224 (rel. Aug. 20, 2001) (“Further Notice”).

^{3/} See Remarks of Michael K. Powell, Chairman, Federal Communications Commission, Press Conference, “Digital Broadband Migration Part II” at 7 (October 23, 2001) (noting that

DISCUSSION

I. 1910-1930 MHz and 2390-2400 MHz Bands

Numerous commenters agree with CTIA that the 1910-1930 MHz band is of limited use for advanced wireless services because it functions as a guardband between the paired spectrum blocks currently used for PCS.^{4/} As Avaya explains, the interference protection this band provides to PCS operators is critical.^{5/} While it may be appropriate for the Commission to permit additional flexibility in this band to ensure that it is used as efficiently as possible, it should not allow any new services authorized in this band that could interfere with PCS operations in adjacent spectrum.^{6/}

With respect to the 2390-2400 MHz band, a few commenters believe that this band should be reallocated for advanced wireless services.^{7/} However, CTIA continues to believe that this isolated 10 MHz block does not offer enough spectrum for the efficient provision of advanced mobile wireless services. Rather than reallocating the band to advanced wireless services, it should be used to relocate displaced federal incumbents or MDS licensees.^{8/}

II. 1990-2025 and 2165-2200 MHz Bands

In its petition for rulemaking, CTIA demonstrated the scant prospects for MSS and proposed that the Commission reallocate the entire 2 GHz MSS band to other, more efficient

spectrum allocation policy is not keeping pace with relentless spectrum demands) (“Powell Digital Broadband Statement”).

^{4/} Comments of Wireless Information Networks Forum, Inc. at 9; Comments of UTStarcom at 3-4; Comments of the Rural Telecommunications Group at 2; Comments of Motorola at 15; Comments of Avaya at 10; Comments of AT&T Wireless Services, Inc. at 4.

^{5/} Comments of Avaya at 10.

^{6/} Comments of Motorola at 13-14, Comments of Verizon Wireless at 9-10.

^{7/} Comments of Telephone and Data Systems at 6 (“TDS”); Comments of Ericsson at 7-8.

uses.^{9/} CTIA reiterated that request in its comments, and numerous commenters agree.^{10/} For example, TDS urges the Commission to act on the petitions for reconsideration of the MSS decision and reallocate and auction the 1990-2025 MHz and 2165-2200 MHz bands.^{11/} If the Commission concludes the 2 GHz MSS band should be reallocated, incumbents can be relocated in a phased-in manner consistent with the requirements of CMRS providers.

Even if the Commission does not reallocate all of the 2 GHz MSS band, most commenters urge the Commission to reallocate as much as possible of this band to other services with more clearly demonstrated needs.^{12/} As MSTV and NAB explain, the apparent failure of MSS as a viable service justifies the reallocation of at least a part of spectrum in the 1990-2025 MHz band.^{13/} Immediately reallocating at least 14 MHz of MSS spectrum for advanced wireless services would help create a large band of spectrum that is suitable for paired use by advanced mobile wireless services.^{14/} MSS spectrum can be put to use without delay to support the provision of advanced wireless services.^{15/}

^{8/} Comments of the American Radio Relay League (“ARRL”) at 10-11; Comments of Motorola at 13; Comments of Nortel Networks at 6; Comments of Verizon Wireless at 10-11.

^{9/} Petition for Rulemaking of the Cellular Telecommunications & Internet Association (filed May 18, 2001); Petition for Reconsideration of the Cellular Telecommunications & Internet Association, ET Docket Nos. 00-258 and 95-18; IB Docket No. 99-81 (filed Oct. 15, 2001).

^{10/} Comments of the Association for Maximum Service Television and the National Association of Broadcasters at 7 (“MSTV and NAB”); Comments of ArrayComm at 9; Comments of TDS at 6-7; Comments of Cingular Wireless at 7.

^{11/} Comments of TDS at 6-7.

^{12/} Comments of Ericsson at 11-13; Comments of the Progress & Freedom Foundation at 10-11; Comments of Verizon Wireless at 12-13; Comments of the Wireless Communications Division of the Telecommunication Industry Association at 6-7 (“WCD”).

^{13/} Comments of MSTV and NAB at 7.

^{14/} Comments of Ericsson at 11.

^{15/} Comments of Verizon Wireless at 12-13.

The need to make spectrum in the 2 GHz band available to meet demand for advanced services is also behind commenters' suggestion of a "zero tolerance" policy for MSS operators that fail to meet milestone requirements and the reallocation of abandoned MSS spectrum to alternative uses such as advanced wireless services.^{16/} A policy of reassigning abandoned MSS spectrum is a logical outgrowth of the Commission's commitment to ensuring that spectrum is placed to its "highest and best" use,^{17/} and would allow the Commission to react appropriately to market indicators that other services are in higher demand.^{18/} Based upon the record the Commission has gathered in this proceeding, the Commission can and should decide in this proceeding to reallocate all abandoned spectrum in the 2 GHz band to advanced wireless services, rather than leaving that decision to a subsequent allocation proceeding. To make the reallocation more orderly, the Commission should adopt 3.5 MHz increments for Selected Assignments in contiguous spectrum, which, in the MSS downlink band, should start at 2200 MHz and decline in frequency.^{19/}

The MSS industry claims that reallocating any 2 GHz spectrum is unwarranted,^{20/} but these claims lack factual support. The MSS advocates submitted no evidence that rebuts CTIA's arguments regarding the need for immediate reallocation of, at a minimum, 14 MHz of MSS spectrum. Terrestrial wireless carriers in the United States are aggressively deploying new technologies that allow high-speed mobile data capabilities, and are constantly increasing their

^{16/} Comments of the Progress and Freedom Foundation at 19; Comments of Ericsson at 12.

^{17/} Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, Policy Statement, 14 FCC Rcd 19868, ¶ 9 (1999)

^{18/} Comments of WCD at 6-7.

^{19/} Comments of WCD at 7, Comments of Ericsson at 12-13.

^{20/} Comments of Boeing at 2-6; Comments of the Satellite Industry Association at 6.

range of data offerings.^{21/} At the same time, the substantial 407% increase in subscribers since 1994, as well as an even more dramatic 861% increase in minutes of use during the same time, indicate that the wireless industry has a clear need for additional spectrum just to support existing services, let alone future needs.^{22/} Evolution in existing bands will not provide sufficient spectrum to support advanced mobile services -- additional spectrum is essential.^{23/} The Commission itself has acknowledged the dire need for additional spectrum for advanced wireless services on numerous occasions,^{24/} and the mobile satellite industry's attempt to suggest otherwise to deflect attention from its own lackluster performance can and should be disregarded.²⁵

^{21/} Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Sixth Report, FCC-01-192, Section II. B (rel. July 17, 2001) (“Sixth Annual CMRS Competition Report”); “Verizon Trialing 3G Network in Philadelphia,” Total Telecom, (October 28, 2001) available at <<http://www.totaltele.com/view.asp?ArticleID=44889&Pub=t>>; “VoiceStream Signs Further Edge Deal With Ericsson,” Total Telecom (Sept. 28, 2001) available at <<http://www.totaltele.com/view.asp?ArticleID=44236&Pub=t>>; “Cingular Launches GPRS Service,” Total Telecom (August 28, 2001) available at <<http://www.totaltele.com/view.asp?ArticleID=43188&Pub=t>>.

^{22/} See Letter from Diane Cornell, Vice President for Regulatory Affairs, CTIA, to Magalie Roman Salas, Secretary, FCC, CC Docket No. 01-14 (Oct. 30, 2001), and excerpt from Wireless Industry Indices: Semi-Annual Data Survey Results, A Comprehensive Report from CTIA, January 1985-December 2000 (rel. July 2001), attached thereto.

^{23/} Comments of Ericsson at 4-7; Comments of Verizon Wireless at 11-13; Comments of AT&T Wireless at 2-4.

^{24/} See, e.g., 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; Petition for Rulemaking of the Cellular Telecommunications Industry Association Concerning Implementation of WRC-2000: Review of Spectrum and Regulatory Requirements for IMT-2000; Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670-2690 MHz Frequency Bands for the Mobile Satellite Service, Notice of Proposed Rulemaking and Order, 16 FCC Rcd 596, ¶ 13 (rel. January 5, 2001); see also Powell Digital Broadband Statement at 7.

²⁵ Indeed, at least one MSS provider, New ICO, proposes to tap the public's demand for advanced terrestrial mobile services to subsidize its MSS service, which it claims will not be viable without the terrestrial component. See In the Matter of Flexibility for Delivery of

Contrary to Globalstar's claim, the Commission's decision to add a mobile allocation to the 2500-2690 MHz band for terrestrial mobile service does not cure the need for spectrum to support advanced wireless services.^{26/} Because this spectrum is already being used for MDS service and is limited to licensed MDS carriers -- who in most cases have existing contracts with instructional television fixed service ("ITFS") licensees -- the spectrum will not be available through an auction to those entities that need it the most, especially spectrum-constrained CMRS carriers.^{27/} Further, given MDS licensees' representations that they need the entire band for MDS, it is highly unlikely that the spectrum would be sold to CMRS carriers who desperately need additional spectrum.^{28/}

MSS operators also argue that reallocating any MSS spectrum for other uses would impair their rights and reasonable expectations to retain their current assigned spectrum allotments and acquire additional MSS spectrum.^{29/} But the Commission has already determined that 3.5 MHz is a sufficient amount of spectrum for each MSS operator,^{30/} and the MSS industry provides no real evidence to the contrary. As Ericsson explains, given the current indications

Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Band; Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, IB Docket No. 01-185, ET Docket No. 95-18, Notice of Proposed Rulemaking, FCC 01-225 (rel. Aug. 17, 2001). As CTIA has noted, New ICO's assessment concerning the prospects of its MSS business plan may be correct, but there is no basis to assume there will be a subsidy from its participation as a new CMRS competitor. Comments of CTIA, IB Docket No. 01-185, ET Docket No. 95-18 at 12 (filed Oct. 22, 2001).

^{26/} Comments of Globalstar at 12.

^{27/} Ex Parte Presentation of CTIA, ET Docket No. 00-258, filed August 23, 2001.

^{28/} Id.

^{29/} Comments of Lockheed Martin at 5; Comments of Boeing at 4; Comments of New ICO Global Communications at 6, 19, 25-26; Comments of Globalstar at 4-8, 11-12.

^{30/} Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, Report and Order, 15 FCC Rcd 16127, 16139 ¶ 17 (rel. Aug. 25, 2000).

that significant portions of MSS spectrum might be abandoned before being put to their assigned use, and the likelihood that market demand for MSS will be less than originally projected, it makes little sense to preserve this spectrum for use by other operators offering the same or similar services.^{31/} Instead, consistent with sound spectrum management policies, this underutilized and abandoned spectrum should be made available to meet the demand for advanced mobile wireless services.

III. 2150-2160 MHz Band

Numerous commenters, including MDS operators, support the Commission's proposal to reallocate the 2150-2160 MHz band for advanced wireless services and relocate MDS licensees to comparable spectrum.^{32/} For example, the Ad Hoc MDS Alliance acknowledges the national interest in locating suitable spectrum for advanced wireless services, and therefore supports the relocation of MDS channels from the 2150-2160 MHz band, provided licensees are relocated to suitable alternative spectrum.^{33/} Other MDS operators agree, as long as the Commission designates spectrum that is truly comparable to the 2150-2160 band and ensures that the costs associated with the relocation are reimbursed.^{34/}

CTIA agrees that MDS operators in this band must be relocated to comparable spectrum. In this regard, the Commission should investigate whether MDS licensees can be relocated to the

^{31/} Comments of Ericsson at 12.

^{32/} Comments of the Ad Hoc MDS Alliance at 5; Comments of Ericsson at 10-11; Comments of Motorola at 13-14; Comments of Verizon Wireless at 10-11; Comments of the Wireless Communications Association International at 6-14.

^{33/} Comments of the Ad Hoc MDS Alliance at 5.

^{34/} Comments of Sprint at 2, Comments of Motorola at 14; Comments of the Wireless Communications Association International at 9-10.

1990-2025 MHz band currently allocated for MSS services.^{35/} If MDS licensees can be relocated to such spectrum, it may be appropriate to reallocate this portion of the MSS spectrum to MDS. The Commission also should examine whether MDS incumbents can be relocated to the 2385-2400 MHz band^{36/} and whether MDS licensees can be absorbed in the main MDS band, 2500-2690 MHz. Regardless of where they are relocated, CTIA also agrees that MDS licensees should receive compensation for their relocation costs,^{37/} under rules similar to what the Commission required when the PCS band was cleared.

IV. Pairing

Numerous commenters support the Commission's proposal to pair the 1710-1770 MHz band with the 2110-2170 MHz band because it is the most viable option at this time.^{38/} These commenters agree with CTIA that pairing 1710-1770 MHz with 2110-2170 MHz would provide many of the benefits that come with increased global harmonization. The 1710-1770 MHz band lies within the 1710-1885 MHz band identified for terrestrial IMT-2000 use at the 2000 World Radio Conference, and also overlaps in its entirety with the European DCS-1800 mobile station transit spectrum located at 1710-1785.^{39/} The 2110-2170 MHz band, moreover, coincides with the spectrum that has already been allocated to IMT-2000 advanced wireless services in many countries, including much of Europe and Asia. Adopting this pairing proposal would make available a wide contiguous band of spectrum for CMRS services, and, because it would require federal incumbents to vacate less spectrum than under previous proposals, it will speed up the timeframe for the availability of this band.^{40/} CTIA also believes this band could be made

^{35/} Comments of Motorola at 14; Comments of the Wireless Communications Association International at 7, Comments of Cingular at 13.

^{36/} Comments of Motorola at 13-14, Comments of Verizon Wireless at 10-11.

^{37/} Comments of Motorola at 14; Comments of Nortel Networks at 5-6; Comments of The Wireless Communications Association International at 9-10.

available even sooner if proceeds from the auction of spectrum for advanced wireless services could be used to compensate incumbents for their relocation costs, through FCC action and legislation, to the extent necessary.

While the 1710-1850 MHz band offers significant benefits, NTIA's plan to pair the 1710-1770 MHz band with 2110-2170 MHz band overlaps with existing commercial mobile spectrum allocations in many countries overseas, and would therefore offer savings on equipment costs, expedite the delivery of new products and services to market, and facilitate international roaming capabilities. CTIA agrees with Qualcomm that pairing the 1710-1770 MHz band with the 2110-2170 MHz band also would benefit "many of the countries in the Americas because it promotes regional roaming using a single frequency, or in conjunction with cellular and PCS frequency arrangements also used throughout the region."^{41/}

The Commission's proposal to pair 1710-1770 with 2110-2170 therefore is "necessary and welcome."^{42/} But because additional spectrum will be necessary for advanced wireless services in the future, CTIA agrees with those commenters who urge the Commission to continue to investigate the suitability of other bands for advanced wireless services, including the 1710-1850 MHz and 2500-2690 MHz bands.^{43/} No band identified for advanced wireless services internationally should be removed permanently from consideration in this country. The Commission should reassess the need for additional spectrum for advanced mobile services over

^{38/} Comments of Motorola at 4-6; Comments of Nokia at 3; Comments of Qualcomm at 2-4; Comments of the WCD at 8; Comments of Ericsson at 13-15.

^{39/} See, e.g., Comments of Motorola at 5, Comments of Nokia at 3.

^{40/} Comments of Nokia at 3, Comments of Motorola at 8-14, Comments of Qualcomm at 3.

^{41/} Comments of Qualcomm at 3.

^{42/} Comments of the WCD at 8.

time and determine at that time whether other spectrum bands that are not being efficiently utilized could be reallocated to such services.

CONCLUSION

Consistent with the above recommendations, the Commission should allocate additional spectrum for advanced wireless services as expeditiously as possible in order to allow wireless carriers to provide new and innovative mobile services to subscribers without delay.

Respectfully submitted,

CELLULAR TELECOMMUNICATIONS
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/s/

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^{43/} Comments of Qualcomm at 3, Comments of Verizon Wireless at 4, Comments of Motorola at 6, Comments of Nortel at 3.

I hereby certify that I have this 8th day of November, 2001, served a copy of the foregoing Cellular Telecommunications & Internet Association's comments by first class United States mail to the persons listed below.

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