

**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 and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Third Generation Wireless Systems)	ET Docket No. 00-258
)	
Amendment of Section 2.106 of the Commission’s Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service)	ET Docket No. 95-18
)	
The Establishment of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band)	IB Docket No. 99-81

**COMMENTS OF THE WIRELESS COMMUNICATIONS DIVISION OF THE
TELECOMMUNICATIONS INDUSTRY ASSOCIATION**

The Wireless Communications Division (“WCD”) of the Telecommunications Industry Association (“TIA”)¹ hereby comments in response to the Further Notice of Proposed Rulemaking in the above-captioned proceeding.²

¹ TIA is the leading trade association servicing the communications and information technology industry, with more than 1,000 member companies that manufacture or supply the products and services used in global communications. TIA represents the communications sector of the Electronic Industries Alliance. On occasion, a TIA division will file in a regulatory proceeding representing the views of only the members of that division. These comments are from TIA’s Wireless Communications Division.

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*, FCC No. 01-224, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking (Aug. 20, 2001) (“*FNPRM*”).

I. Introduction

Among their numerous lines of business, TIA member companies design, produce and deploy terrestrial wireless network and terminal equipment. As such, TIA's WCD is uniquely qualified to provide input to the Commission as it studies the possible reallocation of spectrum for advanced mobile wireless services.

The Commission proposes and seeks comment on allocations in the *FNPRM* that are critical to meet commercial wireless network operators' short to mid-term needs for additional spectrum and for remedying spectrum fragmentation issues. The Commission identifies bands of spectrum that are extremely well suited for advanced mobile wireless services and form a comprehensive spectrum management plan that is in the public interest.

In particular, WCD sees the following action as most important to the development and deployment of advanced commercial mobile wireless technologies:

- Reallocate 2150 - 2162 MHz currently assigned to MDS;
- Reallocate all currently unassigned spectrum in the 2 GHz MSS band, including 2165 - 2170 MHz;
- Reallocate all 2 GHz MSS spectrum that is abandoned as a result of missed milestones; and

- Create new spectrum pairings between 1710 - 1770 MHz and 2110 - 2170 MHz.

The Commission's proposed actions are key to paving the way for innovative, affordable, and competitive advanced mobile wireless services. Further, these reallocations represent reasonable steps that will lead to greater spectrum harmonization, eliminate spectrum fragmentation problems, and establish research, development and manufacturing economies of scale.

In light of the projected demand for existing and emerging services, it is imperative that the Commission remain proactive in its approach to spectrum management and approve the plan it proposes expeditiously. Reallocation of spectrum now, to create spectrum allocations with common global characteristics and address the increasing demand for wireless services, will ensure that the industry is able to keep pace with market needs. Moreover, the Commission's proposed spectrum management plan, as discussed in detail below, may successfully avoid the overblown spectrum costs experienced globally in the last ten years, while still ensuring that the U.S. realizes a fair and reasonable rate of return from its spectrum auctions.

II. 1910 - 1930 MHz and 2390 – 2400 MHz

The Commission has identified 1910 - 1930 MHz and 2390 - 2400 MHz as bands that it could reallocate for advanced mobile wireless services or to accommodate the relocation of systems displaced by an advanced services allocation. The bands 1910 - 1930 MHz and 2390 - 2400 MHz are currently used by Unlicensed PCS (UPCS) operators and to a lesser extent, Amateur Services. The WCD supports the widely held

view that the limited interest in use of the 2385 - 2390 MHz band makes it an additional candidate for reallocation. In particular, the WCD submits that the 2385 - 2390 MHz and 2390 - 2400 MHz bands form an ideal candidate for relocation of MDS users.

Both the 1910 - 1930 MHz and 2385 - 2400 MHz bands could be suitable for advanced mobile wireless services, primarily those services that can take advantage of un-paired spectrum technologies. We note, however, the close proximity of the 1910 - 1930 MHz band to existing PCS operations. It is imperative that any new services licensed in the 1910 - 1930 MHz band not result in harmful interference to/from existing PCS operations, neighboring services and operators. The WCD supports the 1910 - 1930 MHz band for use by advanced services consistent with the aforementioned safeguards.

III. 2150 - 2162 MHz

The Commission seeks comment on the effects of the reallocation of the 2150 - 2162 MHz band, currently allocated for MDS, to advanced mobile wireless services. The Commission should proceed with this reallocation because, as the Commission notes,³ allocating contiguous spectrum creates significant spectrum efficiencies. This is primarily achieved by avoiding the need for guard bands between different types of spectrum use. In addition, the reallocation of the 2150 - 2162 MHz band offers the only practical opportunity to create a significant global downlink for advanced mobile wireless services. Such global harmonization will facilitate global service roaming and maximize manufacturing economies of scale in both infrastructure and consumer equipment.

³ See *FNPRM* at ¶ 38.

Therefore, the reallocation of other services from the 2110 - 2170 MHz band reflects sound spectrum management, which of course is in the public interest.

First, by reallocating the 2150 - 2162 MHz band for advanced mobile wireless services (in combination with a reallocation of the 2165 - 2170 MHz band from MSS as discussed below) the Commission can create contiguous spectrum from 2110 - 2170 MHz. Allocating contiguous spectrum is critical to ensure that multiple operators can exist and true competition is realized. If the Commission pairs the 1710 - 1770 MHz band with the 2110 - 2170 MHz band, it will provide 2x60 MHz of contiguous paired spectrum for advanced mobile wireless services. Thus, reallocation of this spectrum is key to creating adequate blocks of spectrum in which any advanced technology can be successfully deployed.

Second, reallocating the 2110 - 2170 MHz band creates an advanced mobile wireless services downlink that is already allocated in major global markets. The value of this achievement is significant both to industry and consumers. A maximally harmonized U.S. spectrum allocation will result in significant savings for U.S. consumers compared with a non-harmonized spectrum allocation. Commonality will provide U.S. wireless operators an opportunity to take advantage of the economies of scale and advancements in infrastructure and terminal equipment already developed for other markets. It will further allow U.S. operators to capitalize on 3G experiences abroad to bring advanced services to U.S. consumers more rapidly. For U.S. equipment suppliers, it will bring stronger synergies between the domestic market and export markets.

IV. 1990 – 2025 MHz and 2165 – 2200 MHz

The Commission proposes alternative use of parts of the 2GHz MSS spectrum. In connection with its reevaluation of MSS spectrum requirements, the Commission seeks comment on reallocating 10 - 14 MHz of MSS spectrum for advanced wireless services within the next year and reallocating any abandoned spectrum. Such a reallocation would significantly contribute to the creation of a large band of new spectrum that is suitable for paired use by advanced mobile wireless services.

First, reallocation of the 2165 - 2170 MHz band for use in connection with the 2110 - 2165 MHz band is very important. This reallocation will facilitate competition because it will form a contiguous 60 MHz block of spectrum that can be paired with 1710 - 1770 MHz. A contiguous 60 MHz block of spectrum will permit multiple operators, possibly up to six, to acquire enough spectrum to support advanced mobile wireless services. At the same time, current MSS licenses will not be affected by this reallocation since the total amount of spectrum assigned to these licenses is 56 MHz out of 70 MHz in the 2 GHz MSS band. Thus, the immediate availability of 2165 - 2170 MHz is key to competition and can be achieved without changes to current licenses.

If MSS spectrum is abandoned due to less than projected market need, it should be made available for advanced mobile wireless services. If the market need for MSS continues to be less than originally projected, it makes little sense to preserve this spectrum for use by other operators offering the same or similar services. Therefore, reassignment of this spectrum is logical and allows the Commission to react appropriately to market indicators by reallocating abandoned spectrum for services which are in higher

demand or for which higher demand is projected, such as advanced mobile wireless services.

To plan for the reallocation of MSS spectrum for advanced wireless services most effectively, the Commission should take affirmative steps to enable MSS licensees to put their existing spectrum to its best use. The Commission readily understands that if it reallocates any MSS spectrum, it may have to modify some of its service rules to accommodate reallocations. The Commission proposes changes to both the location and size of a licensee's Selected Assignment. The WCD agrees that the Commission should modify licensees' individual Selected Assignments to both specify smaller increments and different locations.

The WCD recommends that the Commission adopt 3.5 MHz increments for Selected Assignments, which start from 2200 MHz and 2020 MHz and decline in frequency. The Commission should therefore prohibit selected non-contiguous assignments to the 1990 - 2020 MHz and the 2170 - 2200 MHz bands and expressly require licensees to select spectrum adjacent to one another to preserve contiguous spectrum in both the upper and lower bands.

The foregoing steps will allow the Commission to reallocate spectrum to advanced mobile wireless services now without impairing MSS licenses. In addition, the reallocation will allow for simplified future allocations, in the event that the need for MSS spectrum eventually proves to be less than currently envisaged by the licensees. Thus, the Commission's proposed reallocations are in the public interest and consistent with the Commission's spectrum management policies and obligations.

V. Spectrum Pairing

In addition to the sufficient reallocation of spectrum, appropriate spectrum pairings underlie the viability of advanced mobile wireless services. The Commission identifies new spectrum pairing options in the *FNPRM*, which are essential to create significant new spectrum blocks that can support four to six operators offering advanced mobile wireless services and thereby preserve vigorous competition in the market.

Specifically, the WCD supports the Commission pairing 1710 - 1770 MHz with 2110 - 2170 MHz. As explained above, the proposed reallocation of MDS spectrum and allocated but unlicensed MSS spectrum is reasonable in the pursuit of necessary additional spectrum for advanced wireless services. Further, the pairing requires that only 15 MHz of Federal Government spectrum be reallocated for commercial use (1755 - 1770 MHz). It is the WCD's understanding that infrastructure currently used by the U.S. Department of Defense in this band is frequency agile, potentially allowing incumbent services to be relocated in the remaining government spectrum (1770 - 1850 MHz).

Finally, it should be noted that the needs of the industry have not changed and that forecasted needs of 160 to 200 MHz of additional spectrum remain. Accordingly, although the aforementioned reallocations and suggested pairing are necessary and welcome, the investigation into appropriate, further reallocation of spectrum for commercial use should continue.

VI. CONCLUSION

As the companies that design, develop and manufacture wireless communications equipment and products, TIA's WCD members have a substantial interest in the timely allocation of additional, sufficient and appropriate spectrum that can support advanced mobile wireless services. The WCD requests that the Commission take into consideration the views expressed above.

Respectfully submitted,

**TELECOMMUNICATIONS INDUSTRY
ASSOCIATION**

WIRELESS COMMUNICATIONS DIVISION

/s/

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October 22, 2001