

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 Generation Wireless Systems)	ET Docket No. 00-258
)	
Petition for Rulemaking of the Cellular Telecommunications Industry Association Concerning Implementation of WRC-2000: Review of Spectrum and Regulatory Requirements for IMT-2000)	RM-9920
)	
Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670- 2690 MHz Frequency Bands for Mobile-Satellite Service)	RM-9911
)	

SUPPLEMENTAL COMMENTS OF VERIZON WIRELESS

INTRODUCTION

Verizon Wireless respectfully submits these comments on the Final Report of the FCC Staff on a spectrum study of the 2500-2690 MHz band for Third Generation (“3G”) wireless services.¹ While the Final Report does not make any final conclusions about whether the 2500-2690 MHz band can be made available for 3G services, it makes several assumptions about the potential for band segmentation that are flawed.

¹ Office of Engineering and Technology, Mass Media Bureau, Wireless Telecommunications Bureau, and International Bureau, Federal Communications Commission, *Spectrum Study of the 2500-2690 MHz Band, The Potential for Accommodating Third Generation Mobile Systems*, Staff Report, (“Final Report”) Public Notice, DA 01-786 (rel. Mar. 30, 2001).

I. THE VAST MAJORITY OF ITFS SPECTRUM IS LEASED.

In its Interim Report, the FCC did not determine how much spectrum assigned to ITFS licensees is actually used to provide instructional services and how much is leased for commercial purposes. In our comments to the NPRM², we urged the FCC to make such a determination and, to the extent it does not have the necessary data, to request it from ITFS licensees.³ In its Final Report, the FCC reported that most ITFS licensees lease excess capacity to MDS operators but it could not determine how much ITFS spectrum was leased due to a lack of licensing data related to leasing.⁴ While the FCC's licensing database may not reflect the amount of ITFS spectrum that is leased, there is overwhelming evidence in the record of this proceeding to support our initial assertion that significant portions of the 2500-2690 MHz band are no longer used to deliver educational services, and that the band has been largely commercialized.⁵

An assessment of how much ITFS spectrum is leased for commercial purposes is an important factor in determining how much spectrum, if any, can be segmented for 3G services. The Final Report's failure to make this assessment, while finding that segmentation of the 2500-2690 MHz band "would raise significant technical and

² *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 Generation Wireless Systems*, Notice of Proposed Rulemaking and Order ("NPRM"), FCC 00-455 (rel. Jan. 5, 2001).

³ See Comments of Verizon Wireless, filed in NPRM ("Verizon Wireless Comments") (filed Feb. 22, 2001) at 23.

⁴ Final Report at 19.

⁵ Verizon Wireless Comments at 17; *see also* Comments of the Catholic Television Network, filed in the NPRM (filed Feb. 22, 2001) at 22; *see also* Joint Comments of The ITFS Spectrum Development Alliance, filed in the NPRM (filed Feb. 22, 2001) at 6; *see also* Comments of Sprint Corporation, filed in NPRM (filed Feb. 22, 2001) at 3; *see also* Comments of Nucentrix Broadband Networks, Inc., filed in NPRM (filed Feb. 22, 2001) at 30; *see also* Comments of Wireless Communications Association International, filed in NPRM (filed Feb. 22, 2001) at 33, 36.

economic difficulties for incumbents,”⁶ is perplexing. How can the FCC conclude that band segmentation would create technical and economic difficulties for ITFS licensees that provide educational services if it does not know how much spectrum is currently used for such services? What possible impact could there be on the provision of educational services – the intended purpose of the ITFS allocation – by a reallocation of spectrum that is no longer used for educational purposes? The Final Report fails to answer these questions. Indeed, such a reallocation would not affect the ability of ITFS licensees to deliver educational services.

The only harm to ITFS incumbents would be the potential loss of revenue collected through spectrum leases. However, there are other ways to fund educational programs including through the auction of reallocated ITFS spectrum. In any event, the potential loss of leasing revenues should not drive the Commission’s spectrum management decisions. As we stated in our reply comments, it is, at best, inefficient to use a valuable, irreplaceable communications resource solely for such purposes, rather than for the purpose of providing the most appropriate advanced communications service.⁷

II. THERE IS NO NEED FOR ANY REPLACEMENT SPECTRUM.

The Final Report concludes that a minimum of 90 MHz of alternate spectrum would need to be identified to accommodate relocated incumbents, and that as much as 202 MHz might need to be found to ensure that the symbiotic relationship between MDS and ITFS is not severed. These findings are based on a series of flawed assumptions.

⁶ Final Report at ii.

First, the FCC assumes that any band segmentation plan would need to provide for a minimum of 90 MHz to facilitate the provision of competitive 3G services. As Verizon Wireless has stated previously, while the reallocation of 90 MHz of ITFS spectrum might be appropriate, it is not the minimum amount necessary to make band segmentation possible.⁸ A reallocation of 60 MHz, for example, would enable two 3G operators to successfully deploy 3G services in the 2500-2690 MHz band while other operators deploy 3G services in other bands.

Second, the FCC assumes that incumbent licensees would have to receive alternate spectrum in exchange for any spectrum reallocated. While this is an option for the Commission to consider, it is not necessary. As Verizon Wireless outlined in its comments to the NPRM, the Commission has previously reallocated spectrum to other services, where it has determined that such action is in the public interest, without providing alternate spectrum for incumbents.⁹ The Commission's analysis focused on such public interest factors as the need for spectrum for the new service, the likely benefits of that service, the impact on incumbent spectrum users, and the degree of consistency with the international allocation framework. The record in this proceeding demonstrates that a substantial portion of the spectrum currently licensed to ITFS licensees is not used in the provision of educational services. Consequently, a substantial portion of this spectrum could be reallocated without the requirement for ITFS licensees to receive substitute spectrum in other bands. The current users of this spectrum, MDS operators, have no long term rights to the spectrum, and thus, would not be entitled to

⁷ Verizon Wireless Reply Comments at 20.

⁸ Id at 25.

alternate spectrum either. They would, presumably, be able to bid on it at auction if they believe that additional spectrum is needed for the provision of fixed broadband services beyond the 80 MHz of spectrum currently licensed to them.

Finally, the Final Report states that “alternate frequency bands may need to provide for the relocation of the entire 202 MHz of spectrum currently occupied by ITFS/MDS to assure the continued functionality of ITFS and MDS that is one of the criteria for the Study Plan.”¹⁰ As we have already stated, Verizon Wireless believes that the record clearly supports the reallocation of a substantial portion of ITFS spectrum while leaving ITFS and MDS licensees with the spectrum they need to provide their respective services. Moreover, we do not believe that any replacement spectrum is required to accommodate these services, let alone 202 MHz.

The suggestion that the relocation of ITFS services to alternate spectrum would necessitate the relocation of all MDS operations as well is troubling, because it suggests that the two services cannot be deployed separately. This, of course, is not correct. Educational services and commercial MDS can be, and are in many cases, deployed separately. The symbiotic relationship between ITFS and MDS that the FCC is trying to preserve is based on leasing arrangements that are driven by (1) the desire of ITFS licensees to obtain funding and (2) the desire of MDS operators to obtain additional spectrum. Verizon Wireless has demonstrated that both of these objectives can be met in other ways. The schools and other educational institutions that deploy ITFS can obtain required funding from any number of other sources, including potentially the auction of

⁹ Id at 28.

¹⁰ Final Report at 60.

reallocated spectrum. MDS operators can acquire additional spectrum, if it is needed, by bidding on it at auction.

III. ITFS SYSTEMS CAN BE RELOCATED TO OTHER BANDS, IF NECESSARY.

To the extent that some ITFS licensees require more than 60 MHz of spectrum to provide educational services, those services can be accommodated in frequency bands above 3 GHz that are well suited for fixed services but cannot support mobility. Thus, we concur with the findings of the Final Report that identify as viable candidates for potential relocation those bands that are already allocated for Fixed Services.¹¹

However, there are two additional bands not identified in the Final Report that the Commission should consider for relocation, in the event that it becomes necessary; the 3650-3700 MHz and 4940-4990 MHz bands. Both of these bands are well suited for fixed services while being low enough in frequency to facilitate long communications links and wide area coverage. In allocating these bands, the Commission determined that they would support “the provision of a broad range of services, including traditional voice telephony and new broadband, high-speed, data and video services”, and that they would “help foster the introduction of such services to rural areas of the United States, thus promoting the objectives of Section 706 of the Telecommunications Act of 1996 to facilitate the rapid deployment of advanced telecommunications services and

¹¹ Id at 61.

technologies to all Americans.”¹² Before licensing these bands, the Commission should consider how they might be used to accommodate any relocated ITFS/MDS systems.

IV. THE EMISSION LIMITS FOR MDS MUST BE REVISED TO PROMOTE BAND SHARING.

In its comments to the NPRM, Verizon Wireless stated that more stringent emission limits for MDS equipment should be adopted to minimize interference into adjacent channels.¹³ Our analysis showed that MDS equipment operating in accordance with existing FCC rules would result in unacceptable interference into 3G mobile receivers regardless of the amount of guard band used to separate MDS and 3G operations. In addressing the possibility of band segmentation, the Final Report concludes that up to 4 MHz of guard band may be needed to protect 3G and MDS systems from interfering with each other.¹⁴ Moreover, it rejects our assertion that the potential for interference would be more significant based on the fact that real world conditions are likely to be substantially different than those contemplated in the FCC’s rules. We acknowledge that MDS equipment may be available or designed with operating parameters that are significantly better than the minimum requirements included in the FCC’s rules. We urge the Commission to amend its rules to reflect these real world conditions – specifically, to facilitate successful MDS/3G band sharing with a guard band of no greater than 4 MHz.

¹² *In the Matter of Amendment of the Commission’s Rules With Regard to the 3650-3700 MHz Government Transfer Band*, First Report and Order and Second Notice of Proposed Rulemaking, FCC 00-363, (rel. Oct. 24, 2000), at 1.

¹³ Verizon Wireless Comments at 14.

¹⁴ Final Report at 51.

CONCLUSION

In making its final determination about whether to segment the 2500-2690 MHz band to accommodate 3G, the Commission should recognize that a substantial portion of ITFS spectrum is no longer being used for its intended purpose – educational services – and that a reallocation of 60 MHz of ITFS spectrum for 3G would not harm incumbent licensees. Moreover, it should not require the relocation of any ITFS systems outside the 2500-2690 MHz band. To accommodate such band segmentation, and to facilitate the sharing of the 2110-2165 MHz band, the Commission should modify its MDS emission limits.

Respectfully submitted,

VERIZON WIRELESS

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