

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

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| 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 Wireless |) | |
| Services, including Third Generation |) | |
| Wireless Systems |) | |
| |) | |
| Petition for Rulemaking of the Cellular |) | |
| Telecommunications Industry Association |) | RM-9920 |
| Concerning Implementation of WRC-2000: |) | |
| Review of Spectrum and Regulatory |) | |
| Requirements |) | |
| |) | |
| Amendment of the U.S. Table of Frequency |) | |
| Allocations to Designate the |) | RM-9911 |
| 2500-2690/2670-2690MHz Frequency Bands |) | |
| for the Mobile-Satellite Service |) | |

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

The Cellular Telecommunications & Internet Association (“CTIA”)¹ hereby submits its comments in response to the National Telecommunications and Information (“NTIA”) and Federal Communications Commission (“FCC” or “Commission”) staff reports (“NTIA Report”) regarding use of the 1710-1850 MHz and 2500-2690 MHz bands respectively, and the potential for accommodating advanced

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, ESMR, as well as providers and manufacturers of wireless data services and products.

commercial mobile services in these bands.² CTIA has consistently urged that the 1710-1850 MHz band should be made available for advanced wireless services in the United States. The Commission, working with NTIA, Federal Government agencies and the industry should actively pursue ways to lay the foundation for the future of mobile communications in this band.

Ironically, the NTIA and FCC Reports fail to account for recommendations prepared and submitted during the course of an industry outreach program conducted by the NTIA. The recommendations were either not addressed or were dismissed out-of-hand in the NTIA report. A process for continued dialogue is necessary to provide serious consideration of industry proposals and to address new information included in the recent reports. To the extent that regulatory changes are necessary to allow greater sharing in non-Government bands to enable the military greater flexibility in meeting its communications requirements, the FCC should play a leadership role in considering such changes.

The global implications of U.S. operations in this band should not be dismissed by DoD, NTIA, and the FCC. The 1710-1850 MHz band is used around the globe for commercial mobile services with increasing impact on the military's training exercises.³ It remains to be answered how the military currently meets its training and deployment requirements outside of the United States in light of the global use of 1710-1850 MHz for

² Public Notice, DA 01-786, (rel. March 30, 2001).

³ See *Department of Defense, Investigation of the Feasibility of Accommodating the International Mobile Telecommunications (IMT) 2000 Within the 1755-1850 MHz band*, (rel. Feb. 9, 2001) (DoD Report) at C-6 (noting problems the Army has experienced in Europe).

commercial mobile operations. The NTIA and FCC Reports also fail to adequately address agreements between the DoD and host nations. Although some agreements are briefly mentioned, the record is void of the details of these agreements.⁴ Since the proposals put forth by the industry contemplate continued Government access to at least portions of the band, the details of such agreements may provide valuable insight on acceptable solutions.

I. Background

Last year, the federal government initiated a process to identify spectrum to enable the continued growth of the industry,⁵ properly focusing on the 1710-1850 MHz and 2500-2690 MHz bands - frequency bands identified by the International Telecommunications Union (ITU) as global bands for implementation of IMT-2000 systems. In accordance with a schedule provided by the Secretary of Commerce,⁶ the NTIA and FCC released interim reports providing information on current use of the bands and a preliminary look at accommodating IMT-2000 services. Following release of the interim reports, a Government outreach program was initiated whereby NTIA was to work with the FCC, Government agencies and the private sector to explore ways to accommodate IMT-2000 systems. The private sector held a series of meetings with

⁴ *DoD Report* at B-57.

⁵ *Memorandum for the Heads of Executive Departments and Agencies* (Oct. 13, 2000).

⁶ Department of Defense, IMT-2000 Technical Working Group, Interim Report, Investigation of the Technical Feasibility of Accommodating the International Mobile Telecommunications (IMT) 2000 Within the 1755-1850 MHz Band, IMT-2000 Technical Working Group (Oct. 27, 2000)..

representatives of the FCC, NTIA, DoD and other Government agencies to better understand the current uses of the bands and to jointly explore ways of accommodating advanced wireless services in these bands. On February 22, 2001, the Association Group filed its report, including recommendations for accommodating advanced wireless systems in the 1710-1850 MHz band. Recommendations included sharing and relocation options for all of the systems for which information had been provided to date.

On March 30, 2001, NTIA and the FCC released final staff reports with greater detail about the systems and services in the frequency bands under consideration and the potential for accommodating advanced wireless services. Concurrently, the FCC requested comments on the reports.⁷

One of the principal reasons for CTIA's preference for the 1710-1850 MHz band for advanced wireless services is that the band is currently used on a global basis for commercial mobile systems, and will be used increasingly for such systems.⁸ Use of this band for these services continues to grow, including in Region 2 where Brazil recently

⁷ 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. NPRM and Order (Jan. 23, 2001)

⁸ See e.g., "ERO Information Document on GSM Frequency Utilisation within Europe," updated Feb. 2001 (to be found on the ERO website at www.ero.dk); see also ., *Siemens Comments, In Re 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 Systems, including Third Generation Wireless Systems*, (filed Feb. 22, 2001) ("Siemens Comments") at p.32. Siemens also noted that 1710-1745 MHz is paired with 1805-1880 MHz in 60 countries around the world. *Id.* at p.33. See also Comments of the Radio Advisory Board of Canada and the Canadian Wireless Telecommunications Association, separately filed with the FCC, supporting use of 160 MHz of spectrum in the 1700 MHz range for advanced wireless services in both the U.S. and Canada, filed Feb. 22, 2001.

licensed spectrum in this band and numerous other countries have expressed an interest in licensing commercial services in the band.⁹ As commercial operators increasingly become global operators, the availability of harmonized spectrum and systems becomes increasingly important due to economies of scale and the ability to deploy the same systems in the same time frame. This also helps ensure that U.S. citizens will enjoy the same level of advanced services enjoyed by citizens in other countries.

II. The NTIA Report

The NTIA report uses information provided by Government agencies as the primary source of information in developing its report. Most notably, NTIA bases its report on a February 9, 2001 report by the DoD.¹⁰ The NTIA report broadly overlooks the potential for accommodating IMT-2000 systems in the 1710-1850 MHz band and glosses over information in the DoD Report supporting such an idea.

In light of the short comment period and the DoD's decision not to release its report for comment to anyone other than the NTIA, the industry has not been afforded an opportunity to respond to the DoD input into the NTIA Report. The DoD report divides the military systems into five categories: satellite operations, tactical radio relay, air combat training systems, tactical control links/precision guided munitions, and other systems. The NTIA report also includes Conventional Fixed Systems. Four of these systems, satellite operations, tactical radio relay, air combat training, and Conventional

⁹ See e.g., *Siemens Comments*, at p.32. Siemens noted in its comments that a proposal was made to the ITU-R Working Party 8F by Brazil, Chile, Guatemala, Mexico and Venezuela that Region 2 countries use for advanced wireless systems spectrum in the 1710-1850 MHz band for mobile-to-base operations paired with spectrum in the 2110-2170 MHz band for base-to-mobile operations. *Id.* at p.32.

¹⁰ See *DoD Report*.

fixed systems were covered in the DoD and NTIA interim reports and were addressed in the Joint Comments. The interim reports gave no information on systems in the other categories, tactical control links/precision guided munitions and other systems.

Accordingly, the private sector has not had an opportunity to review the systems and discuss options for satisfying these communications requirements while also accommodating advanced wireless systems.

Information regarding a variety of systems is provided for the first time in NTIA and DoD reports provide for the first time information regarding a variety of systems. It is evident that all of these systems add to the complexity of the task at hand. Additional time is required to better understand the requirements of these systems and develop solutions that meet the needs of the military and which make spectrum available for advanced wireless services.

A. Satellite Control Systems

As described in the NTIA and DoD reports, satellite operations in 1710-1850 MHz band are in the 1761-1842 MHz portion and provide command and control for a wide variety of military satellites. The importance of these satellite systems to our national security and as sources of information and benefit to other Government agencies and the private sector is without question, and it would be unacceptable to disrupt their operation. Continued discussions of mitigation measures are warranted to further refine the details of sharing in the band. In the interim, it should be noted that the DoD Report itself identifies mitigation techniques for both DoD and for IMT-2000 systems.¹¹

¹¹ See *DoD Report* at B-33 – B-35.

Finally, the recommendation in the Joint Comments is that DoD satellite operations should be moved to the 2025-2110 MHz band to provide for long-term interference free operation of both commercial mobile systems and DoD satellite systems. In its report, DoD recognizes that it is the only user of the 1761-1842 MHz band for satellite control operations and that these services are generally provided in the 2025-2110 MHz band. One of the principal concerns that DoD has in moving its operations to the 2025-2110 MHz band is the regulatory status of such systems with respect to Electronic News Gathering (ENG) systems in the United States and the system's relative status under footnote US 346 to the Table of Frequency Allocations. This appears to be primarily a regulatory, rather than a technical issue. Again, this problem is not insurmountable. Indeed the DoD Report particularly observes that the 2025-2110 "unified S-band" is "uniquely suited for conducting critical, non-routine SATOPS functions."¹² The DoD Report also notes that NASA currently "employs SATOPS uplinks within the United States that have been coordinated with the ENG/BAS community" and that NASA should be included in its coordination efforts.¹³ The FCC should work proactively to ensure that both the space systems and the ENG operations are accommodated in the 2025-2110 MHz band.

B. Tactical Radio Relay and Air Combat Training Systems

Similar to the situation with space operations systems, further discussion is needed on tactical radio relay and air combat training systems. The DoD report evaluates several sharing or frequency loss scenarios for these systems. The complexity of the

¹² *DoD Report* at B-52.

¹³ *DoD Report* at B-65.

situation is evident and the importance of the systems for maintaining combat readiness is indisputable. The Joint Comments, however, proposes solutions that provide continued access to the 1710-1850 MHz band for these systems in a way that is not considered in either the DoD or NTIA reports. These proposed solutions warrant additional study and discussion.

An evaluation of the industry proposals for tactical radio relay systems requires a better understanding of operational requirements in various areas of the country. While the DoD and NTIA reports indicate that access to this band must be maintained, the DoD Report states that this is “unless access to additional spectrum and bands up to 2960 MHz is provided on a primary basis with equivalent regulatory protection.”¹⁴ In fact, the DoD, is moving to replace legacy systems that use the 1755-1850 band because they are already experiencing impact from use of these bands in Europe.”¹⁵

With respect to Joint Tactical Combat Training (JTCTS) systems, the DoD report focuses on use of wideband systems. Information in previous reports, confirmed in the industry discussions with DoD, indicate that use of the wideband JTCTS is only necessary over water. A further evaluation of band segmentation possibilities, as proposed in the Joint Comments, based on use of the narrowband JTCTS is warranted. Further discussions should also be held to review possibilities for shorter-term band segmentation to accommodate the Air Force’s Air Combat Training System (ACMI) and the Navy Tactical Air Combat Training System (TACTS) based on the new information

¹⁴ *DoD Report at 6-7.*

¹⁵ *DoD Report at C-6.*

provided in the DoD report. The DoD Report concedes that the JTCTS System can be retuned or relocated to other spectrum bands.¹⁶

III. Conclusion

The NTIA Report demonstrates the complex and difficult task at hand. However, given the importance of this effort to the U.S. economy, to overall U.S. competitiveness and efficiency, and to the telecommunications industry, it is a task worth pursuing.

The DoD maintains bases, conducts training, and deploys systems around the world. Working and training with our allies is an important part of the DoD mission. It is self-evident, therefore, that ensuring that DoD operations are compatible with operations around the world is important and beneficial and that any spectrum use review should take into consideration use of spectrum globally. Surprisingly however, neither the DoD Report nor the NTIA Report address this issue in any substantive way. No consideration seems to be given regarding how DoD meets its mission on a global scale in light of the use of 1710-1850 MHz for commercial mobile services around the world. While use in the United States may be justifiably different than in other countries, there are interference and sharing scenarios that might better help us to evaluate options for use of the band in the United States.

¹⁶ See *DoD Report* at C-30.

The FCC should take a leadership role in working with NTIA and concerned parties to address to make the 1710-1850 MHz band available for advanced wireless services. CTIA looks forward to working with the FCC, NTIA, DoD, and other Federal agencies on this process.

Respectfully submitted,

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