

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

<b>In the Matter of</b>	)	
	)	
<b>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</b>	)	<b>ET Docket No. 00-258</b>
	)	
<b>Petition for Rulemaking of the Cellular Telecommunications Industry Association Concerning Implementation of WRG-2000; Review of Spectrum and Regulatory Requirements for IMT-2000</b>	)	<b>RM-9920</b>
	)	
<b>Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670- 2690 MHz Frequency Bands for the Mobile- Satellite Service</b>	)	<b>RM-9911</b>
	)	

**To: The Commission**

**JOINT REPLY COMMENTS OF  
ADAMS TELECOM, INC.  
BOARD OF EDUCATION OF COMMUNITY UNIT SCHOOL DISTRICT 4  
BOARD OF EDUCATION OF COMMUNITY UNIT SCHOOL DISTRICT NO. 337  
BROWN COUNTY COMMUNITY UNIT SCHOOL DISTRICT NO. 1  
CENTRAL TEXAS COMMUNICATIONS, INC.  
COMMUNITY SCHOOL DISTRICT NO. 3  
LEACO RURAL TELEPHONE COOPERATIVE, INC.  
MOUNTAIN STATE COLLEGE  
OXFORD COUNTY TELEPHONE SERVICE COMPANY**

Adams Telecom, Inc., Board of Education of Community Unit School District 4,  
Board of Education of Community Unit School District No. 337, Brown County  
Community Unit School District No. 1, Central Texas Communications, Inc.,  
Community Unit School District No. 3, Leaco Rural Telephone Cooperative, Inc.,

Mountain State College and Oxford County Telephone Service Company (collectively, “Joint Commenters”), by their attorneys, hereby respectfully submit these reply comments in response to the Federal Communications Commission’s (“FCC” or “Commission”) January 5, 2001 *Notice of Proposed Rulemaking* (“*Notice*”) in the above-captioned proceeding.

The Joint Commenters file these reply comments in support of comments filed by The Wireless Communications Association International, Inc. (“WCA”). Specifically, the Joint Commenters urge the Commission not to take any action which would adversely impact Multipoint Distribution Service (“MDS”) and Instructional Television Fixed Service (“ITFS”) licensees utilizing the 2150-2162 MHz (“2.1 GHz”) and 2500-2690 MHz (“2.5 GHz”) spectrum bands.

As explained in greater detail herein, these spectrum bands are currently being utilized or will be utilized for the transmission of fixed wireless broadband services in rural and unserved areas, where the cost of providing comparable broadband services is prohibitive. Due to their propagation qualities, these bands offer the only proven means of providing cost-effective fixed wireless broadband in these environments. As a result, moving MDS and ITFS to far higher frequencies will effectively end the Joint Commenters’ ongoing efforts to provide wireless broadband and video services to their rural service areas and will further widen the “digital divide” between the broadband “haves” and “have-nots.” In short, the Commission cannot find “comparable” frequencies to replace these bands for offering fixed services in less populated parts of the country.

## I. STATEMENT OF INTEREST

The Joint Commenters are a group of rural MDS and ITFS licensees and operators who have recently filed for, or intend to file for, FCC authority to construct and operate two-way broadband wireless systems in remote and underserved sections of Illinois, Texas, New Mexico, West Virginia, Ohio and Maine. Several of the individual Joint Commenters are affiliated with one or more rural telephone companies and currently operate wireless cable systems within their telephone service areas.

## II. DISCUSSION

In its comments, WCA notes that MDS and ITFS operators are “aggressively deploying systems using the 2.1 GHz and 2.5 GHz bands to deliver new fixed wireless broadband services to unserved and underserved markets and to compete with DSL and cable modems.”<sup>1</sup> While the WCA Comments highlight the investment and deployment efforts of major carriers such as Sprint, WorldCom and Nucentrix, the Joint Commenters represent rural carriers and rural customers that rely heavily on the current use of MDS and ITFS licenses in the 2.1 GHz and 2.5 GHz bands as the *sole* mechanism for deployment of wireless broadband services. Specifically, the Joint Commenters are utilizing MDS and ITFS spectrum for the transmission of local broadcast channels to rural residents who cannot otherwise receive such channels with the use of over-the-air antennas; for the provision of distance learning and educational cable channels to rural elementary, middle and high schools, colleges and universities; and for the impending deployment of high-speed Internet and data services to customers in areas that may never have access to DSL, cable modems or fiber-based broadband connections.

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<sup>1</sup> WCA Comments at 23.

Fixed wireless spectrum in the 2.1 GHz and 2.5 GHz frequency bands is a “one-of-a-kind” commodity and is unparalleled by any other currently-licensed fixed wireless spectrum. Because this spectrum is uniquely suited for the provision of wireless broadband service to rural areas, the Joint Commenters do not support any effort by the Commission to relocate existing MDS and ITFS licensees or to reallocate the 2.1 GHz and 2.5 GHz bands on a co-primary basis for the provision of advanced, third generation (“3G”) mobile services.

Any action by the Commission which would adversely impact the use of the 2.1 GHz and 2.5 GHz spectrum bands for the provision of broadband service in rural areas would serve to widen the growing “digital divide” that exists between those having access to broadband services and those who do not. A recent National Telecommunications and Information Administration (“NTIA”) study concluded that while rural Americans are using their computers and Internet connections at the same rate as that of Americans living in urban areas, these same rural users do not have the same access to broadband technologies.<sup>2</sup> By choosing a new allocation which effectively puts rural MDS and ITFS licensees and operators out of business, the Commission will continue to perpetuate the growing “digital divide.”

**A. Relocation of MDS and ITFS Licensees to Alternate Spectrum Bands Would Cripple the Future of Rural Broadband and Video**

The potential relocation of existing MDS and ITFS operators to higher spectrum bands will cripple rural providers of wireless video and broadband services. Leaco Rural Telephone Cooperative (“Leaco”), for example, a subscriber-owned telephone cooperative in Lovington, New Mexico (and MDS licensee of the Hobbs, New Mexico

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<sup>2</sup> See, “Advanced Telecommunications in Rural America: The Challenge of Bringing Broadband Service to All Americans,” April, 2000, <http://www.digitaldivide.gov/>.

Basic Trading Area), estimates that should the Commission relocate MDS and ITFS operators to alternate spectrum in a higher frequency band, depending on the new allocation, Leaco could lose between one-third and three-quarters of its current subscribers that live within Leaco's 35-mile Protected Service Area surrounding Leaco's transmitter site in Seminole, Texas.<sup>3</sup> If such relocation were to occur, Leaco may be forced to terminate its wireless cable offering altogether, as the rural company would not be able to afford expensive new transmission equipment or to outfit each of its 2,219 subscribers with new end-user reception devices.

Similarly, Central Texas Communications, Inc. ("Central Texas") holds both incumbent MDS and Local Multipoint Distribution Service ("LMDS") licenses in rural Texas, and has found that should the propagation characteristics of MDS be altered as a result of relocation to a higher spectrum band, Central Texas would be unable to provide video and broadband two-way services to its subscribers that live scattered throughout Lohn and Golthwaite, Texas. As the Commission is quite aware, the propagation qualities of LMDS (which is located in the 28 GHz and 31 GHz bands and propagates approximately 1 mile) or other substitute fixed wireless spectrum is not comparable to MDS, making Central Texas and the Joint Commenters' MDS licenses invaluable for the provision of broadband service in rural areas.

In fact, should any of the Joint Commenters be forced to relocate to alternate spectrum, substantial investments in technology, infrastructure and transmit/receive equipment would be lost. The real effect of such relocation would be the continued widening of the "digital divide," as the loss of video, voice and high-speed Internet transmissions to rural customers and schools would leave rural customers with no other

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<sup>3</sup> According to Leaco and its engineers, should it be forced to move to frequencies above 5 GHz, it could lose more than a third of its current customers being served by Leaco's Seminole, Texas transmitter. Should it be forced to move to frequencies above 10 GHz, it would likely be unable to provide service to more than three-fourths of its current subscribers.

viable replacement option. As a result, the Joint Commenters share WCA's view that "there is no spectrum other than spectrum below 3 GHz which is comparable to the current MDS/ITFS spectrum allocation"<sup>4</sup> and further note that any relocation to a higher spectrum band would likely sound the death-knell for rural MDS and ITFS operators.

**B. A Co-Primary Mobile Allocation in the 2.1 GHz and 2.5 GHz Spectrum Bands Would Cause Harmful Interference and Generate Enormous Transactional Costs for the Joint Commenters**

The Joint Commenters oppose any co-primary mobile allocation utilizing the 2.1 GHz and 2.5 GHz spectrum bands, and support WCA's position that "3G systems cannot utilize the 2.1 and 2.5 GHz bands without severe interference to and from co-channel MDS and ITFS stations."<sup>5</sup> Because many MDS and ITFS licensees are located in rural areas and have no legitimate opportunity through the Commission's auction process to acquire additional spectrum, the Joint Commenters do not support any action by the Commission which would likely cause additional interference and congestion to the already crowded 2.1 GHz and 2.5 GHz spectrum bands.<sup>6</sup> Should the Commission determine that such a mobile allocation is warranted, it will certainly be seen as the promotion of major carrier urban "3G" deployment at the expense of rural fixed broadband, and will undoubtedly lead to the continued widening of the "digital divide" between urban and rural Americans.

Furthermore, the addition of mobile licensees to the 2.1 GHz and 2.5 GHz spectrum bands will create additional interference coordination nightmares for both incumbent and auctioned MDS and ITFS licensees. As it stands now, the Joint

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<sup>4</sup> WCA Comments at 31

<sup>5</sup> WCA Comments at 6

<sup>6</sup> Rural and educational broadband and video providers have been on the "outside looking in" at every other FCC fixed spectrum auction because of the Commission's limits on bidding credits and license set asides for small businesses and rural telephone companies, and because of the Commission's refusal to auction geographic area licenses in service areas small enough for rural companies and educational institutions to effectively compete with major carriers for the acquisition of spectrum.

Commenters spend more money on co-channel and adjacent channel interference coordination and on regulatory compliance than they take in as revenue from the operation of their wireless video and broadband systems. Though the MDS and ITFS business has not been a profitable one for rural providers, the Joint Commenters continue to provide these services to their hometowns and telephone service areas out of a commitment to their customers and out of the knowledge that should they terminate such service, no viable alternative would exist. While the Commission is keenly aware of current interference problems that plague the MDS and ITFS industry, it should know that any new interference caused to these licensees and operators as a result of a co-primary mobile allocation would force rural companies and educational institutions into a financial “house of cards” that will eventually cause the economic collapse of these nascent enterprises.

**C. The Commission’s Proposal Will Chill Investment in Wireless Infrastructure**

Finally, apart from these specific concerns, the Joint Commenters note that the timing of a possible relocation and reallocation could not be worse for MDS and ITFS licensees. Just over two years ago the Commission adopted a *Report and Order* that allowed MDS and ITFS licensees to provide two-way broadband services. This *Report and Order* sparked a revival in MDS investments. The Commission has not yet granted a single permanent authorization to an MDS or ITFS licensee for the provision of two-way broadband service, and is already seeking comments on the potential of taking this licensed spectrum away or altering it to an extent that will cause tremendous amounts of harmful interference. The Joint Commenters cannot help but worry about the impact of the Commission’s approach to spectrum management. Not only would such action have a chilling effect on potential MDS investors and on MDS and ITFS equipment

manufacturers, but it sends an ominous signal to users and suppliers in other spectrum bands. This type of unpredictable spectrum management will deter long term investments in other bands that are not already offering 3G services.

### **III. CONCLUSION**

The Joint Commenters fully support comments filed by WCA which oppose the relocation of MDS and ITFS licensees and the reallocation of the existing 2.1 GHz and 2.5 GHz spectrum band for mobile services on a co-primary basis. If it moves MDs and ITFS to a higher frequency or creates a co-primary situation, the Commission will effectively euthanize fixed rural broadband and video, as no other comparable frequencies are available and no additional interference can be tolerated in these bands. By taking away the only viable option for rural carriers in the deployment of broadband services, the Commission would effectively expand the “digital divide” to a point of no return for rural America. Therefore, the Joint Commenters urge the Commission to leave the 2.1 GHz and 2.5 GHz spectrum bands as currently licensed, and look elsewhere for additional mobile spectrum for the implementation of “3G” services.

Respectfully submitted,

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By: \_\_\_\_\_/s/\_\_\_\_\_

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