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

In the Matter of	)	
	)	
Satellite Industry Association Request	)	RM-9911
For Amendment of the U.S. Table of	)	
Frequency Allocations to Designate	)	
2500-2520/2670-2690 MHz Frequency	)	
Bands for the Mobile-Satellite Service	)	

To: The Commission

OPPOSITION BY THE MISSISSIPPI DEPARTMENT OF EDUCATION

The Mississippi Department of Education ("MDE") opposes the "Petition for Rulemaking" filed April 28, 2000 by the Satellite Industry Association ("SIA"), which seeks the Commission's institution of a rulemaking proceeding to amend the U.S. Table of Frequency Allocations to allocate the 2500-2520 MHz and 2670-2690 MHz bands for the Mobile Satellite Service ("MSS"). The SIA Petition is a patently defective basis for commencing the requested rulemaking proceeding, as it fails to recognize that the 2500-2520 MHz and 2670-2690 MHz bands are allocated to incumbent services, that there are pervasive and invaluable licensed uses of the bands by stations in these incumbent services, and that such uses are expanding exponentially. SIA fails to suggest, much less demonstrate, that there is any mechanism which might accommodate MSS use of the bands while protecting these incumbent services. Therefore, the SIA Petition should be dismissed or denied.

Background

The Mississippi Board of Education (MDE) is a partner in Mississippi EdNet Institute, a member of The National ITFS Association (NIA). EdNet was established in 1992, and is a non-profit organization administering and operating twenty ITFS channels on behalf of several educational partners: The Mississippi Department of Education, State Board for Community & Junior Colleges, Institutions of Higher Learning, Mississippi Authority for Educational Television, and EdNet Institute itself, which is also a licensee. The MDE has a particular interest in the SIA Petition, which proposes rule changes that will disrupt or threaten several

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ITFS channel groups for which EdNet is licensed, thereby negatively affecting MDE's K-12 ITFS operations.

The SIA Petition

The SIA Petition seeks to have the FCC institute a rule making proceeding to allocate the frequency bands at 2500-2520 MHz (space to earth) and 2670-2690 MHz (earth to space) (collectively, the "Requested Bands") for mobile satellite use in the United States. SIA asserts that it is critical to the satellite industry in the United States "for as much spectrum as possible" to be available for the satellite component of IMT-2000, and that the Requested Bands would help meet this need.

Argument

I. The 2500-2520 MHz And 2670-2690 MHz Bands Are Allocated To Incumbent ITFS And MMDS Services And There Is Pervasive And Invaluable Licensed Use Of The Bands By Stations In These Services

Incredibly, the SIA Petition does not even acknowledge, much less satisfactorily address, the single biggest possible problem with its proposed allocation of the Requested Bands to MSS – the existence of pervasive and invaluable incumbent fixed services in the bands. In fact, 2500-2520 MHz constitute Channels A1, B1, A2 and part of B2 of the Instructional Television Fixed Service ("ITFS") and 2670-2690 MHz constitute part of ITFS Channel G3 and all of ITFS Channel G4, Channel H3 of the Multi-channel Multipoint Distribution Service ("MMDS"), and the I band of 125 KHz ITFS and MMDS response channels. These channels are not only subject to ubiquitous use developed over the past 35 years across the United States for one-way educational video services, they are also the core "upstream" channels to be used in the imminent rollout of two-way broadband data services for both educational and commercial purposes.

ITFS was created by the FCC in 1963 to meet the needs of educators for the transmission of visual and aural instructional material to students enrolled in courses of formal education.[1] There are now thousands of ITFS stations authorized by the FCC, operating in the 2.5 GHz band across the United States, and serving literally millions of students and lifelong learners. Based on NIA's review of the FCC's database on ITFS, approximately 1,275 entities hold over 2,175 ITFS licenses for stations utilizing some 8,000 ITFS channels. Nationwide, ITFS stations serve over 70,000 locations that are registered as receive sites, most of which are schools and other learning locations (such as community centers). However, because registration has never been required for a site to receive ITFS programming (and indeed, the FCC no longer even registers receive sites), NIA estimates that the number of actual locations at which ITFS programming is viewed is many times that number, and it expects the number of locations to increase dramatically as line of sight problems are resolved with new two-way, digital technologies. Furthermore, ITFS educational programming is received at hundreds of thousands of subscribers to wireless cable systems operating on ITFS and MMDS channels.

The Mississippi Department of Education is licensed for the C group. The State Board for Community and Junior colleges is licensed for the B group in Mississippi. The A group is licensed to Mississippi public television. The G group is licensed to the institutions of higher learning. EdNet Institute is licensed for the D group.

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[1] ITFS was originally allocated 28 six MHz channels in the 2500 through 2690 MHz band. In 1983, the FCC reallocated 8 of those channels (2596-2644 MHz) to create the MMDS band. ITFS now uses 2500 – 2596 MHz and a portion of 2644 -2686 MHz (sharing it with MMDS channels), although there are grandfathered ITFS stations in the reallocated MMDS band. In addition, because the FCC recently authorized channel-swapping between ITFS and MMDS licensees, ITFS licensees may in the future operate anywhere in the 2500 through 2690 MHz band.

Thus, three of EdNet's four educational agencies and many others nationwide would be directly and adversely affected by the allocation of ITFS spectrum as proposed by SIA.

Nationwide, the licensees of ITFS stations are numerous state government agencies, state universities and university systems, public community and technical colleges, private universities and colleges, public elementary and secondary school districts, private schools (including Catholic school systems in a number of large metropolitan areas), public television and radio stations, hospitals and hospital associations, and private, non-profit educational entities.

Federal and state governments and the private sector have invested substantial funds for the development and use of ITFS. In 1994 the Mississippi legislature invested $500,000 in seed money to start EdNet. Our corporate partner, Wireless One, has since invested $67,000,000 in the transmission infrastructure statewide. EdNet receives no federal support, and in fact, EdNet is unique because it is privately funded through excess capacity lease agreements with Wireless One. Once construction is completed this fall, EdNet will be the only statewide ITFS system in the United States.

ITFS stations have traditionally been used to deliver point to multipoint educational video and audio programming. In many places, ITFS provides a critical "last mile" distribution channel for a wide variety of valuable transmission services, including the provision of formal telecourses (on the K-12, secondary and post-secondary levels) to schools, hospitals, workplaces and other places of learning; transmission of other educationally valuable programming into schools (such as news, public affairs and similar material); provision of professional and worker training (such as for teachers, health professionals and public safety officers); transmission of teleconferences for educational and training purposes; and transmission of other administrative communications. In Mississippi, EdNet operates two channels 24 hours a day, seven days a

week. It broadcasts 336 hours of instructional programming per week, and in January of 2001 will expand to a third channel, broadcasting 504 hours of programming a week. By summers end, EdNet will reach more than 1005 public schools, towards a goal of 1,100. MDE benefits from this wealth of programming more than any other EdNet partner.

Although ITFS stations have been providing critical educational service in their traditional one-way video configurations, ITFS licensees anticipate future explosive growth in the use of their channels for two-way broadband data service. The FCC recently authorized ITFS and MMDS channels to be used on a two-way basis, and the first opportunity for filing applications for two-way facilities is only days away. As a result of the rule changes and application process, in addition to wireless broadband service to schools and other public locations, ITFS channels will shortly be used to provide critical interactive video, audio and data services to students and lifelong learners in their homes and places of business. These services will be integrated into two-way systems constructed and operated by commercial enterprises using MMDS channels. By participating in the development of this new service, ITFS operators will be working in the present (rather than the long-range time frame contemplated by SIA for MSS use of the Requested Bands), towards the achievement of an important goal established by the Commission – the development of a competitive broadband environment in the United States through wireless technology. MDE is positioning itself to benefit from these technological advances, and a microwave link has already been completed between MDE and EdNet's master control facilities. Over this link MDE will feed instructional programming, professional development venues, and administrative information to more than 540,000 youngsters and 30,000 teachers.

The channelization plans being implemented by broadband wireless operators consistently require use of the A and B Channel Groups and the G and H Channel Groups as "upstream" capacity, to be combined with downstream capacity on the other groups. The use of the "ends" of the 2.5 Ghz band in this manner facilitates the frequency separation necessary to roll out two-way broadband data service on an interference-free basis where there is substantial and pervasive incumbent one-way video operations. Taking approximately half of those A, B, G and H Channel groups (as well as over one quarter of the entire ITFS band) for MSS purposes as requested by SIA would do severe damage to not only existing operations over the country, but to the rollout of wireless broadband data services. It is clear that this would not serve the public interest. That being so, there is no purpose to be served by the institution of a rulemaking proceeding to consider the SIA proposal.

II. SIA's Petition Fails to Suggest, Much Less Demonstrate, That There Is Any Mechanism By Which MSS and Incumbent Services Can Co-Exist In The Requested Bands

The inevitable consequence of SIA's failure to acknowledge the existence or appreciate the nature of incumbent ITFS and MMDS services in the Requested Bands is that SIA does not even suggest that there is any potential solution to the problem posed by its proposed invasion of occupied spectrum. Indeed, SIA would need to actually demonstrate that any potential solution shows enough promise to make the FCC's inquiry worthwhile.

The FCC's standard for initiating a rulemaking proceeding in response to a petition is stated in Section 1.407 of its Rules:

> If the Commission determines that the Petition discloses sufficient reasons in support of the action requested to justify the institution of a rulemaking proceeding, and the notice and public procedure thereon are required or deemed desirable by the Commission, an appropriate notice of proposed rule making will be issued.

Here, it is clear that SIA has not disclosed "sufficient reasons in support" of the allocation of the Requested Bands to the MSS. It has claimed a need for additional MSS spectrum, which claim may or may not be valid, or may be valid only at some distant point in time. What SIA has not done, however, is show the FCC any sort of sound, considered plan in support of its proposal that takes into account the incumbent services and explains how MSS use of the bands could still be accommodated. In the absence of such a sound, considered plan, there is no basis for the institution of a rulemaking, as there is no prospect whatsoever that the allocation can be made.

Conclusion

The Mississippi Department of Education states its unequivocal objection to the SIA Petition and the suggestion – indeed *any* suggestion – that any portion of ITFS channels be allocated to the MSS or any other service. For the reasons stated in this document, the SIA Petition must be denied.

Respectfully submitted,

MISSISSIPPI DEPARTMENT
OF EDUCATION

Dr. Richard Thompson
Superintendent

August 28, 2000

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Reply was mailed this 28th day of August, 2000 to the following:

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**Hand Delivery