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FEDERAL COMMUNICATIONS COMMISSION
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington DC 20554

In the Matter of:	)	
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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

To: The Commission

JOINT COMMENTS

The ITFS Spectrum Development Alliance (the "Alliance") submits the following comments in response to the Commission's Notice of Proposed Rulemaking ("Notice") in the above-captioned proceeding.[1] The members of the Alliance[2] collectively hold authorizations for Instructional Television Fixed Service ("ITFS") licenses in nearly 100 communities nationwide and currently provide a broad range of video programming and other services to educational institutions throughout those communities. The Alliance was formed in February 2000 to help foster and facilitate, on behalf of its members and all ITFS licensees, the development of advanced new two-way educational services and broadband capabilities.

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1. 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 Services, including Third Generation Wireless Systems, *Notice of Proposed Rulemaking*, FCC 00-455 (rel. January 5, 2001) ("Notice").
2. The Alliance consists of the following ITFS Licensees: Instructional Telecommunications Foundation, Inc., Hispanic Information and Telecommunications Network, Inc., North American Catholic Educational Programming Foundation, Inc., Portland Regional Telecommunications Corporation, Denver Area Educational Telecommunications Consortium, Inc., Chicago Instructional Technology Foundation, Inc., Twin Cities Schools' Telecommunications Group, Inc.

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The Commission instituted this proceeding to explore the use of a number of spectrum bands below 3 GHz for new advanced wireless services, focusing specifically on anticipated third generation ("3G") mobile wireless services. Among the bands identified in the Notice, the Commission seeks comment on the feasibility of reallocating some or all of the 2500-2690 MHz band, which includes ITFS in which Alliance members operate, for use by new 3G wireless service providers. As the result of comprehensive proceedings recently completed by the Commission, the development of the 2500-2690 MHz band for advanced broadband wireless services by ITFS licensees, co-band MMDS and MDS (together "MDS") licensees and others is now well underway. At this critical juncture, even the consideration of a plan to share or reallocate all or a portion of the band for a different form of advanced wireless service will seriously impact the present development of the band for advanced broadband wireless services, including a diversity of new services that the ITFS community will be capable of providing to educational institutions in the new technological environment.

Alliance members are non-profit educational organizations that have held licenses and operated ITFS systems for many years throughout the United States. Their facilities provide the necessary infrastructure to deliver distance learning activities to schools, community centers, and adult learning facilities, many of which are in remote and isolated locations that cannot receive broadband service economically by any other means. These services are often provided in conjunction with lease arrangements with co-band MDS licensees providing for a common infrastructure, giving ITFS licensees both the capabilities to deliver, and financial support for, their services.

From this standpoint, Alliance members have been vitally interested in the development of advanced two-way broadband services in the band and actively participated in the recently concluded proceedings in MM Docket 97-217 adopting the new two-way rules. As technology has developed and ITFS licensees and commercial operators have been granted increased flexibility, the opportunities for ITFS to play a substantially greater educational role have increased dramatically. Advanced broadband services provided over ITFS frequencies hold the promise of providing a multitude of new educational services such as video-on-demand and interactive classroom applications, including video-conferencing and high-speed Internet access.

The new Administration has no greater priority than education. Advanced broadband educational services are an important component of the new Administration's commitment to the revitalization of our nation's educational system. As President Bush recently reported to Congress, the educational community needs to be encouraged to "use technology as a tool to improve academic achievement." No Child is Left Behind, Report of President George W. Bush, January 23, 2001, p. 22. The ITFS community stands ready to meet this challenge and certainly should not be frustrated in this effort by misguided spectrum allocation policies that would deprive ITFS licensees of the basic tools to do the job.

I. Particularly Given the Recent Authorization of Advanced Fixed Broadband Wireless Services in the 2500-2690 MHz Band, No Further Band Changes Should be Made at This Time.

Under recent rule changes adopted in MM Docket 97-217, the ITFS spectrum is *already* allocated and beginning to be used for advanced wireless services. As the Commission defines the term, "advanced wireless services" includes data and broadband services provided over fixed networks. The Commission's recently concluded two-way proceeding granted ITFS licensees the

flexibility to provide *any* voice, data, or video service to and from fixed locations, including high-speed two-way services such as broadband Internet access.[3]

Even before the ink is dry on this action, however, comment is now sought on whether the band should be reconfigured or shrunk in some way to additionally accommodate anticipated new 3G mobile service providers. This would be an impossible undertaking, given the existing use pattern in the band and plans now well underway for the delivery of new broadband wireless services by existing ITFS licensees and others. The new two-way rules are difficult enough to implement, given the enormously difficult technical complexities associated with sharing spectrum between downstream and upstream operations. To introduce an even more complex sharing arrangement with different mobile users (or repack existing licensees into a smaller band and/or relocate some to other bands) is an impossibility that would invite technical and operational disaster for all parties.

Certainly, this was not the plan of the Commission in adopting its long-range plan for the reallocation of spectrum for the development of new technologies for the new Millennium in November of 1999. There, in addressing anticipated spectrum needs for 3G services, the Commission determined that it would "consider providing a major allocation of 90 megahertz for an Advanced Mobile and Fixed Communication Service . . . [which] would provide sufficient bandwidth to support commercial AMFCS operation by multiple competing operators." Significantly, the bands identified for potential reallocation at that time did not even include the 2500-2690 MHz band. After the possible use of the band by 3G service providers was nonetheless raised, the Commission's more recent Interim Report on the potential use of the band identified

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3. *See Report and Order* in MM Docket No. 97-217 at ¶6 (1996).

overwhelming technical impediments to such additional use of the band. Plainly, this is not an idea whose time has come. After so many years of planning for the provision of advanced services by existing band licensees, many of which are compatible with the Commission's vision of 3G services, it simply makes no sense to shift gears at this late stage and, in effect, substitute one class of advanced wireless broadband service provider for another in all or a part of the band.

II. The Relocation of ITFS Licensees to Other Spectrum in Order to Make Way for 3G Mobile Services in the Band would be an Impossible Undertaking.

The Notice also seeks comment on the possibility of relocating ITFS incumbents as a way to clear the band, or portions of the band, for 3G mobile operations.[4] This would be an impossible undertaking that would destroy the ITFS service. A block of spectrum below 3 MHz large enough to accommodate relocation of the entire 190 MHz ITFS/MMDS band with the propagation characteristics necessary to conduct existing and planned operations simply does not exist. If it did, the Commission presumably would be considering the block for future 3G services.

Since no large block of unencumbered spectrum is available, any relocation necessarily would be limited to individual licensees or smaller blocks of spectrum. This would be similarly disastrous for the development of advanced wireless ITFS services, which the Commission carefully designed for development in conjunction with MDS licenses in one contiguous band. Many years ago, before the Commission acted to address the operational issues facing ITFS operators in a constructive manner, ITFS licensees faced severe difficulties in implementing services for the simple reason that school districts and other educational and nonprofit institutions were "financially

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4. Notice at ¶65.

incapable of providing ITFS because of the present cost of equipment and maintenance."[5] To remedy the problem, the Commission adopted a creative plan that allowed ITFS licensees to work in partnership with neighboring MDS licensees in the leasing of excess transmission capacity to commercial service providers.[6] This resulted in an explosive growth in the deployment of ITFS systems and utilization of ITFS by educators. The application flow increased dramatically and by 1991, the Commission was receiving more than 400 applications per year at a rapidly accelerating rate.[7] Over 90 percent of these applications were premised on excess capacity leases that provided funding for the ITFS facilities and educational activities of the licensees.[8]

The partnership between ITFS and wireless cable was mutually beneficial in many respects. Originally, educators needed one-way video distribution capabilities to classrooms and other learning centers, which wireless cable operators were equipped to provide. Even this symbiotic relationship was limited, however, by the formidable barriers faced by wireless cable operators attempting to compete with entrenched cable monopolies, difficulties the Commission has recognized on numerous occasions. *Two-Way Order,* 13 FCC Rcd 19112, 19116(1999). With the advent of advanced two-way services in this band, this equation, and the potential of this band, has changed dramatically for the better. Moreover, educators today require far more than one-way video to fulfill their educational mission. The introduction of Internet in the classroom, interactive video and video-conferencing, and wide-area networking has greatly expanded the technologies available

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5. Amendment to the Commissioner's Rules in Regard to the Instructional Television Fixed Service, *Notice of Proposed Rule Making*, 48 Fed. Reg. 29533 at ¶17 (1983).
6. *Report and Order* in Gen. Docket No. 80-112, 94 F.C.C.2d 1203, 1249-50 (¶114) (1983).
7. Amendment of Part 74 of the Commission's Rule With Regard to the Instructional Television Fixed Service, Notice of Proposed Rule Making, 8 FCC Rcd 1275, 1276 (¶5) (1993).
8. *Id.*

to ITFS licensees. With the advent of these new technologies envisioned in the two-way proceeding, commercial partnerships are now more important than ever to sustain ITFS as a critical educational resource for the nation's educational community and the public. If some ITFS incumbent licensees were relocated to make way for 3G service providers on a site-by-site basis or in small spectrum blocks, the partnership between ITFS licensees and commercial system operators would be seriously disrupted and the economic basis needed for the development of advanced educational services in all likelihood destroyed.

Moreover, there is no need for the Commission to engage in the extremely difficult and lengthy administrative process that would surround any attempt to share the ITFS band with new 3G service providers or relocate ITFS incumbents to make way for 3G service providers. The Notice tentatively identifies over 225 MHz of spectrum (other than 2500-2690 MHz and not even counting the 1st generation cellular band) available for allocation to 3G service providers.[9] Accordingly, there appears to be sufficient spectrum at present, or which can be made available in the near term, to meet the needs of new 3G service providers.[10]

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9. *See* Notice at ¶37 (120 MHz in 1850-1910/1930-1990 MHz band); ¶38 (30 MHz in 746-806 MHz band); ¶41 (45 MHz in 1710-1755 MHz band); ¶52 (40 MHz in 2110-2150 MHz band).
10. 120 MHz of the spectrum identified above is already allocated to PCS (1850-1910/1930-1990 MHz), and is available to satisfy the demand for mobile 3G services through in-band migration of existing PCS systems to 3G or through the re-auctioning of vacant blocks to new users. *Id.* at ¶37. It is appropriate to count this spectrum in accessing the ultimate bandwidth needs for 3G.

CONCLUSION

For these reasons, the Commission should refrain from disturbing the existing allocation and use of the 2500-2690 MHZ band. Rather, consistent with the comprehensive plan set forth in the Commission's November, 1999 Policy Statement on the Reallocation of Spectrum for the New Millennium, the Commission should focus on more realistic alternatives for the implementation of 3G services that would not involve technically impossible sharing criteria or the massive displacement or elimination of ITFS licensees and their vital educational services to the educational community and the public.

Respectfully submitted,

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