Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
	)	
A Proposal for Revising the MDS and ITFS Regulatory Regime	)	RM-10586
	)	
	)	DA No. 02-2732
	)	

To: The Commission

COMMENTS OF ILLINOIS INSTITUTE OF TECHNOLOGY

By: Laura C. Mow
Gardner, Carton & Douglas
1301 K Street, N.W., Suite 900 East
Washington, D.C. 20005
(202) 408-7100

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Its Attorneys

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Summary

Illinois Institute of Technology ("IIT") strongly supports the goals of the White Paper entitled "A Proposal for Revising the MDS and ITFS Regulatory Regime" to afford MDS and ITFS licensees "flexible use" authority, and appreciates the hard work of the Authors to formulate a framework to achieve these goals. In these Comments, IIT suggests a variety of refinements to this framework -- refinements which IIT believes will better serve the goals espoused articulated in the White Paper and will better protect the vital interests of ITFS licensees. As a general matter, IIT believes that the White Paper is favors the qualified "Proponent" in the transition process, and vests excessive power in the Proponent to the detriment of existing licensees and competitors to the Proponent. Accordingly, IIT's Comments attempt to develop suggestions leading to a more balanced and less controversial transitional process.

It is critical, for example, that any transition plan be based on the premise that all existing licensees are entitled to assignment of their default plan frequencies. Any ability by a Proponent to vary the default plan vests unwarranted power in such Proponent to unduly pressure licensees. Similarly, any transition plan must sustain any licensee's existing digital operations; a forced return to analog constitutes a return to less efficient technologies and should not be permitted.

Any rules ultimately adopted also should ensure that the transition process does not exert anti-competitive pressures on the market. In this regard, the transition process should not favor a Proponent who controls the channels in the market over a potential competitor. Nor should the Proponent be permitted to condition a transition on a licensee's willingness to enter into a new or amended lease with the Proponent.

Equally important to existing licensees, the process of deciding the transition plan should be balanced and fair. The white paper's proposal that the proponent's plan be accepted unless it is "unreasonable" skews the transition process in favor of the proponent, without allowing adequate consideration of any submitted counterproposal. In addition, the white paper affords inadequate time for affected licensees to evaluate and respond to a proponent's plan. It makes a number of specific suggestions to alleviate these and other concerns with the transition process, including the adoption of a specific window period for completing a transition plan, the provision of sufficient advance notice to licensees of potential transition activity, and provision for a return to the status quo in the face of a non-performing proponent. In addition to the foregoing, it makes a number of technical comments designed to reduce the burdens of the process.

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COMMENTS OF ILLINOIS INSTITUTE OF TECHNOLOGY

Illinois Institute of Technology ("IIT"), by its attorneys, hereby submits its comments on the White Paper entitled "A Proposal for Revising the MDS and ITFS Regulatory Regime" ("White Paper"), submitted to the Federal Communications Commission ("FCC" or "Commission") by The Wireless Communications Association International, Inc. ("WCA"), The National ITFS Association ("NIT"), and the Catholic Television Network ("CTN") (collectively, the "Authors") on October 7, 2002.[1] The White Paper sets forth a series of proposals designed to promote the deployment of advanced commercial and educational wireless services using spectrum in the Multipoint Distribution Service ("MDS") and Instructional Television Fixed Service ("ITFS"), while still protecting incumbent ITFS educational operations. In order to achieve these goals, the proposals contemplate comprehensive rule changes for MDS and ITFS, and seek to devise a market transition plan to implement these rule changes.

[1] These comments are being submitted in response to the FCC's Public Notice, "Wireless Telecommunications Bureau Seeks Comment On Proposal To Revise Multichannel Distribution Service and the Instructional Television Fixed Service Rules," DA-02-2732, released October 17, 2002.

IIT applauds the Authors efforts to take on the thorny task of reworking a regulatory regime that has evolved piecemeal over the past four decades, and acknowledges the general merit of the White Paper's concept as a means to afford MDS and ITFS licensees "flexible use" authority. IIT believes, however, that many entities -- particularly in the educational arena -- were not privy to the development of these proposals and could be significantly harmed by their wholesale adoption. Accordingly, IIT welcomes this opportunity to comment on the White Paper.

In particular, there are elements in the White Paper's proposed transition process that appear premised on the notion that ITFS educational services are no different than commercial services offered via MDS channels. In fact, there are significant differences between the two, justifying different treatments that appear to have been adequately considered, even though one of the six stated goals of the White Paper in conducting transitions is "(2) maintaining and enhancing the educational use of the 2.5 GHz band by ITFS licensees...." App. B, page 1. And as the Commission will see, many of the problems associated with this approach result because -- despite its avowed goals -- the White Paper looks to a transition of MDS operations as the model, even though ITFS educational operations are intended to survive the transition. These comments are devoted to identifying and offering constructive suggestions for these aspects of the White Paper plan in order to bring it more in line with its espoused goals.

I.

INTRODUCTION

As the architect of one of the nation's longest running ITFS educational systems, IIT is deeply interested in this proceeding and the effect of the proposed transitional process on educational programmers. Specifically, IIT has been providing educational programming to its remote students located throughout Chicagoland and beyond since 1976. IIT's commitment to

distance learning and enhanced educational programming has steadily increased over the past three decades and is a critical component of its current curriculum. IIT has continued to enhance and expand its educational and distance learning programs and has in place an aggressive growth plan for the immediate future. As a result, in order to maintain student commitment and loyalty and to preserve significant financial interests of IIT, it is essential that any transition plan ultimately adopted by the Commission ensures continued ITFS operations without interruption and preserves distance learning in the near regime.

Currently, IIT holds licenses for eight (8) ITFS channels in Chicago, Illinois.[2] Two (2) of these channels are operated digitally at 5:1 compression; five (5) of the channels operate in an analog mode. Utilizing these channels, IIT offers fifteen (15) simultaneous, unique live broadcasts to its remote students. Through its ITFS operations, IIT offers nineteen (19) master's degree programs, thirty-three (33) certificate programs, and courses in engineering and the sciences, business and law. In all, IIT provides 450 – 500 hours of educational programming each week to 58 corporate and public sites.

IIT's commitment to distance learning is also evidenced by its steady expansion of this aspect of its curriculum. For example, the number of broadcast rooms for ITFS programming has increased from nine (9) in 1995 to twenty-four (24). The number of courses offered through ITFS programming has increased each semester to its current level of 129 courses in 2002. IIT also has designed and implemented faculty training specifically geared to teaching "on camera" and provides instructional design support for faculty materials for presentation on camera. In addition, IIT has expanded the receive sites utilized in distance learning with new sites being added each semester.

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[2] These include the E Channel Group (Call Sign WBM 648) and the G Channel Group (Call Sign WHG 269).

IIT has continued to strive to keep pace with technological developments pertinent to its ITFS programming and distance learning. In particular, IIT has engaged in a continuous review of new technological approaches to delivery, such as streamed video with synchronized slides of class materials via the Internet, and has explored multiway videoconferencing and webcasting. IIT also has adopted plans for continued expansion of the plant and infrastructure necessary to support its ITFS programming and distance learning. During 2003 and 2004, IIT will completely remodel certain campus buildings (Wishnick Hall and the Student Commons Building) to render more than twenty (20) classrooms compatible for broadcasting. Also during this time frame, IIT looks forward to digitizing its E3, E4 and G1 channels, to converting the G2 through G4 Channels for two-way operation, and to continued expansion of receive sites, programs and courses used for distance learning.

In sum, IIT is intensely vested in furthering the educational goals endorsed by the Commission when it first established the Instructional Television Fixed Service. At the same time, IIT appreciates the need to restructure the spectrum landscape associated with MDS and ITFS in order to best maximize the use of available spectrum and to incorporate technological improvements. The comments offered herein by IIT look to meeting this need while still preserving and protecting its educational mission which has served this spectrum so well.

II.

DISCUSSION

A. Licensees Should Be Entitled To Assignment Of Their Default Plan Frequencies.

The White Paper suggests that the "Default" frequency plan can be modified at will by the Proponent, even without the licensee's consent. In particular, the White Paper would grant to the Proponent wide latitude in constructing the transition plan and would confer on such

Proponent the sole power to present that plan. This approach would enable such Proponent unilaterally to select the channels to be assigned to the licensees -- a power which greatly expands the Proponent's contemplated role as facilitator for the market transition.[3]

The White Paper's proposal to grant such power to the Proponent goes beyond the stated goals of the White Paper and would afford the Proponent an unwarranted ability to pressure licensees and to hinder intra-band competition. IIT instead urges the adoption of a rule that would prohibit the Proponent from producing a transition plan that would assign licensees to MBS, UBS, LBS, J-Group, K-Group or I-Group channels that are different from those allocated to that licensee by the default plan, absent that licensee's consent to the change. Such approach, IIT believes, is consistent with the goals of the White Paper and better serves the needs of *all* parties involved in the transition process.

B. Subject To Exceptions, No Transition Plan Should Require A Licensee To Abandon Digital Operations.

IIT, and other licensees, use digital modulation to provide educational services. IIT uses this technique so that it can offer many more program tracts than the number of channels licensed to IIT. As noted previously, IIT currently offers 15 educational programming tracts to the Chicagoland area -- each tract broadcasting a live simultaneous, unique for-credit educational course. These tracts are created with just 7 ITFS channels. Each of two ITFS channels carry five digitally-compressed educational programming tracts and five ITFS channels carry five analog programming tracts.

Consistent with the White Paper transition goal of preserving educational services, IIT believes that it is imperative that no transition plan reduce the number of digital streams by

[3] The Proponent serves this facilitator role primarily by paying for the transition of ITFS educational programming to MBS channels.

switching those streams to analog channels, unless the ratio of a licensee's educational programming streams to its MBS channels is 1:1 or less. Analog transmission is virtually a transmission of the past, and one that is quite inefficient. Efforts that have been made to transition educational services to digital systems simply should not be sacrificed.

C. Proponents Must Be Able To Transition Markets In Which Part Of The Channel Capacity Is Leased Or Provided To Third Parties.

There are many markets where the MDS/ITFS channels are used by more than one commercial operator, and there will be many markets where there will be more than one commercial operator interested in offering service. There is more than enough spectrum in any one market to support multiple commercial operators, and multiple commercial operators serve the public interest in promoting competition. IIT believes that it is important to ensure that the transition process does not provide any opportunities for gamesmanship designed to exclude such competitors.

The transition system proposed in the White Paper -- however well-intentioned -- does not adequately protect against anti-competitive conduct. Delay tactics might be used by the one commercial operator in a market in order to thwart a competitor's attempt to convert the band. Such tactics may discourage the competitor to the point that the competitor sells its position to the other commercial operator or simply abandons efforts to offer service in the market. One operator may create this delay by encouraging its licensee/lessors in the market not to cooperate with the attempt by the competitor to serve as the Proponent and convert the market. Alternatively, the delaying operator could threaten to sue the party wishing to go forward in the Proponent role for interference with contractual relations or other torts related to interfering with its relationship with the delaying operator's ITFS/MDS capacity lessors. This behavior should be protected against, as it threatens competition and slows the transition process. The fact that a

transitioned ITFS or MDS licensee has leased capacity to someone other than the Proponent should not interfere with the Proponent's attempts to transition these licensees.

Certain protections are needed to address these concerns. A proposed Proponent should be able to buy and install MBS equipment, or require a commercial operator who leases ITFS or MMDS channels to accept MBS changes made at the Proponent's request.[4] This should be the Federal right of the Proponent, and should not give rise to any claim with respect to violation of the other commercial operator's lease rights.[5]

D. The Process Of Deciding The Transmission Plan Should Be More Balanced And Less Skewed In Favor Of The Proponent.

The White Paper's process of "agreeing" to transition plans is unjustifiably skewed in favor of the Proponent. While the Authors of the White Paper request "minimal restrictions" on the agreements that can be a part of the transition plan,[6] the plan selection process is anything but a process of agreement. Only the Proponent can offer a plan and a licensee's sole right is to present a counter-proposal if it does not like the Proponent's plan. Even then, the licensee is at an impossible disadvantage as the process of resolving the dispute looks solely at whether the Proponent's plan is "reasonable" and ignores the licensee's counter-proposal. If the goals of the White Paper are to be achieved, the process must be fair and avoid disputes that will strain the FCC's resources.

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[4] In most cases, the only changes a proponent makes are to assign ITFS analog educational program tracts to different transmitters, since most ITFS transmitters are collocated and owned by one commercial operator. In this instance, the proponent should be able to effect the transition simply by paying the other operator to move the educational programming to the correct MBS channels as shown in the default plan. This involves little more than changing the name plates on transmitters. There will be more complex changes, but the complexity of the change should be cause to increase the third party lessee's requirement to cooperate.

[5] The exercise of such a federal right should be viewed merely as incident to regulation and not a "taking" requiring compensation.

[6] App. B, page 19.

This fairness can be accomplished in part by limiting the proposed plans and counter-proposals to the subject-matter that is the very reason for having a Proponent -- transitioning existing ITFS educational program tracts into the MBS. No Proponent plan or counter-proposal should be allowed to stray into other bands. In fact, there should never be any need to look outside the MBS, since most ITFS licensees in any given market do not offer more than one (1) channel each of educational programming, making the transition a simple process of changing the name plates on transmitters. Transition plans should only become more complex in those few cases where there are more educational program tracts than MBS channels. And while digital compression will be required in such cases, there still should be no need to stray into other bands. In all cases, the rules should be tailored to guide digital transitions in a fair and reasonable manner.

Avoiding disputes while promoting fairness to educators also can be advanced by removing the right the White Paper would give the Proponent to charge the licensee who submits a counter-proposal the cost of changing from it to the proposal of the Proponent, in the event that the Proponent implements the counter-proposal pending FCC review and the FCC subsequently gives a green light to the Proponent's proposal. This proposal of the White Paper assumes that counter-proposals are offered in bad faith and so should be discouraged. There is no basis to believe that ITFS licensees will act in bad faith.

The time allowed for an affected licensee to consider and respond to a Proponent's proposed transition plan also is a problem. In effect, the licensee has but twenty-one (21) days to evaluate the proposed plan and to develop a counter-proposal if the plan does not fit the licensee's needs. That simply is not enough time, and will encourage hurried counter-proposals and Commission involvement in sorting out the resulting controversies. At a minimum, a licensee should have sixty (60) days within which to review the proposed plan. This time period

will allow the licensee the realistic chance of discussing the proposed plan with the Proponent, and attempting to reach compromises on controversial aspects of the plan before bringing the subject to the Commission for resolution.

Finally, the review process should be a comparison of the proposal and the counter-proposal according to standards based upon the public interest. The White Paper asks the FCC to ignore the counter-proposal and look solely at the Proponent's proposal to see if it is "reasonable." This suggestion assumes that counter-proposals are valueless exercises of bad faith, and incents the Proponent to ignore the legitimate needs of educators because their counter-proposals are not even considered. Limiting the inquiry to a determination of whether the Proponent's transition plan is "reasonable" acts only to rubber stamp the Proponent's plans, since all the Proponent would have to do to prevail is produce a "reason" for the elements of the plan. Abuses of licensees would inevitably result, as would the need for frequent FCC intervention to stop these abuses.

E. The Transition Of ITFS Educational Programming To MBS Channels Should Not Be Conditioned Upon A Licensee's Willingness To Enter Into A New Or Amended Leasing Relationship With The Proponent.

The sole reason offered by the White Paper for the Proponent concept is that ITFS licensees, as non-profit entities, lack the capital to effectuate the transition of their educational programming streams to MBS frequencies. Consistent with this observation, the White Paper provides as follows:

> WCA, NIA and CTN recommend that the Proponent be required, at its own cost, to satisfy two fundamental responsibilities: (1) installing at eligible ITFS receive sites improved downconverters designed to limit the reception of potentially-interfering signals from outside the MBS; and (2) physically shifting every ITFS video programming or data transmission track currently being transmitted to appropriate transmission facilities operating on MBS channels. The intent is that the Proponent will bear all equipment, installation and other direct costs incurred

to provide for the continued reception of the ITFS video programming and data transmission tracks at the eligible receive sites.[7]

Consistent with that declared intent, no Proponent should be entitled to insist that an ITFS licensee enter into any capacity lease or amendment to any capacity lease to benefit from these obligations voluntarily assumed by the Proponent.[8] Otherwise, the "cost" of transition is shifted to the ITFS licensees and the possibility for new competitors to the Proponent in the UBS and/or LBS bands is lessened.

Similarly, in order to ensure that leasing controversies are resolved outside the transition process, a Proponent should be required to cause the transition of all ITFS licensees on a fair and equitable basis that does not favor licensees who lease to the Proponent over licensees who lease to a competitor of the Proponent or who do not lease at all, or favor some of a Proponent's capacity lessors over other of its capacity lessors.

F. Any Proposed Rules Should Assure The Prompt Implementation Of Approved Transition Plans, Sufficient Advanced Notice Of Transition Activity, And The Removal Of Dilatory Or Non-Performing Proponents.

1. Timing and Notice

Any plan should have a window period during which the transition will occur, a requirement for a sufficient notice to licensees before the transition period is accelerated, a final date by which the transition must be completed, and a requirement that the channels be returned promptly to the status quo ante in the event that a transition is not completed by the required time. Sufficient notice of when the transition will occur is a must for educators. So that appropriate plans can be made, IIT suggests that no transition begin until the educators subject to the transition have received six (6) months prior written notice. A requirement to complete a

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[7] App. B, Section II, page 5 (footnotes omitted, emphasis supplied).

[8] Nor should the Proponent be given the power to exert undue pressure on the licensee to enter into such an agreement. See, e.g., the discussion in Sections A and F of these Comments.

transition within a given period is necessary to avoid the prospect of a Proponent using control of the transition process to improperly pressure affected licensees and competitors by declining to move the process forward in an expeditious manner. Neither any licensee, nor any competitor in the market, should be captive to such a Proponent.

IIT recognizes that changes in circumstances involving events outside of the control of the Proponent may justify an extension of the Proponent's transition completion deadline. But such extensions should be short in duration and granted only when the cause of the delay (1) is a newly arisen circumstance that reasonably could not have been predicted during the transition planning stage, (2) is not in whole or part of the Proponent's making, (3) is not a result of increased transition costs, and (4) can be overcome in the short extension period. Otherwise, others should have the opportunity to attempt the transition.

2. Sufficient Assurance of a Proponent's Financial Ability

A proposed Proponent's ability to perform can be better assured by limiting Proponent status to those entities who not only meet the White Paper's eligibility requirements but also demonstrate sufficient financial ability to complete their transition plan. A part of a Proponent's proposed transition plan and its final plan should be a statement showing in detail the estimated out-of-pocket costs of transitioning the market. This statement should be certified to affected licensees and the Commission as a good faith estimate by the Proponent, and a copy of it should be filed at the Commission. To assure that these costs can be met, the Proponent should be required to place the funds required to complete the transition in trust unless the Proponent produces financial statements showing that it has such sufficient financial ability that reliance on a trust is of no real benefit.[9] As ITFS licensees tend to be cash-starved, the Proponent should be

[9] The amount and measurement of this ability, IIT leaves to others to consider.

required to bear these costs directly and should not have the ability to require licensees to pay these costs and seek reimbursement later from the Proponent.

3. Barring Entities Who Do Not Perform from Future Proponent Roles

To better incent proposed Proponents to complete their voluntarily-assumed transition obligations on a timely basis, IIT suggests that any Proponent who defaults in implementing its plan for a market should be barred from once again seeking to act as the Proponent in the market, absent the consent of all licensees in the market. This requirement would serve the dual purposes of encouraging timely transitional efforts and discouraging gamesmanship and abusive behavior.

4. An ITFS Licensee Should Have The Right To Implement The Transition Of Its Educational Programming Streams Within The Timeframe Of The Transition Plan, Subject To Reimbursement Of The Licensee's Reasonable Expenses.

IIT believes that each ITFS licensee whose channels are subject to a transition plan should have the option to effectuate some or all of its part of the transition on its own. In that event, the transition services the ITFS licensee performed by itself should be subject to reimbursement at the rates and costs set forth in the Proponent's estimate of transition costs submitted as a part of the Proponent's transition plan.[10] Because control over execution of these portions of the transition plan would shift to the ITFS licensee, the ITFS licensee that elected to perform any transition functions on its own would be solely responsible for the results of its performance or non-performance, and would not be able to demand additional time to complete these tasks.

This option gives rise to a number of public interest benefits. First, it allows the ITFS licensee to make sure technical changes are to its liking. The licensee has every incentive to make sure the changes produce a high quality transmission and reception system. In contrast, the

[10] IIT makes the case for requiring transition plans to contain these cost estimates in Section I, below.

commercial operator is incented to do the bare minimum required to effectuate the transition. IIT, in particular, is concerned in this regard with the Proponent's performance in Chicago. IIT operates its own ITFS system in its own suite in the Sears Tower. IIT does not share equipment with its current excess capacity lessee and IIT regards control over its transmission system as essential. Trusting third party Proponents to make acceptable changes to an ITFS licensee's transmission system takes a leap of faith that is difficult for IIT to make.

Second, this alternative provides a check on the costs claimed by Proponent for purposes of requiring reimbursement of commercial operators who may benefit from a Proponent's transition efforts. In Section H of these comments, IIT has suggested that a Proponent's plan include thoroughly itemized and detailed transition cost estimates that would be compared against actual costs in the event that a commercial operator were called upon to reimburse the Proponent for some of these expenses. A comparison between the estimate and the actual costs claimed by the Proponent should protect against cost inflation and padding. Allowing an ITFS licensee to perform part or all of the transition of its programming streams and to seek from the Proponent a reimbursement equal to what the Proponent's plan estimate says the Proponent is willing to pay for this part of the transition, should further discourage a Proponent from padding or inflating transition cost claims.

Third, this option allows licensees to take the transition into their own hands when their Proponent neglects or is slow to execute its transition responsibilities. As a result, transitions are more likely to occur in a timely manner.

G. The Rules Should Ensure That The Proponent Provides Acceptable Quality MBS Equipment To ITFS Licensees.

In the past, commercial operators of ITFS/MDS systems have built just one transmission system that provides both the educational and the commercial program streams. As a result,

there were few complaints by licensees that they had been treated unfairly in the provision of equipment. The White Paper's proposed separation of educational program and data streams from commercial systems will put Proponents who are not ITFS licensees in the position of building a system for others that the Proponent will not use. Accordingly, the Proponent's interest may not be in providing high quality equipment for the MBS but in providing the most inexpensive equipment that can be found.

IIT believes that some regulation of the equipment quality and type provided by the Proponent is essential. In fact, the White Paper recognizes this need by specifying the quality of the improved downconverters Proponents are required to supply for receivers. The White Paper offers little, however, to protect the ITFS licensee at the transmission end. IIT believes that the rules should require that the Proponent provide new transmission and signal processing equipment in every case where the equipment presently used by the ITFS licensee must be replaced or supplemented.

Accordingly, an ITFS licensee who is entitled to digital compression because of the number of educational streams should be offered new digital encoding and multiplexing equipment. IIT does not propose the requirement of new equipment if the proposed transition would merely change the licensee of preexisting transmission equipment operated within an integrated transmission system, provided that all of the equipment is of the same model, age and performance. And while Proponents should be entitled to require the re-tuning of transmitters then used by the licensee, the resulting re-tuning process should not put educational programming streams off the air during times when they would otherwise be used for educational purposes.

Equally important is equipment functionality, performance and reliability. The transition should not involve the substitution of equipment having less functionality, having inferior

performance characteristics, requiring more frequent or more expensive maintenance, having a shorter or more limited manufacturer's warranty, or that is the product of demonstrably worse workmanship or materials. IIT recognizes that there may be room for disagreement as to the quality of workmanship or materials, but believes that there needs to be some means to assuring no diminution in this quality.

IIT notes that the White Paper Authors have not reached agreement on the characteristics of digital systems installed by Proponents to continue educational operations in the MBS. IIT is interested in learning the Authors' ultimate position on this issue, and will comment on that position when given the opportunity to do so. In the meantime, based on IIT's own experience with digital equipment, IIT offers the following recommendations for consideration.

First, MBS licensees should have the right to veto, on a reasonable basis, the Proponent's preferred digital system for such licensees in such band. As proponents will want some guidance on what system characteristics are acceptable, IIT suggests 64 QAM and compression ratios no more than 5:1. IIT can support two exceptions in which a digital format and higher compression ratio might be appropriate: (1) when the licensees used such different digital format and/or higher compression ratio prior to the transition, and (2) when affected licensees consent to a proposed transition plan consent to the digital formats and higher compression ratios.

IIT's specification of a 5:1 compression ratio limit is not arbitrary. IIT actually transmits 10 digital program streams over two ITFS channels, each operating with a 5:1 compression ratio. As a result, IIT, has developed comfort with 5:1 compression based on actual experience. IIT fears that higher compression ratios may come at the cost of reduced clarity, frame freezing and other distortions. It is also important to note that not all digital systems have the same quality, performance and maintenance requirements. For that reason, those who will have their channels modulated by such equipment must have a reasonable veto of digital modulation equipment

brands and models. In any event, new equipment should be required, absent agreement of the licensee, if a change to digital or a change to a different type of digital equipment is to be made.

Set-top digital decoders also should be new and of quality construction. In addition, new and replacement decoders will be required during the life of the digital equipment and a licensee should not have to rely upon a Proponent who may no longer be in existence as an intermediary between the manufacturer and the licensee. To make this possible, the Proponent should be required to set up an arrangement with the manufacturer in which the licensee can buy directly from the manufacturer and receive the same purchase prices the Proponent receives. In addition, this agreement must give the licensee the rights to use the software (and its updates) used with the decoders as well as the encoders at the transmitter. Such agreement should provide that it is for the benefit of the licensees and that no action or inaction by the Proponent can be a basis for its termination. Moreover, to minimize the need for direct relationships between the manufacturer and the licensee, the Proponent should be required as part of the transition plan to offer to sell the licensee at cost as many additional decoders (including software rights) as the licensee may desire to buy to create an inventory. This offer should be welcomed by Proponents, as purchase volume tends to lower purchase prices.

H. A Proponent Should Not Be Entitled to Any Reimbursement of Its Transition Expenses or Such Reimbursement Must Be Strictly Regulated to Avoid Anticompetitive Conduct.

The White Paper proposes the mandatory reimbursement of the Proponent's transition "cost" on a "*pro rata*" basis by other any entity that offers a commercial service with the LBS or UBS channels in the market.[11] While this concept appears to have some superficial merit, it is very difficult to implement and administer fairly and free of anti-competitive abuse.

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[11] App. B, page 28.

For example, the White Paper's proposal does not explain how a "*pro rata*" reimbursement would be calculated. It would seem difficult, if not impossible to ascertain actual pro rata attributions. In addition, cost ascertainment mechanisms are essential, yet the White Paper offers no suggestions for such mechanisms. This is a major issue as accounting questions present ample opportunity for abuse. For example, a Proponent could have its affiliate buy equipment from the manufacturer and resell it to the Proponent at a huge mark-up. Beyond question, such means of cost inflation would result in an unfair and anticompetitive requirement of reimbursement. Moreover, what is the definition of "cost?" Presumably, it could include such impossible-to-quantify items as allocated costs of the Proponent's salaried officers and employees, office space where transition decisions were made, etc.

The easiest solution, and the one least likely to invoke disputes requiring FCC intervention, is to not adopt a reimbursement program. In most cases, the Proponent will lease or hold the licenses for almost all of the channels in the market. Forcing a competitor to engage in this easily manipulated and controversial reimbursement process is simply inviting a fight that will seriously delay the competitor's entrance into the market or result in the competitor's abandonment of the market.

Barring that suggestion, IIT believes that the FCC should require strict regulatory controls on what is reimbursed. IIT recommends that reimbursements be limited to out-of-pocket expenses actually, reasonably and prudently paid to non-Affiliates for the purchase and installation of MBS equipment and software. Such expenses should be represented by invoices issued in the ordinary course to the Proponent. These expenses and invoices should be identified and supplied to each licensee in the market immediately after the completion of the transition, and should also be filed with the Commission and available for viewing by the general public. The Proponent should be required to tender this information to licensees and the Commission

along with a declaration or affidavit certifying that the listed expenses are limited to out-of-pocket expenses actually, reasonably and prudently paid to non-Affiliates for the purchase and installation of MBS equipment, and involve no rebates to any vendor or payment for anything else to any vendor. Only costs of providing MBS equipment and its installation should be subject to reimbursement. In addition, as suggested above in Section F.4., a transition plan should include a detailed transition cost estimate. This estimate would serve as a valuable tool in identifying expenses claimed after transition by the Proponent that are inflated or padded.

I. Transition Plans Should Be Required To Minimize Educational Programming "Down" Time.

Any transition will involve some period of time when one or more of the educational channels cannot transmit or cannot be received at all intended receive sites. This "down" time must be minimized. It should be scheduled in cooperation with the educator for times and days when the channel is not being used to transmit educational material, and service should be restored before the need for the channel for educational use resumes. The flexible use rules should mandate this requirement, including the cooperation of the licensee in providing the Proponent with program schedules and related information required to minimize or avoid interruptions in educational service.

J. Proponents Should Be Required To Transition ITFS Operations In Effect When The Transition Planning Process Commences And Not At Some Arbitrary Date Having No Relationship To The Actual Transition Process.

The White Paper suggests that only those ITFS educational operations conducted on December 31, 2002 or within the six months prior to that date should qualify for transition.[12] If the goal is to minimize the impact of the transition on ITFS educational operations, this choice of a fixed date does not serve that goal. The transition in a market may not occur for years. During that time before the transition, many changes in the educational use of the channels may occur. In fact, the operations conducted by a licensee as of December 31, 2002 might be completely replaced before the transition process in its market begins. Under the White Paper's proposal to utilize a December 31, 2002 cut-off date, this licensee's actual educational operations would not survive the transition. The dates for determining the ITFS educational operations that must be protected in a transition simply cannot be fixed, until the transition process has actually commenced. In fairness, this determination date should follow an appropriate benchmark date in the transition process.

IIT suggests that the Commission fix ITFS educational operations for purposes of determining the transition responsibilities at the date that the ITFS licensee responds to the Proponent's request for information. If the Proponent had not completed the transition within one year of that response date, building facilities that preserve any changes in the ITFS operations within that year would also be the responsibility of the Proponent. If the Proponent dropped out of the process, this date for fixing ITFS operations would be the date that the ITFS licensee responds to a subsequent Proponent's request for information.

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[12] APP. B, page 8.

K. A Freeze On Facilities Modifications Is Not Necessary And Is Detrimental To Educational Operations.

The White Paper suggests that a freeze on facilities modifications should take effect when the new rules take effect.[13] This freeze would preclude modifications that increase the signal level within the GSA unless the affected licensees consent, and there is no out-of-PSA increase in signal level measured at a height of 250 feet AGL. The requirements to obtain consent and to measure signal changes at 250 feet AGL (when 30 feet AGL is the current rule) would make site changes virtually impossible. Site changes are a reality for ITFS licensees. They should be free to change sites and antenna designs at any time in preparation for, or when required by, a termination or expiration of the site lease -- even if an extension is offered, as non-profit entities must be cost-conscious.[14] In addition, ITFS licensees should be free to install booster stations based upon the desire to offer educational service to new, newly-obstructed or poorly served sites.

IIT would be willing to agree to a short-term freeze on all but emergency facilities modifications, but the proposed transition process could be (and probably will be in some markets) long term and whatever need may justify the freeze is secondary to the need to ensure continuity of educational services. Indeed, IIT fails to understand how allowing changes in such educational operations would endanger the transition. During the period prior to the qualification of a transition Proponent for a market, receive sites will come and go and service needs will change. New facilities may be required because of the construction of a structure that precludes a receive site from obtaining the signal. As long as the justification for the change is educational, there should be no barrier to the change.

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[13] APP. B, page 2.

[14] Frequently, a licensee will cease using an existing antenna system at the site but obtain authority to operate another antenna system at the same site.

IIT proposes to allow such changes in ITFS transmission systems that would be classified as minor under Rule 74.911(a)(2) without consent and regardless of the resulting interference, based upon a certification to the Commission and a notice filing that the changes are minor and are being proposed to support the licensee's educational objectives.

L. All Active, Non-Leasing Receive Sites Within The Existing PSA Or Installed Outside Of The PSA Before September 17, 1998 Should Be Eligible For New Downconverters.

The White Paper proposes that only certain ITFS receivers be entitled to receive a better downconverter provided at the Proponent's expense. The White Paper restricts the eligible sites (1) to those receiving educational and cultural development programming for use by students taking classes toward a degree or grade advancement, (2) to places where training is conducted and (3) cable receive sites.[15] In addition, only receive sites within the 35-mile PSA would be entitled to these downconverters.[16]

In IIT's opinion, all ITFS receivers (subject to the exception set forth in the next paragraph) that are used for other than leasing purposes should be eligible for the new downconverter. This is consistent with the White Paper's transition goal of preserving ITFS educational systems. For example, receive sites used for the licensee's administrative purposes or for test or maintenance purposes should be eligible to receive an upgraded downconverter.

In addition, just because an ITFS educational receive site is outside the PSA should not render it ineligible for a new downconverter. At present, the rules provide protection to receive sites outside of the PSA that were registered as of September 17, 1998.[17] In fairness, such receive sites should be eligible for new downconverters.

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15 App. B, pages 6-7.

16 App. B., page 7.

17 Rule 74.903(d).

M. No MBS Licensee Should Be Required To Accept Filtering To Protect J- Or K-Group Operations, And There Must Be A Demonstrated Need For The Filtering.

The White Paper suggests that a Proponent can require an MBS licensee to accept a filter on an MBS channel when the Proponent determines that interference from transmissions in the MBS to reception outside the MBS "can be mitigated...."[18] IIT is not against filtering, but IIT is not comfortable with the maximum degradation that the MBS licensee must accept on its channel. IIT would suggest that the MBS licensee have a right to demand a field test using the licensee's equipment and receivers and the right to veto the filter in the event that the licensee is not reasonably satisfied with the results. In addition, IIT believes that the Proponent should have the duty to show that the MBS channel will cause such interference to an LBS or UBS channel operating at normal powers and to show the extent of such interference. Occasional or negligible interference should not be cause to require an MBS licensee to accept a filter on its transmitter. Nor should interference to the J- and K- Group guardbands give rise to involuntary MBS filtering.

N. The Agreement Of Affected Licensees Should Be Required For Precision Carrier Offset.

Precision carrier offset is an analog interference abatement mechanism. It only works when both parties agree to maintain the precision control necessary to maintaining the offset as the signals drift. Accordingly, no transition plan should be allowed to include carrier offset, absent agreement of both licensees.

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[18] App. B, page 26 (Safe Harbor # 7).

III.

CONCLUSION

IIT appreciates the opportunity to comment on the White Paper's proposals and urges the Commission to incorporate the suggestions contained herein as it proceeds to consider a rulemaking on these matters. IIT believes that any restructuring of the MDS and ITFS spectrum bands must take into account all of the interests at issue. In particular, IIT urges the Commission to protect and preserve the integrity of the educational programming systems in place which serve such vital needs of the communities in which they operate.

Respectfully submitted,

ILLINOIS INSTITUTE OF TECHNOLOGY

By: Laura C. Mow

Laura C. Mow
Gardner, Carton & Douglas
1301 K Street, N.W., Suite 900 East
Washington, D.C. 20005
(202) 408-7100

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Its Attorneys