

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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In the Matter of)
)
Amendment of Parts 21 and 74 To Enable) MM Docket No. 97-217
Multipoint Distribution Service and)
Instructional Fixed Television Fixed) File No. RM-9060
Service Licensees To Engage In Fixed)
Two-Way Transmissions)

COMMENTS

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EXECUTIVE SUMMARY

The Commission is to be applauded for its prompt, largely positive response to both the Petition for Rulemaking submitted by the Petitioners to commence this proceeding. Although the Petitioners are troubled by certain aspects of the *NPRM*, the *NPRM* generally represents an important step toward reinvigorating both wireless cable and ITFS.

The *NPRM* has been released at a time when communications policymakers are lamenting the slow pace at which competition has developed in the communications marketplace. The wireless cable industry is poised to provide much-needed competitive entry into the video, high-speed data and voice markets — entry that will advance the pro-competitive objectives of the Telecommunications Act of 1996. However, the wireless cable industry cannot emerge as a viable competitive alternative unless the MDS and ITFS regulatory regimes are modified so that operators can enter these markets rapidly, with the flexibility to provide the services customers demand (and other service providers can offer) on reasonable economic terms. Wireless cable operators are girding for battle not just against well-entrenched incumbent cable operators and local exchange carriers, but also new market entrants who can use LMDS, WCS, GWCS, 39 GHz and other minimally-regulated wireless services to rapidly satisfy changing marketplace demands. It will need to offer competitive services, on competitive terms, within competitive time-frames.

The proposals advanced in the Petition represent a broad-based consensus among commercial and educational interests as to the best approach to achieving four essential objectives: (1) providing each wireless cable operator flexibility akin to that its competitors will enjoy in responding rapidly to changing marketplace demands for innovative services; (2) assuring incumbents protection against

harmful interference; (3) allowing educators that hold ITFS authorizations the flexibility to best serve local needs for both traditional and innovative new educational and instructional communication services; and (4) establishing a regulatory environment that is conducive to the massive investment wireless cable needs both to fulfill its potential and to support ITFS.

As such, the Petitioners are troubled by the Commission's tentative rejection of their proposal for a licensing system that would allow new services to be deployed without the regulatory delays that have hampered the licensing of MDS and ITFS facilities in the past. Through no fault of the staff of the Video Services Division, there simply are not enough bodies available to rapidly process the number of applications for advanced facilities that the Petitioners anticipate will be filed, at least not without a dramatic change in the way applications are processed. To speed the authorization, construction and operation of advanced facilities, the rules proposed by the Petitioners would eliminate the three greatest causes of application backlogs: (1) the staff's policy of conducting *de novo* analyses of the potential for interference from proposed facilities to previously-proposed stations; (2) the need for the staff to identify which applications filed during the same window are mutually-exclusive and then determine which of those mutually-exclusive applications are to be granted; and (3) the use of infrequent filing windows that tend to overwhelm the Commission's resources. While somewhat radical for the Mass Media Bureau, the proposal is more conservative than the rules applied to other services, and would be entirely safe to incumbents, who are assured that any impermissible harmful electrical interference must be cured. Unless the Commission makes radical changes in its application processing procedures, the resulting backlogs could sound a death knell for many wireless cable operators and their much-needed financial and operational support of educators.

Adoption of the proposed 18 dBW EIRP limitation on response stations operated pursuant to a blanket license would also have a significant adverse impact, as it would unduly limit the market potential for response services. The Petitioners are proposing that the Commission permit response stations operating at up to 2 watts transmitter output power and up to 33 dBW EIRP per 6 MHz channel to operate under a blanket license, which will allow sufficient flexibility in station design.

Fears that introduction of response station will lead to block downconverter overload have been substantially overblown. Studies conducted by the Petitioners establish that the potential for overload will not even be a consideration with respect to over 99% of response station installations, and that a host of mitigation techniques are available to avoid potential overload or to cure any overload that occurs. Under these circumstances, coupled with the Petitioners' clear proposal that any newcomer be required to cure downconverter overload it causes (just as broadcasters are required to cure similar blanketing interference), there is no reason to limit the flexibility of licensees to deploy advanced digital technologies.

However, the Commission should adopt rules relating to channel swaps and retuning that will promote the introduction of advanced technologies in a manner that maximizes new service to the public while assuring incumbents of protection against interference. The Petitioners are advancing specific proposals that will advance these goals. In addition, channel swaps can be used effectively to assure that each ITFS licensee preserves some downstream capability, even if an entire channel group is best devoted to return path use.

Given the substantial operational and financial benefits that the educational community is poised to realize from adoption of the Petitioners' proposals, it is ironic that the most troubling elements of the *NPRM* all appear to derive from a common source — the belief by a handful of

commenting parties that ITFS licensees are incapable of protecting their own interests without Commission micro-management. The Petitioners strenuously take issue with that premise; the Commission's rules assure that ITFS facilities are controlled by responsible community leaders whose primary objective is to promote education. The Petitioners believe, that in light of these strong local educational ties, ITFS licensees are well-equipped to ascertain local educational needs and, where appropriate, structure relationships with their local wireless cable operator that best serve the educational and instructional needs of their local communities.

As a result, the Petitioners endorse the proposals jointly advanced by WCA and the NIA addressing several of the issues raised by the *NPRM* concerning the evolving role of ITFS. While the Petitioners generally believe that ITFS licensees should be far greater freedom than the Commission has historically afforded them in structuring their relationships with wireless cable operators, and would have preferred a less regulatory solution than the NIA/WCA Joint Proposal, the compromise that NIA and WCA have agreed to represent a reasonable approach by which the Commission can *expeditiously* resolve the issues raised in the *NPRM*. Petitioners believe that the rules can be crafted along the lines proposed by NIA and WCA that preserve the underlying educational *raison d'etre* of the ITFS, while at the same time reasonably accommodating the needs of those wireless cable operators and MDS and ITFS licensees who elect to move towards the more complex system designs being demanded by the marketplace. NIA and WCA are to be commended for striking a balance between assuring that the ITFS is used in an appropriate fashion and affording ITFS licensees the flexibility they need to make the best possible use of advanced technologies in conjunction with their wireless cable affiliates.

Thus, the Petitioners support the proposal that each ITFS licensee that leases capacity for digital be required to use either use or preserve the right to recapture 25% of channel capacity. under the terms and conditions set forth in the joint proposal. However, the Commission should not increase the minimum amount of ITFS material an ITFS licensee must transmit.

If alternative technologies are to be deployed effectively, the Commission must revise its ITFS channel loading and channel mapping rules to accommodate the investment necessary to introduce two-way services for the benefit of consumers and educators. Those rules artificially restrict the use to which ITFS channels can be employed.

Finally, the Commission should not impose restrictions on ITFS lease provisions that both deter investment in wireless cable and the wireless cable industry's continued support for ITFS. To accomplish that objective, the Commission should permit ITFS leases to extend to fifteen years, subject to renewal of the underlying license. The Commission also should reconsider policies that deny wireless cable operators reasonable assurance that the channels they have leased will be available throughout the lease term. And, the Commission should not require the amendment of leases that already contemplate the introduction of digital technology.

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COMMENTS

The parties listed on Appendix A to the Petition for Rulemaking (the "Petition")^{1/} that commenced this proceeding (collectively, the "Petitioners")^{2/} hereby submit their initial response to the Commission's October 10, 1997 *Notice of Proposed Rulemaking* ("NPRM"), which solicits comment on proposals drawn from the Petition for enhancing the ability of Multipoint Distribution Service ("MDS") and Instructional Television Fixed Service ("ITFS") licensees to use their spectrum more flexibly and efficiently.^{3/}

^{1/} See Petition for Rulemaking, File No. RM-9060 (filed March 14, 1997) [hereinafter cited as "Petition"].

^{2/} The Petitioners represent a broad-based grouping of participants in the wireless cable industry and the educational community, including The Wireless Cable Association International, Inc. ("WCA"), most major wireless cable system operators, many MDS and ITFS licensees, MDS Basic Trading Area ("BTA") authorization holders, wireless cable engineering consultants, and manufacturers of wireless cable transmission and reception equipment.

^{3/} See *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service And Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, FCC 97-360, MM Docket No. 97-217 (rel. Oct. 10, 1997) [hereinafter cited as "NPRM"]. By *Order Extending Time for Filing Comments and Reply Comments*, the Mass Media Bureau extended the date for filing comments in response to the NPRM until today, and the date for filing reply comments until February 9, 1998. See *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service And Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*,

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I. INTRODUCTION.

The Commission is to be applauded for its prompt, largely positive response to both the Petition and to the numerous comments supporting more flexible MDS and ITFS rules that were filed in response to the Commission's March 31, 1997 *Public Notice* soliciting comment on the Petition and on "how the Commission can amend its rules to permit even broader flexibility than suggested by Petitioners."^{4/} Although, as will be discussed in detail below, the Petitioners are troubled by certain aspects of the *NPRM*, the *NPRM* generally represents an important step toward reinvigorating both wireless cable and ITFS.

The *NPRM* has been released at a time when communications policymakers are lamenting the slow pace at which competition has developed in the communications marketplace. While the Telecommunications Act of 1996 was expected to herald the introduction of competition into the multichannel video and local exchange marketplaces, to date that competition has proved illusory. As the former chief of the Commission's Competition Division has written, "[r]ecent double-digit price increases for cable television and continued complaints of poor service have reinforced the perception that sufficient competition has not emerged within the industry that controls multichannel

DA 97-2547, MM Docket No. 97-217 (rel. Dec. 5, 1997) [hereinafter cited as "*Extension Order*"].

^{4/} "Pleading Cycle Established For Comments On Petition For Rulemaking To Amend Parts 21 And 74 Of The Commission's Rules To Enhance The Ability Of Multipoint Distribution Service And Instructional Television Fixed Service Licensees To Engage In Fixed Two-Way Transmissions," *Public Notice*, RM-9060, DA 97-637 (rel. March 31, 1997) [hereinafter cited as "*Public Notice*"].

video programming distribution.”^{5/} Not surprisingly, skyrocketing cable rates, and the lack of a competitive check on cable, were the focus of last month’s *en banc* Commission hearing on the status of competition in the multichannel video marketplace. Moreover, the competitive environment for telecommunications suffers a similar fate. As *Wireless Week* succinctly put it, “[t]he 1996 Telecommunications Act’s promise of competition in local telephony shows no sign of becoming a near-term reality”^{6/} This week’s *Business Week* clearly has it right in noting that:

Despite the [1996 Act]’s attempt to bring about a sweeping revamp of the U.S. communications industry by removing old regulations . . . [f]or many types of service, such as local calling and cable, most businesses and consumers still cannot choose among numerous competitors.^{7/}

The wireless cable industry is poised to provide much-needed competitive entry into the video, high-speed data and voice markets — entry that will advance the pro-competitive objectives of the Telecommunications Act of 1996. Already, the wireless cable industry is successfully providing digital multichannel video programming services.^{8/} Moreover, as an official of IBM Corp.

^{5/} Olson and Ayer, “Congress Holds Hearings On Price Increases And Program Access In The Cable Television Industry, With An Eye Towards Reforms That May Increase Competition,” *Nat’l L.J.*, at B5 (Oct. 20, 1997).

^{6/} “Relief Urged For WLL,” *Wireless Week*, at 1, 46 (Dec. 22, 1997). The recent announcement by AT&T Corp. that it has abandoned its efforts to develop a local residential telephony service illustrates further that competition in the local exchange marketplace is failing to emerge as anticipated. See “AT&T Corp. Halts Effort to Sell Local Residential Phone Service,” *Wash. Post*, at G1 (Dec. 19, 1997).

^{7/} “Telecom: Congress Should Reform Its Reform,” *Business Week*, at 40 (Jan. 12, 1998).

^{8/} See, e.g. “BellSouth Launches Digital MMDS in New Orleans With Zenith Boxes,” *Cable World*, at 8 (Nov. 24, 1997); “BellSouth Hits Big Easy,” *Multichannel News*, at 1, 70 (Nov. 24, 1997); “BellSouth Starts Wireless Cable TV In New Orleans,” *USA Today*, at 6B (Nov. 19, 1997); “BellSouth Plans Wireless Cable In New Orleans,” *Wall St. J.*, at B12 (Nov. 19, 1997); “PacBell

recently stated, “wireless cable represents a very good opportunity to meet business-market demand for data services.^{9/} Not surprisingly, several high-speed wireless cable data services already are in operation, while others are scheduled to be introduced shortly.^{10/} And, the technologies necessary to implement voice services over MDS and ITFS frequencies already are being tested under experimental and developmental authorizations granted by the Commission.^{11/} As was made abundantly clear recently at the fourth annual WCA Technical Symposium, the technology is here; what is missing is a regulatory environment that allows technology to be implemented in a manner that is competitively viable.

One thing is certain — the wireless cable industry cannot emerge as a viable competitive alternative unless and until the MDS and ITFS regulatory regimes are modified so that operators can enter these markets rapidly, with the flexibility to provide the services customers demand (and other

Taking Cable’s Best Subs in S. Calif.,” *Multichannel News*, at 6 (Nov. 6, 1997); “Thomson’s Digital MMDS Set-Top,” *Cable World*, at 18 (June 30, 1997); “Pioneering The Digital Frontier,” *Private Cable & Wireless Cable*, at 37 (Sept. 1997).

^{9/} “MMDS Eyes Business Market As High-Speed-Data Survival Tool,” *Multichannel News*, at 49-50 (Sept. 22, 1997).

^{10/} See, e.g. *id.* (reporting on wireless cable Internet service launches); “High-Speed Data a Center of Attention at MMDS Show,” *Cable World*, at 18, 42 (June 30, 1997); “Broadband Data Bolsters Confidence in MMDS,” *Wireless Week*, at 12, 14-15 (July 7, 1997); “For MMDS, Data is Make or Break,” *Multichannel News*, at 51 (June 30, 1997)(reporting on launch of high speed data service by American Telecasting, Inc. (“ATI”) in Colorado Springs)[hereinafter cited as “Make or Break”]; “Where’s Wireless Cable? Very Up in the Air,” *Cable World*, at 1, 46 (June 2, 1997).

^{11/} See, e.g. “MMDS Seeks Fixed Wireless Offerings,” *Wireless Week*, at 33-36 (June 2, 1997)(reporting on testing of telephony services over MDS and ITFS spectrum by CFW Communications Co. (“CFW”), ATI and CAI Wireless Systems, Inc. (“CAI”)); “MMDS Eyes New Technology for Revival,” *Multichannel News*, at 37 (May 26, 1997)(reporting on CFW, ATI and CAI testing of wireless telephony technologies).

service providers can offer) on reasonable economic terms. Wireless cable operators are girding for battle not just against well-entrenched incumbent cable operators and local exchange carriers, but also new market entrants who can use Local Multipoint Distribution Service (“LMDS”), Wireless Communications Service (“WCS”), General Wireless Communications Service (“GWCS”), 39 GHz service and other minimally-regulated wireless services to rapidly satisfy changing marketplace demands. The *NPRM* has it right in concluding that “[i]n order to remain competitive, the MDS industry will need to be able to offer comparable competitive services.”^{12/} The Petition is the culmination of the Petitioners’ effort to craft a regulatory environment that will permit comparable competitive offerings.

The proposals advanced in the Petition represent a broad-based consensus among commercial and educational interests as to the best approach to achieving four essential objectives: (1) providing each wireless cable operator flexibility akin to that its competitors will enjoy in responding rapidly to changing marketplace demands for innovative services; (2) assuring incumbents protection against harmful interference; (3) allowing educators that hold ITFS authorizations the flexibility to best serve local needs for both traditional and innovative new educational and instructional communication services; and (4) establishing a regulatory environment that is conducive to the massive investment wireless cable needs both to fulfill its potential and to support ITFS. Simply put, to the extent the Petitioners are troubled by the *NPRM*, it is because the Commission is soliciting comment on ill-conceived proposals advanced by others that will either unduly delay the introduction of innovative service offerings over MDS and ITFS, impose such burdensome

^{12/} *NPRM*, at ¶ 5.

regulatory requirements on the provision of those offerings that wireless cable will be non-competitive, or deny ITFS licensees the degree of flexibility needed to best serve local educational and instructional needs.

As the Commission considers the issues raised by the *NPRM*, the Commission should not forget that time is of the essence for the wireless cable industry. The need for speedy resolution of the issues presented by the *NPRM* should come as no surprise to the Commission; indeed, as Commissioner Susan Ness noted in comments to WCA's 1997 convention:

Whether it is video programming, or Internet service, or even perhaps wireless local loop, your industry has a great opportunity to provide competitive services. Last July, we took the first step by issuing a declaratory ruling to permit wireless cable to use digital transmission. That was a very important event. Now we're in the middle of a rulemaking on providing two-way transmission – full two-way transmission that will enable you to provide full fledged digital service for Internet and telephony. . . . *Your membership can't compete in all of these new services until we complete our rulemaking proceeding. I'm committed to move this as rapidly as we possibly can so that we have the opportunity for wireless cable operators to provide new services to their customers.*^{13/}

The Commission must not only resolve the issues raised in the *NPRM* quickly, but, it must do so in a manner that allows innovative new technologies to be deployed over MDS and ITFS

^{13/} Ness, "A Commitment to Competition From Wireless," *transcribed at Spectrum*, at 12 (July/Aug. 1997) (emphasis added). Former Chairman Reed E. Hundt similarly noted in his remarks to the convention that:

I have seen a demonstration of wireless cable spectrum being used for high-speed Internet. I would like to see you all rush to the future along those lines. I would like to see us very promptly at the FCC review your application for complete, total, ineluctable, ineradicable flexibility of use in all purposes. The Mass Media Bureau has already been urged by me to work quickly on this particular issue.

Hundt, "Wireless Cable: The Future Looks Bright," *transcribed at Spectrum*, at 5 (July/Aug. 1997).

rapidly thereafter. While even under the best of circumstances such rapid deployment is a competitive necessity, the wireless cable industry today is hardly in the best of circumstances. While, a few system operators are well-funded diversified communications conglomerates, today most operating and developing wireless cable systems are owned by entrepreneurial companies devoted primarily to the wireless cable business. Although many of these companies are on sound financial footing, others are so laden with debt that Robert Berzins, Senior Vice President of Lehman Bros., Inc., has said “[w]e’re expecting 1998 to be the year of the bankruptcy.”^{14/} Collectively, the stocks of the public wireless cable companies lately have been selling at less than one-tenth of their highest market valuations, and the survival of several is directly tied to their ability to offer advanced telecommunications services of the nature contemplated by the Petition.^{15/}

Multichannel News was correct when it reported that “[t]he wireless cable industry got a much-needed shot in the arm . . . when the Federal Communications Commission issued a notice of proposed rulemaking to revise spectrum use in order to allow two-way transmissions.”^{16/} The release

^{14/} “Wireless Cable Moves Closer to Two-Way,” *Multichannel News*, at 14 (Oct. 20, 1997).

^{15/} See “Make or Break,” at 1. The following table, excerpted from the November 30, 1997 issue of *Wireless Cable Investor*, is illustrative of the problem:

Company	IPO Date	IPO Price	11/28/97 Price	% Change
People’s Choice TV Corp.	7/8/93	\$10.50	\$2.25	-78.6%
CAI Wireless Systems	2/17/94	\$11.00	\$1.31	-88.1%
Wireless One, Inc.	10/19/96	\$10.50	\$2.69	-74.4%
American Telecasting, Inc.	12/9/93	\$18.00	\$1.38	-92.4%
Heartland Wireless	4/22/94	\$10.50	\$1.94	-81.5%

^{16/} “Wireless Cable Moves Closer to Two-Way,” *Multichannel News*, at 14 (Oct. 20, 1997).

of the *NPRM* provided Wall Street with concrete evidence of the Commission's continuing commitment to the wireless cable industry, and has spurred a modest increase in investor interest. However, the benefits of the *NPRM* will be short-lived unless the Commission quickly adopts rules that will provide the industry the flexibility to rapidly respond to changing marketplace demands for innovative communications services. As the same article noted:

New two-way services such as high-speed Internet access could give some companies new life, but Berzins wasn't sure.

"This rope might be the one that saves the drowning man," he said, "but, then again, he's going down quickly, so the rope may be too late."^{17/}

Of course, it is not just the wireless cable industry that will benefit from the timely adoption of the rules proposed by the Petitioners – educators will also see substantial benefits. The Commission has correctly recognized that:

enhancing the competitive viability of wireless cable service through maximization of flexibility and service offerings promotes the underlying educational purpose of ITFS. The growth of wireless cable has led to the continued development of ITFS by supporting funding approximately 95% of all new ITFS applications. As we have stated, "revenues are key to this ITFS-MMDS partnership. Leasing channel capacity for the transmission of commercial programming generates revenues that may be vital to the continued operations of authorized ITFS systems, to the successful deployment in many markets of ITFS service, and to the service's public interest benefits."^{18/}

Moreover, the Petitioners agree with the *NPRM* that:

^{17/} *Id.*

^{18/} *NPRM*, at ¶ 64, quoting *Amendment Of Part 74 Of The Commission's Rules Governing Use Of The Frequencies In The Instructional Television Fixed Service*, 9 FCC Rcd 3360, 3364 (1994) [hereinafter cited as "*ITFS Channel Loading Order*"].

in addition to the competitive benefits to the MDS industry, and the resulting benefit to consumers because of a larger number of choices, increased two-way capacity over the frequencies at issue will benefit educational institutions by, for example, increasing Internet access via ITFS frequencies and enhancing the value of their spectrum. Such increased Internet abilities will help to further the goal of providing fast, reliable and affordable Internet access to every student in the country.^{19/}

It should come as no surprise then that 62 of the Petitioners are ITFS licensees and that numerous other ITFS licensees filed comments in response to the *Public Notice* supporting grant of the Petition.^{20/}

Given the substantial operational and financial benefits that the educational community is poised to realize from adoption of the Petitioners' proposals, it is ironic that the most troubling elements of the *NPRM* all appear to derive from a common source — the belief by a handful of commenting parties that ITFS licensees are incapable of protecting their own interests without

^{19/} *NPRM*, at ¶ 6 (footnote omitted). It is for this reason, among others, that the petitioners applaud the Commission for declining to advance the proposal by Caritas Telecommunications, Inc. (“Caritas”) that the availability of response channels be limited to MDS channels 1 and 2/2A. *See id.*, at ¶ 13. The *NPRM* correctly concludes that such an approach “would both artificially limit the amount of spectrum that could be used for return paths and unnecessarily prevent ITFS licensees from using their own channels for return paths.” *Id.* In light of the numerous comments filed in response to the *Public Notice* evidencing that ITFS licensees want to utilize their own spectrum for return paths, the Petitioners are surprised that in a recent submission to the Commission, Catholic Television Network (“CTN”) has suggested limiting ITFS return paths to just the 125 kHz channels. *See Request of Catholic Television Network for Supplemental Comment Period and Extension of Time*, MM Docket No. 97-217, at ¶ 4 (filed Nov. 25, 1997) [hereinafter cited as “CTN Request”]. Given the limited capacity of those channels and the documented demand within the ITFS community for upstream capacity, the restriction on ITFS return paths proposed by CTN should be rejected. *See also infra* note 153.

^{20/} The Petitioners must correct the mis-impression created by CTN in recent *ex parte* communications with the Commission’s staff that neither CTN nor its members were consulted regarding the Petition. *See Letter from William D. Wallace, counsel to CTN, to William F. Caton*, MM Docket No. 97-217, Attachment at III.A (filed Nov. 5, 1997) [hereinafter cited as “Wallace Letter”]. In fact, the Petition was circulated to several members of the CTN before it was filed.

Commission micro-management. The Petitioners strenuously take issue with that premise; the Commission's rules assure that ITFS facilities are controlled by responsible community leaders whose primary objective is to promote education.^{21/} The Petitioners believe, that in light of these strong local educational ties, ITFS licensees are well-equipped to ascertain local educational needs and, where appropriate, structure relationships with their local wireless cable operator that best serve the educational and instructional needs of their local communities.

The Petitioners believe that the Commission's well-meaning efforts to protect ITFS licensees have too often had the unintended consequence of denying ITFS licensees of the flexibility to craft contractual arrangements that best serve local educational needs. The proposals advanced in the *NPRM* that smack of paternalism towards ITFS are particularly inappropriate as MDS and ITFS licensees move forward with the introduction of advanced digital technologies. As the Commission considers its role in regulating the relationship between ITFS licensees and wireless cable system operators, the Commission should recognize that its paradigm for ITFS — that it is a service best used for the one-way broadcasting of distance learning video programming simultaneously to multiple schools for real-time viewing by students — is becoming obsolete.

^{21/} The Commission has put in place ITFS eligibility rules which mandate that ITFS licenses be held only by *bona fide* local educators or non-local entities that have documented working relationships with local educators. See 47 C.F.R. § 74.932(a). See also *Amendment of Part 74 of the Commission's Rules and Regulations In Regard to the Instructional Television Fixed Service*, 101 F.C.C.2d 50, 53-63 (1985)[hereinafter cited as "*MM Docket No. 83-523 Second Report and Order*"]. In addition, the Commission's comparative criteria gives a virtually unbeatable preference to the local educator in cases where local and non-local entities file mutually-exclusive ITFS applications. See 47 C.F.R. § 74.913(b)(1).

As discussed in detail in the Petition,^{22/} and acknowledged by the *NPRM*,^{23/} ITFS can be used to provide the high speed Internet access that educators are increasingly demanding for their schools. Indeed, the Internet is increasingly being employed by students not just as a research vehicle, but as a replacement for other methods of distance learning. As one expert recently noted, “[w]e know from four decades of experience with educational TV that one-way lecturing, even when combined with all kinds of special effects and demonstrations, is boring and ineffective because it is so passive.”^{24/} Thus, educators have been actively exploring new approaches to distance learning. For example, the concept of “netcourses” – formal educational programs offered over the Internet -- has begun to take hold. Magellan University, one of the Petitioners, is led by one of the pioneers of the ITFS and has been at the forefront of the use of the Internet for the offering of netcourses.^{25/} Reporting on another provider of netcourses, last week’s issue of *Business Week* noted:

For some 500 students in the 11th and 12th grades, technology has come to the rescue this year. The students and their teachers are scattered around the country and, unlike participants in TV-based distance learning, they never see each other, even on video. The courses, ranging from advanced-placement English to a bioethics seminar, are conducted entirely in written exchanges over the World Wide Web.

This experimental virtual high school (VHS) is run by the nonprofit Concord Consortium (vhs.concord.org) under an Education Dept. technology-challenge grant. The VHS operates as a cooperative. Each of the 27 schools participating in the

^{22/} See Petition, at 16-18.

^{23/} See *NPRM*, at ¶ 2.

^{24/} Elbaum and Tinker, “A Review of Secondary Netcourses and Virtual Schools,” at <http://www.concord.org/pubs/review5.html>.

^{25/} A full description of Magellan University and its netcourses can be obtained at <http://www.magellan.edu>.

program supplies curriculum and a teacher for one or more courses, plus a site coordinator to handle the administrative details.

For each course it offers, a school can enroll up to 20 of its own students in the VHS offerings. Concord Consortium provides teacher training, technical support, software, and the central Web servers.

Teachers prepare their "lectures" and post assignments and study materials using a Lotus Development Corp. program called LearningSpace, a customized version of the Notes software employed by business to help people work in groups. A Lotus Domino server automatically posts the teachers' entries to a Web site, and students use a browser to read the course material and write and submit their assignments. LearningSpace also lets students share in written discussions with each other or private communications with the teacher, though it doesn't yet provide for real-time "chat."^{26/}

The Industrial Extension Service of the College of Engineering of the University of North Carolina, a major ITFS licensee, also has been using the Internet for the delivery of two-way distance learning courses.^{27/}

This represents just the proverbial "tip of the iceberg" of innovative uses educators can make of communications technology. And now, as a direct result of the efforts of the wireless cable industry to introduce advanced digital technologies, ITFS licensees are poised to guide the evolution of ITFS into a powerful tool capable of supporting netcourses and a variety of other innovative new educational applications.^{28/}

^{26/} Wildstrom, "The World Wide Classroom," *Business Week*, at 18 (Dec. 29, 1997), available at <http://www.businessweek.com/1997/52/b3559114.htm>.

^{27/} See http://video.ncsu.edu/distance_learning.htm (Dec. 12, 1997).

^{28/} See *NPRM*, at ¶ 6.

It should go without saying that the local educator, and not the Commission, is best positioned to decide whether their ITFS capacity should be used for traditional broadcasting, for netcourses, for other high speed Internet access applications, for a wireless local intranet, for videoconferencing, or for any of the myriad other applications that advanced digital technologies make possible. By the same token, it is the local educator, and not the Commission, who can best decide how to structure a relationship with the wireless cable operator that will make new technologies available and fund the introduction of innovative new educational applications made possible by those technologies, without so overburdening wireless cable that the relationship “kills the Golden Goose.” As a nation, we trust ITFS licensees to educate our children; it is absurd not to trust them to utilize ITFS appropriately.^{29/}

As a result, the Petitioners endorse the proposals jointly advanced by WCA and the National ITFS Association, Inc. (“NIA”) for addressing several of the issues raised by the *NPRM* concerning the evolving role of ITFS. For more than a year representatives of WCA and NIA have been meeting in an effort to come to agreement on issues of mutual interest deriving from the emerging use of digital technology on MDS and ITFS channels. The underlying goal of these negotiations has been to craft a regulatory environment that will permit the wireless cable industry to become a viable competitive force in the marketplace (which benefits both the wireless cable industry and the ITFS community), while at the same time assuring that the educational community reasonably shares in

^{29/} While the *NPRM* implies that ITFS licensees are handicapped because of “the limited technical, legal and financial resources of education institutions,” in fact many ITFS licensees are major universities, state-wide organizations, non-commercial broadcast licensees, or other organizations with revenues and resources that dwarf those of their wireless cable lessees.

the benefits of digital technology. Those discussions have recently come to fruition, leading them to enter into the Joint Statement of Position annexed hereto as Attachment A (the “NIA/WCA Joint Proposal”).

The NIA/WCA Joint Proposal is designed to respond to many of the issues raised by the *NPRM* regarding the continuing role of ITFS as advanced technologies are introduced. While the Petitioners generally believe that ITFS licensees should be far greater freedom than the Commission has historically afforded them in structuring their relationships with wireless cable operators, and would have preferred a less regulatory solution than the NIA/WCA Joint Proposal, the compromise that NIA and WCA have agreed to represent a reasonable approach by which the Commission can *expeditiously* resolve the issues raised in the *NPRM*. Petitioners believe that the rules can be crafted along the lines proposed by NIA and WCA that preserve the underlying educational *raison d’etre* of the ITFS, while at the same time reasonably accommodating the needs of those wireless cable operators and MDS and ITFS licensees who elect to move towards the more complex system designs being demanded by the marketplace. NIA and WCA are to be commended for striking a balance between assuring that the ITFS is used in an appropriate fashion and affording ITFS licensees the flexibility they need to make the best possible use of advanced technologies in conjunction with their wireless cable affiliates.

It is from these perspectives that the wireless cable operators, local educators, equipment manufacturers and others who inaugurated this proceeding will be commenting in the following sections upon the specific proposals advanced by the *NPRM*. The Petitioners will keep their comments brief with respect to those elements of the Petition the Commission has proposed to adopt