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

In the Matter of	)	
	)	
Amendment of Parts 73 and 74 of the	)	
Commission's Rules to Establish Rules for	)	MB Docket No. 03-185
Digital Low Power Television, Television	)	
Translator, and Television Booster Stations and	)	
to Amend Rules for Digital Class A Television	)	
Stations		

REPLY COMMENTS OF THE ASSOCIATION OF PUBLIC TELEVISION STATIONS AND THE PUBLIC BROADCASTING SERVICE

The Association of Public Television Stations ("APTS") and the Public Broadcasting Service ("PBS") (collectively, "Public Television")[1] hereby submit reply comments in the above-captioned proceeding.

In our Comments, Public Television argued that it is important that the Commission act swiftly to provide for the licensing of digital translator and on-channel repeaters so that rural America is not left behind in the digital revolution transforming this country's media landscape. The Commission's comprehensive Notice of Proposed Rulemaking is a significant step in the right direction. Public Television continues to believe that, with limited modifications, the proposed application processing procedures are both fair and reasonable. Further, the Commission should allow for technological

[1] APTS is a nonprofit organization whose members comprise the licensees of nearly all of the nation's 357 CPB-qualified noncommercial educational television stations. APTS represents public television stations in legislative and policy matters before the Commission, Congress, and the Executive Branch and engages in planning and research activities on behalf of its members. PBS is a nonprofit membership organization of the licensees of the nation's public television stations. PBS distributes national public television programming and provides other program-related services to the nation's public television stations.

flexibility and licensee autonomy to address local programming and technical needs. Lastly, the Commission should act to protect the integrity of the existing analog translator service, while maintaining its secondary status, by encouraging mutually acceptable technical solutions prior to any request that an analog translator cease operations due to a higher priority use.

The Commission has received scores of comments from a diverse range of interested parties in this proceeding, including those from full-power commercial and noncommercial broadcasters, licensees of the rural translator service, proponents for low power television and Class A stations, new technology entrants in the lower 700 MHz band, representatives of the public safety community, communications engineers and the public. With a few exceptions, many of these parties support the expedited creation of new rules to authorize digital translators, low power, Class A and booster stations. However, a few segments of the communications industry oppose the introduction of these digital services for reasons that, while seemingly reasonable, are ultimately unfounded. In order to support the conversion of its entire infrastructure to digital, and to bring the power of digital noncommercial educational services to rural Americans, Public Television hereby responds to MSTV/NAB and the new licensees in the lower 700 MHz band, both of whom oppose elements of the Commission's proposed rules.

I. Concerns About Potential Interference and Difficulty with Repacking the Broadcast Television Spectrum Do Not Counsel Delay in the Creation of Rules for and Acceptance of Applications for Digital Translators and On-Channel Boosters

MSTV and NAB urge delaying the issuance of second channels to LPTV, television translator and Class A stations until the end of the DTV transition, citing apparent concerns regarding the possibility of interference to full-power broadcast television services and difficulty with the "repacking" of broadcast spectrum upon the completion of the transition if low power stations were to operate second channels.[2] Both of these concerns are unfounded but in any event may be addressed by focusing on upgrading the rural translator service first.

a. Federal Statute and Congressional Policy Mandate the Processing of Digital Translator Applications

As an initial matter, the Commission should be aware that while it weighs the advantages and disadvantages of authorizing a digital translator (or on-channel booster) service, Congress has directly spoken on the subject, requiring the Commission to accept applications for digital upgrades by translator stations. Federal statute states in relevant part:

> "Issuance of licenses for advanced television services to television translator stations and qualifying low-power television stations - The Commission is not required to issue any additional license for advanced television services to ... any licensee of any television translator station, but <u>shall accept a license application</u> for such services proposing facilities

[2] Comments of the Association of Maximum Service Television and the National Association of Broadcasters, MB Docket 03-185 (Nov. 25, 2003).

> that will not cause interference to the service area of any other broadcast facility applied for, protected, permitted, or authorized on the date of filing of the advanced television application. ... A licensee of a ... television translator station may, at the option of licensee, elect to convert to the provision of advanced television services on its analog channel, but shall not be required to convert to digital operation until the end of such transition period."[3]

In this statute, Congress has stated that the Commission is not required to allocate and assign additional channels on a general basis to all translators for digital broadcast as it did for full-power television broadcast licensees. Rather, the Commission is directed to accept any individual application by television translator stations for either (1) a second channel on which to operate in digital or (2) an on-channel hot-switch at the end of the DTV transition.[4] The language "at the option of the licensee" in the context of the latter makes it clear that the choice between an additional channel or an on-channel hot-switch is the licensee's to make, not the Commission. Moreover, in the former case, the only contingency is that an application for a second channel not cause interference to any incumbent primary broadcast service. In the latter case, no additional interference requirements are imposed. Had Congress intended additional interference requirements to be imposed on on-channel conversion requests, it would have stated as much. Many of parties in this proceeding opposed to the introduction of a digital translator or booster

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[3] 47 U.S.C. § 336(f)(4) (emphasis added). See also Conference Report, H. Rep. 106-464 p. 153 (Nov. 9, 1999).

[4] The contrary argument, advanced by MSTV and NAB, that the statute authorizes the acceptance of second channel digital applications without requiring the grant of such applications is clearly erroneous. See Comments of the Association of Maximum Service Television and the National Association of Broadcasters, MB Docket 03-185, p. 10 (Nov. 25, 2003). Why would Congress require the Commission to process an application without authorizing it to grant it if the public interest requires it? Public Television submits that its reading of the first sentence – as not requiring the grant of second channels en masse, as was done with the full-power television broadcast service – is the more reasonable reading of the statute.

service act as if the Commission has full discretion in this field but ignore the Congressional language that states otherwise.

Moreover, Congress has made its commitment to the digital upgrade of rural translators even more apparent through its most recent appropriations. Pursuant to Congressional directive, the Department of Agriculture's Rural Utilities Service is poised to announce in the near future the award of approximately $15 million in grants to fund equipment -- including digital translators -- designed to facilitate the delivery of digital television signals to rural areas.[5] Because the needs of rural America were greater than the available funding in fiscal year 2003, Congress has appropriated an additional $14 million for fiscal year 2004 in the current omnibus appropriations bill "to convert analog to digital operation those noncommercial educational television broadcast stations that serve rural areas and are qualified for Community Service Grants by the Corporation for Public Broadcasting under section 396(k) of the Communications Act of 1934, including associated translators, repeaters, and studio-to-transmitter links."[6] Through its appropriation process, Congress has again spoken with remarkable clarity: the digital upgrade of translators serving rural America is a Congressional priority that brooks no delay, otherwise federal funds would have been encumbered in vain.

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[5] See Department of Agriculture, Rural Utilities Service, Public Television Station Digital Transition Grant Program, Notice of Funds Availability, 68 Fed. Reg. 42680 (July 18, 2003); Sen. Rep. 107-223, p. 123 (Jul. 25, 2002) (appropriating $15,000,000).

[6] See H. Rep. 108-401, pp. 23-24 (Nov. 25, 2003) (emphasis added).

(b) An On-Channel Flash-Cut is Not A Substitute for the Award of Second Channels for Digital Translator Broadcast Service

To be sure, neither MSTV/NAB nor any other full-power broadcaster, objects to applications for on-channel flash-cuts.[7] This approach, however, should in no way be considered an adequate substitute for a second-channel approach, for as noncommercial educational licensees Vermont Educational Television and KAET (Phoenix, AZ) have aptly noted in their comments filed in this proceeding, a flash-cut conversion ordinarily will occur only after the transition to digital is finished, otherwise rural Americans would be disenfranchised by the sudden cessation of analog service.[8] Thus, the option to either flash-cut on-channel or operate a second channel is critically important to maintaining quality service to rural America, a fact recognized by a number of full-power broadcasters who support the award of second digital channels under certain circumstances,[9] and by Congress in the explicit working of Section 336(f)(4), as discussed above.

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[7] See Comments of the Association of Maximum Service Television and the National Association of Broadcasters, MB Docket 03-185, pp. 12-13 (Nov. 25, 2003); Comments of Cox Broadcasting, Inc and the Liberty Corporation, MB Docket 03-185, p. 1 (Nov. 25, 2003); and Comments of Paxson Communications Corp, MB Docket 03-185, p. 2 (Nov. 25, 2003).

[8] Comments of Vermont Educational Television, MB Docket 03-185, pp. 5-6 (Nov. 25, 2003); and Comments of KAET, MB Docket 03-185, p. 8 (Nov. 25, 2003).

[9] See, e.g., Comments of Fox Television Stations, Inc and Fox Broadcasting Company, MB Docket 03-185 (Nov. 25, 2003); Comments of Vermont Educational Television, MB Docket 03-185, pp. 5-6 (Nov. 25, 2003); and Comments of KAET, MB Docket 03-185, p. 8 (Nov. 25, 2003). See also Comments of the National Translator Association, MB Docket 03-185, p 29. (Nov. 25 2003).

(c) The Likelihood of Interference from Rural Digital Translator Operations is Low

While MSTV and NAB raise the reasonable concern that the proliferation of low power stations might cause additional interference to full-power broadcast operations (a concern Public Television shares), history and current technical experience demonstrate that there should be little concern. Indeed, the Commission has accurately remarked that "[a] hallmark of the low power television service in its 20-year history has been the few reported cases of interference caused by LPTV and TV translator stations."[10] And real-world experiments with DTV translators by Kent Parsons in Utah suggest that the possibility of interference from translators in rural areas, even on adjacent channels, is negligible.[11] Indeed, the National Translator Association has presented additional evidence in its comments that "if an analog station is converted to digital at 25% average digital power (-6dB), there is no increase in predicted interference to any other station. That is, if all other stations are protected by the analog operation, they will continue to be protected. The protection actually increases except for the one case of co-channel with offset where it remains the same."[12]

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[10] Amendment of Parts 73 and 73 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations, Notice of Proposed Rulemaking, FCC 03-198, MB Docket No. 03-185, ¶ 36 (rel Aug. 29, 2003) ("NPRM").

[11] See Comments of R. Kent Parsons, MB Docket No. 03-185, p. 10 (Nov. 24, 2003).

[12] Comments of the National Translator Association, MB Docket No. 03-185, p. 22 (Nov. 25, 2003).

MSTV and NAB also oppose the use of interference agreements among Class A, LPTV and TV translators vis a vis full-power stations.[13] While MSTV and NAB recognize that current policy is to allow private interference agreements,[14] it objects that the digital context is different because DTV reception is less predictable and interference can result in a complete loss of reception.[15] While Public Television is sympathetic to this view and concurs with the need to preserve the integrity of full-power operations, it also believes that a number of interference disputes can be resolved through technical solutions between the parties, especially in rural areas.[16] In this regard, the Commission should encourage the resolution of these disputes through such means, including interference agreements, wherever possible.

(d) Digital Translators in Rural Areas Will Not Adversely Affect the "Repacking" Process

MSTV and NAB also raise concerns that the authorization of a second channel for translator, LPTV and Class A stations would adversely affect the repacking of television broadcast channels into the core of channels 2 through 51 required for a successful transition to digital television.[17] Public Television shares this concern, as numerous

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[13] Comments of the Association of Maximum Service Television and the National Association of Broadcasters, MB Docket 03-185, p. 18 (Nov. 25, 2003).

[14] Id. at 17; and NPRM ¶ 50.

[15] Comments of the Association of Maximum Service Television and the National Association of Broadcasters, MB Docket 03-185, p. 18 (Nov. 25, 2003).

[16] Comments of the Association of Public Television Stations and the Public Broadcasting Service MB Docket 03-185, p. 18 (Nov. 25, 2003).

[17] Comments of the Association of Maximum Service Television and the National Association of Broadcasters, MB Docket 03-185, pp. 4 et. seq. (Nov. 25, 2003). See also Comments of Paxson Communications, MB Docket 03-185, p. 7 (Nov. 25, 2003).

public television stations will need to migrate from out-of-core channels into the DTV core of channels 2 though 51. However, as MSTV/NAB and the Commission are well aware, translator and some low power stations are considered secondary services that must protect not only full-power operations but also Class A stations from interference. Translators that operate out-of-core (approximately one-third of the over 700 public television translators), will of course pose no problem for full-power stations seeking in-core channels. Some of the remaining translators that operate within the core will undoubtedly have to relocate if a full-power station identifies the channel as a useful for its final channel home. In this regard, given the secondary nature of television translators, the channel repacking process would be no more complicated by the addition of secondary services designed to serve rural Americans in a spectrum efficient manner. Although full-power stations may need to identify and coordinate with incumbent secondary services as the full-power stations migrate to the core, the same number of in-core channels will be available to full-power stations regardless of the existence of secondary television services.

Nevertheless, even given the concerns of possible interference and difficulty with repacking the television broadcast spectrum, the Commission may act to address rural access now – where interference and spectrum congestion is less of an issue – while perhaps deferring further consideration on urban allotments pending further study concerning the availability of spectrum and the possibility of interference in urban environments. In this regard, MSTV and NAB suggest that to alleviate the interference and repacking issue, the Commission may, on a case-by-case basis, accept applications for second channels with which to operate digital translators in "geographically isolated

areas," provided that the grant of such applications would not "limit channel choices or result in any additional interference to full service stations."[18]

Public Television concurs with this approach as an acceptable provisional alternative measure if the Commission declines to accept applications for a second channel by incumbent translators and LPTV on a general basis. As Public Television and some commercial broadcasters have observed, television translators are distinct from LPTV and Class A stations, largely because television translators are a predominantly rural service (in addition to the fact that translators do not originate programming).[19] If the Commission were to focus on accepting applications from rural translators for second channels, it may, as the National Translator Association suggested, restrict applications to those from communities with a maximum number of stations available over the air,[20] or it may as an alternative rely on the Rural Utilities Service definitions of "rurality" as a

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[18] Comments of the Association of Maximum Service Television and the National Association of Broadcasters, MB Docket 03-185, p. 4, note 10 (Nov. 25, 2003). Abacus Television, an LPTV licensee, concurs, stating that the FCC should "focus on the spectrum environment in which they [translators] predominantly operate and the public they predominantly serve," i.e. rural areas and populations. Comments of Abacus Television, MB Docket 03-185, p. 2 (Nov. 25, 2003).

[19] See generally, Comments of the Association of Public Television Stations and the Public Broadcasting Service MB Docket 03-185 (Nov. 25, 2003). See also Comments of Fox Television Stations, Inc and Fox Broadcasting Company, MB Docket 03-185, p. 2 (Nov. 25, 2003).

[20] See National Translator Association, Petition for Rulemaking, p. 4 (Nov. 6, 2002), and Comments of the Association of Public Television Stations, the Corporation for Public Broadcasting and the Public Broadcasting Service, RM 10666, pp. 4 et. seq. (May 16, 2003) (seeking limited modifications to NTA rurality criteria).

guideline.[21]

II. Concerns by Licensees in the 700 MHz Band Should Not Counsel Delay in Introducing Digital Services to Rural Americans

The Commission has also received a number of comments from companies licensed to operate in the lower 700 MHz band that oppose the introduction of new channels for television translator, low power and Class A operations in the band. These companies – predominantly representatives of the cell-phone industry— raise a number of objections including: (a) that introduction of secondary services in the 700 MHz band was somehow unexpected and unfair in light of the substantial amounts paid at auction for the spectrum; (b) that secondary services will create unwanted interference to new licensees in the 700 MHz band; and (c) that the introduction of secondary digital service in rural areas will not significantly advance the DTV transition. None of these concerns is warranted.

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[21] The term "rural" has been subject to varying definitions, depending on the context. For instance, the U.S. Department of Commerce and U.S. Department of Agriculture have used the U.S. Census definition of the term when examining the deployment of advanced telecommunications services to rural areas. "Advanced Telecommunications In Rural America: The Challenge of Bringing Broadband Service to All Americans," U.S. Department of Commerce, National Telecommunications and Information Administration, and U.S. Department of Agriculture, Rural Utilities Service (April, 2000) ("NTIA/RUS Report"), p. 4. Thus, in this context, "rural" means "towns of fewer than 2,500 inhabitants as well as areas outside of towns, including farmland, ranchland, and wilderness." *Id*. (citing U.S. Census Bureau, Urban and Rural Definitions and Data at www.census.gov/population/censusdata/urdef.html). Because the Census definition can encompass both traditionally small and rural towns and outlying areas, as well as areas that are developing or urbanizing (e.g. new suburban developments), the Department of Commerce and Department of Agriculture have cautioned analysts on the use of the term and have focused primarily on rural areas outside of towns and suburbs. *Id*. at p. 5. Indeed, the Department of Agriculture's Rural Utilities Service has recognized three levels of "rurality" for purposes of its distance learning and telemedicine program. An "exceptionally rural area" means any area that is not included within the boundaries of any incorporated or unincorporated city, village or borough having a population "in excess of 5,000 inhabitants." A "rural area" means any such area with a population over 5,000 but not exceeding 10,000 inhabitants. A "mid-rural area" refers to an area having a population with a population over 10,000 and not exceeding 20,000 inhabitants. 7 C.F.R. § 1703.126(b)(2)(i).

(a) Introduction of Secondary Services in the Lower 700 MHz Band Will Not Frustrate the Legitimate Expectations of Auction Winners

Nearly all of the comments from 700 MHz licensees allege that it is unfair to authorize additional channels (or in some instances to authorize an on-channel flash-cut) in the 700 MHz band, because those successful licensees in the auction placed bids under the assumption that the band would be cleared of incumbents. These licensees variously claim that the introduction of secondary services was somehow unexpected, or even represented an actual reversal of Commission policy. These licensees also claim that the proposed policy is unfair in light of the substantial sums these licensees paid for spectrum in Actions 44 and 49.[22]

In support of the claim that introduction of secondary services in the 700 MHz band was somehow unexpected, the 700 MHz licensees selectively quote from paragraph 28 of the Commission's order establishing service rules in the lower 700 MHz band,[23] conveniently ignoring paragraph 27 where the Commission quite explicitly authorized LPTV and translator stations to continue operating in the band as a secondary service even after the DTV transition, provided that these stations did not cause actual interference to primary licensees in the band.[24]

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[22] Some licensees even claim that the Commission's proposal policy would represent an intrusion on their property rights under the Fifth Amendment to the U.S. Constitution. See, e.g. Comments of Corr Wireless, MB Docket 03-185 (Nov. 25, 2003).

[23] See, e.g. Comments of Qualcomm, Inc. MB Docket 03-185, pp 8-9 (Nov. 25, 2003); Comments of the Rural 700 MHz Band Licensees, MB Docket 03-185, pp.10-11 (Nov. 25, 2003).

[24] Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), Report and Order, FCC 01-364, ¶ 27(Jan. 18, 2002).

This policy was surely not unexpected. As early as March 28, 2001, the Commission announced its intentions to allow LPTV and TV translators stations to operate as a secondary service in the lower 700 MHz band after the DTV transition had been completed. It stated:

> [W]e believe that low power television should be permitted to continue to operate on the 698-746 MHz band on a secondary basis. Accordingly, we propose that LPTV and TV translator stations not be permitted to cause harmful interference to stations of primary services, including new licensees in Channels 52-59, and cannot claim protection from harmful interference from stations of primary services, including new licensees in Channels 52-59. However, as set forth in the *DTV Sixth Report and Order*, we propose that LPTV and TV translator operations will not be required to alter or cease their operations until they actually cause interference to a DTV station or new service provider's operations in the 698-746 MHz band.[25]

And in its final order, released in January of 2002, the Commission again made it clear that it was adopting its proposed policy to allow LPTV and TV translator stations to operate in the lower 700 MHz band after the DTV transition.[26] Five months later, Auction 49 was conducted between May 28 and June 13, while eight months after the final order was issued, Auction 44 was conducted between August 27 and September 18, 2002.

Thus, <u>for over two years</u> potential new licensees in the 700 MHz band were on notice that the spectrum for which they would bid at auction could likely be encumbered by secondary broadcast services. And in any event several months prior to bidding on the spectrum, these licensees <u>knew with certainty</u> that this was the Commission's policy.

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[25] <u>In the Matter of Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59),</u> Notice of Proposed Rulemaking, FCC-01-91, GN Docket No. 01-74, 16 FCC Rcd 7278, ¶ 18 (March 28, 2001) (citations omitted).

[26] <u>Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59),</u> Report and Order, FCC 01-364, ¶¶ 25, 27(Jan. 18, 2002).

The fact that these licensees paid highly for access to this band is therefore irrelevant. Any attempt by 700 MHz licensees to undo the Commission's decision should therefore be considered a late-filed petition for reconsideration and thus disregarded.[27]

In addition, the structure of the Communications Act makes it clear that while band clearing of channels 60-69 is mandatory, no such statutory mandate exists for channels 52 through 59, a statutory difference recognized by the Commission in its lower 700 MHz service order.[28] Thus, as compared to the upper 700 MHz band, bidders for spectrum in the lower 700 MHz band could not reasonably expect that the band would be cleared of broadcast licensees.[29] Licensees in the lower 700 MHz band are simply trying to undo established Commission policy that was based on explicitly articulated Congressional priorities.

Nevertheless, the Commission should be aware that it is the preference of public television translator licensees to use in-core spectrum for translator operations. Out-of-core allotments above channel 51 will be considered only if core spectrum is unavailable

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[27] For similar reasons, because the lower 700 MHz licensees acquired their licenses knowing full well that the band would be encumbered by secondary services during and after the DTV transition, no Fifth Amendment takings issues are implicated.

[28] See 47 U.S.C. § 337(e)(1) ("Any person who holds a television broadcast license to operate between 746 and 806 megahertz [television channels 60-69] may not operate at that frequency after the date on which the digital television service transition period terminates, as determined by the Commission."). In January of 2002, the Commission noted the key differences between the lower 700 MHz and upper 700 MHz band. It sated that, for instance, "there is no public safety allocation in the Lower 700 MHz Band, and there is a significantly greater degree of broadcast incumbency relative to the Upper 700 MHz Band. In addition, we note that Congress has directed the Commission to reclaim the Upper 700 MHz Band for public safety and commercial use under an accelerated time frame, but did not accord the same priority to recovery of the Lower 700 MHz Band." Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), Report and Order, FCC01-364, ¶ 184 (Jan. 18, 2002).

[29] In this regard, the Commission has also received comments from Motorola and the Association of Public-Safety Communications Officials-International opposing the use of the upper 700 MHz band by LPTV and television translator stations, comments with which Public Television concurs. Comments of Motorola, Inc. MB Docket 03-185, p. 1 (Nov. 25, 2003); Comments of the Association of Public-Safety Communications Officials- International, Inc., MB Docket 03-185, p. 2 (Nov. 25, 2003).

or unusable.[30] Thus, Public Television agrees that applicants for television translator service may reasonably be required to demonstrate the unavailability of in-core channels before applying for channels out-of-core.[31] However, the Commission should be aware that even in rural areas out-of-core channel use may, in certain circumstances, be necessary. In this regard, more than one-third (35 percent) of public television translators operate on channels 52 and above.[32]

Further, to discourage spectrum speculation and spectrum squatting on in-core channels, and thus to reduce ultimately the need to use out-of-core channels, the Commission may require construction of facilities in accordance with any approved construction permit within a reasonable time.[33]

(b) Concerns about Interference Are Unfounded

A number of 700 MHz licensees also raise concerns that existing and new secondary services will create unwanted interference to their operations, or, alternatively, that where interference is resolvable through technical means, the process would be difficult and expensive.[34] As discussed above, however, the Commission has already

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[30] The Commission should be aware, however, that because rural access to television signals is frequently provided through "daisy chains" of multiple transmitters, the need to use out-of-core spectrum for one link in the chain will necessarily affect service at other transmitter sites.

[31] NPRM, ¶ 29

[32] About 25 percent of public television translators operate on channels 60-69. Comments of the Association of America's Public Television Stations and the Public Broadcasting Service, MM Docket No. 87-268 (Nov. 22, 1996), p. 16.

[33] See NPRM, ¶ 116. Previously, Public Television suggested a three year maximum period for construction based on the uniqueness of federal, state and institutional funding cycles. See Comments of the Association of Public Television Stations and the Public Broadcasting Service, MB Docket 03-185, p. 9 (Nov. 25, 2003). Other licensees may be required to construct within a shorter period, e.g. two years.

[34] See, e.g. Comments of Qualcomm, Inc. MB Docket 03-185, pp.12-13 (Nov. 25, 2003).

decided that television translator and LPTV service should be allowed in the lower 700 MHz band on a non-interfering secondary basis, and that interference agreements among 700 MHz licensees should be allowed.[35] Again, because this issue has been resolved with finality, any proposal to ban television translators and LPTV station from the lower 700 MHz band on the basis of potential interference issues should be considered a late petition for reconsideration of the 700 MHz service rules order and should be disregarded.

However, if the issue is not to ban television translator and LPTV stations from the band but how to manage interference issues, the Commission's NPRM does seek comment on how to extend its current rules concerning interference with Land Mobile Radio and other primary services to the context of digital LPTV and TV translators operations.[36] Public Television supports extension of the current rules in this context.

Public Television wishes to note, however, that the possibility of interference with mobile applications is significantly reduced in light of the new "smart" technologies that are capable of seeking out available spectrum on an opportunistic basis. In this regard, based on the work of its Spectrum Policy Task Force and its most recently announced Notice of Proposed Rulemaking on "smart" radios, as well as past work on "cognitive radios," the Commission is currently examining such technology as a means to enhance efficient spectrum use by multiple parties on a non-interfering basis.[37] In fact, the

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[35] Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), Report and Order, FCC01-364, ¶ 27 (Jan. 18, 2002) ("[W]e will allow LPTV stations to operate until they cause actual interference to a DTV station or new licensee and will allow LPTV stations to negotiate interference agreements with new service providers.").

[36] NPRM, ¶ 59.

[37] See Federal Communications Commission, Spectrum Policy Task Force, Report, ET Docket No., 02-135, p. 14 (November 2002); "FCC Opens Proceeding on Smart Radios," News Release (Dec. 17, 2003);

Commission has observed that this technology is already being deployed by commercial mobile wireless services and wireless local area networks.[38] Qualcomm's comparison between the average LPTV radiated power of 150 kilowatts and a typical handset's power of 10 milliwatts is therefore misleading in two respects.[39] First, it does not account for the "smart" capabilities of many hand-sets. Second, it ignores the fact that radiated power for the average rural translator is much less than that for a typical LPTV operation: in many instances rural translators operate with just a few watts of radiated power.

Public Television is willing to work with representatives of the cell phone industry and other 700 MHz licensees to explore how interference can be reduced and/or managed through mutually acceptable technical solutions prior to any request by primary services to seek displacement. In addition, if the Commission were to focus on rural translators alone, as MSTV and NAB have suggested, the Public Television notes that the potential for interference to 700 MHz licensees would be further diminished.

(c) To Ensure a Fair and Equitable DTV Transition, the Commission Should Authorize Applications for Digital Rural Translators

Lastly, a number of 700 MHz licensees advance the "red herring" argument that digital TV translator and LPTV stations should not be allowed to operate in the band

[38] "FCC Opens Proceeding on Smart Radios," News Release (Dec. 17, 2003) ("Certain smart radio capabilities are employed to some extent today in applications such as commercial mobile wireless services and wireless local area networks (WLANs)").

[39] See Comments of Qualcomm, Inc. MB Docket 03-185, p. 13 (Nov. 25, 2003).

because it would not significantly advance the DTV transition.[40] Other 700 MHz licensees, however, disagree, concurring with the Commission that "[t]ranslators and LPTV stations will play a significant rule in furthering the transition to digital television."[41] Regardless, as Public Television has stated in the past, the fundamental issue at stake is one of fairness to rural Americans as the digital transition progresses. Public Television has a statutory mission to provide public telecommunications services to all Americans regardless of their socioeconomic status, their ethnic background or geographic location.[42] Delivery of noncommercial educational services over translator stations is critical to fulfilling this statutory mission in rural areas and continues to be of critical importance in the digital era.

III. Other Issues

In addition to the above, Public Television would like to reply regarding a number of other issues raised in the comments filed, including the following: (a) the proposed application processing proposals; (b) transmission mode; (c) program/data origination; and (d) boosters.

(a) Proposed Application Processing Proposals

Of the comments supporting the creation of a digital translator and LPTV service, none oppose the Commission's proposed application processing procedures, with many

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[40] See Comments of Harbor Wireless, MB Docket 03-185 (Nov. 25, 2003); Comments of Qualcomm, p. 10, MB Docket 03-185 (Nov. 25, 2003); Comments of Cavalier Group, LLC, MB Docket 03-185 (Nov. 25, 2003).

[41] Comments of Motorola, MB Docket 03-185, pp. 1-2 (Nov. 25, 2003).

[42] 47 U.S.C. §§ 396(a)(5), (7).

seeking only minor modifications.[43] In its Comments, Public Television voiced support for the Commission's proposed application processing procedures but requested some minor alterations to restrict spectrum speculation and to ensure that non-profits and small communities have access to these valuable digital services. First, it asked that in order to limit spectrum speculation, the Commission should impose some reasonable geographic restrictions on the application process. Second it requested that the Commission should restrict spectrum speculation by limiting the number of *multi-state* applications for LPTV and TV translator stations by a single entity. Third, it reiterated its continuing objection to the use of auctions to resolve mutual exclusivities. Public Television requests adoption of the minor application processing modifications submitted in its comments to the Commission.

(b) Transmission Mode

Public Television has asked that the Commission allow rural translators to use either a heterodyne frequency conversion mode or a regenerative digital mode at the broadcaster's option. A number of other comments agree.[44]

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[43] See Comments of Fox Television Stations, Inc and Fox Broadcasting Company, MB Docket 03-185, p. 5(Nov. 25, 2003) (supporting FCC proposed procedures); Comments of Cordillera Communications, MB Docket 03-185, p. 1-3 (Nov. 25, 2003) (supporting procedures limited to incumbents but opposing application for new service); Comments of the National Translator Association, MB Docket 03-185, p. 26 (supporting procedures but advocating use of lotteries instead of auctions); Comments of Abacus Television, MB Docket 03-185, p. 21 (Nov. 25, 2003).

[44] See Comments of Wyoming Public Television, MB Docket 03-185, p. 2 (Nov. 25, 2003); Comments of Vermont Educational Television, MB Docket 03-185, p. 5 (Nov. 25, 2003); Comments of KAET, MB Docket 03-185, p. 10 (Nov. 25, 2003); Comments of the National Translator Association, MB Docket 03-185, pp. 5-6 (Nov. 25, 2003) (allow regenerative for translators 30 watts and above with heterodyne as fall-back in limited circumstances); Comments of the Elko Television District, MB Docket 03-185, p. 3 (Nov. 25, 2003). See also Comments of the Association of Federal Communications Consulting Engineers and Comments of Greg Best Consulting.

(c) Program Origination and Data Services

Public Television has demonstrated that many public television stations are interested in using their digital spectrum to provide a wide range of ancillary and supplementary services to their communities[45] and has specifically requested that the Commission authorize translators to offer such services.[46] A few rural telephone companies that are also interested in rolling out data services oppose allowing data delivery by TV translators and LPTV stations for no reason other than it would compete with their own service.[47] These concerns are unfounded.

While there may be some overlap, public television stations are primarily interested in providing data that serves their public service mission and will not be directly competing with local telcos for delivery of the same material. In this regard, two noncommercial educational licensees, Vermont Educational Television and KAET, propose that it would be helpful for the Commission to allow their translators not only to offer pass-through ancillary and supplementary services transmitted from the main station but to some extent to allow translators to offer unique program streams and/or ancillary

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[45] For instance, some public television stations are planning to enhance the delivery of broadband services, as well as to disseminate financial stock exchange information, Congressional voting information, Statehouse voting records, election returns and weather updates to targeted subscribers. In addition, ancillary and supplementary transmissions can also be used to enhance public safety. Still other public television stations plan to use ancillary and supplementary transmissions to enhance educational opportunity in their communities by offering subscription-based college courses, while others plan to transmit non-broadcast digital interactive content overnight to schools so that teachers can download it on demand during the school day.

[46] Comments of the Association of Public Television Stations and the Public Broadcasting Service MB Docket 03-185, pp. 10-11 (Nov. 25, 2003).

[47] See Comments of Arctic Slope Telephone, et al, MB Docket 03-185, p. 7 (Nov. 25, 2003).

services to address the local educational and public safety needs of remote communities.[48]

Public Television realizes that under current analog rules, a TV translator may originate local public service announcements or messages seeking or acknowledging financial support necessary for its continued operation, not to exceed 30 seconds per hour, and that a TV translator may also originate emergency warnings deemed necessary to protect life and property.[49] Public Television suggests that if it is not feasible to change the definition of a translator to accommodate expanded program and data origination, the Commission may do so on a case-by-case basis through waivers of its rules, conditioned on the consent of the main parent station.

MSTV and NAB also oppose any changes to the Commission's requirement regarding program or data origination for television translators[50] but do not explain why they oppose modifications to the analog rule except to say that it would "alter the fundamental nature of the translator service."[51] Public Television submits that if the rule were to remain unchanged but subject to individualized waivers, no change to the fundamental nature of the translator service as a whole would occur.

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[48] For examples, see Comments of Vermont Educational Television, MB Docket 03-185, pp. 1-5 (Nov. 25, 2003) and Comments of KAET, MB Docket 03-185, pp. 2-6 (Nov. 25, 2003).

[49] 47 C.F.R. § 74.731.

[50] See Comments of the Association of Maximum Service Television and the National Association of Broadcasters, MB Docket 03-185, pp. 21-23 (Nov. 25, 2003).

[51] Id. at 23. See also Comments of the National Translator Association, MB Docket 03-185, pp. 6-7 (Nov. 25, 2003) (asking to maintain status quo); and Comments of the Elko Television District, MB Docket 03-185, p, 3 (Nov. 25, 2003).

(d) Boosters

In its Comments, Public Television has supported the authorization of digital boosters (or on-channel repeaters) with interference protections that are the same as the main station provided that the booster serves the same population as the main channel on the main channel's allocation. A number of other comments agree that the Commission should go forward with authorizing digital boosters as a spectrum efficient means of delivering digital signals to hard-to-reach areas.[52] Only MSTV and NAB oppose the authorization of a class of digital booster stations, preferring that systems of boosters in networks of distributed transmission be authorized instead.[53] Public Television is on record as supporting both approaches and disagrees that authorization of singleton boosters would unnecessarily "divert" the Commission's "attention" from other similar projects.[54]

Conclusion

For the reasons articulated above, Public Television urges the Commission to expedite the authorization of digital television translator and LPTV stations.

Respectfully submitted,

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[52] See Comments of the National Association of Translators, MB Docket 03-185, p. 26 (Nov. 25, 2003); Comments of Television, MB Docket 03-185 (Nov. 25, 2003); Comments of Southern Oregon Public Television, Inc, MB Docket 03-185 (Nov. 25, 2003); Comments of R. Kent Parsons, MB Docket 03-185, p. 16 (Nov. 25, 2003); Comments of the Association of Federal Communications Consulting Engineers, MB Docket 03-185 (Nov. 25, 2003), Comments of Greg Best, MB Docket 03-185, p. 8 (Nov. 25, 2003.

[53] Comments of the Association of Maximum Service Television and the National Association of Broadcasters, MB Docket 03-185, pp. 23-24 (Nov. 25, 2003).

[54] Id. at 24.

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