

**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 Digital) MB Docket No. 03-185
Low Power Television, Television Translator, and)
Television Booster Stations and to Amend Rules)
for Digital Class A Television Stations)

To: The Commission

**COMMENTS OF
THE ASSOCIATION FOR MAXIMUM SERVICE TELEVISION, INC. AND
THE NATIONAL ASSOCIATION OF BROADCASTERS**

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EXECUTIVE SUMMARY

In 1987, the Commission began to focus its attention on the potential digital technology holds for broadcasters by launching the DTV transition. In the subsequent decade and a half, it has worked toward carrying out its goal of transitioning full power television stations and the viewing public to digital broadcasting. It has taken many steps to implement the transition, including adopting requirements relating to facilitating digital content, consumer access to DTV via cable and digital consumer receivers. The Commission's emphasis on the transition is not surprising given the promise digital technology holds for the viewing public, including expanding the number and types of available broadcast services. As a result, the Commission has worked with broadcasters and other industries to make the transition as quick and as seamless as possible for full power broadcast services and the public.

To keep the focus of the digital transition on the full power broadcast service that is driving consumers to join in the digital transition, the Commission should plan for Class A, LPTV and translator stations to transition to digital "on channel." To accomplish this, the FCC needs to develop appropriate interference standards to assure that the service provided to consumers by full service digital television stations is not impaired. As a general matter, the FCC should not assign additional digital channels to Class A, LPTV and translator stations during the transition. This will avoid disrupting the transition of full power services while also allowing other services to become part of the digital environment. Striking this balance will ensure that the digital transition proceeds in a way that benefits both broadcasters and the public they serve.

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The Association for Maximum Service Television, Inc. ("MSTV") and the National Association of Broadcasters ("NAB")¹ submit these comments on the Commission's *Notice of Proposed Rule Making* in the above-captioned proceeding.² As representatives of broadcasters who have made significant investments in and worked diligently to promote the digital transition, MSTV and NAB urge the Commission not to lose sight of the fact that full service stations are the key force driving the transition. It is therefore not in the public interest for the Commission to adopt policies that would make the transition more difficult for full power broadcasters. Rather, the Commission should continue to adhere to its well-established policy of protecting the ability of full power stations to transition successfully to digital so that the full benefits of DTV can be brought to the public without unnecessary and harmful disruptions in

¹ MSTV represents nearly 400 local television stations on technical issues relating to analog and digital television services. NAB serves and represents the American broadcast industry as a nonprofit incorporated association of radio and television stations.

² In re *Amendment of Parts 73 and 74 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 Rule Making, 18 FCC Rcd 18365 (2003) ("*Notice*").

service. MSTV and NAB understand the desire to allow low power services to participate in the digital transition. Many of our members operate Class A and LPTV stations and rely on translator services. Nonetheless, in planning for digital operations of these services, the Commission should first and foremost not impair the service provided by full power stations to viewers across the nation. Thus, this proceeding should not be viewed as an opportunity to create new types of services or as a vehicle for restructuring and expanding the relationship between full service and lower power stations. Instead, the Commission should adopt policies for digital Class A, LPTV and translator operations that will complement rather than impede the full power DTV transition. To do otherwise would compromise the public's access to free and universal over-the-air broadcast services in the digital age and stunt the realization of the full benefits of a digital broadcast service.

I. GRANTING SECOND CHANNEL AUTHORIZATIONS TO CLASS A, LPTV AND TRANSLATOR STATIONS WOULD THREATEN THE DTV TRANSITION.

The digital transition currently stands at a crossroads. The Commission has recently taken steps that are critical for advancing the transition, such as adopting plug and play³ and broadcast flag requirements.⁴ Its critical DTV tuner requirement was upheld by the D.C. Circuit just last month.⁵ These steps, among others, are indicative of the priority the Commission has placed on advancing the digital transition, assuring the public's access to valuable DTV services and speeding the return of full power broadcasters' analog spectrum as

³ See *In re Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, Second Report and Order and Second Further Notice of Proposed Rulemaking, FCC 03-225, CS Docket No. 97-80, PP Docket No. 00-67 (2003).

⁴ See *In re Digital Broadcast Content Protection*, Report and Order and Further Notice of Proposed Rulemaking, FCC 03-273, MB Docket No. 02-230 (2003).

⁵ See *Consumer Elec. Ass'n v. FCC*, 347 F. 3d 291 (D.C. Cir. 2003).

expeditiously as possible.⁶ Creating new channels for digital operations of non-full power broadcasters in already crowded spectrum would represent a step backwards—it would impede the ability of full service stations to move to purely digital operations by inhibiting the repacking of core broadcast spectrum and causing interference to the digital service provided by full power broadcasters. The Commission therefore should decline to use this rulemaking as a vehicle for authorizing second channels for Class A, LPTV or TV translator stations.

A. Granting Second Channels To Class A, LPTV And Translator Stations During The Transition Would Harm The Public Interest.

In upcoming years, the Commission faces the daunting task of “repacking” television broadcast stations from channels 2 through 69 into channels 2 through 51. This process would be difficult were the Commission contending only with full power stations, and it is complicated further by the existence of other broadcast services like Class A, LPTV and translator stations. The Commission noted its firsthand experience with this problem in the *Notice*, where it explained:

Our application processing experience indicates that it is becoming increasingly difficult for LPTV and translator operators in many areas of the country to find additional channels.⁷ Spectrum availability will become even more limited as more DTV stations begin broadcasting and new primary services begin to operate on

⁶ See, e.g., *In re Remedial Steps For Failure to Comply With Digital Television Construction Schedule*, Report and Order and Memorandum Opinion and Order on Reconsideration, FCC 03-77, MM Docket No. 02-113, ¶ 1 (2003) (noting the Commission’s “continued commitment to the rapid build out of a nationwide system of DTV”); *FCC Chairman Michael Powell Announces Creation of FCC Digital Television Task Force*, FCC News Release (Oct. 11, 2001) (“FCC Chairman Michael Powell today announced the creation of an FCC Digital Television (DTV) Task Force to review the ongoing transition to DTV, and to make recommendations to the Commission concerning priorities to facilitate the transition and promote the rapid recovery of broadcast spectrum for other uses.”).

⁷ “More than 2,000 ‘displacement relief’ applications have been filed, which have sought replacement channels in order to resolve or avoid interference conflicts or to vacate the use of TV channels 52-69.” *Notice* ¶ 27 n.56.

the reallocated 700 MHz spectrum comprising TV channels 52-69.⁸

Since the FCC initiated its *Second Biennial Review* on the DTV transition,⁹ MSTV and NAB have expended a great deal of time and resources examining the repacking process. The Commission should not make the challenge of accommodating the transition of all full service stations even more difficult by further congesting broadcast spectrum with second channel grants to Class A, LPTV or translator stations.¹⁰

Moreover, during the transition, broadcast spectrum must accommodate twice as many full power stations—the analog and digital facilities of these broadcasters. Squeezing in some 1,600 new digital allotments resulted in adjustments in service for both analog and digital full power stations, which suffered reductions in service as a result of compromises contained in the DTV Table and the Commission’s adoption of *de minimis* interference allowances.

Furthermore, experience has shown that the full interference characteristics of DTV are not yet completely understood. These hindrances already exist with respect to Class A, LPTV and translator stations that wish to convert on channel, and providing second authorizations for these services would multiply the risks further and fail to advance the public interest.

⁸ *Id.* ¶ 27.

⁹ See *In re Second Periodic Review of the Commission’s Rules and Policies Affecting the Conversion To Digital Television; Public Interest Obligations of TV Broadcast Licensees; Children’s Television Obligations of Digital Television Broadcasters; Standardized and Enhanced Disclosure Requirements for Television Broadcast Licensee Public Interest Obligations*, Notice of Proposed Rule Making, 18 FCC Rcd 1279 (2003) (“*Second Biennial Review*”).

¹⁰ In geographically isolated areas, some translator facilities may wish to consider commencing digital operations on an additional channel. These voluntary conversions should be addressed by the Commission on a case-by-case basis. Such requests should not be granted if they in any way limit channel choices or result in any additional interference to full service stations. Because the areas served by translator stations are usually extremely small, the Commission should refrain from adopting any requirement that forces translators to convert to digital.

The Commission has long recognized that full power broadcasters will drive the digital transition, and it has therefore made “[t]he provision of DTV broadcast service by full-service broadcasters . . . our top priority.”¹¹ The Commission understands that it “must continue to exercise restraint in order to accommodate needs associated with the transition of full power stations to digital service.”¹² Three years ago, when the Commission adopted rules for the newly-created Class A television service, it properly concluded that granting second channel digital authorizations to Class A stations at that time would be harmful and disruptive to the digital transition for full power stations.¹³ When Congress authorized the new service one year earlier, it recognized the difficulties that providing second channels to Class A broadcasters might create and so made clear that: (i) the Commission’s focus should remain on transitioning full power stations to digital;¹⁴ (ii) the FCC was not required to grant second channel authorizations to Class A licensees;¹⁵ and (iii) the rights of Class A stations must give way to the

¹¹ Notice ¶ 131.

¹² *Id.*

¹³ See *In re Establishment of a Class A Television Service*, Memorandum Opinion and Order on Reconsideration, 16 FCC Rcd 8244, 8276 (2001) (“We must exercise restraint with respect to issuing additional DTV licenses in order to preserve spectrum to accommodate needs associated with the transition of full-service stations to digital service.”) (“*Class A Reconsideration Order*”); *In re Establishment of a Class A Television Service*, Report and Order, 15 FCC Rcd 6355, 6394 (2000) (“We agree with MSTV and NAB that we should exercise restraint with respect to issuing additional DTV licenses in order to preserve spectrum to accommodate needs associated with the transition of full-service stations to digital service.”) (“*Class A Order*”).

¹⁴ See H.R. Rep. No. 106-843, at 7 (1999) (authorizing the creation of a low power television service and noting the importance of “protect[ing] the transition to digital”); see also *Class A Reconsideration Order*, 16 FCC Rcd at 8275 (explaining that “requir[ing] mandatory authorization of a paired channel for DTV for a Class A station could create an unfair advantage for Class A stations over certain full service stations”).

¹⁵ See Community Broadcasters Protection Act of 1999, Pub. L. No. 106-113, § 5008(f)(4), 113 Stat. App. I, at 1501A-594, 1501A-597 (codified at 47 U.S.C. § 336(f)(4)) (“The Commission is not required to issue any additional license for advanced television services to the licensee of any class A television station . . . , or to any licensee of any television translator station.”).

needs of the DTV transition.¹⁶ Taking these points into consideration, the Commission correctly determined that granting second channel authorizations to Class A stations would harm the public interest. The same rationale applies to squeezing in additional channels for secondary LPTV and translator services—attempting to shoehorn authorizations into spectrum whose availability is already limited and will eventually shrink would result in increased interference risks, increased displacements and increased disruptions in service to the viewing public.

Furthermore, while the Communications Act mentions the possibility of second channel authorizations for Class A and translator stations, it is silent with respect to low power stations.¹⁷ This is significant, and not merely a case of congressional oversight, because the same statutory provision expressly permits low power stations to transition to digital on channel.¹⁸ The clear implication is that Congress did not consider it necessary for LPTV stations to be eligible for second channels. MSTV and NAB urge the Commission not to grant second channels to Class A, LPTV or translator stations to avoid disrupting the transition of full power broadcasters. However, in the event that the Commission does decide under certain circumstances to grant second channels to some service providers, it should certainly adhere to the statute and refuse to authorize second channels for low power stations.

Moreover, were the Commission to grant second channel authorizations to Class A, LPTV or translator stations now, it would be creating services that have a high likelihood of being displaced as part of the digital transition. The Commission recognized in its Class A

¹⁶ See e.g., *id.* at 1501A-597—1501A-598 (codified at 47 U.S.C. § 336(f)(6)-(7)) (restricting spectrum on which the FCC may grant Class A licenses and adopting a no interference requirement for Class A licensees); H.R. Rep. No. 106-843, at 10 (“[T]he new Class A stations would not be allowed to interfere with . . . certain DTV services.”); *id.* at 7 (stating the importance of continuing to “protect the transition to digital”).

¹⁷ See 47 U.S.C. § 336(f).

¹⁸ See *id.*

orders that there likely would be situations in which Class A stations would be displaced, in spite of their ordinarily protected status.¹⁹ LPTV and translator stations are secondary services that may be displaced at any time by primary service providers, including full power broadcasters and certain land mobile radio operations.²⁰ The repacking process may displace a number of licensees, and that number may increase, as interference in the digital environment is not easy to predict. In some cases, actual levels of interference have proved to be much higher than predicted levels, and as broadcasters ramp up their digital operations during the transition, more problems could arise. In addition, Congress has mandated that an additional 175 full power stations be placed in the “core” broadcast band.²¹ Furthermore, once full power broadcasters begin to migrate to their final digital channels, there will inevitably be unexpected service and interference issues that will need to be worked through, and the Commission needs to conserve adequate spectrum to ensure that these matters can be resolved as effectively as possible. These circumstances mitigate in favor of a cautious approach to authorizing more potentially interference-causing services to operate during the transition.

Establishing a process to provide second channel authorizations for Class A, LPTV and translator stations would encourage service providers to apply for them as soon as possible, in order to gain priority over competing applicants. The inevitable result would be investments by Class A, LPTV and translator stations in second facilities at a time when the final DTV Table for full power stations is uncertain. Many of these investments would be lost when the unavoidable displacements described above occur as a result of repacking, channel election

¹⁹ See *Class A Order*, 15 FCC Rcd at 6400-01.

²⁰ See *Notice* ¶ 3.

²¹ See 47 U.S.C. § 336(f)(6)(B) (directing the Commission to “identify by channel, location, and applicable technical parameters” 175 additional channels to be added to the core spectrum).

or other adjustments attendant to the DTV transition. Moreover, because Class A, LPTV and translator stations would have the incentive to apply for second channel authorizations as early as possible, the Commission would likely be flooded with applications that demand staff attention. The result would be a tremendous diversion of Commission resources that should more properly be devoted to successfully completing the full power DTV transition that is already underway. Cluttering up limited spectrum with more channels, all of which have a significant chance of being displaced through the repacking process, merely encourages the investment of money by service providers and time by the Commission that in many cases would end up wasted.

Finally, as a result of international treaties with Mexico and Canada, the Commission would need to assure that appropriate agreements are reached before expanding Class A, LPTV and translator services to include second DTV channels.²² Many full power DTV stations within 400 miles of the Mexican and Canadian borders have had great difficulty in obtaining authorizations for their digital services and are still attempting to resolve these issues after years of effort. A Commission decision to permit Class A, LPTV and translator stations to apply for second channels would further complicate this situation and hinder the ability of full power broadcasters to authorize their digital facilities. Thus, the Commission should not exacerbate the problems confronting full service stations with respect to international agreements by authorizing additional digital Class A, LPTV and translator stations.

²² See Notice ¶ 125; Letter of Understanding Between the Federal Communications Commission of the United States of America and Industry Canada Related to the Use of the 54-72 MHz, 76-88 MHz, 174-216 MHz and 470-806 MHz Bands for the Digital Television Broadcasting Service Along the Common Border (2000).

B. The Commission Has Clear Statutory Authority To Decline To Grant Second Channels To Class A, LPTV and TV Translator Licensees Or To Grant Them On A Secondary Basis Only.

In the *Notice*, the Commission proposes to award second channels to Class A, LPTV and translator licensees on a secondary basis only, “regardless of whether the station’s existing analog channel is protected, as are those of Class A stations, or subject to displacement by primary stations, as are those of translators and LPTV stations.”²³ The Commission notes that such an approach, among other things:

does not award channels in the digital service that would, at this point in the digital transition, require protection by full-service stations, thus easing concerns that providing digital channels to Class A, LPTV and translator stations would limit our flexibility in implementing the digital transition for full-service television stations.²⁴

As explained above, to avoid impeding the transition of full service stations to digital, the Commission should not grant second channels to any Class A, LPTV or translator stations.

Section 336(f)(4) is clear: the Commission is under no obligation to award a second digital channel to Class A, LPTV or translator stations during the transition. We believe strongly that such second channels should *not* be granted. In fact, the Communications Act does not contemplate that LPTV stations would even be permitted to apply for second channels, and the statute is plain that no second channel authorizations need be granted to Class A licensees or to translators.

If the Commission nonetheless decides to entertain applications from Class A, LPTV or translator stations for second channels, the Commission has the statutory authority to afford any authorizations it might grant secondary status. MSTV and NAB strongly agree with

²³ *Notice* ¶ 109.

²⁴ *Id.*

the Commission's assessment in the *Notice* that if any second channels were to be granted to Class A licensees, in spite of the risks posed to the DTV transition, they should have secondary status and be subject to the Commission's rules for low power stations.²⁵

The Commission asks whether this approach to second channel authorizations for Class A stations would be consistent with Section 336(f)(4) of the Communications Act, which addresses providing digital allotments for Class A licensees, and whether there is “a method by which we might combine the statutory approach with the secondary channel approach.”²⁶ Such an approach is consistent because, notably, the statute does not specify that any second channel digital authorizations the Commission decides to grant will have the primary status of analog Class A stations. Rather, Section 336(f)(4) provides that “[t]he Commission is not required to issue any additional license for advanced television services to the licensee of any class A television station . . . , or to any licensee of any television translator station.”²⁷ It goes on to state that the Commission must accept “license application[s] for such services proposing facilities 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.”²⁸ Accordingly, the statute refers to Class A “licensees” as the class of applicants eligible to file for “any additional license” for DTV services but does not specify that such second channel licenses should have the same status as the analog Class A license held by the applicant. Moreover,

²⁵ *See id.* ¶ 111.

²⁶ *See id.* ¶¶ 110-111.

²⁷ 47 U.S.C. § 336(f)(4); *see also* H.R. Rep. No. 106-384, at 14 (“Paragraph (4) makes clear that the FCC is not required to issue Class A LPTV stations (or translators) an additional license for advanced television services.”).

²⁸ 47 U.S.C. § 336(f)(4).

Congress clearly distinguished between the *acceptance* of certain applications, which is required, and their *grant*, which is not.

These distinctions, when coupled with Congress's manifest intent not to interfere with the digital transition when it established Class A stations,²⁹ makes clear that if the Commission decides to provide second channel digital authorizations to some Class A licensees, then the most it should do is grant licenses with secondary status. This is certainly within the Commission's statutory authority.

Even if the Commission were to decide, despite the many factors weighing against it, to provide second channel authorizations to some Class A licensees, it should not also grant second channels to low power stations or TV translators. As discussed in the prior section, the Communications Act does not contemplate that the Commission would even consider second channels for LPTV stations. The statute speaks to the possibility of second channel authorizations for Class A and translator stations but is silent with respect to low power stations, suggesting that Congress declined to authorize second channels for this service.³⁰ Thus, the Commission should not under any circumstances authorize second channels for LPTV stations. It is also clear that the Act does not require the Commission to grant second channels to TV translators and that translator licensees may transition on channel. To carry out Congress's intent and serve the public interest by prioritizing the digital transition of full power

²⁹ See H.R. Rep. No. 106-843, at 7 (1999) (authorizing the creation of a low power television service and noting the importance of "protect[ing] the transition to digital").

³⁰ See 47 U.S.C. § 336(f).

broadcasters, the Commission should not provide second channel authorizations to translator stations.³¹

II. THE FCC SHOULD DEVELOP APPROPRIATE INTERFERENCE STANDARDS TO ASSURE PROTECTION OF THE PUBLIC'S FULL POWER TELEVISION SERVICE AND PERMIT EXISTING CLASS A, LPTV AND TRANSLATOR STATIONS TO CONVERT TO DIGITAL ON CHANNEL.

As MSTV and NAB explained in Part I, the Commission should not grant second channels to Class A, LPTV or translator stations during the transition because of the potential for the resulting interference to compromise the DTV transition and further complicate the development of a final post-transition DTV Table. However, if the Commission can develop its interference standards to ensure that appropriate technical specifications are adequate to protect full power stations, then it should permit providers of Class A, LPTV and translator services to transition on channel.³² This is consistent with the Commission's determination in the Class A proceeding "that Class A stations may convert their existing channel to digital broadcasting at any time"³³ and with the directive in the Communications Act that LPTV and translator stations may transition on channel.³⁴ An on-channel approach to digital conversion for Class A, LPTV and translator services—the same approach adopted by the Commission for many full power broadcasters who either were ineligible for a second DTV channel or have relinquished their second digital channel—would allow the nation's full power broadcasters to lead the digital

³¹ Of course, were the Commission nevertheless to decide to grant second channels to TV translators, the secondary status of these services would carry over from the analog environment.

³² Such technical standards would apply to any Class A, LPTV and translator stations, including not only flash-cuts, but also post-transition channels and second channels, were the Commission to award any.

³³ *Class A Order*, 15 FCC Rcd at 6392; *see also Class A Reconsideration Order*, 16 FCC Rcd at 8275.

³⁴ *See* 47 U.S.C. § 336(f).

transition, as Congress and the Commission intended, while enabling other services to transition as well in a less intrusive manner.

A. The Commission Must Strengthen Its Technical Rules For Class A, LPTV And Translator Services.

The digital television environment differs from the analog environment in that interference does not gradually degrade service—it eliminates it altogether. Therefore, the interference tolerances in the analog world are not adequate for the digital world, and the technical standards for DTV must be more conservative if the public is to realize the long-awaited benefits that digital television can provide. The technical proposals suggested by the Commission in the *Notice* to protect the digital broadcast facilities of full service stations from the operations of digital Class A, LPTV and translator stations are inadequate. Many of the proposals advocate further erosion of protections afforded under the existing analog rules. The Commission should strengthen these protections instead of relaxing them in light of the fact that interference in the digital environment is more objectionable than in the analog environment. The tolerances the Commission affords in the analog world are not adequate for the digital world, and technical requirements adopted in this proceeding should take into account the new environment.

MSTV and NAB agree with the Commission’s statement that Class A, LPTV and TV translator stations are secondary to and must not cause interference to the reception of “regularly used” signals of full power analog and digital stations.³⁵ Existing rules have for the most part protected full power analog facilities from interference, and one of the reasons for the success of those rules is that full power stations are protected to their service contours.

³⁵ See *Notice* ¶ 34.

Furthermore, for certain channel relationships, Class A, LPTV and translator stations are prohibited from locating their transmitting facilities inside a full service station's contour. Adopting similar rules in the digital context to prohibit Class A, LPTV and translator stations from operating inside a full power station's contour is a good start. However, care should be taken in developing these new rules, given that the new digital service has only been in operation for six years, and the manifestation of the interference in digital is different than in analog (*i.e.*, no picture in digital versus degradation of the picture in the analog). Broadcasters and the Commission are still learning about the various intricacies of the digital service and interference. Development of interference rules for digital Class A, LPTV and translator stations, especially with regard to the protection of full power service, should be based on the best available information, knowledge and experience gained from the past six years of operation of full power DTV facilities and should factor in the ongoing ATSC activities regarding the expected performance of DTV receivers. The new rules should incorporate the latest technical information to update existing rules.

The *Notice* proposes to use Desired-to-Undesired ("D/U") signal strength ratios as *the basis and sole criteria* for accepting applications for new channels from digital Class A, LPTV and translator stations and/or for analyzing interference to full power stations.³⁶ MSTV and NAB oppose this approach. While we believe that D/U ratios are an important factor in assessing interference, reliance on this measure alone falls far short of insuring interference-free operations for full power stations. The Commission should not rely solely on the D/U ratios proposed in the *Notice* to evaluate applications from secondary service providers because they are inadequate for protecting full service stations. The D/U ratios used in the DTV Table were

³⁶ *See id.* ¶ 37.

based on limited and incomplete data, and a single prototype DTV receiver was used to develop these ratios. Six years worth of laboratory and field trials have confirmed that today's commercial receivers do not achieve the performance measured with the initial prototype receiver. Therefore, using the D/U ratios from the Table without taking into account these new findings would tend to underestimate the interference caused to full power broadcasters. The broadcast and consumer electronics manufacturing industries are actively working within the ATSC process to recommend receiver performance standards (*i.e.*, D/U ratios for receivers) to the Commission that will help refine these initial ratios.

Second, the D/U ratios proposed in the *Notice* are inappropriate for determining interference between full power and secondary services. The D/U ratios used to develop the DTV Table addressed interference considerations between full power stations, taking into account substitution of service and levels of interference. Generally, the interference allowances and tolerances among full service licensees are different from the allowances between full service and secondary service licensees. The Commission has always taken extra care and established additional criteria to protect full service licensees from interference generated by secondary service licensees. This is true in the analog environment and was also the case in the more recent Class A proceeding.

In developing low power television service two decades ago, the Commission correctly recognized that to protect full power service adequately, it had to adopt a number of different technical criteria, rather than relying solely on D/U ratios. Specifically, the Commission adopted a number of criteria such as restricting the operation of LPTV stations inside the service contour of full power stations and applying D/U ratios only outside of the contour. The Commission also imposed mileage separation requirements between low power and full power transmitters operating within certain taboo channel relationships, and it used the

FCC's curves to determine contour protection. MSTV and NAB support a similar approach in this proceeding and urge the Commission to develop analogous rules that will protect full power digital facilities from interference by digital Class A, LPTV or translator stations. Specifically, MSTV and NAB propose the following technical criteria:

- Digital Class A, LPTV or translator stations operating on the same channel as or first adjacent (upper or lower) channel to a full power analog or digital station should not be permitted to locate their transmitters inside the noise-limited contour of the full power station. Determination of the Effective Radiated Power and antenna height of the transmitting facility outside the noise-limited contour should be based on meeting a specified D/U ratio at the edge of the noise-limited contour. MSTV and NAB urge the Commission to reject any proposal that would allow digital Class A, LPTV or translator operation inside the noise-limited contour of a full power analog or digital station using the same or an adjacent channel.
- Digital Class A, LPTV or translator stations operating on a UHF channel that is two, three, four, seven or eight channels removed (upper or lower) from a full power analog or digital station should not be permitted to locate their transmitters within 31.4 km of the contour of the full power station. Determination of the Effective Radiated Power and antenna height of the transmitting facility outside the 31.4 km contour would be based on meeting the applicable D/U ratios at the edge of the 31.4 km contour of the full power station.
- Digital Class A, LPTV or translator stations operating on a fourteenth or fifteenth channel above a full power analog or digital station should not be permitted to locate their transmitters within 48.3 km of the contour of the full power station. Determination of the Effective Radiated Power and antenna height of the transmitting facility outside the 48.1 km contour would be based on meeting a specified D/U ratio at the 48.1 km contour of the full power station.
- Develop new D/U signal level protection ratios based on the information that is currently being developed by ATSC regarding the performance of DTV receivers.
- Rely on section 74.625(b) of the Commission's rules to compute the protection contour for digital full power stations and determine the distances from their contours required to afford protection.

MSTV and NAB also urge the Commission to adopt a "stringent" emission mask and out of band channel emission limits for Class A, LPTV and translator stations so as to

minimize interference between full power and low power stations. Furthermore, care should be taken when using OET Bulletin No. 69 and the Longley Rice model for calculating interference from Class A, LPTV and translators to full power stations, especially when strong signal conditions are present.³⁷ Finally, LPTV stations should be held to the same transmission standards as full power stations and the equipment certification requirements should be the same as for full power stations because of the potential for interference, particularly adjacent channel interference.

B. The Commission Should Not Permit Interference Agreements Among Class A, LPTV and TV Translator Station Licensees, Permittees And Applicants.

Historically, the Commission has allowed interference agreements under certain circumstances among LPTV and TV translator station licensees, permittees and applicants and between Class A stations and LPTV and TV translator station licensees, permittees and applicants.³⁸ It also has permitted full power stations to consent to the grant of applications by LPTV and translator services that are predicted to cause interference to their viewers, although the LPTV or translator licensee is still obligated to eliminate interference to over-the-air viewers of the full power station where it is regularly viewed.³⁹ In the *Notice*, the Commission proposes to carry these practices from the analog context forward to the digital environment with respect to digital Class A, LPTV and translator stations.⁴⁰

³⁷ The parameters used in Tables 5A and 5B of OET Bulletin No. 69 lack the appropriate D/U ratios to compute taboo interference under strong and moderate signal conditions. ATSC intends to recommend D/U ratios for strong and moderate signal conditions with respect to the development of performance guidelines for receivers.

³⁸ See 47 C.F.R. §§ 74.703(a) & 73.6022.

³⁹ See *Notice* ¶ 50.

⁴⁰ See *id.*

MSTV and NAB strongly urge the Commission not to permit such arrangements in the digital context, which, for the reasons discussed above, is not comparable to the analog world with respect to interference issues. Interference in the digital environment is less predictable than in the analog context, and digital interference results in a complete loss of service, rather than gradual degradation. These circumstances exacerbate the fact that interference arrangements between two parties can impact third parties who have no say in the negotiations, and it is unfair to disrupt the service of third party broadcasters and their viewers without consent. Furthermore, easing the digital transition for full power broadcasters, including by keeping them free from harmful interference, serves the public interest because it is the conversion of full power broadcasters to digital operations that will enable the clearing of spectrum and spur consumers to acquire digital equipment. The Commission should therefore not permit arrangements, even if voluntary, that potentially would interfere with viewers' access to digital programming from full power stations.⁴¹ Access to such programming and other digital services is critical to encouraging consumers to purchase digital sets, which will in turn drive the transition toward the statutory 85 percent market penetration threshold. Given the complexities and interference uncertainties broadcasters already face as part of the digital transition, the Commission should not create additional risks and complications by endorsing interference arrangements.

⁴¹ In any event, the Commission should not permit any agreements that could affect channel assignments for or interference to full service stations operating in border areas until Mexican and Canadian digital coordination problems are resolved.

C. Class A, LPTV Or Translator Stations Converting To Digital On Channel Should Be Required To Provide Actual Notice To All Affected Full Power Stations Prior To Filing An Application.

MSTV and NAB do not object to the Commission's proposal to treat the application of a Class A, LPTV or translator station to transition on channel as a "minor change,"⁴² provided that: (1) the proposed digital facility would not involve a channel change unrelated to channel displacement, (2) the protected digital signal contour of the proposed facility would overlap some portion of the protected contour based on the station's analog or digital authorization, and (3) applicants comply with actual notice requirements like those the Commission has established in other contexts. Because transitioning full service stations to digital and keeping them free from interference serves the public interest, full power broadcasters that could be affected by Class A, LPTV or translator stations' applications to convert to digital on channel should receive written notice of such applications prior to their filing, and Class A, LPTV and translator applicants should be required to certify in their applications that such notice has been provided. Affected stations should be those within 150 miles of the Class A, LPTV or TV translator transmitter site specified in the application, and applicants should be required to provide notice at least 60 days before filing applications.

III. THE FCC SHOULD NOT USE THIS PROCEEDING AS A VEHICLE TO FUNDAMENTALLY CHANGE THE NATURE OF CLASS A, LPTV AND TRANSLATOR SERVICES.

Throughout the *Notice*, the Commission asks whether certain rules and regulations that apply to analog Class A, LPTV and translator licensees should apply in a digital environment. In general, the service rules for Class A, LPTV and translator stations in the analog environment should flow through to the digital world, except where technology or the

⁴² See *Notice* ¶ 92.

requirements of the digital transition dictate a difference. At bottom, this proceeding should not change the basic nature of these services and should alter neither the secondary status of LPTVs and TV translators nor the deference Class A stations are required to give to full power operations. For example:

- Digital LPTV and TV translator stations should be eligible to use television broadcast auxiliary service (“BAS”) spectrum “to operate on the same bands and for the same purposes as analog LPTV and TV translators, subject to the rules governing digital operations.”⁴³ This means that digital LPTVs and TV translators would have secondary status with respect to use of BAS frequencies.
- Contrary to the request of the LPTV Petitioners, noncommercial stations should not be given priority with respect to transitioning their LPTV or TV translator stations to digital.⁴⁴ As the Commission has made clear throughout the *Notice*, “the low power and television translator digital service should remain a secondary service,”⁴⁵ and this should be the case regardless of whether the service at issue is commercial or noncommercial in nature.
- Digital LPTVs should be authorized to provide one-way video services only—Congress established a limited, specified number of LPTV stations that are permitted to offer two-way services, and that class should not be expanded at this time.⁴⁶

⁴³ *Id.* ¶ 126. However, affording Class A, LPTV and translator stations access to BAS frequencies in small and medium-sized markets (markets below 31) will be difficult in light of the Commission’s recent decision with respect to MSS services because the number of BAS channels available to all users, including full power stations, in those markets will be limited for three to five years after MSS operators begin providing service. *See In re Amendment of Section 2.106 of the Commission’s Rules to Allocate Spectrum at 2 GHz for use by the Mobile-Satellite Service; Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems; Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands*, Third Report and Order and Third Memorandum Opinion and Order, FCC 03-280, ET Docket Nos. 95-18 & 00-258 and IB Docket No. 01-185 (2003).

⁴⁴ *See Notice* ¶¶ 128-131.

⁴⁵ *Id.* ¶ 131.

⁴⁶ *See* 47 U.S.C. § 336(h)(3)-(5).

As follows, most analog requirements should also carry over to digital Class A, LPTV and translator stations:⁴⁷

Class A stations. Class A stations converting on channel to DTV should be subject to the same service rules and protections as analog Class A stations, including the possibility of being displaced to permit full power stations to transition their maximized facilities to a final digital channel.

Low power television stations. To avoid altering the nature of low power television service, MSTV and NAB agree with the Commission that digital LPTV stations that transition on channel should be subject to the same minimum video program service requirement as digital full power and digital Class A stations.⁴⁸ This means that digital LPTVs must “use some of their capacity to provide a free video programming service of at least NTSC technical quality, intended for reception by the general public.”⁴⁹ Digital LPTV stations should also be subject to the same public interest obligations as analog LPTVs.⁵⁰ Furthermore, digital LPTV stations, like full service stations, must have PSIP generation capability so that they will be compliant with the ATSC channel-mapping protocol. As in the analog context, digital LPTVs should not be subject to minimum hours of operation.

Translator stations. The Commission should not in this proceeding change the fundamental nature of translator service. Translators should continue to be viewed as a mechanism for bringing the programming of a main station to underserved viewers. To this end,

⁴⁷ As a general matter, Class A, LPTV and translator stations should be required to broadcast a signal that is consistent with the transmission system employed by full service stations (*i.e.*, 8-VSB).

⁴⁸ *See Notice* ¶ 23.

⁴⁹ *Id.*

⁵⁰ *See id.* ¶ 24.

the Commission should define a digital translator as “a station operating for the purpose of retransmitting the programs and signals of a DTV broadcast station for reception by the general public, without significantly altering any characteristic of the original signal other than its frequency and amplitude.”⁵¹ Digital translators should seamlessly pass through all the bits of the parent station *without degradation*, subject to the limited local insertion exceptions set forth in the existing analog rules.⁵² The requirement that digital translators pass on the entirety of the main station’s bitstream should extend to ancillary and supplementary and non-video services provided by the main station.⁵³ To the extent that the *Notice* also asks whether digital translators should be permitted to alter the content or format of a primary station’s signal *without* that station’s consent, the answer is no.⁵⁴ Under no circumstances should a translator station be permitted unilaterally to alter in any manner the primary station’s signal. Indeed, it would be contrary to the statute to permit a translator station to do so.⁵⁵ The Commission’s limits on digital translator local signal insertions should remain the same as in analog, where transmission of certain types of local messages, such as public service announcements and emergency

⁵¹ *Id.* ¶ 12. We note that there may be technical issues relating to translators and the heterodyne frequency conversion approach. *See id.* For example, some have observed that a translator that receives the signal of a main transmitter and merely changes the channel number will also rebroadcast the received ghosts. This may not be the case with regeneration, which produces a clean signal free of received ghosts. Nonetheless, it may be more appropriate to leave the conversion mode up to the broadcaster and translator operator.

⁵² *See id.* This means that the Commission should not, for example, permit digital translators to engage in multi-station “multicasting,” whereby they would rebroadcast in standard definition format in the same output channel multiple video programming streams from different broadcasters. *See id.* ¶ 16.

⁵³ *See id.* ¶ 16.

⁵⁴ *See id.*

⁵⁵ *See* 47 U.S.C. § 325(a).

warnings, is permitted.⁵⁶ Likewise, the rules for digital translator input signal sources should be the same as for analog, such as using a TV translator relay or other terrestrial microwave source, including the use of BAS spectrum on a secondary, non-interfering basis.⁵⁷ All of these rules would promote the DTV transition by ensuring distribution of all of a parent station's digital content, including HDTV content, to viewers (and cable headends) without degradation or alteration.

In the *Notice*, the Commission also asks whether digital translator operators should, with the main station's consent, be permitted to: (i) cover portions of a broadcaster's bitstream devoted to carriage of ancillary and supplementary services with locally generated messages or the translator operator's own ancillary and supplementary services; or (ii) offer their own ancillary and supplementary services on a subscription basis.⁵⁸ Because both of these proposals would alter the fundamental nature of translator service—to serve as a conduit for conveying a main station's signal to the public—neither should be permitted.

IV. THE COMMISSION SHOULD NOT ESTABLISH RULES FOR DTV BOOSTERS AT THIS TIME.

The Commission inquires in the *Notice* as to whether it “should establish a digital booster class of station in our LPTV service rules.”⁵⁹ Although digital boosters might provide some benefits, they also “must be carefully engineered to ensure sufficient isolation between incoming and outgoing signals. Otherwise, the booster output signal will interfere with its ability

⁵⁶ *See id.* ¶ 15.

⁵⁷ *See id.* ¶ 17.

⁵⁸ *See id.* We note that the issues raised here pertain to the operations of translators that have elected to operate in digital mode and in no way limit the ability of full service digital stations to continue to allow translators operating in analog mode to retransmit their digital signals in a downconverted, analog format in circumstances where that best serves their viewers.

⁵⁹ *Id.* ¶ 120.

to receive the input broadcast signal on the same TV channel.”⁶⁰ In the *Second Biennial Review*, the Commission proposed establishing rules for distributed transmission systems as an alternative to the use of on-channel booster stations.⁶¹ The Commission should make the establishment of such systems, which rely on multiple highly synchronized transmitters to enhance the distribution of a station’s signal within its Grade B contour, a higher priority. There is no need to divert attention by creating a new class of service now, when the Commission is already considering alternatives.

* * *

For the foregoing reasons, MSTV and NAB urge the Commission to keep at the forefront the fact that the public interest is best served by the adoption of policies that advance the digital transition for full service broadcasters and their viewers. The Commission should not hinder the transition for full power stations and the public by authorizing new secondary services that have the strong potential to disrupt existing digital (and analog) full power service and impede the already complex repacking process. The Commission can and should minimize disruptions to full power broadcasters by requiring Class A, LPTV and TV translator stations to transition to digital on channel, and it should avoid changing the basic nature of these services in the digital environment.

⁶⁰ *Id.* ¶ 119.

⁶¹ *See Second Biennial Review*, 18 FCC Rcd at 1315-17.

Respectfully submitted,

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