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FCC 96-317

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Advanced Television Systems	)	
and Their Impact upon the	)	MM Docket No. 87-268
Existing Television Broadcast	)	
Service	)	

Sixth Further Notice Of Proposed Rule Making

Adopted: July 25, 1996 ; Released August 14, 1996

Comment Date: November 22, 1996
Reply Comment Date: December 23, 1996

By the Commission: Chairman Hundt issuing a statement.

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I. INTRODUCTION

1. By this action, the Commission begins the final step in the implementation of the next era of broadcast television: digital television (DTV).[1] Recently, we considered the issue of a DTV broadcast standard.[2] Earlier, we adopted a Notice addressing the manner in which digital licensees may use the spectrum identified for digital broadcasting, and other issues.[3] In this action, we continue the implementation process by proposing policies for developing the initial DTV allotments, procedures for assigning DTV frequencies,[4] and plans for spectrum recovery.

2. We also propose technical criteria for the allotment of additional DTV frequencies and provide a draft DTV Table of Allotments. The Table, which shows how initial digital frequencies might be allotted and assigned in individual markets, is based on the principles of accommodating all eligible existing broadcasters, replicating existing service areas, and ensuring sound spectrum management. While we expect our final Table of Allotments to be based on these principles, the Table we issue today is a draft and we anticipate revisions. Our staff will work with broadcasters and other parties to revise the Table as appropriate. We have also proposed procedures by which broadcasters within a community can request alternative allotments for their market, both before and after adoption of a Table.

3. Our overarching goals in this phase of the proceeding are to ensure that the spectrum is used efficiently and effectively through reliance on market forces and to ensure that the introduction of digital TV fully serves the public interest. In this latter regard, our proposals will serve to foster the competitive provision of new and innovative DTV services and to promote economic growth and the creation of jobs in the telecommunications industry.

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[1] Digital TV refers to any technology that uses digital techniques to provide advanced television services such as high definition TV (HDTV), multiple standard definition TV (SDTV) and other advanced features and services.

[2] See Fifth Further Notice of Proposed Rule Making, adopted May 9, 1996, FCC 96-207 (released May 20, 1996); see also Advanced Television Systems Committee Standard A/53 (1995) ATSC Digital Television Standard (ATSC DTV Standard).

[3] See Fourth Further Notice of Proposed Rule Making and Third Notice of Inquiry (Fourth Further Notice), 10 FCC 10541 (1995).

[4] As used herein, the terms "frequency" or "channel" generally refers to the 6 MHz spectrum block currently used to provide a single NTSC television service or to the equivalent 6 MHz spectrum block to be used for DTV services. In each case, the NTSC and DTV channel numbers used herein correspond to the same frequency bands. For example, NTSC channel 2 and DTV channel 2 both correspond to the frequency band 54-60 MHz. It should be noted, however, that whereas an NTSC frequency or channel is used to provide a single television program service, DTV frequencies or channels may be used to provide a wide variety of services, such as HDTV, multiple SDTV programs, audio, data and other types of communications.

II. BACKGROUND AND SUMMARY

4. On July 16, 1992, the Commission adopted a Second Further Notice of Proposed Rule Making that addressed issues relating to the development of channel allotments for DTV service. In that action, we presented proposals for the policies, procedures and technical criteria to be used in allotting and assigning channels for DTV service. Included in this action was a "draft" proposal for a DTV Table of Allotments.

5. On July 28, 1995, we adopted a Fourth Further Notice of Proposed Rule Making and Third Further Notice of Inquiry (Fourth Further Notice) that revisited a number of policy issues in response to technical and system developments with regard to digital broadcast television technology.[5] We noted that digital encoding and transmission technology permits the transmission of multiple standard definition television (SDTV) programming, data and other services in addition to high definition television (HDTV) service.[6] With regard to spectrum issues, we restated our commitment to recovery of spectrum. We stated that the temporary grant of an additional 6 MHz channel for digital broadcasting would be conditioned explicitly on, among other things, return of one of the channels at the end of a transition period. We further stated that we may require broadcasters to change their channels at the end of the transition period, so that recovered spectrum can be aggregated into contiguous blocks, thereby increasing its value. We also indicated that we intended to issue another Further Notice proposing a DTV Table of Allotments and channel assignment methodology.[7]

6. We adopted a Fifth Further Notice to consider the issue of a DTV broadcast technical standard on May 9, 1996. We proposed to require that DTV licensees use the ATSC DTV Standard recommended by our Advisory Committee on Advanced Television Service (Advisory Committee) as the transmission system for digital broadcast television.[8] To ensure that our rules encourage future innovation, we also proposed to do one or more of the following: 1) proceed under our current processes, which include consideration of requests to amend our rules when the Commission, industry, or other members of the public believe change warranted; 2) provide for reviewing the standard at some future time; or, 3) adopt a sunset provision making the standard optional after an established period of time. We also sought comment on alternatives to requiring use of the ATSC DTV Standard, including the

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[5] See Fourth Further Notice, at paras. 3-19.

[6] Id. at para. 4.

[7] Id. at para 19.

[8] See Final Report and Recommendation of the Advisory Committee on Advanced Television Service, adopted November 28, 1995. Copies of this report are available through the Commission's copy contractor, International Transcription Services. Additionally, the Advisory Committee's Report and the ATSC DTV Standard are available on the Internet at the ATSC site (http://www.atsc.org).

possibility of mandating only certain portions of the standard, or simply authorizing use of the ATSC DTV Standard and protecting it against interference.

7. In this action, we consider policies, procedures and technical criteria to be used in allotting and assigning channels for digital TV service. The DTV Table on which we are seeking comment is based on the principles of full accommodation for all eligible existing broadcasters, replication of existing broadcast service areas, and sound spectrum management, and it uses the technical and interference characteristics of the ATSC DTV Standard. We proceed with this Further Notice on the assumption that 6 MHz channels will be assigned to existing broadcasters, and that there will be a transition period after which broadcasters will return one of their two 6 MHz channels.[9] We do not address in this Further Notice the issue of whether digital licenses should be assigned through competitive bidding, which is beyond our statutory authority.[10]

III. ALLOTMENT AND ASSIGNMENT PRINCIPLES

8. The development of a proposed new Table of Allotments for digital TV broadcasting is a complex and difficult task. Over 1900 new DTV allotments must be identified to serve the almost 1000 TV markets and communities throughout the United States. Sophisticated, state-of-the-art computational capabilities are required to perform the complicated task of creating these new allotments and calculating the anticipated coverage and interference effects of the proposed new DTV frequencies. Comprehensive engineering and technical analyses must be performed to study the potential for recovery of spectrum. The principles and policies that have resulted in our DTV allotment proposals are discussed fully below. We request comment on all aspects of the principles and assumptions underlying the attached draft DTV Table.

A. Full Accommodation

9. In the Second Further Notice issued in 1992, we proposed that our primary allotment objective would be to accommodate all eligible existing broadcasters with a second channel for DTV service.[11] We had previously indicated that eligible broadcasters would include: a) all full-service television broadcast station licensees; b) permittees authorized as of October 24, 1991; and c) all parties with applications for a construction permit on file as of

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[9] The issue of the appropriate duration of a transition period from NTSC to DTV service is not a subject of this Further Notice; that issue is being addressed in the context of the Fourth Further Notice.

[10] In the Fourth Further Notice, we explained that our auction authority under 47 U.S.C. Section 309(j) does not include the authority to auction digital broadcast licenses. See Fourth Further Notice, at para. 31.

[11] See Second Further Notice of Proposed Rule Making (Second Further Notice), 7 FCC Rcd 5376 (1992), at paras. 9-10.

October 24, 1991, who are ultimately awarded full-service broadcast station licenses.[12] In the Fourth Further Notice, we reiterated our 1992 decision that initial eligibility for DTV frequencies should be limited to existing broadcasters.[13] The recently enacted 1996 Telecommunications Act provides that if we decide to issue additional licenses for advanced television services, we should limit the initial eligibility for such licenses to persons that, as of the date of such issuance, are licensed to operate a television broadcast station or hold a permit to construct such a station.[14]

10. Proposal. Consistent with the above, we propose that our primary allotment objective continue to be to develop an allotment approach that will accommodate all eligible existing broadcasters. Subject to any changes resulting from our Fourth Further Notice, existing broadcasters eligible for a DTV channel will include those broadcasters we have previously identified: a) all full-service television broadcast station licensees; b) permittees authorized as of October 24, 1991; and c) all parties with applications for a construction permit on file as of October 24, 1991, who are ultimately awarded full-service broadcast

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[12] See Second Report and Order/Further Notice of Proposed Rule Making (Second Report/Further Notice), 7 FCC Rcd 3340 (1992), at para. 9. Subsequently, in the Memorandum Opinion and Order/Third Report and Order/Third Further Notice of Proposed Rule Making, the Commission clarified that, in the event of a shortfall of allotments, eligible parties would be ranked in the following order: 1) licensees and permittees with constructed facilities having program test authority; 2) other permittees; and 3) all parties with an application for a construction permit pending as of October 24, 1991. See Memorandum Opinion and Order/Third Report and Order/Third Further Notice of Proposed Rule Making (Third Report/Further Notice), 7 FCC Rcd 6924 (1992), at paragraph 10. In the Fourth Further Notice, we further stated that in the event that we were not able to accommodate all eligible existing broadcasters with an DTV channel, there are other options, such as switching directly to DTV service at some point during or at the end of the transition period. See Fourth Further Notice, at footnote 24. As discussed herein, we now believe that it will be possible to accommodate all eligible broadcasters with a DTV channel. If, however, we ultimately adopt a different allotment approach, we continue to propose to employ the ranking procedure and options set forth in the Third Report/Further Notice and Fourth Further Notice.

[13] We also asked for comment on the eligibility status of those broadcasters who are in bankruptcy, off-the-air, have construction permits or are otherwise non-operational, or are otherwise incapable of engaging in the transition to digital television. In particular, we have requested comment on whether the transition channels identified for these parties would be better used to support service to the public if they were instead made available to new entrants.

[14] Section 201 of the Telecommunications Act of 1996 provides, inter alia, that "[i]f the Commission determines to issue additional licenses for advanced television services, the Commission ... should limit the initial eligibility for such licenses to persons that, as of the date of such issuance, are licensed to operate a television broadcast station or hold a permit to construct such a station." Telecommunications Act of 1996, Pub. l. No. 104-1-4,, Section 201, 110 Stat. 56 (1996).

station licenses. This approach will ensure that all eligible full service broadcasters are able to provide the new digital TV service. Our proposals herein regarding full accommodation are also consistent with the provisions of the 1996 Telecommunications Act regarding initial eligibility for licenses. As described below, we are also proposing procedures for creating additional allotments beyond those needed initially for accommodating all existing full service broadcasters.

B. Digital TV Service Areas

11. In the Second Further Notice, we proposed to employ an allotment approach that would maximize the service areas of all DTV allotments.[15] We also stated that it is important to enable DTV stations to serve geographic areas that encompass their communities of license and surrounding market areas. We indicated that we intended to establish a minimum DTV service area objective and stated that, at a minimum, DTV stations should have the capability to provide service to an area within a radius of 85-90 km (about 55 miles) of their transmitter sites.[16] Under this approach, frequencies would be assigned to broadcasters in a community either through a negotiation process or on a first-come, first-served basis.[17]

12. We also requested comment on a "service replication/maximization" concept suggested by a variety of broadcast industry interests and representatives.[18] Under this approach, in the allotment process, we would attempt to provide DTV coverage areas comparable to existing NTSC coverage areas, taking each station's actual facilities and interference into account. We would also attempt, where possible, to provide smaller NTSC stations with larger DTV coverage areas, up to the size of the coverage area of the largest station in their market. Consistent with the comparable coverage objective, using the service replication approach we would match DTV frequencies with existing NTSC frequencies to create channel pairings/assignments. The goal of this approach would be two-fold: 1) to provide DTV coverage comparable to a station's entire current coverage area and, 2) to provide the best correspondence between the size and shape of the proposed DTV channel's coverage area and the station's existing coverage.

13. Proposal. In reviewing this issue, we agree with those in the broadcasting industry who have argued that replication of existing service areas in the new DTV allotments

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[15] See Second Further Notice, at paras. 11-16.

[16] The service distances typical of existing NTSC stations range from about 85-105 km (55-65 miles). Some stations, however, have a service distance as short as 30 km (20 miles) and others have a service distance as long as 125 km (80 miles).

[17] See Second Report/Further Notice, at para. 35.

[18] For example, this approach was suggested by the Commission's Advisory Committee on Advanced Television Service (Advisory Committee), the Broadcast Caucus, the Association of Maximum Service Television, Inc. (MSTV), the National Association of Broadcasters (NAB) and others.

offers important benefits for both viewers and stations.[19] Replication would generally maintain the service areas of existing NTSC stations, thereby preserving viewers' access to off-the-air TV service and the ability of stations to reach the audiences that they now serve.[20] Accordingly, we are proposing to identify digital TV allotments that, to the extent possible, will allow all existing broadcasters to provide digital TV service to a geographic area that is comparable to their existing NTSC service area.[21] In this regard, we also propose to specify for each DTV allotment a maximum permissible effective radiated power (ERP) and antenna height above average terrain (HAAT) that would, to the extent possible, provide for replication of the station's existing service area. Furthermore, as discussed below, we are proposing to allow stations to maximize or increase their service area where such an increase would not create additional interference.[22]

14. We request comment on all aspects of our proposal to use the service replication plan in allotting and assigning initial channels for digital TV service. We also request comment on whether it might be more desirable instead to adopt our original plan to allot DTV channels using an approach that maximizes the service areas of all DTV stations. This approach would tend to equalize the coverage areas of all stations within a market and reduce the current disparities among stations. We request comment on whether our original approach would be more appropriate and would provide more incentives for broadcasters to implement digital service more quickly than the service replication approach.

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[19] See for example, "Broadcasters' Proposed ATV Allotment/Assignment Approach," submitted in MM Docket No. 87-268 on January 13, 1995, by approximately 90 broadcast organizations and companies, including the Association for Maximum Service Television, Inc., the National Broadcasters Association and other trade associations, commercial and public television networks, group station owners and individual station licensees.

[20] Like our service maximization methodology, the service replication/maximization plan offers the means to achieve a spectrum efficient DTV Table of Allotments. The service replication/maximization methodology is a technically-based approach that employs highly accurate modeling and assignment analysis techniques developed by MSTV and the Broadcast Caucus and optimization technologies developed by FCC staff to best accommodate all existing stations in the limited spectrum available. In assigning DTV channels, the computer software used with this method provides a neutral solution, in that it does not distinguish among types of stations, e.g., network affiliates, independent stations or noncommercial educational stations.

[21] The methodology used to calculate NTSC service area is based on studies and methodologies developed by industry and our Advisory Committee. See Final Report and Recommendation of the Advisory Committee on Advanced Television Service.

[22] Stations would be permitted to increase their power and antenna height up to that permitted for maximum facilities, as discussed below in Section IX.

C. Spectrum for DTV

15. In the Second Report/Further Notice, we set forth a plan for implementing DTV service. As part of that plan, we proposed to provide broadcasters with the temporary use of a second channel for DTV operations, and we emphasized that at the end of the transition period we would reclaim one of the two channels.[23] In the Second Further Notice, we proposed to locate all DTV allotments in the UHF band.[24] We indicated that locating all DTV allotments in a single band would help reduce the cost of DTV receiving equipment and reduce technical disparities between stations. We also stated that allotting DTV channels only to UHF frequencies would leave the VHF band vacant after the transition to DTV is completed and would make this band available for new radio services.

16. In the Fourth Further Notice, we stated that we remain committed to spectrum efficiency and to the recovery of spectrum.[25] We noted that over 400 MHz of spectrum in the VHF and UHF bands is currently allocated for television broadcasting.[26] We indicated that while the NTSC system does not permit all of the TV channels designated in this spectrum to be used in the same geographic area, the ATSC DTV system does not appear to pose the same limitations on spectrum use. Accordingly, we stated that as part of our long term plans to promote efficient use of the spectrum, we are considering reducing the amount of spectrum allocated to television broadcasting, but without reducing the number of licensees.[27] In particular, we stated that by moving some digital broadcast stations to new frequencies upon cessation of NTSC service, we would be able to condense broadcasting assignments to significantly less than 400 MHz, facilitate spectrum recovery in contiguous blocks and thereby achieve a more spectrum-efficient arrangement. Finally, we questioned our previous view that the UHF band is the part of the spectrum to which all television broadcasting should be moved and sought comment on which parts of the VHF and UHF bands are most highly valued for digital broadcast use.[28]

17. We also noted in the Fourth Further Notice that we had not made any decisions concerning which of the two channels would eventually be surrendered.[29] We stated that to minimize the number of digital broadcast stations that may need to be moved to facilitate the

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[23] See Second Report/Further Notice, at para. 50.

[24] See Second Further Notice, at paras. 17 and 18.

[25] See Fourth Further Notice, at para. 58.

[26] Id. We note that the technical characteristics of the existing NTSC broadcast system allow use of only 102 MHz of spectrum at any given location. See Notice of Inquiry in MM Docket No. 87-268, 2 FCC Rcd 5125 (1987).

[27] See Fourth Further Notice, at paras. 57-60 and 86-87.

[28] Id., at para. 86.

[29] See Fourth Further Notice, at para. 59.

creation of large contiguous blocks of VHF and/or UHF spectrum, it will likely be necessary for the Commission, not the licensee, to determine which 6 MHz channel the broadcaster must use for digital transmission and which must be surrendered.[30] We also indicated that by making these decisions early we can aid broadcasters in their investment decisions.[31]

18. Proposals. The primary goal of this proceeding is to ensure that the implementation of the DTV service is accomplished in a manner that serves the public interest. To achieve this goal, we believe that it is important to provide the new digital stations with the spectrum that is the most appropriate and technically suitable for their operation. In addition, given our obligation to manage the spectrum efficiently in the public interest and the increased number of stations that the TV spectrum can accommodate, we believe it is important that the recovery of spectrum continue to be a key component of our implementation of DTV service. In this regard, we remain committed to the recovery of the channels temporarily assigned for the transition and to ensuring that the spectrum is used efficiently.

19. *DTV Core Spectrum Option.* In revisiting the issue of the location of DTV allotments, we agree with broadcasters who have argued against a UHF-only plan. We now believe that an approach that uses portions of both the VHF and UHF TV spectrum would better serve the public interest. Based on studies by our staff in developing DTV allotments, we believe that a core region of 270 MHz between channels 7 and 51 may be the most appropriate location for DTV broadcasting; that it would be sufficient to accommodate all existing broadcasters; and that it would provide additional DTV frequencies for new entrants after the conversion to digital service. From a technical perspective, we believe that this spectrum is the most desirable for broadcasting. In this regard, we observe that signals in the lower VHF spectrum are more susceptible to degradation due to man-made and atmospheric noise, while those in the upper UHF spectrum suffer greater propagation losses and are more susceptible to multipath and shadowing effects.

20. We therefore are considering a revised spectrum option under which all future digital TV service would be located in a core region of the existing VHF and UHF broadcast spectrum, namely the spectrum at VHF channels 7 to 13 (174-216 MHz), and the spectrum at

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[30] Id.

[31] Id.

UHF channels 14-51 (470-698 MHz).[32] Figures 1 and 2 below show the existing NTSC television channels and the proposed spectrum to be used for digital television:

Figure 1 - Current NTSC TV Channels

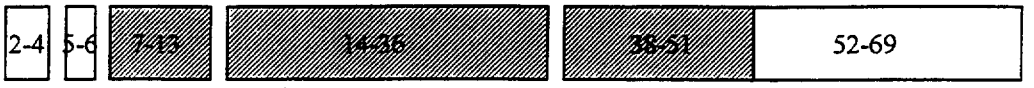
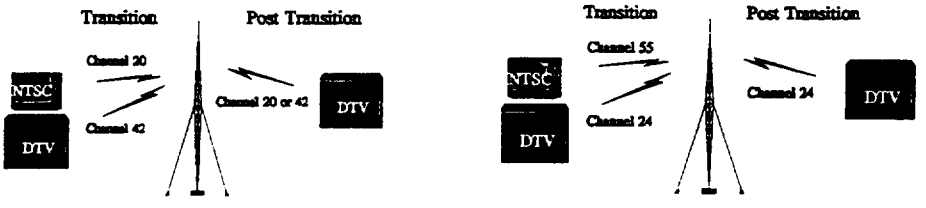


Figure 2 - Proposed DTV Spectrum (Shaded Areas)

21. Under this spectrum plan, we would attempt to provide all existing broadcasters with access to a 6 MHz channel for digital broadcasting within the core digital TV spectrum, i.e., channels 7 to 51. Because of the limited availability of spectrum and the need to accommodate all existing facilities with minimal interference among stations, however, some broadcasters would be provided transition DTV channels outside of this area. These broadcasters would have to move their DTV operations to a channel in the core spectrum when one became available. Broadcasters whose existing NTSC channels are in the core spectrum could move their DTV operations to their NTSC channel at some time in the future. Broadcasters whose DTV transition channel and existing NTSC channel are both outside of the core area could obtain a new DTV channel when channels in the core spectrum are recovered.

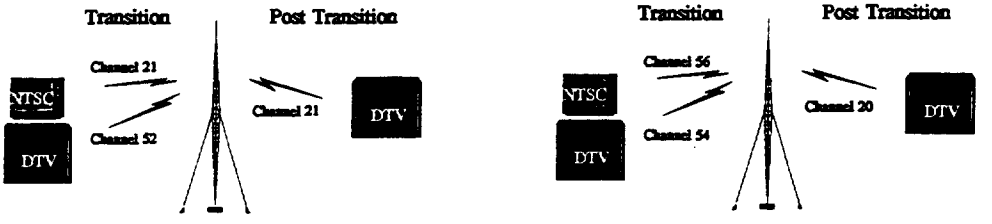
22. The following illustrates how a broadcaster assigned a new DTV channel in the core spectrum could make the transition:



[32] These bands correspond to the existing TV channels between VHF channel 7 and UHF channel 51. TV channel 37 (608-614 MHz) is currently used for radio astronomy research. In order to protect sensitive radio astronomy operations, TV Channel 37 currently is not used for NTSC broadcast television and also would not be used for DTV service.

In the example on the left, a broadcaster operating on channel 20, in the core DTV spectrum, is provided DTV channel 42, also in the core spectrum. After the transition, this broadcaster could choose either to continue to operate his DTV service on channel 42 or to switch his DTV operations to his existing NTSC channel 20. Whichever channel is not used for DTV would be reclaimed and could become available for other DTV operations. In the example on the right, a broadcaster operating on channel 55, outside of the core DTV spectrum, would be provided with DTV channel 24, inside the core spectrum. After the transition, channel 55 would be recovered.

23. Alternatively, the following illustrates how a broadcaster assigned a DTV channel outside the core spectrum could make the transition:



In the example on the left, a broadcaster operating on channel 21, which is in the core DTV spectrum, is provided a "temporary DTV" channel 52 outside the core DTV spectrum. After the transition, this broadcaster would have to move his channel 52 DTV operation to channel 21. In the example on the right, a broadcaster operating on channel 56, which is outside of the core DTV spectrum, would be provided with "temporary DTV" channel 54 also outside the core spectrum. After the transition, this broadcaster would be required to move to a new DTV channel within the core spectrum, e.g., channel 20 from our first example above, which would be made available through release of an NTSC channel.

24. We believe that this option provides broadcasters with a sound plan for the implementation of DTV. By attempting to provide all broadcasters a "core" DTV channel, this option would provide the vast majority of broadcasters with the capability to provide DTV service on a channel that is technically most suited for DTV operation. For 90 percent of stations, broadcasters, if they desired, would be able to provide DTV services on the same channel both during and after the transition. This will allow the greatest number of broadcasters to establish early and permanent channel identification with viewers and will minimize the expense and confusion associated with second channel transitions.[33]

25. Another benefit of this option is that it would allow the spectrum outside the core region to be recovered without a repacking that would force many broadcasters to move to

[33] In only about 1 percent of the cases will a station not have at least one channel, either DTV or NTSC (that could later be switched to DTV), within the core during the transition.

new channels twice. Specifically, this option would permit the eventual recovery of 138 MHz of spectrum nationwide. This spectrum would be obtained from the lower VHF channels, i.e., channels 2-6 (54-72 MHz and 76-88 MHz), and upper UHF channels, i.e., 52-69 (698-806 MHz). In addition, this option may facilitate the early recovery of a portion of this spectrum. For example, it may be possible to recover 60 MHz of spectrum almost immediately from the band 746-806 MHz, i.e., UHF channels 60-69, while protecting the relatively few full-service analog and digital broadcasters in that spectrum. In this regard, we note that only 97 of the almost 1600 television licensees operate on channels 60-69. And in the attached Table of Allotments we have attempted to minimize the number of DTV channels that would be located on channels 60-69.[34] Thus, a benefit of this approach is that substantial amounts of spectrum could rapidly be made available.

26. While we are not, in this proceeding, deciding that this spectrum be reallocated, we note that there are other uses for this spectrum. For example, this spectrum could be licensed through competitive bidding for flexible mobile operations; a portion of it could be used to meet public safety needs; and/or a portion could be designated temporarily or permanently for LPTV and TV translator stations. If such an early recovery were to occur, we would initiate a separate allocation proceeding to decide how this spectrum should be used. In addition, we would allow broadcasters using channels 60-69, both NTSC and DTV, to continue to use those channels as long as broadcasters beneath channel 60 were permitted to retain two channels and we would protect them from interference by new licensees. We also may consider requiring the new licensees to compensate broadcasters for the cost of relocating to DTV channels in the core spectrum area. (This compensation, we anticipate, could also be available to broadcasters at channels 52-59 and 2-6 at a later date.) Thus this approach would minimize the impact of the spectrum recovery process on broadcasters and viewers as compared to an approach that involved the "repacking" of many broadcast stations.

27. The attached draft Table of Allotments is based on a "core spectrum" approach that minimizes -- but that does not eliminate -- digital allotments at channels 60-69. Where necessary to avoid undesirable interference, the draft Table uses channels 60-69. The draft table does so roughly 30 times. We believe that this approach meets our goals of implementing digital television in the public interest and that it is consistent with our obligations with respect to sound spectrum management.

28. *Alternative Spectrum Option.* On January 13, 1995, the Association of Maximum Service Television, Inc. (MSTV), on behalf of parties within the broadcast industry, filed recommendations for the allotment/assignment of channels for DTV service.[35] The MSTV filing also includes a preliminary DTV Table of Allotments and Assignments. The MSTV Table is based on principles that are similar to those we are proposing herein. The MSTV Table is based on full accommodation of all broadcasters. It also attempts to provide DTV

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[34] There are a number of LPTV and TV translator stations that operate on a secondary basis on these channels. See Low Power and TV Translator discussion below.

[35] See "Broadcasters' Proposed ATV Allotment/Assignment Approach," submitted by MSTV in this proceeding.

coverage that is comparable to the coverage of existing NTSC coverage and use service replication or matching to assign DTV channels. The principle difference between the MSTV Table and the Table included herein is with regard to the use of spectrum. While the two approaches use both VHF and UHF channels, the MSTV proposed approach does not attempt to concentrate all DTV operations within a core area of the spectrum.[36]

29. Under this alternative approach, each broadcaster would be provided with a 6 MHz DTV channel without preference to any specific channels. Since all channels would be available, such an approach could theoretically provide for some degree of improved service area replication and interference performance. Such an approach might also have less impact on low power TV and TV translator stations.[37] On the other hand, this option would place more DTV stations on channels that are less desirable for broadcast operations. For example, the MSTV Table includes over 350 allotments on channels 60 and above.[38] In addition, recovery of contiguous spectrum at the end of the transition period would require many stations to change channels a second time. These channel changes could have an independent negative impact on broadcasters and viewers. Further, early recovery of spectrum would be more difficult and therefore less likely.

30. The MSTV preliminary DTV Table of Allotments and Assignments provides information that is useful for comparison of the options discussed herein. It is important to note, however, that the MSTV Table could not be adopted as submitted and is not directly comparable to the Table of Allotments developed by our staff. The MSTV Table is based on a 1992 television station database, while the staff Table is based on our most current database. The MSTV Table does not provide full protection to some Canadian television operations and does not protect land mobile operations on TV channel 20 in Philadelphia. In addition, the MSTV Table is not based on the final DTV system performance values.[39] Even as submitted,

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[36] The MSTV proposal also contains a number of other differences. One difference, for example, is in the manner in which non-commercial vacant allotments are treated. MSTV did not consider commercial vacant allotments-- it stated that in most cases vacant allotments would have to be eliminated. It did, however, attempt to provide a replacement NTSC and DTV channel for all non-commercial vacant allotments. It was successful in finding a replacement NTSC channel for non-commercial vacant allotments in about two-thirds of all cases. MSTV was also successful in finding a replacement DTV channel in all but one case. The actual channels for these vacant allotments are not shown on the draft Table submitted by MSTV. LPTV and TV translator stations were not considered in the MSTV Table.

[37] We note that the core spectrum option is not inconsistent with reserving some spectrum at channels 60-69 for LPTV or TV translator use during the transition, if on balance it is in the public interest to do so. See discussion below on low power TV and TV translator stations.

[38] This represents over 20 percent of the new DTV allotments.

[39] For example, the final DTV system values indicate that an additional 5 dB of protection is required for NTSC from upper adjacent channel DTV operations.

however, the MSTV Table is not significantly different from the draft DTV Table included herein.

31. Request for Comments. We request comment on all aspects of our DTV spectrum options. We specifically request comment on the differences between DTV Tables developed under the two options discussed above and how these differences should be viewed in selecting an appropriate spectrum plan. We ask commenters to quantify, to the extent possible, the costs and benefits of each approach. Interested parties are also invited to submit alternative DTV allotment plans that would ensure the implementation of digital television in the public interest. We also invite comment on whether our original proposal for an all-UHF DTV service might be appropriate and better ensure the recovery of spectrum.

32. Studies by our staff indicate that the service area replication and interference differences associated with attempting to locate all DTV operations within a core spectrum area and minimize use of channels 60-69 are small. For example, a nationwide comparison of a table that uses all channels without preference and one that prefers channels within the core area shows only a 1.4% difference in cumulative geographic coverage and 0.7% difference in cumulative population served where additional new interference from DTV operations may occur. These values are based on calculation of coverage and interference using the FCC curves (See 47 CFR Section 73.699). Without a preference for placing digital TV allotments in the core, the cumulative geographic coverage of existing NTSC stations is 97.3% and the cumulative population coverage is 94.6%. With a preference for digital TV allotments in the core, these numbers are 95.9% and 93.9%, respectively.[40] When more precise, terrain-dependent Longley-Rice calculations are used, the "core channel" plan preserves almost 100% NTSC coverage of geography and population -- namely, 99% geographic coverage and 98% population coverage. These are the figures for the NTSC stations in the attached draft Table of Allotments.

33. It is important to place these numbers in context. Where interference occurs, it does so along the edges of a station's Grade B service area where signal reception is generally weaker and cable penetration is generally higher. In most instances, over-the-air viewers would not experience a loss of the channel in question, but rather they would experience some degradation in picture quality. Depending on the height and quality of their antenna, many of these viewers would notice no difference at all. Finally, these interference numbers assume that each new digital television licensee broadcasts at full authorized power. Anticipated interference will be reduced to the extent that licensees do not transmit digital signals at their full authorized power. We note that a number of digital allotments will go to licensees that do not now have functional television stations, or stations operating at full power, but rather to licensees that, prior to 1991, received construction permits to build or modify NTSC stations but have not yet done so. It may be some time before these licensees not only build or modify their NTSC facilities, but also erect new digital transmitters. In addition, some digital licensees may agree temporarily to reduce the power of their digital signals to avoid interference to analog signals. We propose to permit such agreements, including those that

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[40] Hence, the differences of 1.4% (geography) and 0.7% (population between the two approaches).

involve compensation. In addition, in some cases interference to NTSC stations can be minimized or eliminated by increasing the transmitter power or antenna height of the affected NTSC station. We propose to permit such changes provided that they do not cause more than *de minimus* interference to neighboring DTV operations, and we propose to permit agreements including compensation under which a DTV licensee would temporarily agree to accept a slightly elevated level of interference so that reception of an NTSC station is improved.

34. We request comment on our staff's assessment with regard to the two spectrum options. Commenting parties are invited to provide their own assessments of the differences in the two options. Such assessments should be based, to the extent possible, on concrete engineering and other data. It should address all factors, including any differences at both the nationwide and individual station levels. Cementers may address whether the different plans have different effects on the potential competitiveness of segments of the broadcasting industry such as the emerging networks. We also seek comment on whether such differences warrant selection of one approach over the other. Finally, we request comments on the costs and benefits of different plans with respect to LPTV and TV translator stations.

35. We also request comment on specific issues relating to the "core area" option. We ask that comments address whether our proposed choice of the spectrum for the core area is appropriate and whether there are any other considerations relating to this choice that should be addressed. In particular, we request comment on our tentative conclusion that the upper UHF frequencies are less desirable for broadcasting purposes and more appropriate for other uses. Similarly, we request comment on our assessment that VHF channels 2-6 are less suitable for broadcasting because of high levels of noise. Parties addressing this issue are requested to provide specific information and engineering analysis on whether the longer range propagation characteristics of channels 2-6 outweigh the disadvantage of higher levels of atmospheric and man-made noise on these frequencies with regard to digital signals.

36. We further request comment on what mechanisms and criteria we should use to determine the channel that will become the permanent DTV spectrum for each existing station. We tentatively propose to allow broadcasters with both NTSC and DTV frequencies in the core DTV spectrum to choose one of those channels for their permanent DTV spectrum. Under this plan, broadcasters would be required to make their spectrum choices within a specific period of time, e.g., three to five years, after the implementation of DTV service begins. Once these choices were made, the Commission would identify new DTV allotments that would be available for relocation of stations initially operating on frequencies outside the core area or for new DTV assignments. This would facilitate an orderly transition to DTV service by both broadcasters and viewers, permit the creation of additional DTV allotments and facilitate the accommodation of parties with channels outside of the core area.

37. We further request comment on whether we should adopt special transition provisions for broadcasters with NTSC channels or DTV allotments outside the core area. For example, where such a broadcaster's existing NTSC channel is outside the core should we allow the broadcaster to cease NTSC operation and permit early transition to a DTV channel in the core? In addition, where a broadcaster's existing NTSC channel is in the core and its DTV allotment is outside the core, should we allow the broadcaster to convert its NTSC channel to DTV operation, rather than activate its "temporary" out-of-core DTV allotment.

Finally, where a broadcasters' existing NTSC channel and DTV allotment are both outside the core area, should we allow such broadcasters to wait to begin DTV operations until spectrum becomes available in the core area? This would allow some broadcasters to avoid making a second transition to convert to DTV. We specifically ask whether the above special transition approaches should apply to broadcasters with NTSC or DTV frequencies on channels 60-69.[41]

D. Allotment Preference

38. In the Second Further Notice, we proposed, as our final objective, to give a relative preference to new DTV operations over NTSC operations in the allotment process. We noted that in most instances, the choice of channels for a DTV allotment will involve consideration of other nearby DTV allotments and existing NTSC stations. Where a choice must be made between providing greater service area for a new DTV allotment or minimizing interference to an existing NTSC allotment, we proposed to choose in favor of the DTV allotment.

39. Proposal. We now believe that a review of our previous proposal regarding the provision of a preference for new DTV allotments in the development of the DTV Table of Allotments is warranted. We recognize that NTSC operations will continue to be important for some time, and now believe that an approach that is more neutral in protecting both existing NTSC stations and new DTV allotments would be appropriate and would better serve the interests of broadcasters and the public. Accordingly, the draft Table attempts to minimize interference to all stations and to balance unavoidable interference among both NTSC and DTV stations equally. Under this approach, existing NTSC service would be better protected than under our 1992 plan. At the same time, our service replication approach and the improved interference performance characteristics of the ATSC DTV system will ensure that future DTV service is equal or superior in coverage to today's NTSC service. We request comment on whether it would be desirable to minimize, to the extent possible, interference to all stations, both NTSC and DTV. Alternatively, we request comment on whether we should provide a preference for DTV allotments when a choice must be made between providing greater service area for a new DTV allotment or minimizing interference to an existing NTSC allotment.

40. We note that any plan that provides all eligible broadcasters with a new DTV allotment will unavoidably result in some degree of interference to both NTSC and DTV stations. This is true whether the digital frequencies are distributed throughout the existing broadcast spectrum or whether the digital frequencies are generally placed in the spectrum at channels 7-51.[42] We note that interference to NTSC service could be mitigated by a number

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[41] Cf. Fourth Further Notice, at para. 60.

[42] We note that the total amount of interference to NTSC service is primarily a function of full accommodation, i.e., our goal of providing all existing stations with a companion DTV operation. Because all TV channels are used when necessary to avoid interference, there is, in general, very little impact on total NTSC interference from our spectrum recovery proposals. That is, as indicated previously, a full accommodation approach that used all channels and did

of factors. For example, as indicated previously, affected signals may be required to be carried by cable TV systems in their local area and thus may be available to many viewers in areas where the station's reception may be affected by interference. In this regard, interference occurs mainly at the edges of a station's coverage, where reception is relatively weak and where cable penetration is generally higher. We also note that viewers at the edges of a TV market often take steps on their own to improve reception, such as using improved directional antennas and other receiving equipment. Such equipment would also provide additional protection from interference by new DTV stations.

41. In addition, we could limit the power of certain DTV stations during the transition so that existing NTSC service would not be affected or that interference would be minimized. After the transition or when affected NTSC operations cease, the DTV stations would be permitted to increase their power. We also could permit broadcasters to negotiate agreements regarding interference among themselves. For example, a broadcaster could agree, for some amount of compensation, to reduce either its NTSC or DTV power to protect another station's service, or conversely, to accept a certain level of interference. We also note that in many instances the potential interference to NTSC service is more substantial for smaller NTSC stations that operate at significantly less power than full facilities. In such cases, interference may be eliminated or reduced by increasing the transmitter power or antenna height of the affected station. We propose to allow such changes provided that they do not cause any substantial increase in interference to neighboring DTV operations. We seek comment on these approaches and also invite parties to submit additional suggestions for methods to mitigate interference between DTV and NTSC stations.

E. Assignment Methodology

42. In the Second Report/Further Notice, we proposed a first-come/first-served methodology for assigning DTV channels. We also provided for negotiations among eligible broadcasters.[43] Under this plan, we would first provide broadcasters with a fixed period of time to negotiate with each other and submit plans for pairing NTSC and DTV channels either nationwide or on a market-by-market basis. Once the negotiations period ended, if there were markets remaining where broadcasters were unable to agree on a pairing plan, the channels in those markets were to be made available to the eligible broadcasters on a first-come/first-served basis.

43. Proposal. We are proposing to revise our methodology for assigning DTV channels to eligible broadcasters consistent with our plan to assume service replication in developing the DTV Table of Allotments. Under our revised proposal, DTV channels would be designated for existing stations based on the results of the matching process that is an intrinsic feature of the service replication approach used in developing the Table. This will greatly simplify and reduce the burden of the channel assignment activity for both

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not attempt any spectrum recovery would still result in about the same level of additional interference to NTSC service areas.

[43] See Second Report/Further Notice, at para. 35.

broadcasters and the Commission. It may also serve to expedite the transition process by removing an element of uncertainty for broadcasters. This revised plan will also resolve the concern expressed by many broadcasters that use of a first-come/first-served approach could lead to legal challenges and delays in licensing DTV spectrum. We request comment on this proposal and on related issues involving DTV channel assignments. We also request comment on whether a first-come/first-served or other approach for assigning channels would better meet our goal of implementing digital television in an efficient, effective manner.

F. Negotiated Allotments/Assignments

44. Throughout this proceeding, we have recognized that the implementation of DTV will be a dynamic process and that mechanisms are needed to accommodate the inevitable changes that will occur. We believe that mechanisms are needed to consider changes to the Table of Allotments and the resultant assignments that are made to individual broadcasters. In this regard, we intend to provide broadcasters with the flexibility to develop alternative allotment approaches and plans both prior to and after our adoption of a final Table of Allotments. In this section, we discuss proposals for pre-adoption flexibility; and, in a following section on modifications to the DTV Allotment Table, we discuss proposals for post-adoption flexibility.[44]

45. As noted above, in the Second Report/Further Notice, we proposed that negotiations would be an integral part of the allotment/assignment process. We also indicated that at the time we propose a "final" DTV Table of Allotments broadcasters would be provided a fixed period of time to negotiate and submit alternative plans for allotting and pairing NTSC and DTV channels.[45]

46. Proposal. We continue to believe that voluntary negotiations among broadcasters should be permitted as part of the DTV allotment/assignment process. Consistent with the service replication approach, the DTV Table proposed herein provides for specific pairings between existing NTSC stations and new DTV allotments. While our computer software finds the "optimal" channels for each community and for stations within communities, we continue to believe that the flexibility to accommodate different frequency pairing arrangements developed through negotiations among broadcasters should be an integral part of the DTV allotment/assignment process. In this regard, we recognize that individual market circumstances might lead broadcasters to seek different allotment and assignment pairings based on considerations other than service replication. For example, channel numbering and identification factors might outweigh service area considerations for an individual broadcaster.[46]

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[44] See Section IX at paras. 101 and 102, infra.

[45] Id.

[46] A station on NTSC channel 7, for example, might want to be assigned DTV channel 17 for identification purposes, despite the fact that channel 17 might have a slightly smaller service area than the DTV channel provided for that station in our proposed Table.

47. We therefore believe it is important to provide broadcasters an opportunity to negotiate changes to our proposed DTV Table of Allotments and propose to consider such negotiated changes in the development of our final DTV Table as part of this rule making process. Specifically, we will permit broadcasters within a community to negotiate among themselves their designated allotments and to develop an alternative allotment/assignment plan for their local area. In either case, however, all affected broadcasters, including those in neighboring geographic areas, must agree to the revised plan and the change must not result in additional interference to other stations or allotments.[47] We also propose to not accept negotiated changes that would adversely limit our ability to gain the full benefits of spectrum reclamation that might accrue if we were to adopt the "core" allotment option described above. In addition, any changes will be subject to international coordination, as appropriate. We propose to require that all requests for DTV channel changes among stations be signed by the licensees of all of the stations involved in the exchange. We also propose to allow such exchanges to include agreements for compensation. We request comment on providing for privately negotiated changes, on our proposals to govern this process and on any other factors or suggestions we should consider.

48. We note that negotiations among broadcasters could result in agreements to co-locate DTV transmitters at a common site. Co-location could provide broadcasters increased flexibility to share spectrum and develop multichannel programming services and may also encourage the development of alternative DTV transmission technologies. In addition, a single DTV transmitter site would make it easier for viewers to receive programming from all of their local broadcast services. At the same time, we recognize that co-location may not be desirable for all broadcasters. In this regard, we note that, in some instances, co-location may limit the ability of a station to replicate its existing service area or could cause increased interference among stations in the same and neighboring markets. We request comment on whether we should provide special incentives to encourage the broadcasters in a market to locate all of their DTV operations at a common transmitter site. For example, should negotiated arrangements for co-located DTV stations be afforded priority over other stations? Should incentives apply only if such arrangements would result in no or less interference to other stations?

49. As indicated in our Second Report/Further Notice, we will provide broadcasters with a fixed period of time to negotiate with each other and to submit plans for pairing NTSC and DTV channels. We request that parties submit such plans as comments during the comment period for this Further Notice, that is, by November 20, 1996. Interested parties are also invited to respond to any negotiated plans that we may receive during the period for filing reply comments, that is by December 20, 1996. Agreements that are submitted within the regular comment period will be considered in our decision on the final table. We will also permit negotiated changes after that time, and will treat requests for such changes as petitions for rule making to amend the Table of Allotments. However, parties are cautioned that negotiated changes will not be considered as justification for extending the period of time

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[47] We propose that an "affected broadcaster" is one whose allotment within a community would be changed or whose existing NTSC or new DTV service area would be affected technically by a proposed change to the Table.

within which broadcasters will be required to apply, construct and begin to operate on their DTV channels.

G. Additional Considerations

50. During the transition, in most communities, digital allotments will use up all of the available spectrum for full-power broadcasting. But in some communities-- mainly rural areas-- unused channels may remain even after all existing broadcasters receive allotments.[48] After the transition, in many communities, additional substantial spectrum will be available in the core spectrum as a result of the approximately 1100 NTSC stations operating in this spectrum that will cease operating, even after the approximately 186 DTV stations that will operate in non-core spectrum relocate to the core spectrum.

51. Thus, assuming that some channels will be vacant in certain geographic areas during the transition, and more after the transition, we request comment on whether and how we should make those channels available. For example, once we have identified any remaining channels, should we accept applications for new primary, LPTV, and TV translator stations? Should we consider other possibilities, such as permitting existing broadcasters, either individually or jointly, to use the available channel or channels for additional broadcast or subscription programming? Should we permit broadcasters in a community to propose, as an alternative to the allotment plan in the attached Table, an allotment plan that would allow them to use, jointly or individually, more than one vacant channel apiece? Would we be required in this situation to consider other mutually exclusive applications ?[49] If we permit such proposals, should the channels be used on a primary or secondary basis? If such use were on a primary basis, should we permit it where it would displace secondary LPTV and TV translator stations? If such use were on a secondary basis, how would we treat a subsequent application for a new primary station or a new LPTV or TV translator station? If we adopt the core spectrum approach, should our policies depend on whether the spectrum at issue is inside or outside the core? We request comment on these possibilities and on any other manner in which the spectrum might be utilized to bring additional service to the public both during and after the transition.

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[48] For example, in Bangor/Orono, Maine, currently there are four NTSC stations. The attached DTV Table of Allotments provides DTV allotments for these four stations. However, even considering LPTV and TV translator operations, there appears to be sufficient spectrum in this area to operate a number of additional channels, either NTSC or DTV.

[49] See Ashbacker Radio Corp. v. FCC, 326 U.S. 327 (1945). In Ashbacker, the Supreme Court held that the Commission is required under Section 309 of the Communications Act, 47 U.S.C. to give consideration to all bona fide mutually exclusive applications. In so holding, the Court did not, however, preclude the Commission from establishing threshold qualification standards that must be met before applicants are entitled to comparative consideration. Indeed, in United States v. Storer Broadcasting Co., 351 U.S. 192 (1956), the Court held that, in the context of a rule making proceeding, the Commission may establish eligibility standards that applicants must meet in order to receive comparative consideration. See also Fourth Further Notice, at para. 29.

52. In evaluating allotment plans for DTV we ask commenters to consider the costs and benefits under alternative approaches to spectrum recovery. The amount, the location, and the date spectrum becomes available for new uses depends on both the table of DTV allotments adopted and on the choice of spectrum recovery policy towards unoccupied spectrum and spectrum currently occupied by NTSC licensees. One approach to spectrum recovery, put forth by Senator Pressler in draft legislation, would provide NTSC and DTV licensees with immediate broad flexibility in their use of the spectrum and require exhaustive flexible licensing of all available spectrum capacity by "overlaying" the entire VHF and UHF bands with new geographic area licenses that could use any available spectrum consistent with protecting existing full power broadcast licensees. The stated objective of the Pressler plan is to maximize the value of this spectrum by allowing its allocation to be reshaped by market forces. The approach could be applied to either of the allotment plans discussed above, and to all or part of the VHF and UHF bands.[50] We request comment on the costs and benefits of this approach, including: when such an approach might best be implemented were it to be used; its impact on the amount, timing, and value to the public of spectrum recovered; and how it might affect the future availability of spectrum for television broadcasting.

53. With regard to either alternative approach discussed above, we note that since July 1987, our policy has been to not accept applications for any new stations in 30 major markets.[51] Given this lengthy freeze, we request comment on whether, if we were to adopt an overlay approach, new broadcast TV applications should be accepted from these markets first. We also note that in the Fourth Further Notice, we recognized this Commission's longstanding policy of fostering programming and ownership diversity, and sought comment on what measures we might adopt to include new entrants in the emerging era of digital television broadcasting.[52] Similarly, we request comment on the affect adoption of the above proposals would have on new entry to broadcasting.

IV. OTHER ISSUES

54. In addition to the principles and objectives discussed above, there are several other matters that need to be considered in developing the DTV Table of Allotments. These matters include use of existing transmitter sites for DTV service, treatment of vacant NTSC allotments, displacement of low power TV stations and TV translators, use of TV channels 3, 4 and 6, and protection of land mobile services. These matters are addressed below.

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[50] Commenters may also wish to consider variations on the Pressler proposal including applying it to only a portion of the spectrum, or allocating some or all of the overlay licenses to specific uses such as public safety, land mobile or broadcasting.

[51] See Order, RM-5811 (Mimeo No. 4074, released July 17, 1987).

[52] See Fourth Further Notice, at para. 30.

A. Use of Existing Transmitter Sites

55. In the Second Further Notice, we proposed to allot DTV channels on the basis of current transmitter sites, rather than community reference points.[53] Under this proposal, the current NTSC transmitter sites would be used to develop the DTV Table and to determine whether DTV allotments met the proposed minimum spacing requirements. We further indicated that for purposes of this proposal, we would assume that an existing site location is the area within a three-mile radius of the actual transmitter location. We also proposed to permit a licensee to operate its DTV station at a site different from that of its NTSC operation where the alternate sites would meet the proposed DTV minimum spacing requirements and the station would continue to serve its community of license. We noted that such site relocations could include movement to a common local TV transmission site.

56. Proposal. We continue to believe it is desirable to allot DTV channels based on the transmitter sites of existing stations. We believe our reasoning with regard to this issue in the Second Further Notice still applies. As we noted in the Second Further Notice, there are advantages in taking existing transmitter sites into account in the allotment procedure. Using the locations of the existing transmitters sites as reference points for the initial DTV Table would facilitate replication of existing service areas. It also would ensure that, where possible, broadcasters are able to co-locate their NTSC and DTV operations. Accordingly, we are maintaining our proposal to use current transmitter sites to develop the DTV Table. We request comment regarding any circumstances where it might be desirable to evaluate DTV allotments on the basis of sites other than those occupied by existing TV stations. In recognition of the fact that many broadcasters will not be able to locate their DTV operations at the same exact site as their NTSC station, we are proposing to permit a broadcaster to locate its DTV facility at any site within a three-mile radius of the actual transmitter location, so long as the station would continue to serve its community of license.[54] Our experience in studying sample DTV Tables indicates that allowing a licensee's actual DTV transmitter site to be located within three miles of its existing transmitter site generally would not have a significant effect on station service areas and that any effect would be outweighed by the need to provide broadcasters with some flexibility in locating their digital TV operations. We request comment on these proposals and specifically invite discussion on whether three miles is an appropriate choice for the range within which a licensee would be allowed to choose a different site for its DTV transmitter.

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[53] See Second Further Notice, at paras. 35-36.

[54] Such site relocations could include movement to a common local TV transmitter site, provided the new common site is within three miles of the station's existing site and would allow the station to serve its community of license. As discussed above, we also intend to consider negotiated changes to the DTV Table and have asked for comment on whether to provide additional incentives for broadcasters to locate their DTV operations at a common site.

B. Existing Vacant Allotments, New NTSC Applications and Station Modifications

57. In the Second Further Notice, we proposed to delete vacant existing NTSC commercial allotments where necessary to facilitate creation of DTV allotments and indicated that we would not accept applications for those deleted allotments. We also stated that, in keeping with our decision in the Second Report/Further Notice, we would attempt to maintain existing vacant noncommercial NTSC allotments and also attempt to provide new DTV channels for such allotments.[55] We indicated that we would eliminate noncommercial allotments only where no feasible alternative exists for allotting DTV channels for eligible broadcasters. We further decided not to impose a "freeze" on applications for new stations on any remaining vacant NTSC allotments that are not needed to create the DTV Table of Allotments.[56] We also chose not to limit modifications to existing NTSC operations or changes in the transmitter locations of such stations.[57]

58. Proposal. We now believe that an approach that would eliminate vacant NTSC allotments would be beneficial to the development of the DTV Table and would help us to better achieve our goals of full accommodation, replication and spectrum recovery. There are currently about 600 vacant NTSC allotments.[58] The presence of these unused allotments reduces the amount of spectrum that is available for DTV allotments. In some areas, it would not be possible to accommodate all of the existing broadcasters with a DTV channel unless the unused NTSC allotments in the area are deleted. In others, the presence of unused NTSC allotments would result in crowding that reduces the expected service areas of the DTV allotments. It is also possible that such crowding could result in increased interference to existing NTSC stations. In addition, if vacant allotments are retained, we will have to use more channels to achieve full accommodation, so that less spectrum would be available for recovery for other uses. We therefore propose to eliminate all vacant NTSC allotments.

59. At the same time, we request comment on whether allotments for noncommercial service deserve special consideration. As we observed in previous decisions in this proceeding, our spectrum planning with respect to the broadcast industry has traditionally taken into account the important role noncommercial stations play in providing educational and other quality programming and the financial constraints they face.[59] In addition, our technical studies indicate that we can, in most instances, provide DTV allotments to replace existing vacant noncommercial allotments. For example, in developing the draft DTV Table

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[55] See Second Report/Further Notice, at paras. 36-37.

[56] Id., at para. 38.

[57] Id, at para 38.

[58] Of the 561 vacant NTSC allotments, 338 are for noncommercial service and 223 are for commercial use.

[59] See Second Report/Further Notice, at paras. 36-37; and Fourth Further Notice, at paras. 73-76.

of Allotments in Appendix B, it is possible to include replacement DTV allotments for 326 of the 338 existing vacant noncommercial NTSC allotments. However, most of these allotments would not be in the core DTV spectrum area. For example, of the 326 possible new vacant noncommercial DTV allotments, 64 would be in the core area, 76 would be on channels 2-6 and 52-59, and 186 would be on channels 60-69. We therefore request comment on how to treat noncommercial vacant allotments. If we were to adopt the core spectrum option, should we include those vacant allotments on channels in the core area and on channels 52-59? This would provide 140 new vacant noncommercial DTV allotments. We note, however, that after the transition it may be possible to create additional vacant noncommercial allotments in the core spectrum to replace those not accommodated in the initial DTV Table.

60. Consistent with our proposal to eliminate all existing vacant allotments, we will not accept additional applications for new NTSC stations that are filed after 30 days from the publication of this Further Notice in the Federal Register. This will provide time for filing of any applications that are currently under preparation. We note that there are currently on file with the Commission more than 300 applications that if processed would result in more than 100 new NTSC stations.[60] As we process the applications on file now and those that are filed before the end of this filing opportunity, we will continue our current policy of considering requests for waiver of our 1987 freeze Order on a case-by-case basis.[61] When applications for new stations are accepted for filing, we will continue our process of issuing Public Notices that "cut-off" the opportunity for filing competing, mutually-exclusive applications. In connection with these cut-off notices, we will allow additional competing applications to be filed after the end of this filing opportunity. While we anticipate that these applications for new NTSC TV stations on existing allotments will not have a significant negative impact on the development of the DTV Table of Allotments, we reserve the right, in specific cases, to determine that the public interest is better served if they are not granted, granted only if amended to specify reduced facilities, or granted only with a condition that limits the interference that the station would be allowed to cause.

61. Consistent with our decision to stop accepting applications for new NTSC stations, we also will not accept petitions for rule making proposing to amend the existing TV Table of Allotments in Section 73.606(b) of our rules to add an allotment for a new NTSC station.[62] Other petitions to amend the TV Table of Allotments (for example, proposing to change a station's community of license or altering the channel on which it operates, including changes in which channel allotment in a community is reserved for noncommercial educational use) can continue to be filed, but any such changes to the table that include a modification of a station's authorization will be conditioned on the outcome of this DTV rule making proceeding. This termination of the opportunity to file petitions to add NTSC

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[60] Of these pending applications, we have accepted applications for 10 stations where the application was on file before October 24, 1991, and therefore may become eligible for a DTV allotment. The proposed DTV Table includes an allotment for each of these cases.

[61] See Order.

[62] See 47 CFR. §73.606(b).