

defined in the local television multiple ownership rule contained in § 73.3555(b), and more than 15 percent of the time of the brokered station, on a weekly basis, is brokered by that licensee; time brokerage agreements involving radio or television stations that would be attributable to the licensee under § 73.3555 note 2(i).

* * *

(e) The following contracts, agreements or understandings need not be filed but shall be kept at the station and made available for inspection upon request by the FCC: contracts relating to the joint sale of broadcast advertising time that do not constitute time brokerage agreements pursuant to § 73.3555 note 2(j); subchannel leasing agreements for Subsidiary Communications Authorization operation; franchise/leasing agreements for operation of telecommunications services on the TV vertical blanking interval and in the visual signal; time sales contracts with the same sponsor for 4 or more hours per day, except where the length of the events (such as athletic contests, musical programs and special events) broadcast pursuant to the contract is not under control of the station; and contracts with chief operators.

6. Section 73.3615 is amended by revising the second sentence in paragraph (a)(3)(iii)(B) to read as follows:

§ 73.3615 Ownership reports.

* * * * *

- (a) * * *
 (3) * * *
 (iii) * * *
 (B) * * *

If X has a voting stockholder interest in the licensee, only those voting interests of X that are cognizable after application of the "multiplier" described in note 2(c) of § 73.3555 of the rules, if applicable, shall be reported. * * *

* * * * *

PART 76—MULTICHANNEL VIDEO AND CABLE TELEVISION SERVICE

7. The authority citation for Part 76 continues to read as follows:

Authority: 47 U.S.C. 151, 152, 153, 154, 301, 302, 303, 303a, 307, 308, 309, 312, 317, 325, 503, 521, 522, 531, 532, 534, 535, 536, 537, 543, 544, 544a, 545, 548, 549, 552, 554, 556, 558, 560, 561, 571, 572, 573.

8. Section 76.501 is amended by:

- a. Designating Note 1 as "Note 1 to § 76.501";
 b. Designating Note 2 as "Note 2 to § 76.501";
 c. Designating Note 3 as "Note 3 to § 76.501";

d. Designating Note 4 as "Note 4 to § 76.501";

e. Designating Note 5 as "Note 5 to § 76.501";

f. Designating Note 6 as "Note 6 to § 76.501" and revising it.

The revision reads as follows:

§ 76.501 Cross-ownership.

* * * * *

Note 6 to § 76.501: In applying paragraph (a) of § 76.501, for purposes of paragraph note 2(i) of this section, attribution of ownership interests in an entity covered by this rule that are held indirectly by any party through one or more intervening organizations will be determined by successive multiplication of the ownership percentages for each link in the vertical ownership chain and application of the relevant attribution benchmark to the resulting product. The ownership percentage for any link in the chain that exceeds 50% shall be included. [For example, if A owns 10% of company X, which owns 60% of company Y, which owns 25% of "Licensee," then X's interest in "Licensee" would be 15% (0.6x0.25), and A's interest in "Licensee" would be 1.5% (0.1x0.6x0.25).]

[FR Doc. 01-3175 Filed 2-12-01; 8:45 am]

BILLING CODE 6712-01-P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 25

Application for Special Temporary Authorization; Correction

AGENCY: Federal Communications Commission.

ACTION: Correcting amendment.

SUMMARY: This document contains a correction to the final regulations redesignated and amended at 62 FR 5928, 5929, February 10, 1997. The regulations related to applications for special temporary authorizations contained in § 25.120(a).

EFFECTIVE DATE: February 13, 2001.

FOR FURTHER INFORMATION CONTACT: Terry D. Johnson, (202) 418-0445 (not a toll-free call).

SUPPLEMENTARY INFORMATION:

Background

The final regulations that are the subject of this correction prescribed the procedures one must follow to apply for special temporary authorization to install and/or operate new or modified equipment for earth stations.

Need for Correction

As published, § 25.120(a) contains an incomplete mailing address which could delay receipt and processing of requests for special temporary authorizations.

List of Subjects in 47 CFR Part 25

Administrative practice and procedure, Communications common carriers, Radio, Telecommunications, Television.

PART 25—SATELLITE COMMUNICATIONS

Accordingly, 47 CFR part 25 is corrected by making the following correcting amendment:

1. The authority citation for part 25 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i), 154(j), 155, 225, 303(r), 309 and 325(e).

§ 25.120 Application for special temporary authorization. [Corrected]

2. In § 25.120 revise the last sentence in paragraph (a) to read as follows:

(a) * * * A copy of the request for special temporary authority also shall be forwarded to the Commission's Columbia Operations Center, 9200 Farm House Lane, Columbia, MD 21046-1609.

* * * * *

Federal Communications Commission.

Magalie Roman Salas,
Secretary.

[FR Doc. 01-3636 Filed 2-12-01; 8:45 am]

BILLING CODE 6712-01-U

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[MM Docket No. 00-39; FCC 01-24]

Broadcast Services; Radio Stations, Television Stations

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: This document resolves a number of issues concerning the transition to digital broadcast television (DTV). Among the issues resolved in the Report and Order are: when to require election by licensees of their post-transition DTV channel; whether to require replication by DTV licensees of their NTSC Grade B service contours; whether to require enhanced service to the principal community served by DTV licensees; and how we should process mutually exclusive applications. We also address in this document a host of technical issues and determine that at this time there is no persuasive information to indicate that there is any deficiency in the 8-VSB modulation system of the DTV transmission standard that would cause us to revisit

our decision to deny Sinclair Broadcasting Group, Inc.'s, petition and to add COFDM to the current 8-VSB DTV standard or to grant Univision Communications Inc.'s Petition for Expedited Rule Making to that same effect. We also decline to adopt technical performance standards for DTV receivers.

DATES: Effective April 16, 2001.

ADDRESSES: Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554

FOR FURTHER INFORMATION CONTACT:

Roger Holberg or Mania Baghdadi, Mass Media Bureau, Policy and Rules Division, (202) 418-2120 or Alan Stillwell or Bruce Franca, Office of Engineering and Technology, (202) 418-2470.

SUPPLEMENTARY INFORMATION: This is a synopsis of the *Report and Order* ("R&O") in MM Docket No. 00-39, FCC 01-24, adopted January 18, 2001, and released January 19, 2001. The complete text of this document is available for inspection and copying during normal business hours in the FCC Reference Center, Room CY-A257, 445 12th Street, SW., Washington, DC and may also be purchased from the Commission's copy contractor, International Transcription Service (202) 857-3800, 445 12th Street, SW., Room CY-B402, Washington, DC. This R&O is also available on the Internet at the Commission's website: <http://www/fcc.gov>.

Synopsis of Report and Order

1. In this R&O we will impose a channel election requirement, requiring commercial television stations with two in-core channels (*i.e.*, channels 2-51) to elect their post-transition digital channel by December 31, 2003. We will resolve in a subsequent rule making both priority as to channel assignment (*e.g.*, should stations that must move to a new channel have the highest priority and get the first selection of channels that are returned) and processing issues as well as the question of whether any channels should be placed off-limits, not available for use by DTV licensees. Additionally, while full replication by DTV licensees of the NTSC service area was an important Commission objective in developing the DTV Table of Allotments and remains a key goal, we will not impose a full replication requirement. Instead, we have determined that, after December 31, 2004, whatever portion of a commercial broadcaster's NTSC Grade B contour is not replicated with its digital television signal will simply cease to be protected in the Table of Allotments. We will, however, impose a city-grade service

obligation that will require licensees to encompass their communities of license with a stronger signal than that with which they had, or will have, to commence DTV operations. In this R&O, we also adopt DTV application cut-off procedures and address how we will resolve any mutual exclusivities that arise. We also address in the R&O portion of this document a host of technical issues and determine that at this time there is no persuasive information to indicate that there is any deficiency in the 8-VSB modulation system of the DTV transmission standard that would cause us to revisit our decision to deny Sinclair Broadcasting Group, Inc.'s, petition and to add COFDM to the current 8-VSB DTV standard or to grant Univision Communications Inc.'s Petition for Expedited Rule Making to that same effect. We also decline to adopt technical performance standards for DTV receivers.

I. Background

2. In the Commission's digital television proceeding (MM Docket No. 87-268) we repeatedly indicated our intent to hold periodic reviews of the progress of the conversion to digital television and to make such mid-course corrections as were necessary to ensure the success of that conversion. We commenced this, the first, periodic review, with a *Notice of Proposed Rule Making* ("NPRM"), adopted March 6, 2000 (65 FR 15600, March 23, 2000). In that NPRM we stated that the conversion is progressing and that television stations are working hard to convert to digital television. We invited comment on several issues that we considered essential to be resolved in order to ensure that progress continued and that potential sources of delay were eliminated.

II. Discussion

A. Channel Election

3. In the NPRM, we noted that we had decided in the DTV *Sixth Memorandum Opinion and Order* ("6MO&O"), 63 FR 15774, April 1, 1998, that, after the transition, DTV service would be limited to a "core spectrum" consisting of current television channels 2 through 51. Although some stations received transition channels out of the core, and a few had both their NTSC and DTV channels outside the core, we believe there will be sufficient spectrum so that at the end of the transition all DTV stations will be operating on core channels. Nevertheless, it now appears that there will be more out of core stations that must be accommodated

with a core channel than we initially anticipated because new applicants will be allowed to convert their single NTSC channels to DTV operation and those on channels outside the core will be provided a post-transition channel inside the core. Also, as noted in the NPRM, the recent establishment of primary Class A TV stations may limit availability of core channels in some areas. Accordingly, the NPRM suggested a May 1, 2004, election date, but asked for comment on whether the election date should be earlier.

4. We have determined to mandate a December 31, 2003, election deadline for commercial television stations both their NTSC and DTV operations on in-core channels. This is more than one and a half years after the last commercial station construction deadline (*i.e.*, May 1, 2002), giving these stations ample time in which to decide which of their two core channels would be most suitable for use in digital broadcasting. Setting this channel election deadline will enable us to determine at an early date, on a market-by-market basis, what channels will be available for stations having two out-of-core channels and for other users and will assist in our clearing of this spectrum. We believe that the transition process will be sufficiently along by December 31, 2003, to allow commercial broadcasters to make an informed channel selection decision. An earlier election decision will provide commercial broadcasters with more time in which to construct the replication capability prior to our December 31, 2004, "use or lose" date, also being adopted herein. The choice of this election deadline for this category of stations strikes an appropriate balance between the need for stations to have a sufficient amount of time in which to gain experience in DTV operation and allowing stations that will have to move—particularly from out-of-core to in-core—to plan for the DTV channel conversion by December 31, 2006.

5. Non-commercial stations that have both their NTSC and DTV operations on in-core channels will have until the end of 2004 to elect their channels. This later deadline allows noncommercial stations to have at least a full year of experience with their DTV operation before having to choose their post-transition channels and, accordingly, accommodates the needs of public television.

6. We will resolve in future DTV periodic reviews a decision on whether and when stations with one or both of their channels out of the core will have to make an election. We presume that,

except in extraordinary circumstances, stations that have one in-core and one out-of-core channel will remain on their in-core channel after the transition. We will resolve issues relating to the particulars of the election process and procedure to later periodic reviews or publish them in Public Notices issued with sufficient time to allow for licensees to familiarize themselves with them. We will also resolve later the issue of whether any channels should be off limits. In *all* cases, including stations with both channels in-core, we reserve the right to select the final channel of operation in order to minimize interference and maximize the efficiency of broadcast allotments in the public interest. We intend to review the channel elected to ensure that its use furthers these goals.

7. Under the Community Broadcasters Protection Act of 1999 (CBPA), the Commission is prohibited from granting a Class A license to a low power television station operating on a channel within the core spectrum that includes any of the 175 additional channels that were referenced in the Commission's *6MO&O*. In the *6MO&O*, the Commission expanded the DTV core spectrum to cover, in total, channels 2–51, and we observed that this expansion would add approximately 175 additional channels to the core. The CBPA, as we noted in the *NPRM*, also requires the Commission to identify these 175 channels within 18 months of the Act's enactment. We thus invited comment as to whether, based on the new obligations imposed by this legislation, we are required to impose an earlier election date than May 1, 2004. After enactment of the CBPA, we concluded in our *R&O* establishing a Class A television service that we are currently in compliance with the requirement of section (f)(6)(B) of the CBPA that we protect the 175 channels, because these channels are now encumbered by existing NTSC or DTV allotments. (*R&O* in MM Docket No. 00–10, 65 FR 29985, May 10, 2000.) While a portion of these channels will become available for other parties once the broadcast licensees make their elections and begin to discontinue operations on one of their paired channels at the end of the DTV transition, we will have the opportunity closer to that stage to ensure that the CBPA's channel protection requirement continues to be met. In any event, we are establishing herein an election deadline for commercial stations that is earlier than that originally proposed.

B. Replication

8. We established replication as a goal in the creation of the initial DTV Table of Allotments. By this we meant that each DTV channel allotment was chosen to best allow its DTV service to match the Grade B service contour of the NTSC station with which it was paired. This approach provides important benefits to both viewers and broadcasters.

9. Thus far we have not mandated replication. We instead have allowed broadcasters to build facilities sufficient to emit a DTV signal strong enough to ensure that the predicted DTV service contour covers the community of license in order to accelerate the construction timetable and to alleviate the burdens that it placed on broadcasters. We nonetheless noted that during the first two-year review, we would consider whether to modify the build-out requirement to require a full-replication facility.

10. After considering the comments, and balancing the arguments for and against, we have decided not to require replication. We expect that DTV broadcasters will eventually choose to replicate their NTSC service areas to serve their viewers. However, we will not require such replication because we want to give broadcasters a measure of flexibility as they build their DTV facilities to collocate their antennas at common sites, thus minimizing potential local difficulties locating towers and eliminating the cost of building new towers. Some broadcast commenters have taken advantage of these measures, which we suggested in the *5R&O*, and it would be unfair to them and might delay construction to require them to change these plans, if necessary, to achieve full replication. Additionally, some licensees are not operating on their core channels and it would be inefficient to require them to construct full-replication facilities on the channel that they will soon vacate. As Joint Broadcasters point out, the migration to final DTV channels is by no means complete. To require NTSC service replication by DTV stations under these circumstances would indeed be premature, would cause excessive additional expense to both commercial and noncommercial broadcasters alike, and could delay the transition. Finally, we are not requiring replication in order that broadcasters can have more flexibility to collocate their transmitters and make other necessary adjustments. As pointed out in the comments, the use of common sites can also minimize environmental degradation.

11. While we wish to assure broadcasters a measure of flexibility in constructing their DTV facilities, we continue to want to assure that viewers do not lose service and we take seriously our mandate to speed the transition and to ensure that the spectrum is used efficiently. We have determined that the best way to accomplish this objective without imposing undue cost and delay on broadcasters, and to minimize environmental effects, is not to expressly require full replication of NTSC coverage with DTV service. However, to provide an incentive to them to do so, we will, as proposed by several commenters, and as discussed in the *NPRM*, cease to give interference protection to their unreplicated service area as of December 31, 2004. Thus, by December 31, 2004, commercial DTV licensees must either be on-the-air replicating their April 1997 NTSC Grade B service area as of that date or lose interference protection to the unreplicated portion of this service area outside the noise-limited signal contour.

12. We view this as part of a three-stage approach to the transition to DTV. The first stage will end May 1, 2002, by which time all commercial television stations must commence digital service. Noncommercial stations will have until May 1, 2003, to complete this stage. The second stage will end at the close of 2003, when channel election will be required for all commercial stations or the close of 2004, for noncommercial stations. The final stage will occur on December 31, 2004, at which time commercial DTV licensees will lose interference protection to those portions of their NTSC service area that they do not replicate with their DTV signal. Noncommercial DTV licensees will not lose such protection until December 31, 2005.

C. City Grade Coverage

13. For the reasons we discussed in the *NPRM*, we will impose a principal community coverage requirement that is stronger than the DTV service contour requirement that we adopted as an initial obligation in the *5R&O*. Such a requirement will improve the reliability of service to the community of license. However, we recognize the broadcasters' need for flexibility and will require a set of signal strengths lower than we proposed in the *NPRM*. We believe an appropriate balance is achieved by requiring a DTV city grade contour that is 7 dB stronger than the DTV service contour values for the pertinent channel. This is significantly less burdensome than the proposed values which would have been at least 16 dB

stronger. The values we are adopting are as follows:

Channels	Field strength (dBu)
2-6	35
7-13	43
14-69	48

The required level of service must be achieved by December 31, 2004, for commercial stations and December 31, 2005, for noncommercial stations, the same dates by which stations must either replicate their NTSC service areas or lose protection to the unreplicated areas.

14. We base the 7 dB increment on two factors relating to improving the availability of service in the city of license. First, as with NTSC TV city grade requirements, we conclude that the percent of locations receiving service should be more than the fifty percent criteria that is the standard for the NTSC Grade B service contour, as well as for the DTV service contour. Increasing the DTV service availability to the best 70 percent of the locations requires about a 4 dB increase in field strength, if all other assumed planning factors remain the same. We believe it is also appropriate to assume that locations inside a station's community of license should not require a very high-gain receiving antenna normally necessary for fringe-area reception. For NTSC TV service, the assumed antenna gain for Grade B service is five or six dB more than the assumed antenna gain for Grade A service. Where a lower-gain antenna is assumed, correspondingly stronger field strength is required for service to be provided. DTV antenna assumptions are generally that higher gain antennas will be used than have been assumed for NTSC TV reception. Conservatively, we assume that a DTV receiving antenna for use in a station's city of license can be at least 3 dB lower gain than the assumed receiving antenna for the edge of the station's service area.

15. The improved availability we are providing for is consistent with recognizing that the DTV signal is substantially different from the NTSC signal. The NTSC signal strength degrades over distance from the transmitter, with picture quality declining accordingly. In DTV there are virtually no gradations in picture quality that are dependent on signal strength. If the signal strength is above a certain threshold it will produce an excellent picture. If the signal strength does not reach that threshold, the receiver's screen will freeze or go blank.

The degree to which the signal exceeds that threshold requirement does not matter; the picture quality will not change and would not change even if we were to require that the community of license be provided with a more robust signal than that currently required. The higher signal level requirement should increase the number of locations where a good signal is present.

16. We recognize that some stations have spent time and money developing solutions to their coverage issues (e.g., placing the required level of signal over their community of license, avoiding co-channel and adjacent channel interference) that may result in their not being able to encompass their principal communities with the increased city-grade signal level proposed in the *NPRM*. In some of these cases interference has been reduced through collocation that may preclude licensees from being able to encompass their communities of license with the proposed signal level. We believe the less burdensome requirement we are adopting will not force many licensees to increase their power or move their antenna resulting in increased cost. The new, scaled-down requirement will continue to allow most broadcasters the flexibility they have requested in building their DTV facilities and we expect that they will construct expeditiously to assure that consumers and viewers have the benefit of a rapid transition to digital television.

17. Our enhanced principal community signal strength standard also helps prevent the migration of licensees from their community of license, thus furthering the purposes of Section 307(b) of the Communications Act. Their public interest obligations run to their communities of license. These requirements remain undiluted by our decision herein.

D. Noncommercial Stations

18. Although we did not solicit comment on this issue in the *NPRM*, and we stated that it is too early to address the needs of public television stations in converting to DTV, AAPTS/PBS request special treatment for noncommercial educational television stations. In the *5R&O* in our DTV proceeding, we noted our commitment to noncommercial educational television and acknowledged the difficulties they would face in transitioning to DTV and which would require special relief measures. In recognition of these difficulties we stated that noncommercial stations will need and warrant special relief to assist them in the transition to DTV. We

continue to believe, however, that it would be premature to attempt to resolve the issues raised, or grant the type of relief sought, by AAPTS/PBS in their comments. Furthermore, we believe that it would be beyond the scope of the *NPRM* in this proceeding to do so. As we get closer to the construction and election deadlines for noncommercial educational broadcast stations we will be in a better position to determine what further relief might be required by such stations and whether the scope of that relief needs to be on an industry-wide basis or only on a station-by-station or market-by-market basis.

E. Mutually Exclusive Applications

19. In the *NPRM*, we also addressed certain issues with respect to mutually exclusive (MX) DTV applications.

20. *DTV Cut-off Procedures.* Based upon the record in this proceeding, we conclude that the fairest and most expedient method for determining cut-off protection for DTV expansion applications is to take a bifurcated approach. With respect to all currently pending DTV expansion applications, we establish cut-off protection as of the date of the adoption of this *R&O*. Therefore, all DTV expansion applications pending as of the adoption date of this *R&O* are cut off and will be protected against later-filed DTV applications. Later-filed DTV applications must protect applications in this cut-off group. We find that this approach, which received the support of the majority of the commenters, will create a definitive pool of applicants from which both the applicants and the Commission staff can begin to resolve mutual exclusivity issues. As the Joint Broadcasters and AAPTS/PBS observe, use of a single cut-off date for all pending DTV applications will minimize the number of MX situations and facilitate applicants' planning with respect to their proposals. A single cut-off date also provides a measure of fairness to all applicants that filed DTV expansion applications prior to the adoption of the *R&O* by allowing all of them to be considered as part of one cut-off group. Because most television licensees have filed their DTV expansion applications, providing cut-off protection to all pending DTV applications will adversely affect only the limited number of licensees that will be filing such DTV applications in the future. Finally, selection of the adoption date of the *R&O* as the cut-off date will prevent a possible rush of hasty and possibly defective DTV filings filed merely to preserve rights that might

occur if we were to announce a later cut-off date.

21. Fox and KM Communications, Inc., proposed that we apply first-come, first served processing to the pending DTV applications. Under their approach, all pending DTV applications would be cut-off on the day they were filed. We decline to adopt such an approach. First, we recognize that there was an extended period of time over the past several months during which we permitted DTV applications to be filed without indication that applicants needed to expedite their filings or lose out on an opportunity to expand their DTV allotments. It would be unfair to retroactively apply first-come, first served processing to those applicants, such as noncommercial and smaller market licensees, that, as permitted, followed our staggered DTV implementation schedule and waited until their later deadlines to file their applications. In addition, we find that such an approach would not achieve the expected results. We have previously found first-come, first-served processing to be a desirable method of application processing because it avoids a large number of MX applications while also providing applicants with a level of certainty that their filing will not conflict with undiscovered earlier-filed applications. However, in this case, since so many of the pending DTV applications were filed in large batches on the same day because of Commission-mandated DTV deadlines (November 1, 1999, and May 1, 2000 being the prime examples), these applications would remain MX, with the intended benefits of first-come, first-served processing not being realized.

22. As for future DTV expansion applications filed after the adoption date of this *R&O*, we will adopt the proposal in the *NPRM* and we will consider such applications cut-off as of the close of business on the day they are filed. Under this day-to-day cut-off approach, conflicting later-filed applications would have to protect the earlier-filed, cut-off application. Unlike the case with the large number of currently pending DTV applications, we find that the benefits of this type of application processing can be realized with respect to the anticipated relatively small number of future DTV applications. Adoption of day-to-day cut-off processing for new DTV expansion applications will not only help to avoid a larger number of mutually exclusive applications the processing of which could delay expediting DTV service to the public and provide certainty for future applicants, but will also encourage

potential applicants to file quickly for improved facilities and thus help speed the introduction of DTV service to the public.

23. We decline to adopt a moratorium on the filing of new DTV expansion applications, as suggested by some commenters. Since many licensees filed their DTV expansion or maximization applications by May 1, 2000, the date set by the CBPA after which such applications would have to protect on new Class A television stations, we find it unlikely that a large number of additional stations will be filing DTV expansion applications. Furthermore, the procedures we adopt herein for resolving the pending MX applications will result in an expedited resolution of such.

24. *Resolving Mutually Exclusive DTV Applications.* We find that the best approach to resolving MX DTV expansion applications is to follow our existing DTV new station application procedure. First, we will continue to identify and grant all checklist, non-checklist, and maximization applications that are not predicted to create or receive impermissible levels of interference. The staff will identify via public notice those groups of MX applications that are related either by direct or indirect mutual exclusivities. The applicants will then be permitted a period of time, as discussed below, to resolve their MX situation through engineering solutions or settlement. The applications that remain MX following this settlement period would then be dismissed. We agree with those commenters that recognized that this type of private resolution of MX situations affords the parties greater flexibility than Commission imposed solutions, and avoids the burdens of costly and more time consuming regulatory proceedings. We will not adopt the proposed "safety valve" proposed by the Joint Broadcasters. However, in this regard we will consider on a case-by-case basis waivers of the *de minimis* interference limits (between applications) in cases of particular hardship where MX applicants demonstrate that their DTV applications were filed because they were required to relocate their proposed facilities for zoning or technical reasons.

25. Furthermore, we decline to use auctions to resolve MX DTV applications would not serve the public interest. We stated in the *NPRM* that, while we are precluded from Section 309(j) from auctioning initial DTV replacement licenses, it does not appear that a digital area-expansion application would constitute such a replacement. Some commenters, however, pointed

out that many initial applications request area-expansion. Furthermore, even those DTV expansion applications that seek to modify a DTV construction permit or seek a construction permit to change an existing DTV facility could be viewed as components of the replacement of analog television service. Therefore, it would take a time consuming, case-by-case approach to determine whether individual DTV applications were subject to auction. Given the extended length of time for such analysis, the strain on staff resources, and the difficulty in making such a determination, we find that use of auctions would not be a workable solution to resolving MX DTV groups. In addition, there are other public interest reasons why we believe that auctions would not be the best method for resolving DTV mutual exclusivity. The use of auctions could encourage applicants to take steps to avoid siting their DTV facilities in proximity to the DTV facilities of other licensees in order to avoid an MX situation and possible auction. This would undermine our stated goal of encouraging the collocation of DTV facilities and sharing of facilities. Finally, we agree with the Joint Broadcasters that auctions of DTV expansion applications could be difficult to administer since they could involve "daisy chains" of direct and indirect MX groupings and may cause delay to the overall DTV implementation process.

26. As for the length of the settlement period, we will limit the settlement period to 90 days during which applicants must either find an engineering solution or otherwise propose a settlement that would resolve their mutual exclusivities. These settlement periods will be announced by the staff in future public notices. While we encourage applicants to utilize all means possible to resolve their mutual exclusivities, including third-party mediation if they desire, we will not permit additional time for parties using such measures. We conclude that a 90-day settlement period strikes a fair balance between permitting applicants ample time and opportunity to resolve their mutual exclusivities and expediting the processing of pending DTV expansion applications.

27. As noted above, in addition to permitting applicants in MX groups to propose engineering solutions to resolve their mutual exclusivities, we will also permit applicants to enter into settlement agreements whereby one or more applicants may agree to change their proposed facilities or dismiss their expansion application altogether in

exchange for compensation. In an effort to provide additional flexibility and to hasten the settlement process, we will waive the provisions of 47 CFR 73.3525(a)(3) which limit the monetary settlement of pending applications to the legitimate and prudent expenses of the applicant. All other provisions of 47 CFR 73.3525 will continue to be applied to these settlements. We find that the public interest will be served by waiving the monetary limitation because it will result in the resolution of more MX DTV groups, the grant of a greater number of DTV expansion applications, and expedited DTV service to the public. We also remind DTV applicants seeking engineering solutions or settlements to resolve their MX groups, that all such engineering solutions and settlements must be submitted in writing for staff review pursuant to 47 CFR 73.623(g). As that section provides, concerning negotiated agreements on DTV interference, "applications submitted pursuant to the provisions of this paragraph will be granted only if the Commission finds that such action is consistent with the public interest."

28. Finally, we recognize the comments of the Joint Broadcasters that adoption of a cut-off procedure and method for resolving MX DTV applications necessarily means that we must revise our existing maximization procedures as adopted in the *Second Memorandum Opinion and Order*, 64 FR 4322, January 28, 1999 ("2MO&O") in the DTV rulemaking proceeding. In that decision, we adopted a procedure whereby DTV maximization applications with power levels above 200 kilowatts would be placed on public notice and interested parties would be given 30 days to object to an expansion proposal by stating that the proposed change would impact upon their future plans to maximize their own DTV operations. The applicant and objecting party would then have 30 days to resolve the conflict and, in the event they are unable to do so, the DTV above 200 kW maximization application would be dismissed. The Joint Broadcasters are apparently concerned that, left untouched, the maximization procedures set forth in the 2MO&O would be inconsistent with the cut-off and MX procedures we are adopting herein. We agree, and we replace the maximization procedures set forth in the 2MO&O with our new cut-off and MX procedures. Accordingly, the temporary 200 kW cap on power increases for UHF DTV stations is no longer necessary and is removed.

29. *Application Processing/Protection Priority*. After consideration of the

comments, we adopt a system of priorities similar to that proposed in the *NPRM*, and we give priority to DTV expansion applications over all NTSC applications except NTSC applications that fall into one of the following three categories: post-auction applications (*i.e.*, the long form application [FCC Form 301] filed by the winning bidder following the completion of a broadcast auction), applications proposed for grant in pending settlements, and any singleton applications cut-off from further filings. We estimate that there are approximately 20 applications in these three categories. The cut-off singleton applications remain pending for a variety of legal and technical reasons. These NTSC applications must have been accepted for filing in order to be protected from DTV expansion applications. In the future, when a party files a DTV expansion application, it must determine whether there are NTSC applications on file in any of the three above categories and provide interference protection to them. As for pending DTV expansion applications and NTSC applications, if an earlier-filed DTV expansion application conflicts with an NTSC application in one of the three categories, we will consider these applications MX and follow our above-outlined procedures for MX applications—that is, we will require that the parties resolve their MX within 90 days or we will subsequently dismiss both applications. Additionally, we will require NTSC applications to protect facilities proposed by DTV applicants even if the DTV application was filed while the NTSC application is pending. We believe that our goal should continue to be expedited implementation of DTV service. We find that the above system of priorities will further that goal, while at the same time recognizing the need to continue to provide viable NTSC service until the DTV transition is complete and not disrupting the settled expectations of these NTSC applicants that may have relied on existing procedures in the reasonable belief that their applications would receive protection.

30. We will condition the grant of all future NTSC minor change applications on acceptance of interference from any proposed DTV facility which was filed on or before the NTSC grant date.

31. With respect to pending petitions for rule making for new or modified DTV allotments, where an *NPRM* has been adopted and the comment deadline on the petition for rule making has passed, we will consider such petitions as "cut-off" as of the comment deadline. In that case, if there is an earlier-filed pending DTV expansion

application that conflicts with the petition, we will consider the petition and application(s) as MX and, once again, follow our above outlined procedures for MX applications. Pending DTV expansion applications that are filed after a DTV petition is cut-off on its comment deadline will have to protect the facilities proposed in the DTV petition. If the pending DTV petition has not yet been cut-off as of the adoption date of this *R&O*, then, because we will have cut off all pending DTV expansion applications, we will consider the petition and any conflicting DTV expansion applications as MX and use our above-outlined procedures to resolve them.

32. With respect to future petitions for rulemaking that are filed for new or modified DTV allotments, we will continue our current practice of providing cut-off protection to such petitions on their comment deadline. Therefore, in the future, when an interested party files a DTV expansion application, it must provide protection for any DTV rulemaking petition for which the comment deadline has passed. Also in the future, new DTV petitions will be required to protect all earlier-filed DTV expansion applications, given our newly adopted day-to-day cut-off procedure for such application.

F. Technical Issues

33. In this section, we address several comments that request action on technical issues.

34. *ATSC DTV Standard*. The Advanced Television Systems Committee (ATSC) is the organization that developed the "ATSC DTV Standard," most of which we adopted as our DTV broadcast standard in the *Fourth Report and Order*, 62 FR 14006, March 25, 1997 ("4R&O") in the DTV proceeding. Title 47 CFR 73.682(d) requires that broadcast DTV transmissions comply with standard ATSC Doc. A/53 dated September 9, 1995, except for its constraints on video formats. In comments, ATSC reports that, since adoption of the 4R&O, it has made several changes to the Doc. A/53 standard including removing constraints associated with the "program paradigm," updating references to the underlying MPEG standards, replacing references to obsolete ATSC standards for Electronic Program Guide and System Information with a reference to a new ATSC Doc. A/65 for Program and System Information Protocol (PSIP), and requiring a signal when colorimetry other than that defined by standard SMPTE 274M is used. The PSIP specification provides for the

transmission of system information and program guide data for broadcast DTV stations, enabling the identification of service channels and digital bit streams, and allowing receivers to generate electronic program guides. It also provides for selection through the program guide function of the type and language of closed captioning to be viewed and transmission of program ratings information to allow parents to use "v-chip" technology. ATSC also indicates that it is considering an increase in the maximum allowable audio bit rate.

35. ATSC urges the Commission to revise the rules to reference the latest version of the ATSC DTV Standard A/53 and to require use of the ATSC PSIP Standard A/65. ATSC further requests Commission action to assure that "major channel numbers" in the PSIP are used properly, the assignment of transport stream identifier (TSID) parameters is properly administered, and that closed captioning and content advisory information conforms with the PSIP Standard. "Major channel number" is part of the DTV bit stream specified in the PSIP standard and used to identify the terrestrial broadcast station (or cable or satellite source) providing the DTV program(s). Where a station is transmitting multiple programs, it uses "minor channel numbers" to distinguish among them. Within each television market, each programming source (terrestrial DTV broadcast stations as well as cable or satellite DTV channels) must have a unique "major channel number" so DTV receivers can be tuned to the desired stations and programs. In addition, the PSIP standard uses a "TSID" to uniquely identify transport streams, again to allow DTV receivers to tune between programs arriving from different sources. Finally, ATSC suggests the Commission encourage use of additional supplementary ATSC standards, including those concerning conditional access and data broadcasting.

36. In ET Docket No. 99-34, we sought comment on whether coordination committees and a national coordinator could assist in the administration of the DTV system by assigning the unique PSIP station identifier and negotiating the naming and numbering of channels among broadcasters in local markets. We continue to believe that an industry approach is generally the most appropriate means for managing the implementation of a PSIP system. However, we do recognize that the transport stream identifiers (TSIDs) must be unique to each individual television station and that there is a

need to coordinate TSID assignments for stations in the border areas with our neighbors in Canada and Mexico. We therefore agree that TSID assignments should be made part of the Commission's licensing process for broadcast television stations and will begin the process to incorporate this function into that process in the near future. Until negotiations with Canada and Mexico on this matter are complete and we have modified our licensing process and records management systems, we will continue to rely on the industry to make TSID assignments.

37. *Distributed transmission and boosters.* The Merrill Weiss Group (Merrill Weiss), supported by Pappas and Penn State University, and ADC Telecommunications, urge the Commission to adopt rules for on-channel DTV boosters, including allowance for a distributed transmission system. Merrill Weiss defines distributed transmission as being similar to a cellular telephone system in that a service area is divided into a number of cells, each served by its own transmitter. Distributed transmission differs from a cellular telephone system in that all adjacent cells use the same frequency (a "single-frequency network"). DTV boosters also retransmit the primary DTV station's same program on the same channel.

38. While we recognize the desire to initiate DTV booster operations, we believe there are fundamental issues surrounding their authorization and protection that must be addressed in a more comprehensive manner than can be accomplished based on the limited record on this issue in this proceeding. Therefore, we will defer this consideration to the rulemaking proceeding on digital LPTV and DTV translator stations that we expect to initiate within the next few months.

39. *Computer program used for application processing.* Several concerns are raised in comments about elements of the Commission's interference analysis program used in processing applications. Hammett and Edison seeks changes in the way the program treats the return of an "Error Code 3" message from the Longley-Rice propagation model. An "Error Code 3" message is given when internal Longley-Rice program calculations show parameters are out of range and that reported results are dubious or unusable. The message is returned when the calculation of the actual distance to the horizon from a given cell or transmitter location is less than 0.1 times or greater than 3 times the distance to the smooth earth horizon. Hammett and Edison also seeks a

change to the program's calculation of the depression angle from a transmitting antenna to a cell and requests that the program be changed to allow use of the actual transmitting antenna elevation patterns rather than the generic pattern. AFCCE recommends that the cell size and spacing increment should be reduced as necessary to accurately depict terrain and population distribution.

40. We recognize that this is a very complicated analysis. We have found it necessary to balance ideas and recommendations for refining the program with the disruption and uncertainty that would occur when a change is made. In the case of each of these proposals, we believe that the disruption of altering the program would be more severe than warranted by the possible improvement in the accuracy of the analysis results provided by the program. In the case of the "error code 3" request, we note that we previously indicated that the assumption of service was appropriate where the Longley-Rice propagation model indicates that results are unreliable because it is similar to the situation where, for many purposes, all locations within an NTSC TV station's Grade B service contour are assumed to receive service. While Hammett and Edison submits the results of its study regarding the prevalence of the problem, our review of its information reveals no benefit that would warrant reversing our earlier decision.

41. We have an administrative process that relies on comparison of interference and service predictions with the analysis performed in creating the table of allotments. Recalculating the entire table would be an enormous undertaking. Additionally, reconciling calculations using a new methodology with the table calculations based on different methodology is difficult and likely to result in uncertainty in the results and contested decisions.

42. We believe the best balance of accurate interference prediction and administrative certainty can be achieved with the analytical methods that we used to develop the initial table, which is consistent with the comments of AFCCE. AFCCE recommends continuing to use the established methods of determining the grade B contour for predicting an NTSC station's service and determining a DTV service contour using the F(50,90) propagation model as the first step in predicting DTV service. AFCCE also recommends that use of Longley-Rice analysis and the relevant DTV planning factors be continued. We believe this can be best achieved by maintaining the normal processing

analysis based on the methodology established in creating the table. However, in a special case, where one of the suggested revisions would improve the accuracy of the analysis and would make a critical difference, an application may contain a showing using an alternate analysis in support of a waiver request.

43. *Release of evaluation software.* Everist requests that the Commission immediately release all software to the public that it uses in its DTV evaluation procedures. Some of the software requested by Everist is still in a development and testing phase and we believe it would be premature and, indeed, confusing to release it to the public while it is undergoing review and revision. Software that is relied upon in processing TV and DTV applications has been, and will continue to be, made available to the public in the same way that evaluation software for other video broadcast services is made available.

44. *DTV Planning Factor—Assumed Receiving Antennas.* Hammett and Edison objects to the assumed receiving antenna pattern for NTSC reception being different from the assumed receiving antenna pattern for DTV reception in OET-69 interference calculations.

45. At this time, we do not have a basis for changing these criteria. The receiving antenna assumptions were considered in the Advisory Committee on Advanced Television Systems and were part of its recommendation to the Commission. There has been no consensus developed in the industry that changing the receiving antenna assumption is appropriate. We therefore see no merit in changing the assumed NTSC and DTV antenna patterns. Also, changing the assumptions now would alter the interference analysis methodology, which, as discussed above, could disrupt processing and create uncertainty.

46. *Change in Census Population Data.* Everist asks whether the Commission will permit updated Census Bureau population estimates to be used for service and interference calculations as they become available. As a related matter, AFCCE recommends that the geographic center instead of the population centroid of each cell be used in the Longley-Rice analysis. The effect of this change would be to make the analysis of whether a cell is served or interfered-with independent of the population data the analysis is based on (because the precise location that is considered to represent the cell would be fixed at the middle of the cell and not shifted to a

location that depends on the population distribution within the cell).

47. At this time, we have not made plans to convert our processing analysis to use new census data. New census data would necessitate re-evaluation of the entire DTV table to establish “baseline” values against which application proposals can be measured. Again as above, additional information about population shifts can be submitted with an application where such information is crucial and decisional. Also, if, in the future, we consider using new census data, we can consider then the AFCCE recommendation concerning the use of the geographic center of each cell.

48. *Maximum power clarification.* Title 47 CFR 73.622(f)(5) provides that licensees assigned a DTV channel in the initial DTV Table of Allotments may request an increase in either Effective Radiated Power (ERP) in some direction or antenna Height Above Average Terrain (HAAT) that exceeds the initial technical facilities authorized for the allotment. Such increases are limited to maximum powers specified in paragraphs (f)(6) through (f)(8) of that section. Where specified antenna HAAT values are exceeded, the maximum ERP generally is reduced in accordance with the appropriate chart or formula in those paragraphs. Paragraph (f)(5) also allows the maximum ERP and HAAT combination to be “up to that needed to provide the same geographic coverage area as the largest station within their market, whichever would allow the largest service area.” AFCCE, Everist and Hammett & Edison, each requests clarification of the term “geographical coverage of the largest station in the market” for determining maximum power and antenna.

49. We take this opportunity to clarify this rule. First, the maximum ERP limits (1000 kW for UHF channels 14–69 in any zone; 30 kW for VHF channels 7–13 in Zone 1; 160 kW for VHF channels 7–13 in Zone 2 or 3; 10 kW for VHF channels 2–6 in Zone 1; and 45 kW for VHF channels 2–6 in Zone 2 or 3) may not be exceeded. The “largest station” provision applies only where the rules normally require a reduction in the maximum power because a specified antenna HAAT is exceeded. That is, it does not allow power higher than the maximum ERP to compensate for an antenna HAAT that is lower than the value specified in the rule. Second, the “largest station” provision is only triggered where a station in the same market is serving a larger area than could be covered with the standard maximum power and antenna height specified in 47 CFR 73.622(f).

Otherwise, applicants must comply with the maximum power and antenna height in that rule section. Third, for the purpose of this rule, stations in the same DMA are considered to be in the same market. Fourth, the geographical coverage determination is based on the area within the DTV station’s noise-limited contour, calculated using predicted F(50,90) field strengths as set forth in 47 CFR 73.622(e) and the procedure specified in 47 CFR 73.625(b). Under this provision an application may not request a power and antenna height combination that would result in coverage of more square kilometers of area than the largest station in the market. It is not necessary that the application specify coverage that is congruent with or encompassed by the coverage area of the largest station. Stations are not expected to shift their coverage area in order to use this provision of the maximum power rules. Finally, DTV stations are still subject to the interference protection requirements, even when availing themselves of this provision.

50. *Directional Antenna Definition and Interference Creating NTSC White Areas.* Everist seeks clarification on the definition of a non-directional and a directional transmitting antenna. He also asks about incremental creation of white or underserved areas as DTV stations are authorized based on creating *de minimis* interference to the Grade B service of NTSC TV stations.

51. In both of these matters, we believe it is appropriate to continue the NTSC TV practice. Title 47 CFR 73.625(c)(2) defines a DTV directional antenna as one “designed or altered to produce a noncircular radiation pattern in the horizontal plane * * *.” Title 47 CFR 73.685(e) defines an NTSC TV directional antenna as one “designed or altered to produce a noncircular radiation pattern in the horizontal plane * * *.” Therefore, the DTV and NTSC rules defining directional antennas are identical and the practices and policies that have been applied to NTSC directional antennas will also be applied to DTV directional antennas. With regard to white area or underserved area determinations, we note that 47 CFR 73.684(a) concerning NTSC TV station prediction of coverage specifically indicates that “predictions of coverage made pursuant to this section shall be made without regard to interference * * *.” Therefore, as has been the case with NTSC interference, we will not consider the effect of DTV interference on analysis of white areas or underserved areas.

52. *Closed Captioning for Digital TVs.* Motorola addresses an issue of

compatibility of DTV closed captioning with an existing digital cable closed captioning technology. Motorola is concerned that this issue could lead to a delay in the DTV transition, so it includes an analysis that it also submitted in ET Docket 99-254.

53. The *R&O* in ET Docket No. 99-254, 65 FR 58467, September 29, 2000, has addressed this matter and no further action is necessary herein.

54. *NTSC Group Delay Blanket Waiver*. Hammett & Edison requests a blanket waiver of the envelope delay requirement in 47 CFR 73.687(a)(3) for NTSC stations with upper-adjacent channel DTV assignments that combine their NTSC and DTV signals and use a common transmitting antenna.

55. We agree with Hammett and Edison that a blanket waiver is appropriate for this situation. Therefore, we authorize all NTSC TV stations with a DTV signal on the first-adjacent channel above the NTSC channel and with a common transmission line and antenna, to operate at variance with the envelope delay requirements of § 73.687(a)(3) for frequencies between 3.9 and 4.2 MHz above the visual carrier.

56. *Canadian Border Zone*. AFCCE urges the Commission to resolve Canadian border zone issues in an expeditious fashion. We believe this concern has been resolved. A Letter of Understanding with Canada was signed September 12 and 22, 2000, and announced in a Public Notice released September 29, 2000.

57. *Data Base Inconsistency*. Everist is concerned that the new Mass Media Bureau Consolidated Data Base System (CDBS) should be validated. He states that where old terrain elevation data that is inconsistent with current determination of terrain elevation, it can turn an otherwise "checklist" application into a "non-checklist" application because it will show the antenna height differing from that authorized by more than ten meters.

58. Errors and inconsistencies in the CDBS that we have discovered have been corrected and resolved. However, this is an on-going process. As for the criteria for "checklist" treatment, we decline to alter it at this time. We now have the capability to process "non-checklist" applications expeditiously (and to quickly grant those applications that do not raise interference concerns and would have been considered checklist except for failing to meet the power or HAAT limits to be defined as checklist). Thus, there is not a significant benefit to an application being designated as checklist.

59. *Sanctioning a Government-Industry Committee Similar to TASO*. AFCCE recommends that the Commission sanction the formation of a government-industry advisory committee to deal with application processing issues, as well as a "TASO"-like committee to help resolve DTV allotment and service issues. TASO is the Television Allocations Study Organization, which was formed in the 1950s by the television broadcast and consumer electronics industries at the request of the Commission to study the technical principles that should be applied in television channel allocations. At this time, we believe it is preferable to allow current industry efforts to continue without interruption. Significant activity is underway and we do not wish to slow it down or prevent it from reaching possible resolution of the issues that are being addressed. In the future, if circumstances warrant, this matter may be revisited.

60. *Method for determining 85% criteria for extending end of the transition*. California Oregon Broadcasting, Inc. urges the Commission to consider how it will implement the 85% DTV reception criteria for extending the end of the transition beyond 2006. It is too early in the transition to initiate consideration of this matter. We expect to consider it in a future review proceeding.

61. *Biological effects of RF radiation*. Carole Lomond opposes introduction of DTV signals in any residential environment until concern over biological effects of nonionizing electromagnetic radiation is resolved. Lomond provides no evidence to warrant re-evaluating our RF exposure regulations. We therefore decline to consider this issue in the context of this DTV review proceeding.

62. *Other technical issues*. Everist requests clarifications and explanations of a number of other technical matters. We are unable to address all of these in the context of this proceeding. Many of the issues he addresses have not yet arisen in processing and in the case of others his concerns are not clearly described. As these issues come up, we will resolve them individually on a case-by-case basis. If principles emerge from this practice, we will describe them in a Public Notice.

G. DTV Transmission Standard

63. In the *NPRM*, we observed that some broadcast entities had raised concerns regarding the 8-VSB modulation system used in the ATSC DTV Standard adopted by the Commission as the transmission standard for digital broadcast television

signals. We stated that while we continue to believe that NTSC service replication is achievable by DTV operations using the 8-VSB standard, we recognized that some parties within the broadcast industry had recently raised various issues with respect to this standard. In particular, we noted that the Sinclair Broadcasting Group, Inc. (Sinclair) had previously filed a Petition for Expedited Rulemaking urging that we modify the rules to permit the use of an alternative modulation method, coded orthogonal frequency division multiplexing (COFDM), in addition to the 8-VSB standard. In its petition, Sinclair argued that COFDM modulation offered easier reception with simple antennas and would enable broadcasters to provide fixed, mobile and portable video services. We dismissed Sinclair's petition, indicating that we continued to believe that NTSC service replication is achievable by DTV operations using the 8-VSB standard. However, we also indicated that we would address the concerns raised by Sinclair and others about the 8-VSB modulation standard in the context of this proceeding. In the *NPRM*, we therefore invited comment on the current status of the 8-VSB DTV standard. We specifically requested comment on the progress being made to improve indoor DTV reception under the existing transmission standard and manufacturers' efforts to implement DTV design or receiver improvements. We also asked commenting parties to submit information regarding any additional studies that may have been conducted regarding NTSC replication using the 8-VSB standard.

64. Parties primarily representing some broadcast interests express continuing concern about the ability of the 8-VSB standard to support reliable reception in areas where there is strong multipath, and submit that this deficiency must be corrected. These parties generally argue that the Commission should actively investigate both 8-VSB and COFDM and should consider a change to COFDM if that system is shown to be superior to 8-VSB. Sinclair and several others continue to argue that broadcasters should be given the option to use a COFDM system for transmitting their DTV signals. Other parties representing broadcasters, consumer electronics equipment manufacturers and consumers urge the Commission to maintain the current 8-VSB modulation standard for DTV transmissions. These commenters generally state that 8-VSB is the most suitable modulation standard for DTV service for North America and that the current concerns

about reception in areas where there are high levels of multipath are being addressed through receiver improvements.

65. We also observe that a group of broadcasters, including many of those participating in the Joint Broadcasters comments, has recently completed a program of DTV receiver testing. The industry study, among other things, compared reception of 8-VSB and COFDM signals at a large number of locations in those markets. This study took measurements outdoors at the 30-foot antenna height assumed in the DTV planning factors and at 6-feet using simple antennas typical of indoor reception. Some actual indoor measurements were also taken. One of the objectives of the industry tests was to determine whether COFDM should be added to the current 8-VSB standard. The report on the industry 8-VSB/COFDM comparison tests (8-VSB/COFDM Report) indicates that at the 30-foot receive antenna height, 8-VSB was received at a greater percentage of sites than COFDM. This was true at all distances from the transmitter. In addition, 8-VSB performed better up to the furthest distances measured from the transmitters (55 miles). It also states that at the 6-foot receive antenna height, using a simple antenna, COFDM was successfully received at more sites than 8-VSB in Washington, while 8-VSB was successfully received at more sites in Cleveland. It notes that successful reception of either system at the 6-foot height was achieved at less than 50% of the test locations. The 8-VSB/COFDM Report further indicates that in the case of indoor measurements, the percentage of successful reception was similar for both 8-VSB and COFDM, with 8-VSB holding a slight advantage. However, successful indoor reception was achieved at only about 30% of the test locations.

66. Based on these test results, the industry has reaffirmed their endorsement of the VSB standard and concluded that there is insufficient evidence to add COFDM to the U.S. DTV broadcast standard. In this regard, on January 15, 2001, the Boards of Directors of MSTV and NAB issued the following joint resolution:

With the support of 30 major broadcast organizations and the oversight of technical committees consisting of some 25 engineers representing all major technical viewpoints, the broadcasting industry concluded a comprehensive, objective and expedited series of studies and tests to determine whether COFDM should be added to the current 8-VSB standard.

We conclude that there is insufficient evidence to add COFDM and we therefore

reaffirm our endorsement of the VSB standard.

We also conclude that there is an urgent need for swift and dramatic improvement in the performance of the present U.S. digital television system.

We therefore will take all necessary steps to promote the rapid improvement of VSB technologies and other enhancements to digital television and direct the staffs to develop a plan and promptly submit it to the Boards.

In addition, our Office of Engineering and Technology (OET) is currently conducting field tests of 8-VSB reception in the Washington, DC and Baltimore market areas to independently assess the status of DTV receiver development. The OET study is examining the performance of early and improved models of DTV receivers with respect to multipath and coverage based on reception of the signals of the local DTV stations now operating in those markets. This study involves taking measurements at a large number of sites throughout these stations' service areas, including close-in urban, suburban, and rural areas located near the stations' predicted DTV service contour. Specific sites were also selected to ensure that measurements were taken in areas with moderate to strong multipath conditions. Measurements were taken outdoors at the 30-foot height and also at 7-feet using simple antennas typical of indoor reception. The interim results of the OET tests indicate that the current generation of DTV receivers are considerably improved over the early generation units, and in particular with regard to their ability to provide acceptable service in areas with moderate and strong, complex multipath signals. The OET test results also indicate that the 8-VSB system adequately meets our goals for DTV service replication, minimum interference, and spectrum recovery as set forth in the *6R&O*.

67. These new studies bear out the conclusions of the OET's *DTV Report* that the relative benefits of changing the DTV transmission system to COFDM are unclear and would not outweigh the costs or delays involved in making such a revision. Accordingly, based on our review of the record, the demonstrated improvements in DTV receiver performance, and the findings and recommendations of the industry, we find that there is no reason to revisit our decision to deny Sinclair's petition. Consequently we will not reopen the issue of the Commission's DTV standard.

H. DTV Receiver Performance Standards

68. In the *NPRM*, we discussed the desirability of setting receiver performance standards and recognized that some broadcasters have recommended that we address over-the-air DTV signal reception issues by setting receiver performance thresholds. We therefore requested comment on the desirability of adopting minimum performance levels and asked, if we were to adopt such requirements, how they should be structured, including timing considerations.

69. In the *6MO&O* in the DTV proceeding, we stated that we believe that competitive market forces will ensure that DTV receivers perform adequately. We noted that receiver performance involves trade-offs among many different factors and that manufacturers are in the best position to determine how these trade-offs should best be made to meet consumer demand. We further stated, however, that we would continue to monitor this area through the DTV implementation process and that we would take regulatory action if needed. As indicated above, DTV receiver manufacturers, driven by market forces, are continuing to make significant improvements in their products, particularly in the area of indoor reception and multipath signal handling capabilities. These efforts are consistent with our earlier assessment that those producing receivers are in the best position to determine how to make trade-offs in performance factors to best meet consumer needs. We therefore continue to believe that it would be undesirable to set rigid performance standards for DTV receivers at this time. We will, however, continue to monitor receiver issues throughout the transition and will take appropriate action on receiver standards if necessary.

A. Miscellaneous Issues

70. In the *NPRM*, we invited comment on any critical unresolved tower siting issues and how they affect the progress of the digital transition. We asked whether broadcasters are able to secure necessary tower locations and construction resources and whether and to what extent zoning disputes, private negotiations with tower owners, and the availability of tower construction resources affect the transition.

71. The comments generally affirm our preliminary assessment in the *NPRM* that, while some stations are facing problems with tower availability and/or local zoning issues, such problems do not seem to be widespread

at this time. The Commission intends to continue to monitor the situation to forestall and/or remedy problems through these entities, as requested by NAB.

72. Additionally, in the *NPRM* we invited comment on copy protection and cable compatibility issues. Recently, the Commission issued orders in other proceedings dealing with both issues, obviating the need for action to be taken herein. In our recent *FNPRM* in the navigation devices proceeding (*FNPRM* in CS Docket No. 97-80, 65 FR 58255, September 28, 2000), we noted that, unlike in the analog context, digital technology enables users to make an unlimited number of virtually perfect copies of digital content. However, digital technology also can enable copyright holders of digital content to prevent misuse of copy protected material through methods not previously available. In the *Declaratory Ruling* we found that some measure of anti-copying encryption technology is consistent with our navigation devices rules because it protects a gap where digital data would otherwise be available "in the clear" and subject to unrestricted digital copying. Accordingly, we clarified that the inclusion of some amount of copy protection within a host device does not violate the navigation devices rules. In the *NPRM*, with respect to cable compatibility, we invited comment on the extent to which a failure of industry parties to reach agreement on labeling of digital receivers would hinder the transition. Subsequently, in our recent *R&O* concerning compatibility between cable systems and consumer electronics equipment (*R&O* in PP Docket No. 00-67, 65 FR 64388, October 27, 2000) we adopted rules providing for the labeling of DTV receivers to ensure that consumers will be fully informed about the capabilities of DTV receivers to operate with cable television systems. We provided for labels with regard to three categories of DTV receivers, depending upon several characteristics. Because additional industry work is still required for design specifications for the Digital Cable Ready 3 category, we stated that the record would be kept open in PP Docket No. 00-67 in order to provide us with the option of incorporating these anticipated specifications into our rules at a later date. This labeling scheme will permit consumers to make well-informed decisions about DTV equipment purchases based on a clear understanding of receivers with different labels.

73. Additionally in that proceeding, we required the consumer electronics

and cable television industries to report back to us on their progress in developing technical standards in two areas: Direct connection of DTV receivers to digital cable television systems, and the provision of tuning and program schedule information to support on-screen program guides for consumers. These two issues have been substantially, but not completely resolved in an agreement between the National Cable Television Association and the Consumer Electronics Association.

74. In sum, substantial progress has been made with respect to both copy protection and DTV receiver/cable compatibility. We see no need for further action at the present time in this proceeding with respect to these important issues and will continue to monitor and consider those issues in the foregoing separate proceedings.

III. Conclusion

1. At the outset of this proceeding we stated that the conversion to digital is progressing and television stations are working hard to convert to DTV. The comments we received in response to the *NPRM* have mostly further confirmed our initial impressions. We believe that the conversion is, indeed, making progress and that the actions we are taking, and proposing, herein will hasten this transition. Particularly, our choice of an early channel election for commercial licensees and our decision not to require replication of NTSC service should well conduce to allowing stations to make plans and purchase equipment at the earliest practicable times. We will continue to monitor the progress toward the DTV conversion and will in future reviews take those actions needed to accomplish a smooth transition by December 31, 2006.

IV. Administrative Matters

76. *Paperwork Reduction Act Analysis.* This *R&O* has been analyzed with respect to the Paperwork Reduction Act of 1995, and found to impose no new or modified reporting and recordkeeping requirements or burdens on the public.

77. *Final Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act (RFA), the Commission has prepared the following Final Regulatory Flexibility Analysis (FRFA) of the possible impact on small entities of the rules adopted in this *R&O*.

78. As required by the Regulatory Flexibility Act (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *NPRM*. The Commission sought written public comment on several issues concerning

the transition to digital television (DTV), including comment on the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

79. *Need for, and Objectives of, the R&O.* As described in the *R&O*, the nation's television system is currently engaged in the transition from analog to digital television. As part of that transition, all television broadcasters will have to file applications of various types. This might create mutual exclusivities both between DTV applicants and between DTV and analog (NTSC) applicants. The Commission will have to process those applications. The rules adopted herein are needed to, and will, govern the processing of those applications.

80. *Summary of Significant Issues Raised by Public Comments in Response to the IRFA.* No comments were filed in response to the IRFA.

81. *Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply.* The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted. The RFA defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under section 3 of the Small Business Act. A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

82. Pursuant to 5 U.S.C. 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the [SBA] and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the **Federal Register**." A "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field." Nationwide, as of 1992, there were approximately 275,801 small organizations. "Small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts with a population of less than 50,000." As of 1992, there were approximately 85,006 local governments in the United States. This number includes 38,978 counties, cities,

and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000. The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (91 percent) are small entities.

83. The SBA defines small television broadcasting stations as television broadcasting stations with \$10.5 million or less in annual receipts. According to Commission staff review of the BIA Publications, Inc., Master Access Television Analyzer Database, fewer than 800 commercial TV broadcast stations (65%) subject to our proposal have revenues of less than \$10.5 million dollars. We note, however, that under SBA's definition, revenues of affiliates that are not television stations should be aggregated with the television station revenues in determining whether a concern is small. Therefore, our estimate may overstate the number of small entities since the revenue figure on which it is based does not include or aggregate revenues from non-television affiliated companies. It would appear that there would be no more than 800 entities affected.

84. *Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements.* None. The actions taken in the *R&O* impose no reporting, recordkeeping, or other compliance requirements on television broadcast stations, large or small. Instead, this *R&O* simply alerts licensees to the procedures that the Commission will utilize in considering DTV applications and, particularly, mutually exclusive applications. Additionally, this *R&O* adopted a channel election requirement but specifically reserved the process and procedure for a future DTV periodic review. Accordingly, no reporting, recordkeeping or other compliance requirements were adopted in this *R&O* with regard to channel election.

85. *Steps Taken To Minimize Significant Impact on Small Entities, and Significant Alternatives Considered.* The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from

coverage of the rule, or any part thereof, for small entities.

86. The processes adopted in the *R&O* are designed to be as simple and inexpensive to applicants as possible, including any small entities. The revised rules call for neither auctions nor hearings, alternatives which were considered and not adopted because of the Commission's belief that, *inter alia*, such alternatives might disadvantage small entities. The Commission declined to adopt a hearing procedure to resolve disputes because such procedures are expensive, prolonged, and likely would be precluded by section 309(j) of the Communications Act. A second alternative would have been to go to an auction system. It is our belief, however, that in this situation an auction would have both caused delay and disadvantaged smaller entities. Therefore, we declined to adopt either of these alternatives.

87. During our consideration of other possible alternatives, all steps were taken to ameliorate the impact of these rules on small entities. Instead of the hearing and auction alternatives, we adopted rules that establish in cases of mutual exclusivity, that all mutually exclusive applications will be dismissed if no voluntary resolution can be arrived at within 90 days. We believe that this provision levels the playing field, and thereby protects small entities from the economic leverage that large entities could wield in either a hearing or settlement environment.

88. *Report to Congress.* The Commission shall send a copy of the *R&O* in MM Docket No. 00-39, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A). In addition, the Commission shall send a copy of the *R&O* in MM Docket No. 00-39, including the FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *R&O* in MM Docket No. 00-39 and FRFA (or summaries thereof) will also be published in the **Federal Register**. *See* 5 U.S.C. 604(b).

V. Ordering Clauses

89. Accordingly, pursuant to the authority contained in 47 U.S.C. 1, 2(a), 4(i), 7 and 303, part 73 of the Commission's rules, 47 CFR part 73, is amended as set forth in this *R&O*.

90. Sinclair Broadcasting Group, Inc.'s, Petition for Reconsideration of our denial of its Petition for Expedited Rulemaking, and Univision Communications Inc.'s, Petition for Expedited Rule Making submitted November 17, 1999, are denied.

91. Pursuant to the Contract With America Advancement Act of 1996, the rule amendments set forth in "Rule Changes," *infra.*, shall be effective April 16, 2001.

92. The Commission's Consumer Information Bureau, Reference Information Center, shall send a copy of this *R&O*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Part 73

Radio, Television.

Federal Communications Commission.

Shirley Suggs,
Chief, Publications Branch.

Rule Changes

Part 73 of Title 47 of the U.S. Code of Federal Regulations is amended to read as follows:

PART 73—RADIO BROADCAST SERVICES

1. The Authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334, 336.

2. Section 73.623 is amended by adding paragraph (h) to read as follows:

§ 73.623 DTV applications and changes to DTV allotments.

* * * * *

(h) *DTV application processing.*

(1) DTV applications pending as of January 18, 2000, are cut-off as of that date and shall be afforded the interference protection set forth in § 73.622(f) of the rules by all NTSC minor change applications and later-filed DTV applications.

(i) DTV applications pending as of January 18, 2001, must provide the requisite interference protection set forth in § 73.622(f) to:

(A) NTSC and DTV stations, construction permits and DTV allotments;

(B) Petitions for rulemaking for new DTV allotments for which a Commission announced comment period has passed prior to the filing date of the DTV application; and

(C) Earlier-filed and accepted for filing applications for new NTSC stations submitted by: post-auction winners pursuant to § 73.5005; applicants with a settlement agreement on-file with the Commission that would result in the grant of the NTSC application; and cut-off singleton applicants.

(ii) DTV applications pending as of January 18, 2001, that do not provide the interference protection set forth in

§ 73.622(f) to other DTV applications pending as of January 18, 2001, or petitions for rulemaking seeking the allotment of new DTV stations for which a Commission announced comment period has not passed, will be deemed mutually exclusive with those applications or petitions. Those applicants and petitioners will be notified by Public Notice and provided with a 90-day period of time to resolve their mutual exclusivity via engineering amendment or settlement. Those applications and petitions that remain mutually exclusive upon conclusion of the 90-day settlement period will be dismissed.

(2) DTV applications filed after January 18, 2001, shall be afforded the interference protection set forth in § 73.622(f) by all NTSC minor change applications and later-filed DTV

applications. DTV applications filed after January 18, 2001, must provide the interference protection set forth in § 73.622(f) to the following:

- (i) NTSC and DTV stations, construction permits and DTV allotments;
- (ii) Earlier-filed DTV applications;
- (iii) Petitions for rulemaking seeking the allotment of new DTV stations for which a Notice of Proposed Rulemaking has been released and the comment deadline specified therein has passed; and
- (iv) Earlier-filed and accepted for filing applications for new NTSC stations submitted by: post-auction winners pursuant to § 73.5005; applicants with a settlement agreement on-file with the Commission that would result in the grant of the NTSC application; and cut-off singleton applicants.

3. Section 73.625 is amended by revising paragraph (a)(1) to read as follows:

§ 73.625 DTV coverage of principal community and antenna system.

(a) * * *

(1) The DTV transmitter location shall be chosen so that, on the basis of the effective radiated power and antenna height above average terrain employed, the following minimum F(50,90) field strength in dB above one uV/m will be provided over the entire principal community to be served:

Channels 2-6	35 dBu
Channels 7-13	43 dBu
Channels 14-69	48 dBu

* * * * *

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