FCC
WRITTEN RESPONSE
TO THE
GAO REPORT ON DTV
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I. TECHNICAL GOALS

General Overview of Technical Goals: One of the most important responsibilities of the Commission, with respect to the nation’s transition to digital television, has been to shepherd the transformation of television stations from analog broadcasting to digital broadcasting. Currently, 95% of all full power television stations (1,636 stations) are broadcasting in digital, and over 99% of stations (1,706 stations) have been assigned a final post-transition channel for operations. [Note: The GAO’s Draft Report incorrectly states that “approximately 90 percent” of television stations are providing a broadcast signal. (p. 14)] It has taken a series of complicated steps, spanning over two decades, in order to get to this point. First, the Commission worked with industry leaders and with other countries to adopt a standard for digital operations. Second, the Commission planned the process for recovering analog spectrum, with a focus on jump starting digital transmissions. Accordingly, the Commission established eligibility for and assigned digital channels, with this process ultimately resulting in a final post-transition channel for each broadcast station throughout the country for post-transition operations. Third, the Commission established construction deadlines for stations to build and operate pre-transition digital facilities. The Commission stayed very involved with this process by providing oversight for the buildout of pre-transition facilities. The Commission then turned to work on post-transition operations, and established mechanisms and deadlines for stations to elect and build final, post-transition facilities. This entire process has involved the Commission processing over 10,000 DTV modification applications, license applications and special temporary authority authorizations to expedite digital build out. The process has also involved intricate international negotiations with Mexico and Canada. Now that the Commission has adopted the final DTV Table of Allotments, which assigns virtually every full power television station a final channel for post-transition digital operations, the Commission is working on any last technical steps that can help broadcasters successfully transition their stations to full digital operations.

A. Technical Goal 1: Develop Technical Standard for Digital Broadcast Operations

Overview: Establishing a standard for digital operations was a critical first step in ushering in the era of digital television transmissions. Developing a technically excellent DTV service that would most efficiently meet the needs of terrestrial broadcasters, cable television operators and consumers required the creation of a standard. The standard was the culmination of years of collaboration between the Commission and various affected industries, including the computer, broadcast, and consumer electronics industries. The certainty provided by the standard was necessary for broadcasters and equipment manufacturers to move forward towards realizing the benefits of digital broadcasting more quickly.

Performance and Progress:
Milestone 1: Establish final standard for digital operations (COMPLETED 1996)

1. Timeframes and Steps:

- **Initiate a proceeding to consider adoption of a final DTV standard (COMPLETED 1987):** The Commission started the process for establishing the final standard in 1987, by opening a proceeding to explore the issues posed by advanced television systems (ATV, later known as DTV).\(^1\) The Commission examined a broad range of possible ATV technologies then under development, and considered the numerous and complex spectrum allocation, compatibility, and policy issues presented by these technologies.

- **Collaborate with industry in setting a standard (COMPLETED 1990):** The Commission appointed a 25-member advisory panel – the Advisory Committee on Advanced Television Service (ACATS) – charged with providing recommendations concerning technical, economic and public policy issues associated with the introduction of ATV service.\(^2\) The ACATS announced an open competition for the development of the best advanced television standard. Until June 1990, the Japanese MUSE standard – based on an analog system – was the front-runner among the more than 23 different technical concepts under consideration. Then an American company, General Instrument, demonstrated the feasibility of a digital television standard.

- **Decide critical issues affecting implementation of a DTV standard (COMPLETED 1992):** In 1990, in the first of a long series of FCC DTV decisions, the Commission announced that it intended to select a simulcast high definition television system for ATV service, and declared that the new ATV standard must be able to provide a genuine HDTV signal with at least twice the resolution of existing television images and must be capable of being “simulcast” on different channels.\(^3\) The Commission stated that the record indicated that simulcast systems offer the potential for significantly greater improvement in the quality of television picture and audio performance than NTSC compatible (“EDTV”) systems and are not constrained by the limitations inherent in the NTSC technology. In addition, the Commission determined it would not give further

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consideration to transmission systems that require additional spectrum to augment the existing 6 MHz channel used for broadcast television.

With respect to the ATV standard, the Commission decided: (1) to adopt a 100% simulcasting requirement at the earliest appropriate point; (2) to condition selection of an ATV system on a winning proponent's adoption of reasonable and nondiscriminatory patent licensing policies; (3) to encourage the ongoing work of the Advisory Committee on compatibility issues; and (4) to direct the Advisory Committee to address new audio developments as well as proposals for flexible apportionment of audio and data selection of a system.  

- **Evaluate proposals for standards (COMPLETED 1993):** Objective testing of six proponent DTV systems began at the Advanced Television Test Center (ATTC), a private, non-profit organization funded by broadcasting and electronic industry companies, in July 1991. Co-located with the ATTC was the ATV facility of the Cable Laboratories (CableLabs), a consortium of cable television system operators that carried out the cable portions of ACATS’ lab and field testing program. Subjective video tests of ATV systems were conducted at the Advanced Television Evaluation Laboratory in Ottawa, Canada. Audio tests were conducted by Westinghouse Science and Technology Center. In addition, field testing was conducted following completion of initial testing. In 1993, the ACATS reported that a digital HDTV system was achievable but that all four competing digital systems then under consideration were deficient in some way. This finding prompted the remaining competitors to form a coalition, called the “Grand Alliance” to pool their expertise and work together with ACATS. The former competitors agreed in 1993 to jointly develop a new standard that would incorporate the best of each system.

- **Final step - Adopt final standard for digital television transmissions. (ACHIEVED 1996):** In 1995, after extensive testing, ACATS formally recommended a set of prototype DTV protocols – the Grand Alliance standards – to the Commission. The members and staff of the Advanced Television Systems Committee (ATSC) considered which elements of the Grand Alliance broadcast system might require action by the Commission and which portions should be voluntary. The ATSC DTV Standard was

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5 ATV System Recommendation of the FCC Advisory Committee on Advanced Television Service (February 24, 1993).

6 The members of the HDTV Grand Alliance were AT&T, General Instrument Corporation, Massachusetts Institute of Technology, Phillips Electronics of North America, Thomson Consumer Electronics, The David Sarnoff Research Center, and Zenith Electronics Corporation. See Fourth Report and Order, 11 FCC Rcd at 17774, n. 10.
then drafted by specialist groups divided into five specific areas: video, audio, transport, RF/transmission, and the receiver characteristics. ATSC is comprised of members from television networks, motion picture and television program and producers, trade associations, television and other electronic equipment manufacturers and segments of the academic community. On December 26, 1996, the Commission adopted the final standard for digital operations. The standard allows transmission of one or two High Definition Television programs, four, five or more Standard Definition Television programs at a visual quality better than the current analog signal, many CD-quality audio signals and the delivery of large amounts of data. As compression technology improves, broadcasters are able to offer even more programming and other content within the 6 MHz for which they are licensed.

2. Collaboration Between Public and Private Sector Organizations:
Initial steps towards achieving a DTV standard required input from affected industries. The Commission collaborated with the broadcast industry, including trade organizations, networks, station groups, and individual stations. As noted above, the Commission appointed a 25-member advisory panel – the Advisory Committee on Advanced Television Service (ACATS) – charged with providing recommendations concerning technical, economic and public policy issues associated with the introduction of ATV service. The Advisory Committee, chaired by former FCC Chairman Richard Wiley, consisted of a twenty-five member parent committee, a Steering Committee, and three Subcommittees. Members of ACATS included leaders of the broadcast, cable, and engineering industries. By some estimates, according to ACATS, over one thousand individuals contributed to the work of the Advisory Committee and its subcommittees, working parties, and panels. The efforts of the Advisory Committee, ATSC, and other industry parties had significantly advanced the Commission’s ability to assess the merits of the various technical concepts. Furthermore, the Commission later directed the Advisory Committee to monitor developments in Coded Orthogonal Frequency Division Multiplex technology and report to the Commission as appropriate. In addition to these collaborative efforts, we have obtained significant input from these and other parties and individuals that file Comments in our many rulemaking proceedings.

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7 Fourth Report and Order, 11 FCC Rcd 17771 (1996). The standard allows transmission of one or two High Definition Television programs, four, five or more Standard Definition Television programs at a visual quality better than the current analog signal, many CD-quality audio signals and the delivery of large amounts of data. As compression technology improves, broadcasters are able to offer even more programming and other content within the 6 MHz for which they are licensed. Our rules and proceedings keep pace with these changes in technology through Periodic Reviews of the DTV transition.


10 See the Advanced Television (now known as DTV) Rulemaking Docket 87-268 (First through Eighth
3. Reporting Requirements:
Under the direction of ATSC, the DTV Standard continues to evolve in response to ongoing technical developments. While there is no formal requirement that ATSC report to the Commission on developments regarding the standard, the Commission staff meets frequently with ATSC representatives and remains apprised concerning developments in the standard. As the standard evolves, the Commission considers whether aspects of the standard should be incorporated in the Commission’s rules.

4. Mitigation of Risk:
The television industry and technology continue to change at a rapid pace. The Commission monitors ongoing developments closely and evaluates when and if its rules should be revised to incorporate changes in the DTV Standard. For example, the Commission recently adopted the ATSC Program System and Information Protocol (PSIP) standard into its rules as part of its second DTV periodic review proceeding. The Commission recognized the utility that the ATSC PSIP Standard offers for both broadcasters and consumers. PSIP is data that is transmitted along with a station’s DTV signal that tells DTV receivers information about the station and what is being broadcast. PSIP provides a method for DTV receivers to identify a DTV station and to determine how a receiver can tune to it. PSIP identifies both the DTV channel and the associated NTSC channel and enables DTV receivers to associate the two channels, thereby making it easy for viewers to tune to the DTV station even if they do not know the channel number. In addition, the Commission is monitoring developments in the area of V-chip functionality to ensure that V-chip is available in the digital world to assist parents in selecting appropriate television programming for children.

B. Technical Goal 2: Pre-Transition DTV Channel Assignments/Allotments

Overview: Once the DTV standard was established, the Commission was able to start the planning process for recovery of the valuable analog spectrum, and move forward with the next steps for the transition. The Commission needed to act quickly to create rules related to, and establish, pre-transition DTV channel assignments and allotments. Such assignments and allotments were the foundation for enabling stations to construct their pre-transition digital facilities.
Performance and Progress:

Milestone 1: Establish eligibility for digital channels (COMPLETED 1992)

1. Timeframes and Steps:

   - **Initiate proceeding to evaluate eligibility criteria for pre-transition channel assignments and allotments (COMPLETED 1992):** The Commission initiated a proceeding to seek comment on a number of issues relating to the assignment and allotment of pre-transition DTV channels, including (1) whether to assign an existing broadcaster’s ATV channel the same call sign as its NTSC channel; (2) whether to exercise the Commission’s authority under the All Channel Receiver Act to require manufacturers to produce receivers capable of both NTSC and ATV reception; and (3) whether to permit the use of ATV channels for ancillary purposes.  

   - **Issue Order setting forth eligibility criteria (COMPLETED 1992):** The Commission issued an Order to (1) limit initial eligibility for ATV frequencies to existing broadcasters; (2) use vacant noncommercial reserved channels only when no feasible alternative exists for assigning ATV channels to existing broadcasters and to leave vacant noncommercial allotments without an ATV channel pair only when there is no other practicable way to award an existing broadcaster an ATV channel; (3) maintain the secondary status of low-power television service stations vis-à-vis new ATV operations; and (4) notify broadcasters that when ATV becomes and is designated as the prevalent medium, they will be required to “convert” to ATV, i.e., surrender one of two broadcast channels and cease broadcasting in NTSC.

Milestone 2: Provide existing licensees with a channel for digital service that replicates the station’s analog service area and provide for maximization of facilities (COMPLETED 1997)

1. Timeframes and Steps:

   - **Adopt a simulcasting schedule (COMPLETED 1992):** The Commission recognized that a 100% simulcasting requirement should be adopted at the earliest appropriate time. Accordingly, the Commission (1) adopted a 50% simulcasting requirement, to be imposed one year after the six-year application/construction period ends, and a 100% simulcasting requirement to be imposed three years after the application/construction

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period closes; and (2) adopted a simulcasting definition.\textsuperscript{13}

- **Solicit comment on allocation of pre-transition digital channels (COMPLETED 1996):** The Commission solicited comment on (1) how to allocate digital service areas; (2) the most appropriate and technically suitable spectrum allocation; (3) how to allocate channels based on preferences and negotiated agreements.\textsuperscript{14}

- **Grant broadcasters flexibility in the use of their digital channels (COMPLETED 1997):** The Commission allowed broadcasters to put together the best mix of services and programming to stimulate consumer acceptance of digital technology and the purchase of digital receivers. Furthermore, we allowed broadcasters the flexibility to respond to the demands of their audience by providing ancillary and supplementary services that do not derogate the mandated free, over-the-air (OTA) program service.\textsuperscript{15}

- **Eligibility and licensing requirements (COMPLETED 1997):** The Commission limited eligibility for DTV licenses to existing full-power broadcasters and concluded that NTSC and DTV facilities should be licensed under a single, paired license.\textsuperscript{16}

- **Final step - Adopt a final DTV Table of Allotments for paired channels (ACHIEVED 1997):** Through the DTV table, the Commission accommodated all eligible existing broadcasters, replicated existing service areas and ensured sound and efficient spectrum management. Those eligible for a DTV channel included parties licensed to operate a full service television broadcast station and those holding a construction permit for such a station.

- The DTV Table minimized all unavoidable interference to both existing analog TV and new DTV service. In addition, the DTV Table of


\textsuperscript{16} Fifth Report and Order, 12 FCC Rcd. 12, 809 (1997).

\textsuperscript{17} In the Matter of Advanced Television Systems and Their Impact on the Existing Television Broadcast Service, MM Docket No. 87-268, Sixth Report and Order, 12 FCC Rcd. 14, 558 (1997). (The Fifth and Sixth Report and Orders were adopted on the same day; however, the Sixth Report and Order adopted the Table of Allotments for digital television).
Allotments provided interference protection for more than 100 new stations for which applications had been filed and provided 30 new DTV allotments for stations that had begun operation or received construction permits since it issued its draft DTV Table of Allotments.

- The Commission indicated that the DTV Table was based on a minimum power level of 50 kW and a maximum power level of 1000 kW. It stated that a 50 kW minimum power level would ensure that stations had a sufficient service area to compete effectively in the provision of DTV services and was consistent with the maximization concept supported by the industry. It also stated that 1000 kW was sufficient to provide a very high degree of service replication for almost all stations. The Commission indicated that this power level allowed for a more equitable distribution of opportunities for maximization of service areas to full service DTV stations of all sizes.

- The Commission set forth additional technical criteria for the allotment of additional DTV frequencies and the modification of allotments included in this initial Table. For new DTV allotments, the Commission chose to use the minimum geographic spacing requirements pursuant to Section 73.623(d) of its rules without undertaking an interference analysis. The Commission chose this approach to give rulemaking proponents an opportunity to select any transmitter site and the opportunity to expand and improve its subsequent facility. For modification of an allotment, the Commission chose an analysis based on interference pursuant to Section 73.623(c) of the rules.

2. Collaboration Between Public and Private Sector Organizations:
Initial steps towards technical goals and milestones require input from affected industries. The Commission has collaborated with the broadcast industry, including trade organizations, networks, station groups, and individual stations. We are continuing this collaboration, which is essential to assuring that our actions are appropriate for real world circumstances, and, equally important, that our actions are clear to those industries that must follow them. In addition to these collaborative efforts through outreach, the Commission has obtained significant input from these and other parties and individuals that file Comments in our many rulemaking proceedings.18

3. Reporting Requirements:
The Commission has many reporting and tracking requirements that apply, in general, to television stations. For example, we established timeframes for television licensee and permittee authorizations for construction of digital...
In addition, stations must meet construction permit deadlines for building their pre-transition and post-transition digital facilities or must request extensions of time to construct based in compliance with the rules. The Second DTV Periodic Report and Order established “use or lose” deadlines for stations to complete their pre-transition facilities.

4. Mitigation of Risk:
As part of the Third DTV Periodic Review, the Commission has proposed a variety of deadlines and procedures to ensure that broadcasters meet the goal of completing construction of their post transition digital facilities by the statutory deadline. The Commission is drafting the Report and Order in that proceeding and will adopt all measures necessary to ensure that service to viewers is not disrupted, including providing broadcasters sufficient flexibility to allow them to make the switch to digital. The Commission recognizes, however, that it is possible that some stations will not be able to serve their entire service areas in digital by the cut-off date. For example, weather problems, particularly in northern states, could make changes to transmission facilities very difficult in the winter months leading up to February 17, 2009. Because of the unambiguous statutory provision requiring that full power analog television stations cease transmission by that date, however, the Commission cannot extend that deadline for any stations that might not have fully built their digital facilities. We note, however, that low power analog television broadcasters are not required to go dark on February 17, 2009. As a result, over-the-air only viewers that fail to take the steps necessary to view digital signals in areas served by low power television (LPTV) stations will, at a minimum, be able to access analog low power broadcasting service and the beneficial services it provides, such as emergency alert service (EAS). We expect this to be particularly beneficial in rural areas, where many LPTV stations are located, and where some full service stations might face

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19 See, e.g., DTV Build-Out: Applications Requesting Extension of the Digital Television Construction Deadline, Order, 22 FCC Red 9789 (2007) (“Construction Deadline Extension Order”). There were a total of 192 stations seeking a waiver. For 102 stations whose pre-transition DTV channel is the same as the station’s post-transition DTV channel, the Commission granted these stations a waiver and gave them an additional six months from the release date of the Use or Lose Order in which to complete construction. For 38 stations whose pre-transition DTV channel is different from the station’s post-transition channel, the Commission granted these stations a waiver and gave them until 30 days after the effective date of the amendments to Section 73.624(d) of the rules adopted in the Report and Order in this Third DTV Periodic Review proceeding in which to complete construction. For 45 stations that faced unique technical challenges preventing them from meeting the applicable replication or maximization requirements exactly, the Commission granted their waiver requests and extended their deadlines until February 17, 2009 – i.e. the end of the DTV transition. For the remaining 7 stations, the Commission denied their “use or lose” waiver requests and removed the interference protection to the unused portion of their associated coverage area.

20 47 C.F.R. §§ 73.624(d), 73.3598.

particularly difficult challenges in transitioning to digital. In addition, to the extent that standards associated with digital transmission, such as the ATSC standard, are amended over time to enable technical improvements and innovation, the Commission’s continuing DTV Periodic Review proceedings will account for such changes.

C. Technical Goal 3: Construction of Pre-Transition DTV Facilities

Overview: Pre-transition assignments and allotments of digital channels enabled stations to construct their pre-transition digital facilities. The Commission gave broadcasters flexibility in the use of their digital channel. Such flexibility allows them to put together the best mix of services and programming to stimulate consumer acceptance of digital technology and the purchase of digital receivers. These early facilities were essential to the transition by providing digital broadcast programming to encourage consumers, and in particular, early adopters, to purchase digital televisions. This step was similarly critical for manufacturers to provide a market for their early digital televisions. The DTV construction schedule adopted by the Commission provided for varying construction deadlines based on the size of the market and type of station, with all stations required to construct by May 1, 2003. To aid the launch of digital services, the Commission required the rapid construction of digital facilities by stations in the top thirty television markets affiliated with the top four television networks in order to maximize early exposure of households to the benefits of DTV. By focusing on network-affiliated stations, the Commission required those most able to bear the risks of introducing digital television to proceed most quickly. To date, all network-affiliated stations in the top thirty markets are operating DTV facilities. In the remaining markets, 94% of commercial stations and 95% of noncommercial stations are operating DTV facilities. With respect to the remaining non-operational DTV stations, in an Order released in May 2007, the Commission addressed applications filed by stations for extensions of time to construct DTV facilities.

22 Under this schedule, television stations in the 10 largest TV markets and affiliated with the top four television networks (ABC, CBS, Fox, and NBC) were required to build DTV facilities by May 1, 1999. Stations affiliated with those networks in television markets 11 through 30 were required to construct their DTV facilities by November 1, 1999. All other commercial stations were required to construct their DTV facilities by May 1, 2002, and all noncommercial stations were to have constructed their DTV facilities by May 1, 2003. 47 C.F.R. § 73.624(d)(1).

23 See, e.g., DTV Build-Out; Applications Requesting Extension of the Digital Television Construction Deadline, Order, 22 FCC Red 9789 (2007) (“Construction Deadline Extension Order”). The Commission considered 145 requests for an extension of time to construct a DTV facility. For 107 stations whose pre-transition DTV channel is the same as their post-transition channel, the Commission granted these applications and gave these stations an additional six months from the release date of the Construction Deadline Extension Order in which to complete construction. For 29 stations whose pre-transition DTV channel is different from their post-transition channel, the Commission granted these applications and gave these stations until 30 days after the effective date of the amendments to Section 73.624(d) of the rules adopted in the Report and Order in this Third DTV Periodic Review proceeding in which to complete construction. For 4 stations that faced unique technical challenges preventing them from completing construction of their DTV facilities, the Commission granted their extension applications and extended their construction deadlines until February 17, 2009 – i.e., the end of the DTV transition. The Commission denied 2 stations’ applications but permitted them to continue to operate their licensed facilities. Finally, the Commission denied 3 stations’ applications, admonished these stations for their continuing failure to timely construct, and afforded them additional time to comply with the DTV construction rule.
Performance and Progress:

Milestone 1: Establish construction deadlines for stations to build and operate pre-transition DTV stations (COMPLETED 2001)

1. Timeframes and Steps:

   - Fine tune timing for construction of pre-transition DTV stations (COMPLETED 1992): The Commission (1) extended the application deadline to three years after the time that a DTV Allotment Table or a DTV standard is effective, whichever is later, and permitted a total of six years for both application and construction to be completed; (2) provided for further review of this presumptive schedule; (3) declined to modify its policy regarding the secondary status of low power television service stations; and (4) adhered to its decision that a firm date for conversion for all broadcasters must be established.

   - Hasten construction by staggering build-out responsibility (COMPLETED 1997): To aid the launch of digital services, the Commission required rapid construction of digital facilities by network-affiliated stations in the top markets in order to maximize early exposure of households to the benefits of DTV. Our focus on network-affiliated stations required those most able to bear the risks of introducing digital television to proceed most quickly.

   - Adjust build-out timing to reflect experience while remaining on-track for transition (COMPLETED 2001): The Commission adopted the First DTV Periodic Review on November 8, 2001 in order to implement any mid-course corrections necessary to ensure the success of that conversion. The Commission accomplished two major goals in the First Periodic Review. The first goal was to provide a more graduated approach to


providing DTV service. The second goal was to maximize the number of DTV stations providing service to at least all consumers in their community of license. To this end, the Commission relaxed its channel election, build out and replication deadlines. It temporarily deferred requirements that commercial stations with both analog and digital channel assignments within the DTV core (channels 2-51) elect by December 31, 2003 (December 31, 2004 for non-commercial stations) the channel that they would use for their post-transition digital channel. The Commission noted that a more graduated approach would give stations more time to increase power and gain experience at these higher power levels before having to choose which of their two channels would provide optimal DTV service. The Commission allowed broadcasters initially to build lower powered, and therefore less expensive, DTV facilities, and retain the right to expand their coverage area as the digital transition progressed. The Commission also allowed stations to construct initial DTV facilities designed to serve at least their communities of license, while still retaining DTV interference protection to provide full replication at a later date. It temporarily deferred its earlier requirement that commercial broadcasters replicate their entire current grade B NTSC analog service area with their DTV signal by December 31, 2004.

- **Establish replication and maximization deadlines (COMPLETED 2004):**
  The Commission established two deadlines by which stations were expected to either replicate or maximize DTV service on their current (pre-transition) DTV channel or lose interference protection to the unserved areas on that channel.28 By July 1, 2005, the top four network affiliates in the top 100 markets were required to fully replicate or maximize if they will remain on their DTV channel after the transition. The Commission has consistently recognized that the top four network stations in the top 100 markets are best able to take the lead in transitioning to digital service while the particular needs of smaller market and non-commercial broadcasters are addressed by setting later deadlines for the smaller market, smaller broadcasters that are more likely to lack the financial resources of the larger stations. This schedule also recognized the different needs of stations that are moving to a new channel after the transition versus those that are remaining on the same channel that they used for pre-transition digital service. Therefore, top four affiliates in the top four markets that were moving to another channel post-transition, were required to serve at least 100% of their replication service population by July 1, 2005. By July 1, 2006, all other stations were required to fully replicate and maximize if they will remain on their current DTV channel after the transition. On May 17, 2007, the Commission addressed requests for extensions of time to construct DTV facilities and/or waivers of the deadline by which stations must build DTV

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facilities in order to retain the ability to carry over interference protection to their post-transition channel (so-called “use or lose” waivers).  

- Establish mechanism and procedures for low power television conversion to digital (COMPLETED 2004): The Commission continued the secondary status of low power TV and TV translator stations, and adopted a number of administrative and technical measures to minimize the impact of DTV implementation on low power operations. In 2004, the Commission concluded that LPTV and translator stations ultimately must convert to digital by a date the Commission will establish in a future proceeding. Subsequently, in the DTV Act of 2005, Congress did not apply the February 18, 2009 full-power analog shutoff date to LPTV and TV translator stations. The Commission has adopted rules for digital low power television and television translator stations to construct digital facilities and has issued nearly 2000 construction permits for such stations. Some low power and translator stations are already operating using digital technology. However, most LPTV and translator stations will convert to digital technology after full-power stations have completed their transition.

- Establish timing of low power digital transition (INITIATED AND IN PROGRESS): The last issue remaining with respect to low power stations is to consider a transition deadline. A draft item is in progress.

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30 DTV Sixth Report and Order, 12 FCC Rcd. at 14652-7. Such measures included allowing an LPTV station that is “displaced” by a full-power station to file an application for a new channel (displacement application) and for such application to be treated as a minor change and not subject to competing applications. In addition, the Commission eliminated the requirement that LPTV stations comply with certain interference rules. Finally, the Commission increased the permissible power for LPTV stations in order to facilitate the collocation of LPTV and full-power television facilities and eliminate interference between these types of stations.


33 See LPTV Order, 19 FCC Rcd. 19331.
Milestone 2: Oversee station buildout of pre-transition facilities (COMPLETED)

1. Timeframes and Steps:

- Since 1997, the year we issued the first DTV construction permit, the Video Division has processed 4,881 modification and license applications for DTV facilities; and processed and issued 5,472 DTV special temporary authority (STA) authorizations to expedite digital build out.
  - 1,706 stations (99%) have a DTV construction permit or license.
  - 1,636 stations (95%) are on the air in digital.34

2. Collaboration Between Public and Private Sector Organizations:

Initial steps towards technical goals and milestones require input from affected industries. We have collaborated with the broadcast industry, including trade organizations, networks, station groups, and individual stations. The Commission conducts rulemaking proceedings in accordance with the requirements of the Administrative Procedures Act and the Commission’s rules. We propose rules for comment, and review the Comments and Reply Comments and other submissions accordingly.35 The Commission’s rules also allow for ex parte meetings with private sector representatives. In this respect, we have conferred with representatives of the broadcasting industry and collaborated and shared information through panel presentations and distribution and collection of information at private sector conventions and conferences, such as with the NAB, APTS, and MSTV. We are continuing this collaboration, which is essential to assuring that our actions are appropriate for real world circumstances, and, equally important, that our actions are clear to those industries that must follow them.

3. Reporting Requirements:

We have many reporting and tracking requirements that apply, in general, to television stations. For example, we established timeframes for television licensee and permittee authorizations for construction of digital facilities.36 In

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34 See Status Reports on DTV Applications and Buildout Topics [http://www.fcc.gov/mb/video/DTVstatus.html](http://www.fcc.gov/mb/video/DTVstatus.html). This data is publicly available and is frequently updated.

35 See the Advanced Television (now known as DTV) Rulemaking Docket 87-268 (First through Eighth Notices of Proposed Rulemaking and First through Seventh Reports and Orders), and the series of DTV Periodic Reviews (First, Second, and Third, Dockets 00-39, 03-15, and 07-91, respectively).

36 See, e.g., DTV Build-Out: Applications Requesting Extension of the Digital Television Construction Deadline, Order, , 22 FCC Rcd 9789 (2007) (“Construction Deadline Extension Order”). There were a total of 192 stations seeking a waiver. For 102 stations whose pre-transition DTV channel is the same as the station’s post-transition DTV channel, the Commission granted these stations a waiver and gave them an additional six months from the release date of the Use or Lose Order in which to complete construction. For 38 stations whose pre-transition DTV channel is different from the station’s post-transition channel, the Commission granted these stations a waiver and gave them until 30 days after the effective date of the amendments to Section 73.624(d) of the rules adopted in the Report and Order in this Third DTV Periodic
addition, stations must meet construction permit deadlines for building their pre-transition and post-transition digital facilities or must request extensions of time to construct based in compliance with the rules. The Second DTV Periodic Report and Order established “use or lose” deadlines for stations to complete their pre-transition facilities, and the Third DTV Periodic NPRM proposes final construction deadlines for stations to complete their post-transition facilities.

4. Mitigation of Risk:
Throughout the process for construction of pre-transition DTV facilities, the Commission has considered how to advance the transition goals while adjusting for the realities of a challenging process. Through our rulemaking procedures, the Commission proposes mechanisms and deadlines, then adjusts them based on Comments received, and then further fine tunes the adopted timeframes to address legitimate issues encountered by broadcasters as they work through the construction process. For example, the Commission recognized that it was appropriate to require the largest stations in the largest markets move first, then the smaller commercial stations, and then the non-commercial stations. The Commission further recognized that not all stations in any category could meet their respective deadline and therefore adopted special rules governing requests for extension from stations building their paired digital facilities (criteria that do not apply to construction of analog facilities). Recognizing that even valid excuses should not delay the transition and delivery of digital broadcasting to viewers, the Commission further adjusted the requirements to establish use-or-lose deadlines. The Commission continues to balance and mitigate risk to broadcasters and the public they serve by establishing and adjusting deadlines and requirements as warranted and appropriate.

D. Technical Goal 4: Transition Broadcast Stations to Final Digital Operations

Review proceeding in which to complete construction. For 45 stations that faced unique technical challenges preventing them from meeting the applicable replication or maximization requirements exactly, the Commission granted their waiver requests and extended their deadlines until February 17, 2009 – i.e. the end of the DTV transition. For the remaining 7 stations, the Commission denied their “use or lose” waiver requests and removed the interference protection to the unused portion of their associated coverage area.

37 47 C.F.R. §§ 73.624(d), 73.3598.


Overview: In August 2007, the Commission adopted the final DTV table of allotments. This Order provided virtually all (over 99%) of full power television stations across the country with their final channel assignments for broadcasting in digital following the DTV transition. By resolving the remaining questions regarding broadcasters’ allotments, the Commission helped ensure that the analog spectrum the broadcasters are vacating will be available as planned by 2009. This finality is important to ensuring a successful auction of this spectrum next year and the timely use of this spectrum for public safety and expanded wireless competition and innovation.

Performance and Progress:

Milestone 1: Establish mechanisms and deadlines for stations to build final post-transition facilities (COMPLETED 2004)

The next major milestone toward the DTV transition came in 2004, when the Commission established the mechanisms and deadlines for stations to elect and build final, post-transition facilities. These steps resulted in the Final DTV Table of Allotments. The Order also furthered the transition by establishing firm deadlines for digital stations to increase their power levels to serve additional viewers or lose interference protection to the un-served areas.

1. Timeframes and Steps:

   • Evaluate possible channel assignment procedures (COMPLETED 2004): The Commission worked closely with industry trade association representatives to develop a channel election process that was both consistent with Commission goals and responsibilities and that permitted stations, to the extent possible, to express their preferences for final channel assignments. The channel election process that was adopted in the Second DTV Periodic Review Report and Order was the product of many hours of careful planning by the Commission, evaluation of alternative channel election mechanisms, and discussion with industry representatives. The channel election process required the development of six new channel election forms by the Commission, as well as the development of computer programs and other processes to permit electronic filing of the forms and evaluation of the station parameters elected by licensees. In the end, the channel election process proceeded smoothly and provided stations with the opportunity to help select their channels for final, post-transition DTV operation.

   • Commence the final channel selection process (COMPLETED 2004): In November 2004, the Commission began the open channel election process that provided certainty to the marketplace and ultimately resulted in the

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Final DTV Table of Allotments. In order to permit broadcasters to express their channel and service area preferences, the Commission employed a multiple step channel election process established by the Commission in the Second DTV Periodic Report and Order. Under this process, licensees elected their preferred post-transition channel during one of three rounds. Channel elections that could be approved, as well as “best available” channels selected by Commission staff, were locked in as tentative channel designations (TCDs) and protected against new interference from subsequent channel elections with a strong presumption that a station's TCD would be its channel assignment proposed in the new DTV Table. In order to facilitate the selection of channels and the development of a final DTV Table, prior to the commencement of the first step of the channel election process, the Commission announced a freeze on the filing of certain NTSC and DTV requests for allotment or service area changes.

- **Establish deadlines to reach service areas (COMPLETED 2004):** The Commission also established firm deadlines for digital stations to increase their power levels to serve additional viewers or lose interference protection to the un-served areas. By July 1, 2005, the top four network affiliates in the top 100 markets were required to fully replicate or maximize if they will remain on their DTV channel after the transition. If these stations will move to another channel post-transition, they were required to serve at least 100% of their replication service population by July 1, 2005. By July 1, 2006, all other stations were required to fully replicate and maximize if they will remain on their current DTV channel after the transition. If they will move to another channel post-transition, they were required to serve at least 80% of their replication service population by July 1, 2006. The Commission stated that stations that met the applicable “use-or-lose” deadline and that are going to move to a different channel after the transition would be permitted to carry over their authorized maximized areas to their new channels. In addition, these “use-or-lose” replication/maximization deadlines became the new deadlines for stations operating temporary DTV facilities pursuant to STA to complete construction of their licensed DTV facilities.

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43 *Id.* at 18314-18315 ¶ 78.

44 *Id.* at 18317-18318 ¶¶ 85-86.

45 In 2001, the Commission temporarily deferred (until the Second DTV Periodic Review) the establishment of construction deadlines for these stations, provided they constructed initial DTV facilities designed to serve at least their communities of license. *See First DTV Periodic MO&O*, 16 FCC Rcd at
Approximately 80% of the stations in each of these categories met their respective deadlines.

Milestone 2: Establish mechanism for low power stations to begin digital services (COMPLETED 2004)\textsuperscript{46}

1. \textbf{Timeframes and Steps:}

- \textbf{Adopt rules for digital operation for LPTV and TV translator stations (COMPLETED 2004):} In 2004, the Commission has adopted rules for digital low power television (LPTV) and television translator stations to construct digital facilities and has issued nearly 2000 construction permits for such stations.\textsuperscript{47} Some low power, translator, and Class A stations are already operating using digital technology. However, most Class A, LPTV and translator stations will convert to digital technology after full-power stations have completed their transition.

- \textbf{Determine appropriate transition time frame for LPTV and TV translator stations (INITIATED AND IN PROGRESS):} The Commission concluded that LPTV and television translator stations ultimately must convert to digital by a date the Commission will establish in a future proceeding.\textsuperscript{48} Subsequently, in the DTV Act of 2005, Congress did not apply the February 18, 2009 full-power analog shutoff date to LPTV and TV translator stations.\textsuperscript{49} The Commission will initiate a proceeding to consider the remaining issues for the digital transition of these stations, principally a transition deadline by first quarter 2008.


Milestone 3: Adopt final DTV Table of Allotments (COMPLETED 2007)

In early 2006, after the channel election process had commenced, Congress enacted significant statutory changes to the DTV transition in the DTV Act. Most importantly, it set February 17, 2009, as the date certain for the end of the DTV transition, at which time all full-power television broadcast stations must cease their analog transmissions. The DTV Act does not provide for waivers or extensions of this deadline for cessation of analog broadcasts. The DTV Act also requires broadcast licensees to cease operations outside the core spectrum after February 17, 2009, in order to make that spectrum available for public safety and commercial wireless uses.

1. Timeframes and Steps:

- **Propose channel allotments for post-transition operations (COMPLETED 2006):** In late 2006, after channel preferences had been expressed, the Commission proposed its new Table of Allotments for post-transition operations. Numerous Comments were filed by stations requesting changes, which the Commission accommodated to the extent possible consistent with interference standards.

- **Adopt final DTV Table of Allotments and facilities for post-transition operations (COMPLETED 2007):** On August 1, 2007, the Commission completed a critical milestone toward transitioning stations to digital broadcasting – adopting a Report and Order specifying the channels and facilities for operations for over 99% of broadcasters (more than 1800) after the transition on February 17, 2009. Accordingly, the Commission

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50 47 U.S.C. § 309(j)(14) (“A full-power television broadcast license that authorizes analog television service may not be renewed to authorize such service for a period that extends beyond February 17, 2009.”). See also 47 U.S.C. § 337(e).

51 Previously, 47 U.S.C. § 309(j)(14) provided an exception to the earlier December 31, 2006 transition deadline if the Commission determined that less than 85% of the television households in a licensee’s market were capable of receiving the signals of DTV broadcast stations through various means (i.e., via over-the-air reception, cable or satellite, or digital-to-analog conversion technology). 47 U.S.C. § 309(j)(14)(B)(iii) (2005). Congress eliminated the statutory provisions authorizing market-specific extensions of the DTV transition, including the 85% benchmark for DTV reception. This new hard deadline obviates the need for any further discussion of how to interpret and implement the former Section 309(j)(14)(B) of the Act, an issue previously deferred by the Second DTV Periodic Report and Order, 19 FCC Rcd at 18282 ¶ 6.


53 *Advanced Television Systems and their Impact Upon the Existing Television Broadcast Service*, MB Docket No. 87-268, Seventh Report and Order and Eighth Further Notice of Proposed Rule Making, FCC 07-138 (rel. Aug. 6, 2007). The Order specifies the channels and facilities for 99% of broadcasters and addresses lingering issues with the remaining 1%, such as facilities for new stations, changes in certifications, minor variances and late filings.
achieved the important goal of finalizing the single channel on which each eligible broadcaster will operate, in digital, post transition. Appendix B describes the specific parameters for each station’s post-transition facilities and reflects revisions to the proposed facilities to ensure that stations that certified to “maximization” in the channel election process are able to replicate their analog facility if they are moving back to use their NTSC (analog) channel frequency for post-transition digital service. These revisions achieve the goal of assuring that stations can continue to serve their existing over-the-air analog viewers when the station completes its transition to digital operation.

- **Address any remaining channel assignments (INITIATED AND IN PROGRESS):** The Commission has proposed channels and station modifications for 13 television stations whose requests for modifications were received too late to be included in the final DTV Table. These additional adjustments to the final DTV Table further the goal of assuring that every full power television station is properly accounted for. The deadline for Comments in response to the *Eighth FNPRM* was October 10, 2007, and the deadline for Reply Comments is October 25, 2007. Petitions for reconsideration related to any station assignments in the Final DTV Table of Allotments must be filed by October 26, 2007. We will address these petitions before the end of the year to ensure that all stations know what their final facilities for digital operations are. These steps are essential to complete the transition and keep stations on track to build their final digital facility.

**Milestone 4: Complete Third DTV Periodic Review proceeding (INITIATED AND IN PROGRESS)**

The Commission is considering whether to provide broadcasters any flexibility with respect to final construction deadlines, implementation of the rules and procedures for processing applications for final DTV channels and adoption of stricter criteria for extension of time to construct final DTV facilities. The Order also considers adoption of a form to track every station’s transition status, revisions to the ATSC standard, and coordination with MVPDs.

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54 The *Seventh Report and Order* includes Appendix B describing the parameters for stations’ post-transition facilities and reflects revisions to the proposed facilities to ensure that stations that certified to “maximization” in the channel election process are able to replicate their analog facility if they are moving back to use their NTSC (analog) channel frequency for post-transition digital service. These revisions achieve the goal of assuring that stations can continue to serve their existing over-the-air analog viewers when the station completes its transition to digital operation.

1. Timeframes and Steps:

- **Propose procedures for stations to complete their digital transition (COMPLETED 2007):** The Third DTV Periodic NPRM proposed eight specific actions addressing particular situations to ensure completion of the transition by full-power television stations by February 17, 2009:

  The Commission proposed to establish February 17, 2009 as the construction deadline for stations that are building new digital facilities or that have situations in which the operation of their analog service prevents the completion of their full, authorized digital facilities. This deadline both serves the goal of completing construction of digital facilities on time and providing stations with the maximum time in which to complete their construction.

  Second, the Commission proposed to require stations whose post-transition channel is the same as their pre-transition DTV channel to complete construction of their DTV facilities by November 18, 2007. This proposal would advance the goal of hastening construction and readiness for these stations so that construction resources will be available for other stations that are changing channels for post-transition service.

  Third, the Commission proposed to adopt stricter standards to apply to future requests for extensions of time to construct, but to allow stations that meet the standard to complete construction after February 17, 2009 provided their DTV operation serves all of their analog viewers. In order to provide some flexibility, we also proposed to allow some to stay on the pre-transition digital channel for a limited time provided it does not interfere with another station’s transition.

  Fourth, the Commission proposed to address the goal of a smooth transition by permitting stations that have different pre-transition and post-transition channels to devote their resources to building their post-transition channel stations and not complete construction of full, authorized facilities on their pre-transition channel.

  Fifth, the Commission proposed to hasten the transition by expediting processing for stations that are applying for a construction permit for their post-transition channel based on the new DTV Table of Allotments.

  Sixth, the Commission described circumstances in which we might consider allowing stations to reduce or terminate analog service to facilitate the goal of timely construction of post-transition facilities. We are cognizant, in this respect in particular, of the tension and controversy associated with allowing analog reduction or turn off before the February 17, 2009 transition date. The Commission is considering this step and
balancing it against the goal of ensuring that stations can build their final digital facilities on time. Such a step would most likely be permitted only if the stations provide advance notice to viewers as well as to the Commission.

Seventh, the Commission looked ahead to the post-transition period and proposed a new 0.5% interference standard to apply to maximizations and new channel allotments after the transition. The Notice also tentatively concluded not to accept applications for maximizations or to lift the freeze on such applications until the processing is completed for stations to build their post-transition authorized facilities.

Eighth, to further enhance our tracking and to ensure that all stations are fully accounted for and on track, the Commission proposed to require stations to file a form with us detailing the current status of the station’s digital transition, the additional steps the station must take before the transition deadline, and a plan for how the station intends to meet the deadline.

- **Review and evaluate Comments and complete draft Report and Order (INITIATED AND IN PROGRESS):** The comment and reply cycle ended on August 30, 2007, and over 120 Comments were submitted. Media Bureau staff is working on the draft of the Third Periodic Order now and planning for Commission consideration and adoption in November 2007.

- **Continue international coordination efforts with Canada and Mexico (INITIATED AND IN PROGRESS):** In addition, the Commission’s Media Bureau, Office of Engineering and Technology, and International Bureau are working on the International Coordination issue with Canada and Mexico to meet the goal of international approval for stations’ post-transition facilities that have been approved for domestic operation.

Related issue: Consideration of Distributed Transmission Systems as alternative to traditional single transmitter

In 2004, in the Second DTV Periodic Report and Order, the Commission approved the use of Distributed Transmission Systems (“DTS”) on an interim basis, but deferred to a separate proceeding the development of rules for DTS operation and the examination of several policy issues related to its use. The value of DTS is to potentially provide better over-the-air service in areas that cannot be reached by a single transmitter (e.g., mountainous terrain.). On November 3, 2005, the Commission adopted the DTS Notice of Proposed Rulemaking requesting comment on whether and how to implement DTS and issued a Clarification describing how the interim rules would be applied. The comment and reply cycle closed March 7, 2006. Although there was support for DTS expressed in the
rulemaking proceeding, only a few stations have requested to use DTS under the interim rules, which restrict use to within the station’s existing authorized facility.

Milestone 5: CP and license processing for final post-transition facilities (ONGOING October 2007 through January 2008)

1. **Timeframes and Steps:**

   - **Develop process for accepting and evaluating applications (INITIATED AND IN PROGRESS):** The Commission expects to receive applications for construction permits from roughly 300 stations making modifications to their existing post-transition facilities at the end of October, and to receive applications from roughly 625 stations building all new facilities beginning in January 2008 and continuing throughout 2008. The Media Bureau’s Video Division and the Office of Engineering and Technology are developing an internal program to expedite processing, and we are contracting with an outside vendor to develop program to process applications that do not match Appendix B and for post-transition processing. The Commission proposed a one week turnaround on applications that fit specified criteria, at which point other applications will be reviewed.

2. **Collaboration Between Public and Private Sector Organizations:**
   Achieving this goal has required input from affected industries. The Commission has already collaborated with the broadcast industry, including trade organizations, networks, station groups, and individual stations. We have also collaborated with representatives of the computer industry and consumer products manufacturers. We are continuing this collaboration, which is essential to assuring that our actions are appropriate for real world circumstances, and, equally important, that our actions are clear to those industries that must follow them. In addition to these collaborative efforts through outreach, we have obtained significant input from these and other parties and individuals that file Comments in our related rulemaking proceedings.56

3. **Reporting Requirements:**
   The Commission has many reporting and tracking requirements that assist us in keeping track of how broadcasters are progressing in their transition to digital broadcasting. Stations must meet construction permit deadlines for building their pre-transition and post-transition digital facilities or must request

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56 See the Advanced Television (now known as DTV) Rulemaking Docket 87-268 (First through Eighth Notices of Proposed Rulemaking and First through Seventh Reports and Orders), and the series of DTV Periodic Reviews (First, Second, and Third, Dockets 00-39, 03-15, and 07-91, respectively).
extensions of time to construct based in compliance with the rules.\textsuperscript{57} We also proposed in the Third DTV Periodic NPRM to require every station to specifically complete, file, and update a form, as needed, to keep the Commission and the public apprised of the station’s progress in meeting the final transition deadline on February 17, 2009.

4. Mitigation of Risk:
   As part of the Third DTV Periodic Review, the Commission has proposed a variety of deadlines and procedures to ensure that broadcasters meet the goal of completing construction of their post-transition digital facilities by the statutory deadline. The Commission is drafting the Report and Order in that proceeding and will adopt all measures necessary to ensure that service to viewers is not disrupted, including providing broadcasters sufficient flexibility to allow them to make the switch to digital. The Commission recognizes, however, that it is possible that some stations will not be able to serve their entire service areas in digital by the cut-off date. For example, weather problems, particularly in northern states, could make changes to transmission facilities very difficult in the winter months leading up to February 17, 2009. Because of the unambiguous statutory provision requiring that full power analog television stations cease transmission by that date, however, the Commission cannot extend that deadline for any stations that might not have fully built their digital facilities. We note, however, that low power analog television broadcasters are not required to go dark on February 17, 2009. As a result, over-the-air only viewers that fail to take the steps necessary to view digital signals in areas served by LPTV stations will, at a minimum, be able to access analog low power broadcasting service and the beneficial services it provides, such as emergency alert service (EAS). We expect this to be particularly beneficial in rural areas, where many LPTV stations are located, and where some full service stations might face particularly difficult challenges in transitioning to digital. In addition, to the extent that standards associated with digital transmission, such as the ATSC standard, are amended over time to enable technical improvements and innovation, the Commission’s continuing DTV Periodic Review proceedings will account for such changes.

E. Technical Goal 5: Facilitate the production of set top boxes and other devices that can receive digital broadcast signals in connection with subscription services

Overview: Notwithstanding the major importance of developing standards for television sets and other devices to receive digital broadcast signals over-the-air, a much greater number of consumers (approximately 87% of television viewing households) rely on cable and satellite service to view television programming. Those Americans will be able to continue to view broadcast programming on analog television sets that are connected to an MVPD’s system. In addition, consumers who rent set-top boxes from their cable providers or use digital-cable-ready devices equipped with a CableCARD will have the

\textsuperscript{57} 47 C.F.R. §§ 73.624(d).
ability to receive non-broadcast programming that their cable providers transmit digitally.58

The primary goal of the “plug-and-play” proceeding is to develop a competitive market for devices that consumers use to access MVPD services.59 This goal is tied inexorably to the digital transition because a device’s ability to access MVPD services is a key element to consumer adoption of digital devices. The next major milestone for the Commission will be to adopt a standard that gives consumers the choice of buying bidirectional, or two-way, “plug-and-play” television sets that will allow them to access the multitude of interactive services that their MVPDs offer. The Commission is working toward establishing a standard that will allow manufacturers to produce, and consumers to buy, bidirectional digital cable ready products in time for the transition.60 These devices will have the ability to access two-way MVPD services, such as video-on-demand, electronic program guides, impulse pay-per-view, and other interactive television features, without using a MVPD-provided set top box. The Commission intends that bidirectional “plug-and-play” devices will be available at retail as soon as possible in advance of the February 2009 digital transition.

Progress and Performance:

Milestone 1: Address digital cable set top box issues associated with commercial availability of unidirectional navigation devices for use in digital cable systems (COMPLETED 2005)

1. Timeframe and Steps:
   
   • Establish unidirectional “plug and play” ground rules (COMPLETED June

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58 Digital-cable-ready equipment available for purchase at retail today can not access two-way multichannel video programming services, such as electronic programming guides, video-on-demand, pay-per-view, and other interactive television capabilities. This lack of functionality has limited consumers’ interest in such devices.


60 Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment, 22 FCC Rcd 12024 (2007). The Commission has already adopted a standard that allows consumer electronics manufacturers to produce, and consumers to buy, unidirectional digital-cable-ready devices. Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment, Second Report and Order and Second Further Notice of Proposed Rulemaking, 18 FCC Rcd 20885 (2003). These devices can access cable operators’ linear digital programming, but the devices are not able to access bidirectional services such as video-on-demand, electronic program guides, impulse pay-per-view, and other interactive television features. Despite the fact that millions of unidirectional television sets have been purchased at retail, only a small fraction of these sets access MVPD services using the intended CableCard. Because these devices are unable to access the bidirectional features discussed above, consumers have been reluctant to adopt the CableCard technology and, instead, opt to connect their unidirectional devices to MVPD systems using traditional, cable-leased set-top boxes.
1998): The Telecommunications Act of 1996 added a new Section 629 to the Communications Act that directs the Commission to adopt regulations to assure the commercial availability of navigation devices used by consumers to access services from MVPDs. In 1998, the Commission required MVPDs to make available a conditional access element separate from the basic navigation, or host, device in order to permit unaffiliated manufacturers and retailers to commercially market host devices, while allowing MVPDs to retain control over their system security.61 The Commission also adopted a January 1, 2005 deadline for MVPDs to cease deploying new navigation devices that perform both conditional access functions and other functions in a single integrated device. This requirement was intended to establish common reliance by cable operators and manufacturers on identical security functionality in order to eliminate impediments discouraging customers from switching to devices available through retail outlets, and thereby promote competition in the marketplace. The requirement encourages consumer adoption of digital-cable-ready products and encourages consumers to transition to all-digital products.

- **Seek comment on the state of the industry (COMPLETED September 2000):** The Commission sought comment on whether the ban on cable operator deployment of set-top boxes with integrated security was necessary given current market conditions.62 The Commission also addressed whether certain security functions could remain in the host device.

- **Seek comment on a standard for unidirectional compatibility (COMPLETED January 2003):** In December 2002, the cable and consumer electronics industries adopted a memorandum of understanding (“MOU”) regarding a one-way “plug-and-play” cable compatibility standard. In January 2003, the Commission sought public comment on the MOU and the proposed standards that would allow consumers to directly attach “digital-cable-ready” receivers to cable systems and, with the use of a point-of-deployment module (“POD”, now marketed as “CableCARD”), receive one-way cable services without the need for a set-top box.63

- **Modify existing rules based on the state of the set-top box market (COMPLETED April 2003):** The Commission deferred the effective date

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of the ban on cable set-top boxes with integrated security to July 2006.64

- **Adopt a standard for unidirectional compatibility of consumer electronics equipment and digital cable systems (COMPLETED October 2003):** The Commission issued the Second Report and Order (“Second Order”) and Second Further Notice of Proposed Rulemaking (“Second FNPRM”), generally adopting the rules proposed in the MOU. The Second Order set technical and other criteria that manufacturers must meet in order to label or market one-way digital cable televisions and products as “digital cable ready.” The Second Order imposes transmission standards for cable systems and requires that, as of July 1, 2004, all digital cable systems conform with these transmission standards and make CableCARDS available as needed. The Second Order also limits the levels of copy protection that MVPDs may apply to certain categories of content and prohibits all MVPDs from activating down-resolution of unencrypted broadcast television programming or selectable output controls. The Second FNPRM seeks comment on issues not resolved in the Second Order, including (i) whether the Commission should ban or permit the down-resolution of non-broadcast MVPD programming, and (ii) the appropriate standards and procedures to be used for the approval of new connectors or content protection technologies to be used with one-way digital cable televisions and products.65 The Commission also sought comment on testing and output controls.

- **Modify existing rules based on the state of the set-top box market (COMPLETED March 2005):** In March 2005, the Commission issued an Order that maintained the prohibition on cable operator deployment of integrated set-top boxes (sometimes called the “integration ban”), but deferred the effective date of the ban to July 1, 2007. The Order also established detailed reporting requirements relating to the development of a software conditional access solution, cable operator support of CableCARDS, and the status of the ongoing negotiations among the cable and consumer electronics industries and other parties regarding a two-way plug-and-play specification.66

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• Consider requests for waiver of the Commissions’ rules (INITIATED AND ONGOING): The Commission has considered and continues to consider requests for narrowly-focused waivers of the ban on cable set-top boxes with integrated security. 67 These waiver requests have been considered with consumers’ best interests at heart. The Commission has balanced Section 629’s mandate that the Commission adopt rules to develop a competitive market for navigation devices against the robust benefits that consumers will enjoy from a transition to all-digital cable systems. In doing so, the Commission is adopting policies that will create a vibrant retail market for navigation devices, while providing incentives for cable operators to transition to all-digital cable systems.

Milestone 2: Ensure the commercial availability of bidirectional navigation devices (INITIATED AND IN PROGRESS)

1. Timeframe and Steps:

• Seek comment on proposed standards for bidirectional compatibility (COMPLETED June 2007): The Commission sought comment on proposals from consumer electronics and cable industries to ensure bidirectional compatibility of retail navigation devices and digital cable systems, in an effort to address digital cable set top box issues associated with commercial availability of bidirectional navigation devices for use in digital cable systems. 68

• Adopt a standard for bidirectional compatibility of consumer electronics equipment and digital cable systems (INITIATED AND ONGOING): The Commission is drafting an item that considers the proposals before it. The primary goal of the proceeding is to support consumer expectations by permitting the development of bidirectional digital cable ready products with a variety of price points, features, and degrees of interactivity, thereby hastening the digital transition. The Commission intends that the first generation of these devices be available for consumer purchase before the February 2009 digital television transition.


2. **Collaboration Between Public and Private Sector Organizations:**
As with the technical goal for broadcasters, here, too, we have worked and continue to work with representatives of the affected industries. For example, the Commission is participating with affected industry groups (NCTA, CEA, MPAA, CableLabs, DBS providers, Telco video providers) as well as applicable standards setting bodies (American National Standards Institute (ANSI), Society of Cable Telecommunications Engineers (SCTE), Alliance for Telecommunications Industry Solutions (ATIS)) to develop a standard for bidirectional compatibility of navigation devices and MVPD systems.

3. **Reporting Requirements:**
The cable and consumer electronics industries are required to file status reports regarding negotiations on a bidirectional compatibility solution every 60 days. In addition, the cable industry is required to file a status report regarding CableCARD deployment and support every 90 days.

4. **Mitigation of Risk:**
Consumers who continue to rely on analog-only equipment and subscribe to pay television services will be able to continue to view broadcast stations on those analog televisions. To the extent that the Commission can foster policies that spur consumers to voluntarily transition to digital television sets and products, the potential number of stranded analog television viewers will be reduced. In this regard, the Commission has adopted rules that have made unidirectional digital cable ready television sets and products available at retail today. In addition, because the Commission was disappointed by the lack of demonstrated progress by inter-industry efforts to develop standards for bidirectional digital cable ready televisions and products, the Commission initiated the *Third Notice* in June 2007. The intent of the *Third Notice* is to adopt bidirectional digital cable ready standards that will enable the retail availability of such devices prior to the February 17, 2009 digital television transition.

**F. Technical Goal 6: Facilitate the production of television sets and other devices that can receive digital broadcast signals**

**Overview:** The Commission has recognized that a successful transition is contingent upon the availability of equipment that allows consumers to view digital broadcast signals. As explained in more detail below, the approximately 13% of households that rely purely on over-the-air signals can purchase new television sets with off-air tuners as a result of Commission action requiring the manufacturing of such sets. Also, beginning in January of 2008, OTA television viewers who choose to keep their analog television sets will be able to purchase digital to analog converter boxes, allowing them to continue viewing their local broadcast signals.

**Performance and Progress:**
Milestone 1: Establish timeframe to require that all TV equipment in the US has a
digital tuner (COMPLETED November 2005)

1. Timeframes and Steps:

- Initiate a proceeding to consider requirements that new TV receivers
  include the capability to receive DTV signals (COMPLETED 2001): In
  response to the National Association of Broadcasters and the North
  American Broadcasters Association, the Commission sought comment on
  whether to require that certain types of TV sets have the capability to
demodulate and decode over-the-air DTV signals. Under such a
requirement, TV sets would have to provide useable picture and sound
commensurate with their video display and audio capabilities when
receiving any of the recognized ATSC video formats.69

- Adopt requirements that new TV receivers include DTV tuners
  (COMPLETED August 2002): The Commission required equipment
manufacturers to begin phasing in digital tuners in equipment that has an
analog tuner. The Commission adopted a schedule as close as
economically feasible to the target completion date for the DTV transition
(December 31, 2006, at that time).70 The Commission recognized that this
would require manufacturers to redesign product lines, and accordingly,
set forth a five-year rollout schedule starting with larger, more expensive
TV sets.71 This way, the Commission ensured continuing progress toward
the ultimate goal, while minimizing the costs for equipment manufacturers
and consumers.

69 Review of the Commission’s Rules and Policies Affecting the Conversion To Digital Television, MM

70 See 47 U.S.C. §309(j)(14) (establishing December 31, 2006 as the transition date but allowing extensions
of the date on a market by market basis).

71 The Second Report and Order and Second Memorandum Opinion and Order in the First DTV Periodic
(“DTV Tuner Mandate”) required that all television receivers (i.e. those with a tuner) with screen sizes
greater than 13 inches and all television receiving equipment, such as videocassette recorders (VCRs) and
digital versatile disk (DVD) players/recorders, must DTV reception capability after July 1, 2007, according
to the following schedule:

Receivers with screen sizes 36 inches and above -- 50% of a responsible party’s units must include DTV
receivers effective July 1, 2004; 100% of such units must include DTV tuners effective July 1, 2005.

Receivers with screen sizes 25 to 35 inches -- 50% of a responsible party’s units must include DTV tuners
receivers effective July 1, 2005; 100% of such units must include DTV tuners effective July 1, 2006.

Receivers with screen sizes 13 to 24 inches -- 100% of all such units must include DTV tuners effective
July 1, 2007.

TV Interface Devices VCRs and DVD players/recorders, etc. that receive broadcast television signals --
100% of all such units must include DTV tuners effective July 1, 2007.
Consider modifying the adopted DTV Tuner implementation schedule due to concerns from the retailing and manufacturing community (COMPLETED 2005): The Commission in response to a petition filed by the Consumer Electronics Association and the Consumer Electronics Retailer Coalition sought comment regarding whether there is need to revise the TV tuner requirement implementation schedule for receivers with screen sizes 25 to 36 inches and suggestions for specific revisions to the schedule for such devices to address that need. CEA and CERC claimed that the adopted requirement was slowing, rather than speeding up consumer migration to TV receivers with DTV tuners. Thus, the Commission specifically requested comment on the approach suggested by CEA-CERC whereby the requirement that 50% of receivers with screen sizes 25 inches to 36 inches incorporate a DTV tuner in the period from July 1, 2005 to July 1, 2006 would be eliminated and replaced with a new provision requiring that all receivers with screen sizes 25 inches to 36 inches be required to include a DTV tuner effective March 1, 2006.

Modify the DTV tuner implementation schedule due to industry concerns (COMPLETED 2005): The Commission modified the schedule by which new broadcast television receivers with screen sizes 25 to 36 inches are required to include the capability to receive over-the-air digital television (DTV) broadcast signals. The DTV tuner requirement is being implemented by applying the requirement first to large screen receivers and then progressively to smaller screen units and other devices over a period of several years. The Commission maintained the existing plan to require that 50% of 25 to 36-inch receivers that are imported or shipped in interstate commerce include DTV tuners beginning July 1, 2005, but modified the date on which 100% of such receivers must include DTV tuners by advancing that date from July 1, 2006 to March 1, 2006. This action was taken in response to concerns from the industry. The Commission concluded that maintaining the adopted approach for the mid-size 25 to 36-inch receivers prior to March 1, 2006 will most effectively ensure that DTV tuner equipped sets are available to consumers on a timely basis. The Commission also concluded that advancing the date by which all 25 to 36-inch receivers must include DTV reception capability to March 1, 2006 will serve to minimize any difficulties with the 50% provision at the earliest practicable date and will also serve to expedite the provision of DTV reception capability to consumers.


• Consider modifying the date on which all new TV receiving equipment must include capability to receive over-the-air DTV signals (COMPLETED 2005): The Commission sought comment on advancing the date on which all new television receiving equipment must include the capability to receive over-the-air DTV broadcast signals from July 1, 2007 to a date no later than December 31, 2006.74 This revision would require all television receivers to include DTV tuners on a schedule not later than the statutory target date for the end of the DTV transition (December 31, 2006 at that time), when analog television service was to end. This proposal was intended to apply the DTV tuner requirement to all TV receivers on an advanced schedule that will allow a more rapid completion of the DTV transition while providing manufacturers with adequate time to include DTV tuners in all their TV products.

• Modify the rules to advance the date for compliance with the DTV tuner requirement for certain equipment (COMPLETED 2005): As Congress was considering adopting a hard deadline for the DTV transition towards the end of 2005, the Commission decided to accelerate the schedule for the DTV Tuner requirements and to expand the scope to cover all television receivers regardless of size.75 The Commission advanced the date on which new television receivers with screen sizes 13 to 24 inches and certain other TV receiving devices such as VCRs and digital video recorders must include the capability to receive broadcast digital television signals from the current date of July 1, 2007 to March 1, 2007. The Commission also amended its rules to apply the digital television reception capability requirement to new receivers with screen sizes smaller than 13 inches on this same schedule. These modifications affected the final step of this phase-in plan to provide for all new TV receiver equipment to include digital reception capability as of March 1, 2007. The Commission concluded that this date, rather than the proposed December 31, 2006, date was more appropriate at it balanced the concerns of manufacturers who stated that the earlier date was too tight for product development cycles and our goal of promoting a rapid conclusion to the DTV transition.

2. Collaboration between Public and Private Sector Organizations:
The Commission has worked and continues to work with representatives of the affected industries. For example, we work closely with broadcast engineering organizations and individual broadcast engineers and collaborate with public and private sector organizations to discuss roles and responsibilities.

74 Id.

In developing Orders and adopting rules, we met with engineers and manufacturers, as well as broadcasters, about their concerns. The rules and procedures we have adopted and continue to develop take into account the mandated timing of the transition along with normal manufacturing schedules.

3. Reporting Requirements:
We review reports from the U.S. Customs and Border Protection agency to determine if manufacturers or importers are importing analog-only devices in violation of FCC rules. Otherwise, we track compliance through investigation and, where necessary, enforcement actions.

4. Mitigation of Risk:
The Commission has taken steps to assure that no analog-only television is displayed at retail without a prominent warning of the February 17, 2009 analog deadline and the limited lifespan of such televisions without the addition of a device that will enable the viewing of digital programming. As stated in the discussion regarding Policy Goal 3, the Commission has conducted over 1300 retailer inspections to assess compliance with the labeling requirement, issued over 280 citations, and is considering forfeitures of nearly $4 million for apparent violations of the rule. [Note: The GAO’s Draft Report states that FCC staff have conducted over 1,000 inspections and issued over 250 citations, with potential fines exceeding $3 million, rather than using the more precise, updated figures above. (p. 19)]

In addition, the Commission has taken enforcement action to punish and deter violations of the requirement that as of March 1, 2007, all televisions imported or distributed in the United States must include a digital tuner. On May 30, 2007, the Commission issued the first enforcement actions for violations of this rule. The Commission issued an NAL proposing a $63,650 forfeiture against Regent U.S.A., Inc. for importing or shipping interstate 1,182 non-DTV-compliant television receivers and issued an NAL proposing a $2,899,575 forfeiture against Syntax-Brillian Corporation for importing or shipping interstate 22,069 non-DTV-compliant television receivers. The Commission is conducting investigations of other manufacturers for potential violations of these requirements.

Moreover, consumers who continue to rely on analog-only equipment and subscribe to pay television services will be able to continue to view broadcast stations on those analog televisions. The Commission is working with NTIA on the coupon subsidy program so that all Americans may request a coupon for a digital-to-analog converter. The Commission’s role is testing the boxes for compliance with NTIA’s eligibility requirements. In addition, the Commission is coordinating with NTIA to educate viewers of the availability and need for converter boxes for over-the-air reception of digital signals on analog television sets after the transition.
Milestone 2: Coordinate with NTIA to ensure that analog over-the-air viewers have converters that enable them to view TV after the transition (ONGOING testing program to assist NTIA to certify converters that are eligible for the coupon subsidy)

1. Timeframes and Steps:

- The Commission’s Office of Engineering and Technology signed a Memorandum of Understanding (MOU) with NTIA in February, 2007 to conduct tests on converter boxes for compliance to NTIA requirements for coupon eligibility. Starting July 9, 2007, OET’s laboratory has been receiving boxes from NTIA for testing under this MOU. Based on the test results submitted to NTIA, they have announced certification of three converter boxes from two companies. NTIA is reviewing the test results for several more boxes to make the final determination on certification of the boxes for coupon eligibility.

- As a part of the program, NTIA has indicated that they have received additional notices of intent to submit converter boxes for testing.

- Consumers will be able to request coupons beginning January 1, 2008, and the program will send out coupons when boxes available, which they expect will be early 2008, after holidays.

2. Collaboration between Public and Private Sector Organizations:
When Congress designated NTIA to develop the converter box coupon program, we met with NTIA and developed a Memorandum of Understanding to assist their efforts by testing devices for compliance with the eligibility criteria that NTIA adopted.

3. Mitigation of Risk:
Certification of converter boxes is contingent on successful completion of testing by the Commission’s lab.

Milestone 3: Implement a requirement that broadcasters transmit program content information and a corresponding requirement that DTV receivers have the ability to decode this information (COMPLETED September 2004)

1. Timeframes and Steps:

- Initiate a proceeding to ensure that V-chip functionality is available in DTV receivers (COMPLETED 2003): The Commission’s rules require that digital television receivers have the capability to enable viewers to block the display of programs with a common rating. Accordingly, in its Second Periodic Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television76 the Commission sought comment

on whether it should require all digital television broadcasters to place V-chip rating information in the protocol accompanying their digital programming. The Commission also asked whether it was necessary to require equipment manufacturers to develop equipment that accesses program rating information in the protocol.

- **Decide issues affecting functioning of V-chip technology for DTV receivers (COMPLETED 2004):** The Commission required broadcasters to transmit all V-chip rating information in the protocol with their digital programming. It concluded that this uniform transmission practice would ensure that various receiver manufacturers can more readily design products which will search for and react to program rating information on a consistent basis. The Commission also recognized the importance of being able to extend or replace the content advisory system by assignment of a new, different rating region code. Accordingly, the Commission required that receivers must be able to process newer content advisory systems as suggested by the relevant industry standards body. In addition, the Commission adopted rules to apply V-chip rules to digital television receivers with displays in the 16:9 aspect ratio that are 7.8 inches or greater in height. In addition, the Commission required that V-chip technology be included in all digital television receivers with integrated 4:3 displays measuring at least 13 inches diagonally. It was also determined that these rules would be applicable to DTV tuners which are sold without an associated display device. The Commission provided for an 18-month transition period after which all digital television receivers are required to provide V-chip functions following the adopted regulations. Similar to the requirements for analog television receivers, the rules require that the V-chip technology responds to the *TV Parental Guidelines* and the MPAA rating system.

2. **Collaboration between Public and Private Sector Organizations:** The Commission has worked and continues to work with representatives of the affected industries. For example, we work closely with broadcast engineering organizations and individual broadcast engineers and collaborate with public and private sector organizations to discuss roles and responsibilities.

In developing orders and adopting rules, we met with engineers and

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77 Specifically, this protocol is called the Program and System Information Protocol for Broadcast and Cable (“PSIP”). The PSIP carries the Rating Region Table (“RRT”), which describes the content advisory rating system being used.


79 *Id.* ¶¶ 158-159.
manufacturers, as well as broadcasters, about their concerns. The rules and procedures we have adopted and continue to develop take into account the mandated timing of the transition along with normal manufacturing schedules.

3. Reporting Requirements:
   We do not require manufacturers or broadcasters to file reports with us, rather we track compliance through investigation and, where necessary, enforcement actions.

4. Mitigation of Risk:
   The Commission manages the risk of noncompliance through enforcement action against manufacturers and importers. This past July, in response to a complaint, the Commission began investigating allegations that some manufacturers were not complying with our rules. As a result of these investigations, the Commission recently began consideration of Notices of Apparently Liability (NALs) against three manufacturers, totaling over $11 million. We have several other pending investigations and anticipate further enforcement actions. [Note: The GAO’s Draft Report states that the FCC has issued notices to television manufacturers with potential fines over $2.5 million for importing televisions without digital tuners, rather than using the $11 million figure above. (p. 19)]
II. POLICY GOALS

General Overview of Policy Goals: In addition to the technical goals that focus on the requirements for broadcasters and equipment manufacturers to make the transition a success, the Commission has equally important policy-related responsibilities for the transition. Here, the Commission’s role is to foresee and address the needs of the 120 million households viewing television in the United States, including the 87% of households which receive their television programming through subscription services. The Commission is focused both on minimizing any burdens to consumers as a result of the transition, and also maximizing the ability of consumers to reap the benefits of the digital transition. It is important to note that 70% of those subscription service households receive their programming through cable. The Commission has recently taken action to ensure that analog cable subscribers with analog equipment -- representing approximately 40 million households (98 million viewers) -- do not lose any of their local stations after the transition. The Commission has also acted to ensure that the digital signals received by cable subscribers have the same clarity and quality as those received by the cable system from local broadcasters, as well as the same technical treatment as any other digital signal transmitted by the cable operator. Most importantly, now that the technical pieces are in place, the Commission’s foremost policy goal is to oversee efforts to educate consumers about the timing and nature of the transition, and the steps consumers should take to be sure they retain service and participate in the benefits available from the transition to digital television service. [Note: The GAO’s Draft Report states that “The Association for Public Television Stations reported in January 2007 that 61 percent of participants surveyed had “no idea” that the transition was taking place.” (p. 7) In fact, a more recent survey conducted by APTS in September 2007 shows progress – a 10% improvement in consumer awareness (i.e., 51% unaware) since the survey cited by GAO. 80] The Commission has worked with broadcasters, manufacturers and retailers to encourage voluntary education efforts, and many positive steps have been taken by these industry groups. The Commission has also coordinated with organizations that represent consumers that need special outreach to provide helpful and accurate information about the transition. Most recently, the Commission has taken steps to require consumer education actions by those industries most closely involved with the transition to be sure that all consumers receive the information they need. The Commission is also evaluating how broadcasters can best use the spectrum efficiencies and benefits offered by digital technology to meet their obligation to serve the public interest.

A. Policy Goal 1: Protect MVPD Subscribers in their Ability to Continue Watching their Local Broadcast Stations After the Digital Transition

Overview: A successful transition requires that the approximately 87% of households who receive their television programming through MVPD providers not lose their ability to view local broadcast channels. The Commission recently took action that guarantees that all cable customers (approximately 70% of MVPD subscribers) will be able to watch all broadcast stations after the digital transition. The next major milestone towards this

goal is to ensure that satellite operators also carry local broadcast stations after the transition.

Progress and Performance:

Milestone 1: Cable subscribers will be able to continue viewing their local broadcast stations after the DTV transition (COMPLETED 2007)

Approximately 70% of MVPD subscribers receive their programming through cable. It is also important to understand that approximately 35% of all television homes, or approximately 40 million households (98 million viewers), are analog-only cable subscribers. The Commission recognized that it was critical to ensure that these analog subscribers continue to enjoy the ability to view their local broadcast stations after those stations begin broadcasting only in digital. Accordingly, the Commission took action on September 11, 2007, to ensure cable operators continue to make signals of all must-carry broadcast stations viewable after the transition, as the must carry statute requires. This action was important to ensure that cable subscribers are able to watch the same broadcast stations the day after the digital transition that they were watching the day before the transition. This action significantly reduced the number of Americans potentially needing a converter box to watch broadcast stations post-transition. The Commission was able to achieve the goal of protecting the largest group of MVPD subscribers, cable subscribers, by taking the following steps:

1. Timeframes and Steps:

- **Initiate proceeding to consider cable carriage of digital signals (COMPLETED 1998):** The first major milestone towards this goal was achieved in 1998, when the Commission initiated a rulemaking proceeding to determine whether and how the must carry requirements in the Communications Act apply to cable carriage of digital television signals. The Notice sought comment on whether local commercial and non-commercial stations’ digital signals were entitled to “must carry,” how to define cable channel capacity for digital signals, whether cable systems were required to carry both the analog and digital signals broadcast by local stations, the proper signal quality for digital signal strength as received at the cable headend, whether multicast programming streams were entitled to mandatory carriage, what constitutes duplicate signals in light of simulcasting requirements then in place, how to apply the statutory prohibition on material degradation, whether cable operators are required to provide all subscribers with a set top box, how to determine channel

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placement for digital signals, and how to apply the analog framework for PEG channels to carriage of digital stations. These and other questions addressed how to revise the cable must carry and retransmission consent requirements from the 1993 rules based on 1992 statutory requirements when there were only analog signals, to a framework of requirements that would work for the forthcoming transition to digital signals.

- **Require cable operators to carry digital broadcast signals during the transition (COMPLETED 2001):** The second major milestone took place in 2001, through the Commission’s adoption of cable must carry requirements to provide for carriage of digital signals during the transition. The First Report and Order (“First R&O”), adopted in 2001, concluded that stations broadcasting a digital signal is entitled to mandatory carriage. Specifically, cable operators must carry a "digital-only" local commercial or non-commercial station. Digital-only includes new digital stations and stations that return their analog spectrum and convert to digital-only. The First R&O also required that cable systems must not materially degrade broadcast signals, which must be provided comparably to other types of signals and to the quality of the signal as broadcast. Thus, cable systems were required to HDTV signals in HD format to avoid material degradation. This decision furthered the goal of assuring that the benefits of the digital transition, including improved sound and picture quality, reach all viewers. The First R&O also revised the rules for retransmission consent and channel capacity calculations to reflect the changing technology associated with digital signals. Similarly, the First Report and Order addressed channel placement, that is, the channel number to be used by cable operators, to respond to the different technology attendant to carriage of a digital signal. The First R&O also concluded that mandatory carriage of both analog and digital signals ("dual carriage") appears to burden cable operators' First Amendment interests more than is necessary to further a substantial governmental interest.

- **Address requirements related to carriage of both analog and digital signals (COMPLETED 2005):** In February of 2005, the Commission concluded that cable operators are not required to carry both the analog and digital signals broadcast by most television stations prior to the transition and end of analog broadcasting.

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85 *Carriage of Digital Broadcast Signals: Amendments to Part 76 of the Commission’s Rules*, CS Docket...
Require cable operators to continue making signals of all must-carry broadcast stations viewable after the transition (COMPLETED 2007): On September 11, 2007, the Commission achieved the goal of ensuring that all cable subscribers, including those with analog TV sets, can view broadcast television after the transition to digital television occurs on February 17, 2009. Cable operators must comply with this “viewability” provision and ensure that cable subscribers with analog television sets are able to continue to view all must-carry stations after the end of the DTV transition by either: (1) carrying the digital signal in analog format, or (2) carrying the signal only in digital format, on an all-digital cable system. This viewability requirement sunsets on February 18, 2012 unless the Commission determines to extend the requirements. Small cable systems (552 MHz or smaller) may request a waiver of the viewability requirement if capacity limitations prevent their carriage of additional digital versions.

Related Issues and Next Steps: The Commission must now establish when the must carry rights will transfer from the analog signal to the digital signal, and determine how to ensure that all stations’ digital signals are carried on February 18, 2009. One option is that mandatory carriage rights could shift from a station’s analog signal to its digital signal as of the beginning of the carriage cycle on January 1, 2009, for those stations whose digital signals are fully constructed. Alternatively, all stations’ mandatory carriage rights could shift from analog to digital as of February 18, 2009, after the analog signals are terminated. Second, the Commission must define “program-related,” which will determine what cable operators are required to carry in addition to the “primary video.”

Milestone 2: Ensuring DBS Subscribers Can View Local Broadcast Signals (INITIATED AND IN PROGRESS)

Addressing satellite carriage of digital signals is the final piece needed to ensure that viewers who get their television programming through subscription services continue to receive local broadcast stations after the stations transition to digital service. Satellite carriers already provide digital quality signals to their subscribers by digitizing the analog signals they receive from local broadcasters. The Commission must decide how, if at all, the satellite carriage requirements for carriage of analog signals should be revised to apply to carriage of signals that are broadcast in digital format. Most importantly, the Commission must decide how to apply the content to be carried and material degradation requirements of the statute to satellite carriage of digital broadcast signals, particularly signals that are in high definition format, as well


as multicast programming streams. The Commission has taken the following steps toward achieving this portion of the goal:

1. **Timeframe and Steps:**
   
   - **Initiate proceeding to consider satellite carriage of digital signals**
     (COMPLETED 2001): The first major milestone towards achieving the protection of satellite subscribers was accomplished in 2001, when the Commission commenced a proceeding to determine how the rules for satellite carriage of local stations’ analog signals should be revised to apply to digital signals. In this Further Notice to the DTV Carriage Report and Order, the Commission noted that the statute directs the Commission to adopt rules for satellite carriage that are comparable to cable carriage rules. The Further Notice asked how to apply the digital carriage rules adopted for cable carriage to satellite carriage requirements for digital signals.
   
   - **Next Step:** The Commission is working to better understand current and future satellite capacity to carry all local stations in the local markets served by satellite. We intend to address these issues by working with satellite providers and other public and private sources to determine how to best move forward. In addition, the transition will be furthered by providing for satellite carriage of digital-only stations, just as cable operators are required to do. (INITIATED AND IN PROGRESS)

2. **Collaboration Between Public and Private Sector Organizations:**
   The Commission conducts rulemaking proceedings in accordance with the requirements of the Administrative Procedures Act and the Commission’s rules. We propose rules for comment and review the Comments and Reply Comments and other submissions accordingly. The Commission’s rules also allow for ex parte meetings with private sector representatives. In this respect, we have conferred with representatives of the satellite and broadcasting industry, as well as cable companies and trade associations. The rulemaking docket for the satellite carriage rules currently contains nearly 400 Comments and ex parte filings. In addition, we collaborate and share information through panel presentations and distribution and collection of information at private sector conventions and conferences, such as the SBCA, NAB and NCTA.

3. **Reporting Requirements:**
   Cable operators are required by existing rules to maintain lists of the stations

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88 See 47 U.S.C. § 338(j) (referring to cable requirements in 47 U.S.C. §§ 534(b)(3) and (4) and 535 (g)(1) and (2)).
they carry and to specify which are carried pursuant to “must carry” upon request.\textsuperscript{89} We monitor compliance with carriage rules, however, through the complaint process.\textsuperscript{90} Broadcasters may file a complaint with the Commission if the cable or satellite carrier refuses to carry the station or if there are disputes about the manner of carriage.

4. Mitigation of Risk:
In adopting the DTV Must Carry Viewability Order, the Commission ensured that any analog television connected to a cable system will continue to receive broadcast stations in a viewable format for a reasonable period after February 17, 2009. In addition, the Commission will put rules in place before the next retransmission consent/must carry election cycle so that carriage rights will switch to stations’ digital signals before February 17, 2009. This way, broadcasters can ensure carriage of their digital signals by cable operators in a viewable format.

B. Policy Goal 2: Maximize Consumer Benefits of the Digital Transition

Overview: The successful completion of the digital transition depends not only on upon minimizing the burdens placed on consumers, but also maximizing their ability to benefit from it. The Commission has already acted to ensure that the 98 million American consumers viewing television programming over cable are able to view the best quality digital picture possible on their television set. The Commission has also raised for comment the issue of how to provide this same assurance to satellite subscribers. Furthermore, to the extent that the Commission can foster policies that spur consumers to voluntarily transition to digital television sets and products, the potential number of stranded analog television viewers will be reduced. In this regard, if the Commission acts to encourage and facilitate broadcasters’ ability to offer additional free channels so that the DTV transition is a benefit rather than a burden to consumers, more consumers will want to move forward with obtaining the equipment necessary for the transition.

Performance and Progress:

Milestone 1: MVPD subscribers receive non-degraded digital signals

A major benefit of the transition to digital broadcasting is that it allows for crystal clear picture quality not possible through analog transmissions. The Commission is working toward ensuring that MVPD subscribers are able to enjoy this technological advancement. As explained below, this milestone has been achieved with respect to cable subscribers through a 2007 Commission Order. The Commission is expected to complete this milestone with respect to satellite subscribers before the end of the digital transition.

\textsuperscript{89} 47 C.F.R. §§ 76.1614, 76.1709.

\textsuperscript{90} 47 C.F.R. §§ 76.7, 76.61.
1. Timeframes and Steps:

**Cable Operations**

- Commence proceeding to consider digital signal quality requirement with respect to cable operations (COMPLETED 1998)

  The Communications Act requires that cable operators carry local broadcast signals “without material degradation,” and instructs the Commission to “adopt carriage standards to ensure that, to the extent technically feasible, the quality of signal processing and carriage provided by a cable system for the carriage of local commercial television stations will be no less than that provided by the system for carriage of any other type of signal.”

  Section 614(b)(4)(B) of the Act directs the Commission “to establish any changes in the signal carriage requirements of cable television systems necessary to ensure cable carriage of such broadcast signals of local commercial television stations which have been changed” as a result of the DTV transition. In 1998, the Commission commenced a rulemaking proceeding concerning cable carriage of digital signals and sought comment on how to apply this statutory requirement to cable carriage of digital signals.

- Adopt approach to digital signal quality requirement with respect to pre-DTV transition cable operations (COMPLETED 2001)

  The Commission adopted a comparative approach to determining whether a cable operator has passed through to a subscriber a digital broadcast signal without material degradation. The Commission concluded that "a cable operator may not provide a digital broadcast signal in a lesser format or lower resolution than that afforded to any" other signal on the system. Furthermore, a cable operator must carry broadcast stations such that, when compared to the original broadcast signal, "the difference is not really perceptible to the viewer." The Commission specified that "a

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92 47 U.S.C. § 534(b)(4)(A). See Section 615(g)(2) of the Communications Act, 47 U.S.C. § 535(g)(2) (material degradation requirements applicable to noncommercial stations). See also H.R. Conf. Rep. No. 102-862, at 67 (1992) (“The FCC is directed to adopt any carriage standards which are needed to ensure that, so far as is technically feasible, cable systems afford off-the-air broadcast signals the same quality of signal processing and carriage that they employ for any other type of programming carried on the cable system.”); S. Rep. No. 102-92, at 85 (1991) (same).


95 First Report and Order, 16 FCC Rcd at 2629, para. 73.

96 Id. at 2628, para. 72.
broadcast signal delivered in HDTV must be carried in HDTV."97

• **Final step for cable** - Ensure that after the digital transition deadline, cable subscribers can take advantage of the crystal clear picture quality made possible by the transition to digital (ACHIEVED 2007)98: The Commission recently affirmed that the prohibition on material degradation of digital broadcast signals by cable operators will continue after the transition date. The Commission retained the comparative approach to determining whether material degradation has occurred that was first adopted in 2001. Thus, "a cable operator may not provide a digital broadcast signal in a lesser format or lower resolution than that afforded to any" other signal on the system.99 Furthermore, a cable operator must carry broadcast stations such that, when compared to the original broadcast signal, "the difference is not really perceptible to the viewer."100 As a result, "a broadcast signal delivered in HDTV must be carried in HDTV."101

**Satellite**

• Commence proceeding to consider digital signal quality requirement with respect to satellite operations (INITIATED AND IN PROGRESS)102: In the Further Notice to the DTV Carriage Report and Order, the Commission sought comment on how the material degradation rules that apply to cable, and by cross-reference to satellite,103 should be drafted to apply to satellite carriage of digital signals.104 The Further Notice stated that the statute directs the Commission to adopt rules for satellite carriage that are comparable to cable carriage rules.105

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97 Id. at 2629, para. 73.
99 *First Report and Order*, 16 FCC Red at 2629, para. 73.
100 Id. at 2628, para. 72.
101 Id. at 2629, para. 73.
103 See 47 U.S.C. § 338(j) (referring to cable requirements in 47 U.S.C. §§ 534(b)(4) and 535 (g)(2)).
105 See 47 U.S.C. § 338(j) (referring to cable requirements in 47 U.S.C. §§ 534(b)(3) and (4) and 535 (g)(1)
Adopt approach to digital signal quality requirement with respect to satellite operations (INITIATED AND IN PROGRESS): Expected to complete before the transition to afford satellite carriers time to prepare for carriage of the digital signals in the markets in which they provide local carriage. The Commission’s decision will balance assuring satellite subscribers of the benefit of the excellent picture and sound quality associated with high definition, while balancing satellite capacity constraints that appear to limit the number of local markets that satellite carriers can serve. The issues include determining the requirements of the statute prohibiting material degradation as well as discriminatory treatment, the practical and technical limitations of satellite operations now and in the future, as well as consumer and broadcaster desire for signal carriage without material degradation.

Milestone 2: Consumers view more free broadcasting streams

Technology advances enable broadcasters to put out not just one programming stream, but multiple broadcast streams (for example, a movie channel, a 24-hour news channel and a sports programming channel) with no extra cost to the consumer. In other words, multicasting technology enables broadcasters to provide more free television programming to consumers. More free television programming would facilitate the transition by providing people with an incentive to get a converter box or purchase a digital television. The ability of consumers to have more free programming to choose from would be a major benefit of the DTV transition. Currently, over-the-air consumers must purchase such equipment just to maintain the status quo. With multicasting, consumers will gain a significant new benefit in terms of new and improved services if they buy new expensive HDTVs.106 Making this benefit a reality requires cable companies to carry these additional channels.

1. Timeframes and Steps:

   Commence proceeding to consider MVPD carriage of multicast broadcast signals (COMPLETED 1998)107: In 1998, the Commission initiated a rulemaking proceeding to determine whether and how the must carry

\[\text{eqn} 1\]

\[\text{eqn} 2\]

\[\text{eqn} 3\]

106 This proposal is how it worked in Germany. In Berlin, the opportunity to receive more free channels drove people to proactively purchase converter boxes instead of viewing the need to do so as a burden imposed by their government. Before the transition, over-the-air viewers in Berlin received only 12 channels. After the transition, they received 27, more than twice as many. A German government report analyzing the transition concluded, “the switchover resulted in less protest than had been anticipated,” in part because of “[t]he added value of receiving more services.” (Berlin Goes Digital, http://www.mabb.de/bilder/Projektbericht_engl.pdf.)

requirements in the Communications Act apply to cable carriage of digital television signals.\textsuperscript{108} The Notice sought comment, among other things, on whether local commercial and non-commercial stations’ digital signals were entitled to “must carry,” whether cable systems were required to carry both the analog and digital signals broadcast by local stations, and whether multicast programming streams were entitled to mandatory carriage.

- **Require cable operators to carry multicast signals** (INITIATED AND IN PROGRESS: item before the Commission). The next major step will be to require cable operators to carry this free multicast programming.\textsuperscript{109} A proposal is before the Commission to facilitate multicasting by requiring cable companies to carry these multiple streams of free programming to consumers.

- **Require satellite operators to carry multicast signals** (COMPLETED in part, 2005): Pursuant to amendments to the Communications Act in 2004, satellite carriers are required to carry all local stations in Alaska and Hawaii. In implementing this statutory requirement, the Commission required satellite carriers to carry HD digital signals in HD and to carry multicast signals where aired in Alaska and Hawaii.\textsuperscript{110} The Commission may consider whether to apply this requirement to all satellite carriage of local stations in a future proceeding.

**Milestone 3: Programming with more diverse and more local content**

Not only does the transition to digital allow broadcast stations to provide multiple streams of their own programming, it allows them to lease capacity to other entities unable to operate their own stations due to spectrum limitations and the high cost of entry. Such a leasing opportunity, with corresponding carriage requirements, would expand opportunities for new entrants and small businesses, including minority- and women-owned businesses, to own broadcasting outlets. By broadening participation in the broadcast industry, we would make available to all television viewers additional free, over-the-air programming from diverse sources, thereby strengthening the diverse and robust marketplace of ideas that is essential to our democracy.


\textsuperscript{109} As the courts have recognized, cable carriage is necessary for broadcast channels to survive. There is not an economic model by which a broadcaster can support a free programming stream that reaches only over-the-air households. As a result, without the guarantee of cable carriage, broadcasters are not able to invest in creating a second or third free programming stream.

\textsuperscript{110} *Implementation of Section 210 of the Satellite Home Viewer Extension and Reauthorization Act of 2004 to Amend Section 338 of the Communications Act, MB Docket No. 05-181, FCC 05-92, In the Matter of Implementation of Section 210 of the Satellite Home Viewer Extension and Reauthorization Act of 2004 to Amend Section 338 of the Communications Act, Report and Order, 20 FCC Rcd. 14242 (2005).*
Beyond fostering viewpoint diversity, taking steps to facilitate the entry of new participants into the broadcasting industry will promote innovation in the field.

1. **Timeframes and Steps:**
   - **Commence proceeding to consider leasing and carriage opportunities for qualified designated entities (IN PROGRESS):** The Commission circulated a Notice of Proposed Rulemaking seeking comment on several initiatives. Among these is the recognition of innovative arrangements between qualified television broadcasters and Qualified Designated Entities (“QDEs”) that would allow QDEs to become digital television broadcasters by using full power broadcasters’ multicast streams and thereby obtain cable carriage through must carry.

2. **Collaboration Between Public and Private Sector Organizations:**
   The Commission conducts rulemaking proceedings in accordance with the requirements of the Administrative Procedures Act and the Commission’s rules. We propose rules for comment and review the Comments and Reply Comments and other submissions accordingly. The Commission’s rules also allow for ex parte meetings with private sector representatives. In this respect, we have conferred with representatives of the satellite and broadcasting industry, as well as cable companies and trade associations. The rulemaking docket for the satellite carriage rules currently contains nearly 400 Comments and ex parte filings. In addition, we collaborate and share information through panel presentations and distribution and collection of information at private sector conventions and conferences, such as the SBCA, NAB and NCTA.

3. **Reporting Requirements:**
   Cable operators are required by existing rules to maintain lists of the stations they carry and to specify which are carried pursuant to “must carry” upon request.\(^{111}\) We monitor compliance with carriage rules, however, through the complaint process.\(^ {112}\) Broadcasters may file a complaint with the Commission if the cable or satellite carrier refuses to carry the station or if there are disputes about the manner of carriage.

4. **Mitigation of Risk:**
   In adopting the DTV Must Carry Viewability Order, the Commission ensured that cable operators would provide digital signals in the quality in which they are received by the cable system. The Commission also has before it for consideration an Order on reconsideration that would give viewers an incentive to obtain digital reception devices so that they can receive multicast

\(^{111}\) 47 C.F.R. §§ 76.1614, 76.1709

\(^{112}\) 47 C.F.R. §§ 76.7, 76.61.
programming, whether over-the-air or via cable. Multicast programming offers viewers more choices and thereby motivates them to obtain the equipment that will provide them with these enhanced viewing options. When consumers can easily see the immediate benefit of taking action, they are more likely to move forward voluntarily and less likely to be left behind at the last minute. Availability of multicast programming, especially when available for free over-the-air can provide this motivation.

C. **Policy Goal 3: Educate consumers about the DTV transition**

**Overview:** Educating consumers about the digital transition is critically important to its ultimate success. Consumers should be informed of the advantages of digital technology for them (HD quality and multicast offerings), the effect of the over-the-air transition, depending on how they receive television programming (over-the-air or through subscription service), and the steps they should take to be able to continue receiving television programming, as well as the steps they may choose to take to get the most benefit from the transition. We have initiated work towards this goal by, for example, ensuring that consumers are alerted to the limitations of buying television equipment that has only an analog tuner. We are also in the process of considering what actions to require from broadcasters, MVPDs, manufacturers, and others to convey this important information on a regular and continuing basis now through the end of the transition.

**Performance and Progress:**

**Milestone 1: Require notice to purchasers of television equipment (COMPLETED 2007)**

The Commission addressed the issue of labeling requirements in 2002 and again in 2004, urging retail and manufacturing entities in the private sector to undertake consumer education voluntarily. When voluntary steps to provide adequate information and warnings for consumers were not forthcoming, and we learned from broadcasters and others that retailers intended to continue selling analog-only televisions for an extended time after manufacturers were required to stop production, import and distribution, the Commission acted. In April 2007, the Commission took a major step in requiring retailers to fully inform consumers about the DTV transition date at the point of sale. The Commission found that, at the point of sale, many consumers were not aware that analog-only TVs would not be able to receive over-the-air-television signals without the use of a digital-to-analog converter box after the

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transition. Accordingly, the Commission required sellers of television receiving equipment that does not include a digital tuner to disclose at the point-of-sale that such devices include only an analog tuner and therefore will require a converter box to receive over-the-air broadcast television after the transition date. We have also initiated a DTV Education Notice of Proposed Rulemaking (NPRM) that, among other things, asks whether the Commission should require notice about the transition from manufacturers of new sets.

1. Timeframes and Steps:

- **Initiate proceeding to consider labeling requirements by manufacturers and retailers (COMPLETED 2001):** The Commission sought comment on the need for labeling of television devices to describe digital features and to alert consumers about limitations.\textsuperscript{115} The Commission urged manufacturers and retailers to voluntarily label their products when offered for sale so that consumers would be aware, in particular, that television receiving devices with only analog tuners would not be able to receive broadcast signals over-the-air after the transition.\textsuperscript{116} The record developed in these proceedings indicated that there was sufficient information available on a voluntary basis concerning the features of monitors (without any tuner) and digital equipment (that included both analog and digital tuners), but there was inadequate information and disclosure concerning the long term limitations of equipment with only an analog tuner.

- **Require appropriate labels on devices (COMPLETED 2007):** The Commission required sellers of television receiving equipment that does not include a digital tuner to disclose at the point-of-sale that such devices include only an analog tuner and therefore will require a converter box to receive over-the-air broadcast television after the transition date. The Commission provided specific language for retailers to use in labeling these devices.

- **Initiate proceeding requiring manufacturers to provide DTV transition information with television-related equipment (COMPLETED 2007):** The DTV Consumer Education Initiative NPRM proposed that manufacturers be required to include information with television receivers and related devices about the transition. We received a number of Comments about this proposal, most supportive.


• Require manufacturers to provide DTV Transition information with television-related equipment (INITIATED AND IN PROGRESS): A proposal is before the Commission to require that this type of information be provided to purchasers of this equipment. Specifically, the proposal would require that manufacturers and those who hold themselves out to the public as manufacturers of television receivers and devices designed to work with television receivers include information with those devices explaining to consumers what effect, if any, the DTV transition will have on their use.

Milestone 2: Require multifaceted outreach and education by broadcasters, MVPD providers, and telecommunication companies to reach television viewers directly (INITIATED AND IN PROGRESS)

The Americans who will be most directly affected by the DTV transition are, of course, those who watch television, particularly over-the-air television. Consumer education efforts that specifically target this group are the best way to get information about the transition and its benefits into the hands of the people who need it. The Commission has found that members of certain “at-risk” groups, including low-income, elderly, minority, and those for whom English is a second language, are disproportionately over-the-air viewers, and should be specifically targeted for outreach. The Commission took a major step in educating consumers when it initiated the DTV Consumer Education NPRM. Along with the retailer and manufacturer notice requirements, discussed above, this NPRM sought comment on whether to require the industry to use bill inserts, public service announcements, and other techniques to educate consumers about the transition. Furthermore, the NPRM asked to what extent the Commission should gather information to oversee and review the progress of the transition and consumer education.

1. Timeframes and Steps (ALL INITIATED AND IN PROGRESS - proposal before the Commission):

• Require broadcaster education efforts and reporting: The item proposes to require broadcasters to use PSAs and screen crawls throughout the day to inform viewers about the transition and to publicly report on these education efforts on a quarterly basis.

• Require MVPD education efforts: The item proposes to require MVPDs to provide monthly inserts about the DTV transition in their customer billing statements.

• Require targeted telecom education efforts: The item proposes to require telecommunications providers who draw from the Universal Service Fund provide outreach and education to their low-income customers.
- **Require reporting by 700 MHz auction winners**: The item proposes that winners of the 700 MHz auctions (Auctions 73 and 76) report to the Commission on any consumer education efforts that they have undertaken.

- **Require reporting by DTV.gov transition partners**: The item proposes that industry actors who are listed on the DTV.gov page as Transition Partners be required to report to the Commission their consumer education efforts, as a condition of continuing Partner status.

2. **Collaboration Between Public and Private Sector Organizations**: The Commission conducts rulemaking proceedings in accordance with the requirements of the Administrative Procedures Act and the Commission’s rules. We propose rules for Comment and review the Comments and Reply Comments and other submissions accordingly. The Commission’s rules also allow for ex parte meetings with private sector representatives. In developing the Labeling Order we conferred particularly with representatives of the retail industry, as well as the broadcast industry. As we consider these proposals from the DTV Consumer Education item, we have had comments from and/or meetings with representatives of the retail, manufacturing, broadcasting, satellite, cable, and telecommunications industries, as well as from public interest-focused organizations and private citizens. The rulemaking docket for these rules currently contains over 50 Comments and ex parte filings. In addition, we collaborate and share information through panel presentations and distribution and collection of information at both private sector conventions and conferences and the public workshops that have been produced and will be produced by the Commission and NTIA. These rules also propose continuing extensive collaboration with NTIA, which has been a touchstone of the Commission’s DTV Transition efforts since the outset. Even if the rules are not adopted in this form, we anticipate a continuation of this relationship.

3. **Reporting Requirements**: A draft item proposing a number of reporting requirements is currently before the Commission. Specifically, in the DTV Consumer Education Initiative, we are considering rules that would require broadcast stations to electronically report their consumer education efforts to the Commission on a quarterly basis, and that these reports be placed in the broadcaster’s public file and, if a broadcaster has a public website, on that website. In addition, DTV.gov Transition Partners would be required, as a condition of continuing Partner status, to report their consumer education efforts on a quarterly basis, beginning on January 1, 2008. We are also considering requiring winning bidders in the 700 MHz spectrum auctions (Auctions 73 and 76) to detail what, if any, DTV transition consumer education efforts they are conducting. Going forward, we intend to include additional reporting requirements as necessary for the Commission to determine compliance.
4. **Mitigation of Risk:**

In adopting the Labeling Order, the Commission ensured that consumers would be well informed when making purchasing decisions. By vigorously enforcing this requirement, we encourage retailers to participate fully in transition education efforts, and the more information consumers have about the transition the more likely they are to participate actively and share information about the transition with others. As noted above, as of October 23, 2007, Commission staff had inspected 1275 stores and websites for compliance with the labeling requirement. As a result of our inspections, the Commission’s Enforcement Bureau learned of violations at websites and stores across the country, at both “big box” retailers and small independent stores. Pursuant to the Communications Act of 1934, as amended, non-licensees (like many of the retailers) may be subject to monetary forfeitures only after first receiving a citation informing them of the rule violation and warning of further enforcement action, including monetary penalties. As of October 15, 2007, the Enforcement Bureau has issued 278 citations and published them on its website at www.fcc.gov/eb/dtv/. [Note: The GAO’s Draft Report states that FCC staff have conducted over 1,000 inspections and issued over 250 citations, rather than using the more precise, updated figures above. (p. 19)]

Once a retailer has received a citation, future violations of the labeling rule may be subject to monetary forfeitures. Thus, in July, the Chairman circulated to the Commission Notices of Apparent Liability for forfeiture against seven large retailers for apparently violating the Commission’s labeling requirement. These fines, in the aggregate, total nearly $3.4 million. In October, the Chairman circulated to the Commission NALs against seven additional retailers, totaling nearly $600,000. In addition, on October 15, 2007, the Enforcement Bureau issued another six NALs on delegated authority, totaling almost $100,000.

Additional violations could result in further enforcement action, including monetary forfeitures. Both the Commission and the Enforcement Bureau intend to move swiftly to impose monetary penalties on retailers that repeatedly fail to comply with the labeling rule. We note that in response to these enforcement actions, several major retailers have altered their processes and are now appropriately alerting consumers about the television equipment. At least one major retailer has discontinued the sale of analog-only equipment altogether.

The additional requirements of the DTV Consumer Education Order would further increase the amount of information available to viewers and consumers. The Commission will ensure that these requirements are followed through swift and strong enforcement action. For example, the Commission will promptly review broadcaster filings about their compliance with the DTV PSA and screen crawl requirements. Broadcasters that fail to comply with
FCC rules, or fail to file their reports, will be subject to enforcement action, including monetary forfeitures. The Commission also will promptly investigate complaints about potential violations of the requirements applicable to MVPDs, manufacturers, and others, and take enforcement action, where appropriate.

Finally, the DTV Consumer Education Order states that Commission personnel will perform random spot checks with the National Telecommunications and Information Agency (NTIA) to ensure that the retailers participating in the converter box program are appropriately training their employees and informing consumers. The Commission plans to conduct an increasing number of retailer spot checks as the converter boxes increasingly become available in the marketplace and reassess the number of inspections as the DTV transition date approaches. Because NTIA administers the converter box program, the Commission will defer to NTIA to take action against retailers that are not properly participating in the program.

Furthermore, the Commission’s action, in conjunction with private entities and other Federal agencies, will widely disseminate educational information on the DTV transition, particularly to special needs groups. In doing so, the Commission is attempting to ensure that no consumer is left behind in the DTV transition. However, even those consumers that access television only through over-the-air reception and that fail to take action in anticipation of the February 17, 2009 deadline are not without recourse after the cessation of analog broadcasts. These consumers will still be able to take advantage of the NTIA coupon program through the end of June 2009, or barring that option, can subscribe to MVPD service or purchase a digital television or digital to analog converter at retail outlets to access DTV broadcasts.

D. Policy Goal 4: Identify public interest opportunities afforded by digital transition

Overview: In addition to ensuring that broadcasters, MVPDs, and consumers take all steps necessary so that viewers will be able to receive broadcast television after the transition date, the Commission must ensure that broadcast stations fulfill their fundamental obligation to serve the public interest. Digital technology enables broadcasters to offer new, innovative services, including HDTV and multiple streams of programming, and the Commission has given them flexibility to determine the appropriate mix of those services for their audiences. At the same time, the Commission has undertaken several proceedings to address how broadcasters can best serve the public interest using this new technology, through providing access to diverse entrants, valuable programming to the public, and information about that programming to the public.

Performance and Progress:

Milestone 1: Improve access to broadcasting for diverse entrants
Among the many benefits of digital technology is the ability of stations not only to provide multiple streams of their own programming, but to lease excess capacity to other entities unable to operate their own stations due to spectrum limitations and the high cost of entry. To expand opportunities for new entrants and small businesses, including minority- and women-owned businesses, to own broadcasting outlets, the Media Bureau circulated a Notice of Proposed Rulemaking seeking comment on several initiatives. Among these is the recognition of innovative arrangements between qualified television broadcasters and Qualified Designated Entities (“QDEs”) that would allow QDEs to become digital television broadcasters by using full power broadcasters’ multicast streams and thereby obtain cable carriage through must carry. By broadening participation in the broadcast industry, we would make available to all television viewers additional free, over-the-air programming from diverse sources, thereby strengthening the diverse and robust marketplace of ideas that is essential to our democracy. Beyond fostering viewpoint diversity, we also believe that taking steps to facilitate the entry of new participants into the broadcasting industry will promote innovation in the field.

1. Timeframes and Steps:

- Initiate proceeding to facilitate access to broadcasting by diverse entrants (INITIATED AND IN PROGRESS: Diversity Initiatives NPRM on Circulation)

Milestone 2: Address public interest obligations of DTV stations

The Commission continues to explore other ways to ensure that the public benefits fully from the transition to digital. When the Commission adopted the initial table of allotments and service rules for DTV in 1997, it recognized that “[t]he dynamic and flexible nature of digital technology creates the possibility of new and creative ways for broadcasters to serve the country and the public interest.” Given the focus at the time on authorizing DTV service and providing construction deadlines to ensure that broadcasters quickly got on the air with digital signals, the Commission did not resolve digital public interest obligations at that time, but rather stated its intention to issue a Notice in the future to collect and consider all views. In the meantime, the Commission made clear that “broadcast licensees and the public are on notice that existing public interest requirements continue to apply to all broadcast licensees, and that “the Commission may adopt new public interest rules for digital television.”


118 Id. at para. 50.
In December 1999, the Commission released the promised DTV Public Interest Notice of Inquiry (NOI). The NOI sought comment on the application of television stations’ public interest obligations to the new capabilities of digital television; how television stations, operating in either analog or digital, could better serve their communities; how digital broadcasters could increase access to television programming by people with disabilities and further diversity; and whether digital broadcasters could enhance the quality of political discourse through use of the airwaves for political issues and debate, including whether digital broadcasters should be encouraged or required to provide free airtime to political candidates.

1. **Timeframes and Steps:**

- Initiate proceeding to consider public interest obligations of DTV stations (COMPLETED 1999)
- Initiate proceedings regarding children’s television and enhanced disclosure (COMPLETED 2000)
- Adopt regulations regarding children’s television (COMPLETED 2006) and enhanced disclosure (INITIATED AND IN PROGRESS: Report and Order on Circulation)

**Milestone 3: Adopt children’s television requirements for digital age (COMPLETED 2006)**

Following the collection of public comment in the DTV Public Interest NOI proceeding, the Commission began a proceeding on DTV stations’ obligations to serve children in the audience. On September 26, 2006, the Commission adopted a Second Order on Reconsideration and Second Report and Order resolving issues regarding the obligations of television broadcasters to protect and serve children in their audiences. In this proceeding, the Commission increased the children’s educational and informational programming benchmark for digital broadcasters in a manner roughly proportional to the increase in free video programming offered by the broadcaster on multicast channels.

1. **Timeframes and Steps:**

- Initiate proceeding on children’s television obligations of digital television broadcasters (COMPLETED 2000)
- Adopt regulations in children’s television proceeding (COMPLETED 2004)

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• Resolve reconsideration petitions in children’s television proceeding (COMPLETED 2006)

Milestone 4: Adopt enhanced disclosure requirements

Another proceeding that grew out of the DTV Public Interest inquiry is the Enhanced Disclosure Proceeding. The Commission proposed changes to broadcasters’ public file requirements to ensure that stations adequately inform the public about how the stations are serving their communities. Specifically, the Enhanced Disclosure NPRM proposed to replace the current “issues/programs” list for TV stations with a standardized form and to require TV broadcasters to make their public inspection files available on the Internet.

1. Timeframes and Steps:

• Initiate proceeding to require broadcasters to enhance the public’s access to information about their local stations (COMPLETED 2000)

• Adopt regulations in enhanced disclosure proceeding (INITIATED AND IN PROGRESS: Report and Order on Circulation)

Milestone 5: Conduct proceeding on broadcast localism

At the same time the Commission has been exploring specific ways broadcasters can use digital technology to benefit their viewers, the Commission also began a proceeding on Broadcast Localism to address more broadly whether both television and radio broadcasters’ public interest programming obligations should be modified. In addition to reviewing the voluminous record in that proceeding, the Commission has held five field hearings around the country from 2003 to 2007 to solicit input from the public on these issues, with a final hearing to take place in the coming weeks.

1. Timeframes and Steps:

• Initiate Notice of Inquiry on Broadcast Localism (COMPLETED 2004)

• Conduct field hearings to solicit information from around the country on broadcasters’ localism efforts (INITIATED AND IN PROGRESS)

• Adopt Report on Broadcast Localism (INITIATED AND IN PROGRESS)

2. Collaboration Between Public and Private Sector Organizations:

In addition to seeking input from the public and the industry about broadcasters’ public interest obligations through the rulemaking proceedings discussed above, the Commission has conducted numerous hearings around the country to solicit input on broadcast policy issues. In conjunction with the
Broadcast Localism proceeding, the Commission has held five field hearings in the following cities: Charlotte, North Carolina (October 2003); San Antonio, Texas (January 2004); Rapid City, South Dakota (May 2004); Salinas-Santa Cruz, California (July 2004); and Portland, Maine (June 2007). A final localism hearing will be held in the coming weeks. In addition, in conjunction with the Media Ownership proceeding, the Commission has conducted five public media ownership hearings during 2006 and 2007: in Los Angeles/El Segundo, California; Nashville, Tennessee; Harrisburg, Pennsylvania; Tampa-St. Petersburg, Florida and Chicago, Illinois. The Commission plans to conduct one additional ownership hearing on a date and at a location to be announced. Through these hearings, the Commission has been able to listen directly to members of the public on topics including localism, competition, diversity, minority ownership, children’s and family-friendly programming, senior citizens, religious programming, independent programming, music and the creative arts, the growth of the Internet, campaign and community event coverage, jobs and the economy, advertisers, rural America, and the disabled community.

3. Reporting Requirements:
In the Enhanced Disclosure proceeding, the Commission indicated that our current requirements regarding broadcasters’ public files are insufficient and that there is a need for a standardized form to provide information to the public on how stations serve the public interest. If adopted, this standardized form for the quarterly reporting of programming aired in response to issues relevant to a station’s community would replace the current “issues/programs” list. The form would require quarterly reporting on the programs aired by the station that provided its most significant treatment of community issues during the preceding three-month period and broadcasters’ efforts to determine the issues facing their communities. The NPRM also proposed to enhance the public’s ability to access information by requiring television licensees to make most of the contents of the public inspection files, including the standardized form, available on their stations’ Internet websites or, alternatively, on the website of their state broadcasters association. In addition, in the Children’s Television proceeding, the Commission revised the Children’s Television Programming Report form to require stations to report on their digital children’s educational and informational programming to enable enforcement of the increased core programming benchmark.

4. Mitigation of Risk:
As discussed above, the Commission has pending several proceedings targeted at maximizing the public interest opportunities afforded by the digital transition. The risk to the DTV transition itself of not completing these proceedings is negligible, as these requirements do not relate to the technical challenges of ensuring stations make the transition, nor to the consumer education challenges outlined above. There is some potential risk to broadcasters for having to comply with any additional programming
obligations at the same time they are transitioning to digital. If the proceedings are not completed, however, there is also some potential risk to viewers of their local broadcasters not fully meeting their obligation to serve the public interest. The initiatives discussed above will ensure that digital broadcasting will serve the public interest in traditional and innovative ways as well as mitigate the risk to consumers that their local broadcasters will fail to serve the public interest without such obligations.
III. CONSUMER OUTREACH GOALS

* NOTE: Several of the sections listed in the “Policy Goals” above and the “Other Critical Elements” below involve consumer outreach efforts by public and private organizations and companies, at the direction of Congress and the Commission. We will not repeat those sections here.

General Overview of Consumer Outreach Goals: Consumer outreach is a dynamic process that will continue at the Commission throughout the transition period and, as described in more detail below, is underscored by frequent and close coordination with industry, other governmental agencies and consumer groups. Successful completion of the transition depends upon government, industry and community stakeholders working together in this regard. The Commission is committed to doing everything within its statutory and budgetary capacity to make sure that no American is left behind in this part of the digital revolution.

A. Consumer Outreach Goal 1: Prepare and Distribute Publications to Consumers and News Media

Progress and Performance:

Milestones: Consumers and consumer and industry organizations are able to obtain and distribute general FCC DTV consumer education publications such as Buying the Right TV: What Every Consumer Should Know and DTV Is Coming (And Sooner Than You Think), as well as target-specific publications, such as Closed Captioning and Digital-to-Analog Converter Boxes for deaf and hard-of-hearing consumers. Publications are also available in large font format, in audio format, and in Braille for consumers with low vision. Publications are translated into Spanish for Spanish-speaking consumers.

Regarding news media, the Commission is coordinating with a variety of media outlets including newspapers, broadcasters, and working with various members of the industry on public service announcements (PSAs). The Commision’s news media efforts focus primarily on media that target specific at-risk populations. For example, senior citizens and Hispanic consumers, among others, are most likely to be disproportionately impacted by the transition. With respect to communicating with seniors, the Commission authored an article that was published in the October 2007 edition of Baltimore’s Senior Digest. In addition, Chairman Kevin Martin was recently interviewed about the transition on AARP radio which is heard on over 170 outlets nationwide and has a listenership of over 1,000,000 people. Similarly, Chairman Martin gave an interview to the AARP Magazine which is running a story on the digital transition for its early 2008 issue, and he also gave an interview to Erickson Tribune, a publication that reaches nearly 6 million seniors, for its story on the digital transition. The Chairman is scheduled to do a PSA with Retirement Living
TV, which targets its programming to senior citizens and reaches nearly 30 million homes nationwide.

Commission staff has also given interviews about the digital transition to various Hispanic media outlets. For example, the Hispanic Communications Network, which produces media campaigns for radio, television, print and Internet, taped an interview with Commission staff that will be distributed to its 230 member radio network in the United States and Puerto Rico. In addition, one of the Commission’s Spanish-speaking staff was recently interviewed by Univision for an upcoming DTV special, which will be a part of a larger Univision effort to inform viewers about the transition.

1. Timeframes and Steps:

- Advisories, fact sheets and other publications are prepared, updated and revised contemporaneously with the Commission’s issuance of transition-related rules, orders and policies and to reflect developments with regard to NTIA’s converter box coupon program and other industry developments and practices that might otherwise confuse or alarm some consumers about the transition or its impact on them. (INITIATED AND ONGOING)

- Commission staff confers or coordinates as appropriate with industry, other government agencies and community stakeholders to promote clear, consistent and effective messages about the transition and the steps that consumers may need to take to prepare for it. (INITIATED AND ONGOING)

- Commission staff tracks and monitors calls and emails into the Consumer Center to gauge the need for additional or revised consumer education materials. (INITIATED AND ONGOING)

- Commission staff coordinates weekly and monthly with organizations which publish or distribute consumer oriented newsletters and periodicals regarding the placement of news articles and feature stories about the DTV transition. (INITIATED AND ONGOING)

B. Consumer Outreach Goal 2: Participate in Events and Conferences

Overview: Event participation has several important objectives: distributing DTV consumer information to individual consumers and organization leadership, providing information that can be used to conduct local DTV transition awareness programs, and tapping into networks that can be used to disseminate DTV information broadly to consumers.

Progress and Performance:
Milestones:
The Commission has participated in numerous events and conferences during the transition period where it has disseminated thousands of packets of DTV information to targeted consumers and their organization leadership, including, for example, the AARP Convention in Boston, MA; the Congressional Black Caucus (CBC) and the National Association of Black Owned Broadcasters (NABOB) conferences in Washington, DC; the Registry of Interpreters for the Deaf (RID) Conference in San Francisco, CA; and the Telecommunications for the Deaf, Inc. (TDI) Biannual Conference in San Mateo, CA. Further, the Commission held an Indian Telecommunications Initiative (ITI) Regional Workshop and Roundtable in July in Albuquerque, New Mexico. In addition, field agents in FCC field offices have conducted DTV awareness sessions (attended by over 1300 people) and distributed over 20,000 DTV handouts in 36 states ranging from Alaska to Florida, targeting senior citizens. The Commission will continue to attend and participate in events throughout the country with participation in over 100 events scheduled through the end of 2007.

1. Timeframes and Steps:

   - Consumer oriented events and conferences are identified throughout the transition period and, budget permitting, the opportunity to present, exhibit or distribute DTV education material is coordinated and planned with event sponsors and/or local community leaders. (INITIATED AND ONGOING)

   - In many instances, Commission staff are invited to events and conferences to provide an expert perspective about the DTV transition. For example, a representative of the Philadelphia, PA, Mayor’s Office recently contacted the Commission to schedule a briefing in Philadelphia regarding the DTV transition. (INITIATED AND ONGOING)

   - The Commission will continue to utilize field office staff to distribute DTV information to senior centers and senior organizations around the country, and anticipates providing information to over 2000 organizations and making 350 DTV awareness presentations through the Commission’s field offices by the end of the year. (INITIATED AND ONGOING)

   - The Commission is following-up on recommendations and suggestions received at outreach events and conferences. For example, at its recent DTV Education Workshop held in September, the Commission was asked to coordinate consumer education materials with consumer groups before releasing them. The Commission is working to implement these and other ideas that came out of the workshop. Feedback such as this demonstrates the critical importance of involving and engaging community stakeholders
in the Commission’s consumer outreach efforts. (INITIATED AND ONGOING)

C. Consumer Outreach Goal 3: Coordinate with Federal, State and local Entities and Community Stakeholders

Overview: The success of any public outreach effort depends on many factors, none of which are more essential than the involvement of public officials and community stakeholders. For some time now, the Commission has been working to develop working relationships with federal, state and local entities, both public and private to assist in the dissemination of DTV education material.

Progress and Performance:

Milestones:
The Commission has contacted a broad spectrum of organizations, and several of them have made commitments to partner with us, such as the United States Administration of Aging, Bureau of Indian Affairs, the Executive Office of Elder Affairs for the Commonwealth of Massachusetts and the American Library Association which has agreed to assist us in getting DTV information into their more than 16,000 member libraries. Weekly and monthly coordination with entities and organizations representing specific categories of consumers, e.g., seniors, people with disabilities, non-English speaking, minorities, etc., helps us gauge the level of awareness of the consumers they interact with and solicit suggestions for addressing any identified gaps or shortfalls in awareness and/or preparation for the DTV transition.

1. Timeframes and Steps:
   - Coordination and collaboration with stakeholders throughout the transition. (INITIATED AND ONGOING)
   - Gathering information from officials at the federal, state and local levels and community leaders and activists, especially those with high concentrations of consumers in our target groups (e.g., senior citizens, non-English speaking consumers, minority communities, people with disabilities, low-income individuals, and people living in rural and tribal areas.) (INITIATED AND ONGOING)
   - Providing essential information to these stakeholders for dissemination to their constituents and keeping them informed of the transition’s progress and key milestones. (INITIATED AND ONGOING)
D. Consumer Outreach Goal 4: Utilize the Commission’s Advisory Committees to Help Identify Effective Strategies for Promoting Consumer Awareness

Overview: The mission of the Commission’s Consumer Advisory Committee (CAC) is to facilitate the participation of consumers in proceedings before the Commission and to make recommendations thereon. The CAC is comprised of members representing minorities and low income communities; disabilities communities; state, local, and Native American communities, and, the industry. In addition, the Commission recently announced our Intergovernmental Advisory Committee (IAC) membership, which includes elected and appointed officials of municipal, county, state, and tribal governments. It, too, is charged with providing recommendations for promoting consumer awareness of the DTV transition.

Progress and Performance:

Milestones:
The CAC met on August 10, 2007, for a full-day conference at Commission headquarters. The CAC also met on September 27, 2007 to prepare comments for the DTV Consumer Education Rulemaking proceeding. Comments containing the CAC’s initial recommendations were submitted in the proceeding on October 1, 2007. The Commission recently announced our Intergovernmental Advisory Committee (IAC) membership, which includes elected and appointed officials of municipal, county, state, and tribal governments, and charged it too with providing recommendations for promoting consumer awareness of the DTV transition.

1. Timeframes and Steps:

- Under their respective charters, the CAC and IAC meet up to four times a year. Commission staff work constructively with both committees to facilitate their work on behalf of the Commission. (INITIATED AND ONGOING)

- The next meeting of the CAC will be on November 2, 2007. CAC meetings are open to the public and a Public Notice announcing the November 2, 2007 meeting and the agenda for the meeting was released in October 2007.

- The IAC will hold its first meeting before the end of the year. Due to the make-up and nature of the IAC, its meetings are not open to the public.

E. Consumer Outreach Goal 5: Maintain and Expand Information and Resources Available via the Internet

Overview: Available research indicates that most people expect that the Internet will be their number one source of information about the DTV transition. The Commission’s DTV web portal, www.DTV.gov, features a variety of detailed consumer friendly
Progress and Performance:

Milestones:
Created in 2004, the www.DTV.gov web portal is continually updated to reflect current information about the DTV transition and its implications for consumers. [Note: Again, this website was launched back in 2004. The GAO’s Draft Report might be read to suggest that the Commission only recently launched this portal.] And, the Commission works closely with the DTV Coalition, other industry and consumer groups, as well as federal, state and local entities, to ensure that links to the site are located where consumers are most likely to find them. In addition, the Commission frequently asks other organizations to establish on their Website a link to www.DTV.gov and routinely follow-up as needed to confirm the placement of. Commission staff have confirmed over 100,000 links thus far. Another feature of our Web site is a “DTV Toolkit,” a package of information we developed which can be used by government agencies, community organizations, and others to conduct their own DTV consumer awareness campaigns. Also, we have developed and are posting other means of reaching consumers online such as DTV-related educational podcasts, webcasts, and streaming videos.

1. Timeframes and Steps:
   - The www.DTV.gov web portal was created. (COMPLETED 2004)
   - The www.DTV.gov web portal and is continually updated to reflect current information about the DTV transition. (INITIATED AND ONGOING)
   - Links to NTIA’s converter box coupon program are maintained and promptly updated as needed in consultation with NTIA (INITIATED AND ONGOING)
   - Commission staff coordinates regularly with DTV Coalition members, other industry and consumer groups, as well as federal, state and local entities, to ensure that links to the site are located where consumers are most likely to find them. (INITIATED AND ONGOING)

2. Collaboration Between Public and Private Sector Organizations – With Regard to all of the above-mentioned Consumer Outreach goals: The Commission recognizes that collaboration with public and private sector organizations is essential to a successful DTV transition. In the public sector, the Commission has been working with federal, state, and local agencies. The Commission has partnered with these agencies to disseminate DTV education materials to their core constituencies. They also inform us of events and conferences that are taking place where we can distribute materials and/or directly interact with consumers. In addition, as the Commission contacts each agency,
we ask them to link to our www.dtv.gov website, and offer assistance in drafting articles for publications and newsletters, as well as sample e-mails to send to their constituencies and employees. We also seek input and suggestions from these agencies for future outreach initiatives that would best serve their constituencies.

One of the Commission’s most significant partnerships is with NTIA. We meet with them regularly, coordinate our outreach strategies, and share exhibit space at events to provide consumers with one-stop access to full DTV transition information. As the transition continues, we plan to meet more frequently and engage in additional joint marketing efforts. In addition, through our relationship with the Bureau of Indian Affairs (BIA), we have been able to distribute over 700 packets of DTV information through their nationwide field offices. This assists us in reaching Native Americans who may be living in rural areas and on tribal land. We have also developed a successful partnership with the Administration on Aging that has lead to partnerships with their over 600 local Area Aging Authorities. We recently sent DTV educational materials to all of these offices and would like to develop a coordinated outreach plan with them.

In addition to our ongoing efforts with the aforementioned agencies, the Commission is attempting to reach all federal agencies, their employees, and their constituencies. The Commission is coordinating with the Chief Human Capital Officers Council (CHOCC), which advises and coordinates the activities of members’ agencies. The Council is composed of the Director of OPM, the Deputy Director for Management of the Office of Management and Budget (OMB), the CHCOs of the 15 Executive departments, and the CHCOs of 8 additional agencies designated by the OPM Director. Each CHCO serves as their agency’s chief policy advisor on all human resources management issues and is charged with selecting, developing, training, and managing the workforce.

The Commission also plans on establishing partnerships with agencies such as the department of Housing and Urban Development (HUD), the office of Veterans Affairs (VA), and the Department of Health and Human Services (HHS). Through their local offices, we hope to get information into the hands of many low-income consumers who are over-the-air television viewers and who may not have internet access. In addition, through our meetings with the U.S. Department of Education, we expect to get our message into schools and homes across the country. We are also in the process of developing a “DTV Learning Center” on our website. As the transition progresses, we anticipate fraud issues may arise with converter box coupons or other issues relating to the DTV transition. We are poised to work with the Federal Trade Commission, should problems arise.

While the Commission has established strong federal relationships, we realize the importance of working with the states and local entities. Like the federal agencies, we will continue asking these groups to link to www.dtv.gov and offer to provide them with articles, publications, or e-mails to send to their employees and constituencies. Specifically, we are following-up with initial contacts with
the nearly 125 local chambers of commerce. Numerous follow-up meetings are scheduled with the state and local level consumer affairs and elderly departments to advance partnerships at those levels to aid consumers most affected by the transition.

Building on our successes with local DTV Transition Awareness sessions in partnership with local community groups, we are scheduling approximately 50 such sessions each quarter. These sessions are targeted towards high risk constituencies through the nation.

The Commission is also working to advance partnerships with a number of groups that we regularly work with and whose conferences we attend. These groups include the National Governors Association, the US Conference of Mayors, the National League of Cities, The National Association of Telecommunications Officers and Advisors (NATOA), the National Association of Regulatory Utility Commissioners (NARUC), the National Association of Attorneys General (NAAG), the National Association of Counties (NACO), the US Conference of Mayors, and the National Association of State Utility Consumer Advocates (NASUCA). Working with these types of organizations will allow us to more readily reach consumers at a local level and tailor our outreach accordingly. In addition, we expect to receive recommendations from our Intergovernmental Advisory Committee (IAC) for working effectively with officials at the state and local level. The IAC, which is comprised of 15 elected and appointed public officials at the state and local levels, in state and local governments, will focus primarily on DTV awareness issues during its current term.

As with our public sector partners, the Commission is asking the private sector groups to link to www.dtv.gov and offer to provide them with articles, publications, or e-mails to send to their employees and constituencies. As a member of the DTV Coalition, we have a strong foothold in this area. The Commission also attends numerous events and conferences throughout the country to get our messaging out to consumers. At these events and conferences, we often participate on a DTV panel, give a presentation, and/or have an exhibit and staff providing materials and answering questions.

Our partnerships with private sector groups such as the Consumer Electronics Association (CEA), the Consumer Electronics Retailers Coalition (CERC), the National Association of Consumer Agency Administrators (NACAA), and the National Association of Broadcasters (NAB) are essential to our mission, and we are constantly working to strengthen these relationships. Through NACAA the Commission recently sent materials to their entire membership of over 200 organizations and individuals, asking them to link to our website and partner with us to get the message out about the transition. As we have done in the past, we will continue to develop joint publications as needed with industry associations. We are also working on developing partnerships with large umbrella groups such as the Boy Scouts and Girl Scouts to further develop community outreach.
The Commission is also working closely with groups that target special interest groups that are more likely to have high concentrations of over-the-air viewers. For example, to reach the Hispanic/Latino constituencies, we scheduled a DTV Consumer Education Workshop to focus specifically on minority and non-English speaking consumers. In addition, we will continue to handle calls to the FCC Call Center in Spanish and address spikes in Spanish speaking calls and other languages as needed. We will also continue to translate all of our DTV publications into Spanish and update all publications to ensure consistency with industry translations. Going forward, we will be drafting Spanish language articles and developing Spanish language videos, podcasts and PSAs. We will be strengthening our partnerships with groups such as the National Council of La Raza, the League of United Latin American Citizens, the National Hispanic Chamber of Commerce and Univision.

Senior citizens are also one of our targeted outreach groups. Through our field offices, the Commission is reaching out to senior centers across the country with DTV presentations and large font publications. We are developing a partnership with the American Library Association and are working with them to develop a DTV Awareness Week in libraries across the country. The Commission also has a strong relationship with AARP. We plan to continue to participate in their conferences and provide them with articles and interviews. As we learn of senior events around the country, we also plan to send publications, or participate if budgeting allows. In addition, we will continue making large font versions of all of our DTV material available and develop materials directed at seniors as necessary.

Through our Disabilities Rights Office, we have reached out to a number of organizations to discuss the transition and the affect on consumers with disabilities. The Commission will continue to meet with these groups on a regular basis and seek their input on how to best reach their constituencies. In addition, our key publications are available in Braille & audio formats. We also attend conference and events around the country to discuss the transition and how it will affect those with disabilities. We have recently posted two FCC Advisories on Closed Captioning and DTV. As the transition continues, we plan to work with the disabilities community to develop additional outreach materials and further target our messaging.

Reaching low income consumers involves another focused campaign. In addition to the groups previously mentioned, we are working with groups such as the NAACP, National Urban League, National Association of Social Workers, and other government agencies to get our material into their offices and into the hands of low-income consumers. Budget permitting, we will also develop PSAs to target these consumers.

Reaching those living on tribal lands and rural consumers is also a priority for the
Commission. Through our office of Intergovernmental Affairs and our tribal liaison, we will continue to partner with the BIA to get our materials to tribal lands, develop articles and PSAs geared towards tribal consumers, and will be working with tribal organizations to have our materials translated in native languages. We also plan to continue to attend native American and rural-related conferences such as the National Congress of American Indians (NCAI), the United South and Eastern Tribes (USET), and Rural Tecon³.

3. Reporting requirements:
   On July 21, 2007, the Commission adopted a Notice of Proposed Rulemaking (FCC 07-128) which requested comment on the best means of establishing a coordinated consumer education campaign. In particular, the Notice sought comment on several potential DTV consumer initiatives to be undertaken by broadcasters, multichannel video programming distributors (MVPDs), retailers, and manufacturers, including: requiring all MVPDs to include periodic notices about the transition in customer bills; requiring all manufacturers of “television receivers or related devices” to include DTV transition information with the devices; coordinating with NTIA to require retailers who participate in the converter set-top box coupon program to establish employee training and consumer information plans and file them with the Commission; requiring the “Partners” listed on the Commission’s www.dtv.gov website to report their consumer outreach efforts; requiring public service announcements (PSAs) about the transition by broadcasters; and requiring reporting by broadcasters on their consumer education efforts.

The comment period in the DTV Consumer Education NPRM has closed and the Chairman has circulated a Report and Order to his colleagues that would adopt a number of the requirements proposed in the Notice, including various reporting requirements and guidelines for stakeholders to report their efforts directly to the Commission. The Chairman has encouraged his colleagues to adopt the Report and Order expeditiously so that the reporting requirements can become effective and the Commission can begin to track these stakeholder efforts against our planned DTV outreach goals.

Outside of, and in addition to the DTV Consumer Education proceeding, as mentioned above, the Commission has been working with various stakeholders such as the DTV Transition Coalition, the National Association of Broadcasters (NAB), the National Cable and Telecommunications Association (NCTA), the Consumer Electronics Association (CEA), and the Consumer Electronics Retailers Coalition (CERC), among others, to keep apprised of the various stakeholder outreach efforts and coordinate them where appropriate. The NAB and NCTA both recently announced multi-million dollar DTV transition outreach initiatives, including voluntarily performing many of the requirements proposed in the DTV Consumer Education NPRM. We anticipate that these detailed voluntary efforts, and those of others, will assist these stakeholders in providing us on a timely basis with the information that we need to assess whether their
efforts are effectively reaching our targeted consumers.
IV. OTHER CRITICAL ELEMENTS

Other Critical Elements Goal 1: Transition TV stations in the cross-border areas from analog to digital broadcasting by February 17, 2009

Overview: The FCC is negotiating arrangements with Canada and Mexico that will enable U.S. stations in the border areas to transition to digital broadcasting by February 17, 2009. While there are existing mechanisms by which DTV stations are coordinated with both Canada and Mexico, the FCC is working to negotiate new agreements with both countries to govern coordination of TV stations in the border areas in order to accommodate the final configuration of U.S. DTV stations after the completion of the transition from analog television.

Negotiation of new agreements will take several months, at a minimum, to complete. To expedite the transition in the border areas, however, Canada and Mexico have each agreed to negotiate new DTV allotment plans to enable U.S. stations in the border areas to plan and build their digital facilities in time to meet the February 17, 2009 deadline. Once agreement is reached on the DTV allotment plans, U.S. stations in the border areas will be entitled to operate in accordance with those plans and FCC rules. The new TV agreements with Canada and Mexico, which will govern DTV coordination in the border areas after the transition, will be concluded after the DTV allotment plans are agreed.

Progress and Performance:

Milestone for Canada: Early 2008 (January/February) – Finalize DTV Allotment Plan. The FCC has exchanged its DTV plan with Canada and reviewed the Canadian DTV plan to determine possible incompatibilities between U.S. and Canadian stations. The FCC is working to resolve the relatively few incompatibilities that exist between the two plans.

1. Timeframes and Steps:

   • The FCC has been discussing the DTV transition with Canada for the past couple of years. (INITIATED AND ONGOING)

   • The FCC has been negotiating in earnest new arrangements to effectuate the transition in the border areas with Canada over the past year. To that end, the FCC and Industry Canada have met three times since January 2007 to discuss plans for the DTV transition and have frequent email and phone contact to collaborate on the details of a new DTV allotment plan. (INITIATED AND ONGOING)

   • The FCC and its counterpart in Canada, Industry Canada, agreed to a negotiation schedule that targets completion of a DTV allotment plan by early 2008. (COMPLETED 2007)
• A meeting with Industry Canada is scheduled for January 2008, at which time the transition plan will likely be finalized.

Milestone for Mexico: Spring 2008 – Finalize DTV Allotment Plan. The FCC has exchanged its DTV plan with Mexico and is currently reviewing the Mexican DTV plan to determine possible incompatibilities between U.S. and Mexican stations. At this time, it appears that there are few incompatibilities.

1. Timeframes and Steps:

• The FCC has been discussing the DTV transition with Mexico for the past couple of years. (INITIATED AND ONGOING)

• The FCC has been negotiating in earnest new arrangements to effectuate the transition in the border areas with Mexico over the past year. To that end, the FCC and Industry Canada have met three times since January 2007 to discuss plans for the DTV transition and have frequent email and phone contact to collaborate on the details of a new DTV allotment plan. (INITIATED AND ONGOING)

• The FCC and its counterpart in Mexico, COFETEL, agreed in August 2007 to a negotiation schedule that targets completion of a DTV allotment plan by spring 2008. (INITIATED AND ONGOING)

• The United States and Mexico expect to hold the first meeting to focus on the DTV plans in December 2007. (INITIATED AND ONGOING)

2. Collaboration between public and private sector organizations to agree on roles and responsibilities:

The International Bureau has collaborated with public and private sector organizations to agree on roles and responsibilities. In developing its negotiating plan with Canada and Mexico, we talked with broadcasters about their concerns. The negotiation plan takes into account broadcasters’ concerns about the timing of the transition by setting a goal for completion of the DTV allotment plans with Canada and Mexico that will enable U.S. stations to meet the transition deadline. In addition, we have collaborated with the State Department, which heads formal negotiation sessions, to set an aggressive schedule.

Members of the Enforcement Bureau Field Offices also participate in "Mixta." This is the Joint (U.S./Mexico) Commission, also known as Comision Mixta Encargada de Resolver Asuntos de Radiointerferencia (CMERAR), which is an international organization charged with resolving harmful radio interference problems relating to licensed radio systems operating along and within the common border areas between the United
States and Mexico. This group is made up of FCC Enforcement Bureau staff, FCC International Bureau staff and representatives from other U.S. federal agencies, such as DHS, USFS, DOJ and others. They meet with Mexican SCT and CoFeTel officials to informally resolve radio interference matters along the border areas. If the interference cannot be resolved on a local level, the matter is referred to Washington DC & Mexico City for higher level review.

3. **Reporting requirements to track stakeholder efforts against planned goals:**
   In order to track progress against planned goals for the negotiations with Canada and Mexico, the FCC, working with the State Department, develops a written summary of all bilateral meetings with Canada and Mexico. These summaries detail progress achieved at the meetings and note commitments made to advance negotiations before the next round of meetings. In this way, the FCC is able to measure the progress of its negotiations with Canada and Mexico.

4. **Mitigation of Risk:**
   The FCC has also built into its negotiation plan with Canada and Mexico strategies for managing and mitigating risks. The timeframe for completing new DTV allotment plans with each country builds in extra time to allow for possible delay in the negotiations. In addition, the FCC’s negotiation strategy seeks to identify potential problems early, so that the DTV transition in the border area can advance without delay. Rather than coordinate individual stations, the FCC has agreed with Mexico and Canada to coordinate new DTV allotment plans that will take into account all stations in the border area. In this way, possible incompatibilities between U.S. and Mexican and Canadian DTV stations can be identified early and resolved more efficiently in the context of the overall DTV plan. The FCC has exchanged its DTV plan with both Canada and Mexico and is currently reviewing the DTV plans from those countries to determine possible incompatibilities between U.S. stations and Canadian and Mexican stations. At this time, it appears that there are few incompatibilities. The Commission’s Field Offices have responded to requests regarding the transition from broadcasters and other entities that could be affected by the digital transition.

**B. Other Critical Elements Goal 2: Promote Consumer Awareness of NTIA’s Digital-to-Analog Converter Box Coupon Program**

**Overview:** At the outset, note that in the Deficit Reduction Act of 2005, where Congress established the hard deadline of February 17, 2009 for completing the DTV transition, Congress specifically allotted NTIA one hundred million dollars ($100,000,000) to spend on administrative expenses for the digital transition and the converter box program, including five million dollars ($5,000,000) “for consumer education concerning the digital television transition and the availability of the digital to analog converter box
“Deficit Reduction Act of 2005, Public Law 109-171, Sec. 3005(c)(2)(A), Feb. 8, 2006 (emphasis added). In addition, Congress anticipated that the administrative expenses might be even greater than $100 million and therefore gave NTIA the ability to spend an extra $60 million on such expenses. Thus, Congress explicitly gave NTIA the responsibility for both the coupon box program as well as consumer education about the digital transition generally. The Chairman respects Congress’s decision in this matter.

The Commission has requested money for digital transition consumer education and outreach two years in a row. At nearly the same time that this legislation was being passed, the Commission requested $500,000 for purposes of consumer education, but has received no money for this purpose. Instead, as noted above, Congress provided to NTIA $5 million for their program of “consumer education concerning the digital television transition.” Again, the Chairman respects Congress’s determination that NTIA should be the agency provided with the primary financial resources, and thus be the primary lead, for the consumer education efforts. Although Congress has not yet acted upon it, we have requested $1.5 million for consumer education for Fiscal Year 2008. To the extent that Congress wishes to provide us with funds exceeding the $1.5 million we have requested for consumer education efforts, we would welcome such an increase, and have conveyed this to Congress. That being said, the Commission is doing everything within its current statutory and budgetary capacity to facilitate the digital transition and promote consumer awareness.
Appendix A
Details of Proceedings for Technical Goals

1. First Report and Order

On August 24, 1990, the Commission made several policy decisions concerning the introduction of Advanced Television (ATV) service in the First Report and Order in MM Docket No. 87-268.¹²⁰

The Commission stated that its primary goal in the DTV proceeding was to assure the development of a technically excellent ATV service that will most efficiently meet the needs of terrestrial broadcasters, cable television operators and, most of all, consumers. The Commission noted, in the three years since it first began to consider ATV service, substantial progress had been made toward the selection of an advanced television systems. The Commission stated that the efforts of the Advisory Committee and other industry parties had significantly advanced the Commission’s ability to assess the merits of the various technical concepts. In addition, system designers had made substantial progress in developing new technical schemes for delivering HDTV service using a 6 MHz channel. Based on this progress, the Commission made several policy decisions in the First Report and Order to further narrow the focus of the proceeding and to speed the decision on ATV technical standards.

First, the Commission announced that it intended to select a simulcast high definition television system for ATV service; that is, a system that employs design principles independent of NTSC technology. The Commission stated that the record indicated that simulcast systems offer the potential for significantly greater improvement in the quality of television picture and audio performance than NTSC compatible (“EDTV”) systems and are not constrained by the limitations inherent in the NTSC technology. In addition, the Commission determined it would not give further consideration to transmission systems that require additional spectrum to augment the existing 6 MHz channel used for broadcast television. The Commission emphasized that in deciding to concentrate its efforts on selection of a simulcast system it was taking no position at the time on the merits of any particular simulcast system.

2. Second Report and Order

On April 9, 1992, the Commission decided a number of critical issues affecting implementation of ATV service in the Second Report and Order and initiated a Further Notice of Proposed Rule Making.¹²¹

In the Second Report and Order, the Commission made numerous decisions,


including the following: (1) to limit initial eligibility for ATV frequencies to existing broadcasters; (2) to use vacant noncommercial reserved channels only when no feasible alternative exists for assigning ATV channels to existing broadcasters and to leave vacant noncommercial allotments without an ATV channel pair only when there is no other practicable way to award an existing broadcaster an ATV channel; (3) to maintain the secondary status of low-power television service stations vis-à-vis new ATV operations; (4) to maintain the secondary status of low-power television stations vis-à-vis new ATV stations; (5) to notify broadcasters that when ATV becomes and is designated as the prevalent medium, they will be required to “convert” to ATV, i.e., surrender one of two broadcast channels and cease broadcasting in NTSC; (6) to set a firm date for conversion to ATV; (7) to adopt a 100% simulcasting requirement at the earliest appropriate point; (8) to condition selection of an ATV system on a winning proponent's adoption of reasonable and nondiscriminatory patent licensing policies; (9) to encourage the ongoing work of the Advisory Committee on compatibility issues; and (10) to direct the Advisory Committee to address new audio developments as well as proposals for flexible apportionment of audio and data in the selection of a system.

In addition, in the Further Notice of Proposed Rule Making the Commission sought comment on various issues, including: (1) the tentative conclusion that the Commission should establish a firm date for conversion to ATV that is 15 years from either selection of an ATV system or the date a Table of ATV Allotments is effective; (2) the tentative conclusion that we should impose a 100% simulcasting requirement no later than four years after the ATV application/construction period has passed; (3) the merits of Advisory Committee findings concerning new developments in ATV technology, including its findings that these new developments are not sufficiently concrete to allow timely testing and do not merit further consideration in selection of an ATV system; (4) a proposal to rank the class of parties initially eligible for ATV frequencies in the event of a spectrum shortfall; and (5) a proposal to allow broadcasters a period of time to negotiate channel assignments prior to adoption of a Table of Allotments.

3. Third Report and Order

On September 17, 1992, the Commission resolved and, in some cases reconsidered, a number of outstanding issues from the Second Report and Order proceeding and solicited further comment on other issues in the Memorandum Opinion and Order/Third Report and Order/Third Further Notice of Proposed Rule Making.122

On the basis of petitions for reconsideration or clarification of the Second Report/Further Notice, the Commission: (1) reconsidered in part its decision regarding the application and construction period and extended the application deadline to three years after the time that an ATV Allotment Table or an ATV standard is effective, whichever is later, and permitted a total of six years for both application and construction to be completed; (2) provided for further review of this presumptive schedule; (3) declined to modify its policy regarding the secondary status of low power television

service stations; (4) adhered to its decision that a firm date for conversion for all broadcasters must be established; and (5) adhered to its determination that a 100% simulcasting requirement should be adopted at the earliest appropriate time.

On the basis of the comments and replies received in response to the Second Report/Further Notice, the Commission, among other things: (1) reiterated its decision to limit initial eligibility for ATV frequencies to “existing broadcasters”; (2) declined to consider the question of the appropriate use for the reversion spectrum that we will reclaim at the time of full conversion to ATV; (3) agreed to create a noncommercial reserve of ATV spectrum; (4) adopted a preliminary deadline for conversion that is 15 years from the effective date of ATV system selection or a final Table of ATV Allotments, whichever is later and clarified that broadcasters that do not convert to ATV will have to cease broadcasting in NTSC at the final conversion date; (5) adopted a 50% simulcasting requirement, to be imposed one year after the six-year application/construction period ends, and a 100% simulcasting requirement to be imposed three years after the application/construction period closes; (6) adopted a simulcasting definition; and (7) announced several recommendations and directives to the Advisory Committee.

The Commission also sought comment on a number of issues, including the following: (1) whether to accord further relief to noncommercial stations with respect to the presumptive application/construction deadline; (2) whether to assign an existing broadcaster's ATV channel the same call sign as its NTSC channel; (3) whether to exercise the Commission’s authority under the All Channel Receiver Act to require manufacturers to produce receivers capable of both NTSC and ATV reception; and (4) whether to permit the use of ATV channels for ancillary purposes.

4. Fourth Report and Order

On December 26, 1996, the Commission adopted a modification of the Advanced Television System Committee's (ATSC) DTV Standard in the Fourth Report and Order.123

Adopting the ATSC DTV standards achieved four important goals. First, it provided certainty to broadcasters, equipment manufacturers and consumers by establishing the standard that would be used for digital signals broadcast in the United States. As a result, it has also effectuated the goal of allowing the benefits of digital broadcasting to be realized more quickly. Third, through this Order, the Commission also provided for new and innovative services to be made available by the data transmission capabilities of the DTV Standard. Finally, adoption of this standard permitted interoperability with computers, which encourages innovation and competition.

The standard is consistent with a consensus agreement voluntarily developed by a broad cross-section of parties, including the broadcasting, equipment manufacturing and computer industries. The standard allows transmission of one or two High Definition Television programs, four, five or more Standard Definition Television programs at a visual quality better than the current analog signal, many CD-quality audio signals and the delivery of large amounts of data. As compression technology improves, broadcasters are able to offer even more programming and other content within the 6 MHz for which they are licensed. Our rules and proceedings keep pace with these changes in technology through Periodic Reviews of the DTV transition.

5. Fifth Report and Order

On April 3, 1997, the Commission adopted both the Fifth and Sixth Report and Order. The Fifth Report and Order gave broadcasters flexibility in the use of their digital channel. Such flexibility allows them to put together the best mix of services and programming to stimulate consumer acceptance of digital technology and the purchase of digital receivers.

To aid the launch of digital services, we provided for a rapid construction of digital facilities by network-affiliated stations in the top markets in order to maximize early exposure of households to the benefits of DTV. By focusing on network-affiliated stations, the Order required those most able to bear the risks of introducing digital television to proceed most quickly.

This order reminded licensees that existing public interest requirements continue to apply to all licensees and that the Commission may adopt new public interest rules.

6. Sixth Report and Order

In the Sixth Report and Order, the Commission adopted a Table of Allotments for digital television (DTV).124 In addition, the Commission adopted rules for initial DTV allotments, which enabled stations to construct their pre-transition digital facilities. These facilities were essential to the transition by providing digital broadcast program to encourage early adopters to purchase digital televisions and launch the first steps of the transition to reach consumers. This step was similarly critical for manufacturers to provide a market for their early digital televisions. The Commission also adopted procedures for assigning DTV frequencies. Finally, the Commission set forth plans for spectrum recovery.

Through the DTV table, the Commission accommodated all eligible existing broadcasters, replicated existing service areas and ensured sound and efficient spectrum management. Those eligible for a DTV channel included parties licensed to operate a full

service television broadcast station and those holding a construction permit for such a station.

The DTV Table minimized all unavoidable interference to both existing analog TV and new DTV service. In addition, the DTV Table of Allotments provided interference protection for more than 100 new stations for which applications had been filed and provided 30 new DTV allotments for stations that had begun operation or received construction permits since it issued its draft DTV Table of Allotments.

The Commission indicated that the DTV Table was based on a minimum power level of 50 kW and a maximum power level of 1000 kW. It stated that a 50 kW minimum power level would ensure that stations had a sufficient service area to compete effectively in the provision of DTV services and was consistent with the maximization concept supported by the industry. It also stated that 1000 kW was sufficient to provide a very high degree of service replication for almost all stations. The Commission indicated that this power level allowed for a more equitable distribution of opportunities for maximization of service areas to full service DTV stations of all sizes. While the Commission continued the secondary status of low power TV and TV translator stations, it adopted a number of administrative and technical measures to minimize the impact of DTV implementation on low power operations.\(^\text{125}\)

Finally, the Commission set forth additional technical criteria for the allotment of additional DTV frequencies and the modification of allotments included in this initial Table. For new DTV allotments, the Commission chose to use the minimum geographic spacing requirements pursuant to Section 73.623(d) of the Rules without undertaking an interference analysis. The Commission chose this approach to give rulemaking proponents an opportunity to select any transmitter site and the opportunity to expand and improve its subsequent facility. For modification of an allotment, because the transmitter site is established, the Commission chose an analysis based on interference pursuant to Section 73.623(c) of the rules.

7. **First DTV Periodic Review**

The Commission adopted the First DTV Periodic Review on November 8, 2001 in order to implement any mid-course corrections necessary to ensure the success of that conversion.\(^\text{126}\) The Commission accomplished two major goals in the First Periodic Review. The first goal was to provide a more graduated approach to providing DTV

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\(^{125}\) *Id* at 14652-7. Such measures included allowing an LPTV station that is “displaced” by a full-power station to file an application for a new channel (displacement application) and for such application to be treated as a minor change and not subject to competing applications. In addition, the Commission eliminated the requirement that LPTV stations comply with certain interference rules. Finally, the Commission increased the permissible power for LPTV stations in order to facilitate the collocation of LPTV and full-power television facilities and eliminate interference between these types of stations.

service. The second goal was to maximize the number of DTV stations providing service to at least all consumers in their community of license.

To this end, the Commission relaxed its channel election, build out and replication deadlines. It temporarily deferred requirements that commercial stations with both analog and digital channel assignments within the DTV core (channels 2-51) elect by December 31, 2003 (December 31, 2004 for non-commercial stations) which channel they would use for their post-transition digital channel. The Commission noted that a more graduated approach would give stations more time to increase power and gain experience at these higher power levels before having to choose which of their two channels would provide optimal DTV service. The Commission allowed broadcasters initially to build lower-powered, and therefore less expensive, DTV facilities, and retain the right to expand their coverage area as the digital transition progressed. The Commission also allowed stations to construct initial DTV facilities designed to serve at least their communities of license, while still retaining DTV interference protection to provide full replication at a later date. It temporarily deferred its earlier requirement that commercial broadcasters replicate their entire current grade B NTSC analog service area with their DTV signal by December 31, 2004.

8. Orders Addressing Requests for Extensions of Time to Construct DTV Facilities and Waivers of the “Use or Lose” Deadlines (Adopted May 2007)

On May 17, 2007, the Commission addressed requests for extensions of time to construct DTV facilities and/or waivers of the deadline by which stations must build DTV facilities in order to retain the ability to carry over interference protection to their post-transition channel (so-called “use or lose” waivers). Extension requests were made for both pre-transition-only facilities as well as facilities used for both pre- and post-transition operation.

Based on the justifications submitted by the stations, the Commission granted extensions for 140 stations, denying 5, and granted waivers for 185 stations, denying 7. To focus stations’ efforts on construction of their permanent DTV facilities, the extensions granted by these orders were based on whether the DTV facilities to be constructed were going to be used solely for pre-transition (i.e., until February 17, 2009) operations or for both pre- and post-transition (i.e., after February 17, 2009) operations. Stations whose pre-transition DTV channel is the same as their post-transition channel were given until November 18, 2007 (six months from the release date of the two orders) to complete construction.

Stations whose pre-transition DTV channel is different from their post-transition channel were given until 30 days after the effective date of the amendments to Section

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73.624(d) of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding in which to complete construction. However, in the Third DTV Periodic Review NPRM, the Commission proposed not to require these stations to further construct their pre-transition DTV channel and proposed to establish February 17, 2009 as the deadline by which these stations must complete their final, post-transition facilities. This was done to give stations facing the challenges associated with moving to a new DTV channel the maximum possible time to complete their post-transition facilities before analog transmissions must cease.

We have received three petitions for reconsideration of the extension order and eleven petitions for reconsideration of the Use or lose Order. First drafts are under review.

9. **Low Power Television Transition (Order adopted 2004; FNPRM being drafted in MB)**

Some low power, translator and Class A stations are already operating using digital technology. However, most LPTV and translator stations will convert to digital technology after full-power stations have completed their transition.

In 2004, the Commission concluded that LPTV and translator stations ultimately must convert to digital by a date the Commission will establish in a future proceeding.\(^{128}\) Subsequently, in the DTV Act of 2005, Congress did not apply the February 18, 2009 full-power analog shutoff date to LPTV and TV translator stations.\(^{129}\)

The Commission has adopted rules for digital low power television (LPTV) and television translator stations to construct digital facilities and has issued nearly 2000 construction permits for such stations.\(^ {130}\) Staff is working on a FNPRM to initiate a proceeding to consider the remaining issues for the digital transition of these stations, principally a transition deadline.

One issue is how low power stations can provide information to their viewers concerning their transmissions after February 17, 2009 (for example, whether the translator is transmitting digital or converted analog signals and, therefore, whether converter boxes will be needed to receive those stations on TV sets without DTV tuners).

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\(^{130}\) See LPTV Order, 19 FCC Rcd. 19331.
There are also issues concerning the NTIA-subsidized converter boxes that do not easily pass through analog signals, and the NTIA coupons that will expire before many LPTV stations transition to digital.

10. **Second DTV Periodic Review**

The Commission adopted the Second DTV Periodic Review on August 4, 2004 with the goal of hastening the completion of the transition.\[^{131}\] It did so by commencing an open channel election process in November 2004 that provided certainty to the marketplace and resulted in the Final DTV Table of Allotments. It promoted closed captioning, V-chip, channel numbering, and other functionality by requiring broadcasters to include PSIP information in their digital broadcast signals. The Order also furthered the transition by establishing firm deadlines for digital stations to increase their power levels to serve additional viewers or lose interference protection to the unserved areas. It clarified digital closed captioning rules in order to ensure that those services are consistently and effectively delivered. After an 18-month transition period, this Commission established that all digital television receivers contain V-chip functionality that will permit the current TV ratings system to be modified.

11. **Seventh Report and Order (Final DTV Table of Allotments) ( Adopted August 2007)**

On August 1, 2007, the Commission adopted the *Seventh Report and Order and Eighth Further Notice* in the Advanced Television (DTV) docket.\[^{132}\] Through the final DTV table of allotments which was adopted at this time, the Commission specified the channels and facilities for operations for over 99% of broadcasters after the DTV transition on February 17, 2009. The final DTV Table furthers the transition by providing all full power television stations (more than 1,800) across the country with their final channel assignments for broadcasting following the DTV transition. Accordingly, the Commission achieved the important goal of finalizing the single channel on which each eligible broadcaster will operate, in digital, post transition.

The Commission also achieved the important goal of reducing the amount of spectrum used for television service in order to make valuable spectrum available for public safety uses and expanded wireless competition and innovation. The new DTV Table of Allotments is based largely on the channel elections that stations made in 2004-2006 pursuant to channel election procedures established in the *Second DTV Periodic Review*.


The Seventh Report and Order includes Appendix B describing the parameters for stations’ post-transition facilities and reflects revisions to the proposed facilities to ensure that stations that certified to “maximization” in the channel election process are able to replicate their analog facility if they are moving back to use their NTSC (analog) channel frequency for post-transition digital service. These revisions achieve the goal of assuring that stations can continue to serve their existing over-the-air analog viewers when the station completes its transition to digital operation.

12. Eighth Further Notice of Proposed Rulemaking

In the Eighth FNPRM, the Commission proposes channels and station modifications for 13 television stations whose requests for modifications were received too late to be included in the final DTV Table. These additional adjustments to the final DTV Table further the goal of assuring that every full power television station is properly accounted for. The deadline for Comments in response to the Eighth FNPRM was October 10, 2007 and the deadline for Reply Comments is October 25, 2007.

We anticipate that some stations will need further adjustments to the facilities they received in the DTV Table and Appendix B. Petitions for reconsideration of the Seventh R&O must be filed by October 26, 2007. We will address these petitions before the end of the year to ensure that all stations know what their final facilities for digital operations are. These steps are essential to complete the transition and keep stations on track to build their final digital facility.

13. Third DTV Periodic Review NPRM (Adopted April 2007, Order being drafted)

On April 25, 2007, the Commission adopted a Notice of Proposed Rule Making initiating the third periodic review of issues related to the digital transition. The Third DTV Periodic Review provides a progress report on the DTV transition to date, proposes deadlines and procedures to ensure that broadcasters meet the goal of completing construction of their post-transition digital facilities by the statutory deadline, and addresses the steps needed so that service to viewers is not disrupted.

The Third DTV Periodic NPRM provided a list of 752 stations (approximately 42% of stations assigned a channel in the proposed new DTV Table of Allotments) that should now be ready, or very close to ready, to complete their transition to DTV.

The Third DTV Periodic NPRM also proposed eight specific actions to ensure completion of the transition by full-power television stations by February 17, 2009. First, we proposed to establish February 17, 2009 as the construction deadline for stations that are building new digital facilities or that have situations in which the operation of their analog service prevents the completion of their full, authorized digital facilities. This deadline both serves the goal of completing construction of digital facilities on time and providing stations with the maximum time in which to complete their construction.
Second, we proposed to require stations whose post-transition channel is the same as their pre-transition DTV channel to complete construction of their DTV facilities by November 18, 2007. This proposal would advance the goal of hastening construction and readiness for these stations so that construction resources will be available for other stations that are changing channels for post-transition service.

Third, we proposed to adopt stricter standards to apply to future requests for extensions of time to construct but allow stations that meet the standard to complete construction after 2/17/09 provided their DTV operation serves all of their analog viewers. In order to provide some flexibility, we also proposed to allow some to stay on the pre-transition digital channel for a limited time provided it does not interfere with another station’s transition.

Fourth, we proposed to address the goal of a smooth transition by permitting stations that have different pre-transition and post-transition channels to devote their resources to building their post-transition channel stations and not complete construction of full, authorized facilities on their pre-transition channel.

Fifth, we proposed to hasten the transition by expediting processing for stations that are applying for a construction permit for their post-transition channel based on the new DTV Table of Allotments.

Sixth, we described circumstances in which we might allow stations to reduce or terminate analog service to facilitate the goal of timely construction of post-transition facilities. We are cognizant, in this respect in particular, of the tension and controversy associated with allowing analog reduction or turn off before the February 17, 2009 transition date. We are considering this step and balancing it against the goal of ensuring that stations can build their final digital facilities on time. Such a step would most likely be permitted only if the stations provide advance notice to viewers as well as to the Commission.

Seventh, we looked ahead to the post-transition period and proposed a new 0.5% interference standard to apply to maximizations and new channel allotments after the transition. The Notice also tentatively concluded not to accept applications for maximizations or to lift the freeze on such applications until the processing is completed for stations to build their post-transition authorized facilities.

Eighth, to further enhance our tracking and to ensure that all stations are fully accounted for and on track, we proposed to require stations to file a form with the Commission (by December 1st, 2007) detailing the current status of the station’s digital transition, the additional steps the station must take before the transition deadline, and a plan for how the station intends to meet the deadline.

Ninth, the Notice sought comment on any actions needed to assure coordination between broadcasters and MVPDs to achieve the goal of assuring that viewers who
receive broadcast television through subscription service are also taken care of in the transition process.

The comment and reply cycle ended on August 30, 2007, and over 120 Comments were submitted. Media Bureau staff is working on the draft of the Third Periodic Order now and planning for Commission consideration and adoption in November 2007. In addition, the Media Bureau, OET, and IB are working on the International Coordination issue with Canada and Mexico to meet the goal of international approval for stations’ post-transition facilities that have been approved for domestic operation. The Canadian negotiations are underway and going extremely well. Mexican negotiations have begun and meetings will be held in the next few months. These negotiations are on track to reach the goal of having the channels and facilities on the recently adopted Table of Allotments agreed to by both countries so that individual coordination is not needed until stations want to make further changes to their facilities.

14. **DTV CP and License Processing for final post-transition facilities (October 2007 through January 2008)**

   We expect to receive applications for construction permits from roughly 300 stations making modifications to their existing post-transition facilities at the end of October and to receive applications from roughly 625 stations building all new facilities beginning in January 2008 and continuing throughout 2008.

   The Third Periodic Review NPRM proposed one week turn-around on applications that fit specified criteria; then other applications will be reviewed; and then the freeze may be lifted (perhaps by August 2008) so that stations can file for expanded facilities.

   The Video Division and OET are developing an internal program to expedite processing and we are contracting with an outside vendor to develop a program to process applications that do not match Appendix B and for post-transition processing. We are also coordinating with IB and OET on International Coordination issues with Canada and Mexico.

15. **Distributed Transmission System (“DTS”) technologies (Adopted NPRM 2006; Order under review in MB)**

   In 2004, in the Second DTV Periodic Report and Order, the Commission approved the use of DTS technologies on an interim basis, but deferred to a separate proceeding the development of rules for DTS operation and the examination of several policy issues related to its use. DTS employs multiple synchronized transmitters spread around a station’s service area, rather than the current single-transmitter approach. The value of DTS is to potentially provide better over-the-air service in areas that cannot be reached by a single transmitter (e.g., mountainous terrain.)

   On November 3, 2005, the Commission adopted the DTS Notice of Proposed
Rulemaking requesting comment on whether and how to implement DTS and issued a Clarification describing how the interim rules would be applied. The comment and reply cycle closed March 7, 2006.

Although there was support for DTS expressed in the rulemaking proceeding, only a few stations have requested to use DTS under the interim rules, which restrict use to within the station’s existing authorized facility. At present, only one station, WTVE-DT, Reading, PA, has applied for and been authorized to operate a DTS system under the interim policy. Reading Broadcasting, Inc. (“RBI”), licensee of WTVE-DT, channel 25, Reading, PA was granted a DTS STA on Nov. 30, 2006. See FCC File No. BSDTS-20060407ACP.

In addition, the Commission has approved the use of a multiple DTV transmitter system in New York city using multiple channels under an experimental authorization. The Commission granted Metropolitan Television Alliance (“MTA”) experimental authority to operate a low-power DTV multiple-transmitter system in New York, NY. The MTA consists of the licensees of ten New York City area television stations (WCBS-TV, WNBC-TV, WNYW-TV, WABC-TV, WWOR-TV, WPIX-TV, WNET-TV, WPXN-TV, WNJU-TV, and WXTV(TV)). These stations operated digital facilities from the North Tower of the World Trade Center, which was destroyed in the September 11th attack. The experimental DTV network is testing the ability of these stations to provide fill-in over-the-air DTV coverage in areas of New York City where adequate coverage is not provided.

In addition, TV station WSTE, channel 7, Ponce, PR, which currently operates an integrated system of synchronous boosters to broadcast its analog signal throughout its coverage area, will be allowed to convert its current system to a digital network when it files its application for post-transition operations.133 Siete Grande, licensee of WSTE, Ponce, PR, seeks to fully replicate the coverage of its analog booster system when it transitions to DTV.

Two stations applied for and were authorized to operate a DTS system under an experimental authorization; however, such authority has now expired for these stations. The Pennsylvania State University, NCE licensee of WPSU-DT, Clearfield, PA, which was the first to build an experimental DTS system, applied for an experimental DTS system before the interim policy was established, but has since allowed authority for this system to expire.134 Tribune Broadcast Holdings, Inc., licensee of WTTK-DT, Kokomo, IN, applied for an experimental DTS system. The station, however, has now ceased operating its experimental DTS system on channel 54 and has withdrawn its experimental authority to focus on the construction of the station’s post-transition facility.135


134 See FCC File Nos. BPEXT-20010608ABD, BPEXT-20010608ABD and BEPEXT-20030805ARU.

135 See FCC File No. BEPLEXDT-20060519ACV.
Staff has drafted a Report and Order, which is under review in the Bureau

16. Low Power Television Transition (Order adopted 2004; FNPRM being drafted in MB)

Some low power, translator, and Class A stations are already operating using digital technology. However, most Class A, LPTV and translator stations will convert to digital technology after full-power stations have completed their transition.

In 2004, the Commission concluded that LPTV and translator stations ultimately must convert to digital by a date the Commission will establish in a future proceeding. Subsequently, in the DTV Act of 2005, Congress did not apply the February 18, 2009 full-power analog shutoff date to LPTV and TV translator stations.

The Commission has adopted rules for digital low power television (LPTV) and television translator stations to construct digital facilities and has issued nearly 2000 construction permits for such stations. Staff is working on a FNPRM to initiate a proceeding to consider the remaining issues for the digital transition of these stations, principally a transition deadline.

One issue is how low power stations can provide information to their viewers concerning their transmissions after February 17, 2009 (for example, whether the translator is transmitting digital or converted analog signals and, therefore, whether converter boxes will be needed to receive those stations on TV sets without DTV tuners).

There are also issues concerning the NTIA-subsidized converter boxes that do not easily pass through analog signals, and the NTIA coupons that will expire before many LPTV stations transition to digital.

DTV TUNER MANDATE PROCEEDINGS

1. DTV Tuner Mandate (First Order adopted August, 2002)

In 2002, the Commission adopted rules requiring that all new TV broadcast

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138 See LPTV Order, 19 FCC Rcd. 19331.
receivers that are shipped in interstate commerce or imported into the United States, for sale or resale to the public, be capable of receiving the signals of DTV broadcast stations over-the-air no later than July 1, 2007. Under this requirement, TV broadcast receivers were required to provide usable picture and sound commensurate with their video and audio capabilities when receiving DTV signals. The DTV tuner requirement was intended to facilitate the transition to digital television by promoting the availability of DTV reception equipment and to protect consumers by ensuring that their TV receivers will provide off-the-air TV reception of digital signals when analog TV operation ceases. In order to minimize the impact of this requirement on both manufacturers and consumers, the Commission adopted a phase-in schedule that applied the requirement first to receivers with large screens and then to progressively smaller screen receivers and other TV receiver devices that do not include a viewing screen, e.g., VCRs and digital video recorders.

2. **DTV Tuner Mandate (Second Order adopted November 2005, Enforcement ongoing)**

In November 2005, the Commission modified its DTV tuner rules and established March 1, 2007 as the date by which all televisions imported or distributed in the United States must include a digital tuner and applied the tuner mandate to all television equipment that has an analog tuner (including TV sets, DVD players, VCRs, etc), regardless of size. This decision expanded the scope of the DTV Tuner Mandate, which previously did not apply to televisions with screen size smaller than 13 inches, and moved up the date by four months.

On May 30, 2007, the Commission issued the first enforcement actions for violations of the DTV tuner requirements. The Commission issued an NAL proposing a $63,650 forfeiture against Regent U.S.A., Inc. for importing or shipping interstate 1,182 non-DTV-compliant television receivers and issued an NAL proposing a $2,899,575 forfeiture against Syntax-Brillian Corporation for importing or shipping interstate 22,069 non-DTV-compliant television receivers.

3. **Digital to Analog Converter Testing (ongoing)**

The Commission’s Office of Engineering and Technology signed a Memorandum of Understanding (MOU) with NTIA in February, 2007 to conduct tests on converter boxes for compliance to NTIA requirements for coupon eligibility. Starting July 9, 2007, OET’s laboratory has been receiving boxes from NTIA for testing under this MOU. Based on the test results submitted to NTIA, they have announced certification of three converter boxes from two companies. NTIA is reviewing the test results for several more boxes to make the final determination on certification of the boxes for coupon eligibility.

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As a part of the program, NTIA has indicated that they have received additional notices of intent to submit converter boxes for testing.

Consumers will be able to request coupons beginning 1/1/08 and the program will send out coupons when boxes are available, which they expect will be early 2008, after the holidays.
Appendix B
Details of Proceedings for Policy Goals


In 1998, the Commission initiated a rulemaking proceeding to determine how to apply the must carry requirements in the Communications Act to cable carriage of digital television signals.1

In January 2001, the Commission adopted the First DTV Carriage Report and Order (“First R&O”) which concluded that cable operators must carry the digital signals of “digital-only” local commercial and non-commercial stations.

In the First Report and Order, the Commission also addressed other issues including applying material degradation to digital signals by, for example, requiring that signals broadcast and received by cable systems in high definition are retransmitted to cable subscribers with HD equipment in high definition. This decision furthered the goal of assuring that the benefits of the digital transition, including improved sound and picture quality, reach all viewers. The First Report and Order also revised the rules for retransmission consent and channel capacity calculations to reflect the changing technology associated with digital signals. Similarly, the First Report and Order addressed channel placement, that is, the channel number to be used by cable operators, to respond to the different technology attendant to carriage of a digital signal. In a Further Notice of Proposed Rulemaking, the Commission sought comment on how to define “program related” and also sought comment on the issue of “dual carriage.”

2. Second DTV Cable Carriage Report and Order

On February 10, 2005, the Commission adopted a Second Report and Order and First Order on Reconsideration (“Second R&O”), which was limited to resolving the dual carriage and multicast carriage issues.2 In the Second R&O, the full Commission affirmed its tentative conclusion in the First R&O and, therefore, declined to impose a dual carriage requirement on cable operators. A majority of the Commission also declined to impose a mandatory multicast carriage requirement on cable operators based on the existing rulemaking record. Then-Commissioner Martin disagreed with the majority on the mandatory carriage of multicast signals and stated that the public benefits of free multicast programming outweighed the burden on cable companies.

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3. **Third Report and Order and Third FNPRM (Post-Transition Cable Carriage of DTV Signals (“Viewability”) - (Adopted September 2007, action on FNPRM planned by May, 2008)**

On September 11, 2007, the Commission adopted the *Third Report and Order and Third Further Notice of Proposed Rulemaking* in the cable carriage docket.\(^3\) The Viewability Order ensures that all cable subscribers, including those with analog TV sets, can view broadcast television after the transition to digital television occurs on February 17, 2009.

Of critical importance is the Commission’s requirement that cable operators make all mandatory carriage channels broadcast stations viewable after February 17, 2009 for all subscribers, including those with analog television sets. Cable operators must comply with this “viewability” provision and ensure that cable subscribers with analog television sets are able to continue to view all must-carry stations after the end of the DTV transition by either: (1) carrying the digital signal in analog format, or (2) carrying the signal only in digital format, on an all-digital cable system. This viewability requirement sunsets on February 18, 2012 unless the Commission determines to extend the requirements. Small cable systems (552 MHz or smaller) may request a waiver of the viewability requirement if capacity limitations prevent their carriage of additional digital versions.

Through the *Third Further Notice*, the Commission seeks comment on several issues related to the implementation of the new regulations, including the effect of channel positioning requirements, the applicability of rules governing material degradation, and suggestions for alternative rules that would minimize the economic impact of viewability requirements on small cable systems. The Notice commits the Commission to acting on the issues related to small cable systems within six months. We expect release of the *Third Report and Order and Third Further Notice of Proposed Rulemaking* soon and assume publication in the Federal Register by late October, giving us six months (May 2008) to complete the Fourth Report and Order.

4. **Final Timing and Content Issues Related to Cable Carriage of Digital Television Stations (action planned by summer 2008)**

Our plan is to first establish when the must carry rights will transfer from the analog signal to the digital signal and how to ensure that all stations’ digital signals are carried on February 18, 2009. One option is that mandatory carriage rights could shift from a station’s analog signal to its digital signal as of the beginning of the carriage cycle on January 1, 2009, for those stations whose digital signals are fully constructed; or all stations’ mandatory carriage rights could shift from analog to digital as of February 18, 2009, after the analog signals are terminated. Second, the Commission must define

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“program-related”, which will determine what cable operators are required to carry in addition to the “primary video.” As explained above, the Chairman has in front of the Commission a proposal to require cable operators to carry all multicast streams, which will largely make this issue moot. The Chairman also has in front of the Commission a proceeding that would tee up the issue of allowing certain qualified designated entities to become broadcast licensees by using an existing broadcaster’s multicast stream and thereby obtain cable carriage and provide an additional offering from another broadcaster to local viewers.

5. **Post-Transition Satellite Carriage of DTV Signals (FNPRM adopted 2001; Order and Second FNPRM currently under pre-circulation review)**

   In January 2001, as part of the *First DTV Carriage Report and Order*, the Commission raised questions concerning satellite carriage of digital signals in a *Further Notice of Proposed Rulemaking*. These issues have not been addressed in the subsequent Carriage Orders, which have been limited to cable issues. Addressing satellite carriage of digital signals is the final piece needed to ensure that viewers who get their television programming through subscription services continue to receive local broadcast stations after the stations transition to digital service.

   With this goal in mind, staff has drafted for Commission review and consideration a Second Report and Order in the satellite carriage docket that would require satellite carriage of digital-only stations. In addition, staff has drafted a Second Further Notice of Proposed Rulemaking seeking comment on how to apply the statutory requirements for carry-one, carry-all to satellite carriage of digital signals, particularly in light of DBS capacity limitations.

6. **Multicast Must Carry (Order on reconsideration on circulation since May 2006)**

   The Second DTV Cable Carriage Report and Order in February, 2005, concluded that cable systems would not be required to carry both analog and digital broadcast signals before the end of the transition. This Second Report and Order also concluded, based on the record available at that time, that cable operators would not be required to carry more than one “primary” video stream.4

   One of the benefits of the transition to digital is the ability of broadcasters to use the digital spectrum they already have to send multiple television signals to consumers for free. For example, a broadcaster using analog technology transmits one programming stream, but with digital technology, broadcasters can transmit several programming streams simultaneously (e.g., a movie channel, a 24-hour news channel and a sports

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programming channel) with no additional cost to the consumer or need for additional spectrum. In this way, multicasting enables broadcasters to provide more free television programming to consumers. With continuing advances in compression technology, broadcasters may eventually be able to fit upwards of 12, or even more programming streams in their digital broadcast signal, compared with their analog signal that encompassed the same 6 MHz of spectrum but could accommodate only one programming stream. This improved technology offers the potential to benefit all consumers with significantly more choice. Over-the-air viewers, in particular, including and particularly OTA-only consumers and low income consumers could gain access to many more programming options and reap greater benefits from obtaining the digital-to-analog converter box. More free over-the-air television facilitates the transition by providing people with an incentive to get a converter box to attach to their existing analog televisions. This is a more appealing incentive to many than the costs associated with buying a new HD television set. The faster that this technology is in consumers’ homes, the less chance there is that Americans will be left in the dark after the digital transition.

The only way the Commission can make this opportunity of multiple streams of free programming for over-the-air viewers a reality is if the cable companies are required to carry all of this free over-the-air programming as part of their must carry obligations. Without the certainty and financial support of cable carriage, many broadcasters, particularly those that rely on mandatory carriage, will not be able to develop and provide this free programming to their viewers.

In May 2006, the Chairman circulated an Order on Reconsideration to require cable carriage of all free over-the-air programming streams after the transition. In June 2006, this order was placed and then withdrawn from the meeting agenda, but it remains on circulation.5

In September, 2007, in the Third Report and Order and Third Further Notice of Proposed Rule Making,6 the Commission affirmed the prohibition on material degradation of digital broadcast signals by cable operators. It retained the comparative approach to determining whether material degradation has occurred that was first adopted in the 2001 First Report and Order. Thus, "a cable operator may not provide a digital

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5 By way of background, in February of 2005, the Commission decided not to require dual carriage of both analog and digital signals as broadcast by stations before the transition and not to require cable to carry the multicast signals of stations pre- or post- transition. Carriage of Digital Television Broadcast Signals: Amendments to Part 76 of the Commission’s Rules, Second Report & Order and First Order on Reconsideration, 20 FCC Rcd 4516 (2005). The Commission concluded that the statute was ambiguous with respect to multicast carriage, but found the record at that time inadequate to support the multicast requirement. We received several petitions for reconsideration, as well as comments and ex parte comments arguing that carriage of the full, free over-the-air signal is required by the statute and is in the public interest.

broadcast signal in a lesser format or lower resolution than that afforded to any" other signal on the system. Furthermore, a cable operator must carry broadcast stations such that, when compared to the original broadcast signal, "the difference is not really perceptible to the viewer." As a result, "a broadcast signal delivered in HDTV must be carried in HDTV."  

7. **DTV Outreach (Ongoing)**

The concerted education effort began in October 2004 when the Commission kicked off its nationwide consumer education with the national Web portal for DTV transition information, [www.DTV.gov](http://www.DTV.gov).

The FCC DTV consumer education and outreach initiative consists of four main components:

- **Internet:** Information is regularly updated and provided through the [www.DTV.gov](http://www.DTV.gov) and [www.hDTV.gov](http://www.hDTV.gov) Web sites.
- **Publications:** The FCC has produced consumer-friendly publications helping consumers understand the digital transition, including a DTV Tip Sheet the Commission prepared in conjunction with the Consumer Electronics Association (CEA), and the Consumer Electronics Retailers Coalition (CERC). This Tip Sheet has been distributed widely through major retail outlets. Publications are updated as developments warrant.
- **Media:** In October 2004, as part of the DTV outreach kickoff, the Commission conducted a satellite media tour on DTV.
- **Event Participation:** FCC staff participates in numerous conferences and meetings with stakeholders and consumer groups.


On April 25, 2007, the Commission adopted a rule requiring sellers of analog-only television equipment to disclose at the point-of-sale that such devices include only an analog tuner and therefore will require a converter box to receive over-the-air broadcast television after the transition date.

The Commission had found that, despite the prohibition on import or distribution of analog-only televisions, retailers were continuing to sell analog-only devices from

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7 *First Report and Order*, 16 FCC Rcd at 2629, para. 73.

8 *Id.* at 2628, para. 72.

9 *Id.* at 2629, para. 73.
existing inventory and were not disclosing that analog-only devices would not work without a converter or use with a subscription service after the transition.

As of October 1, 2007, the Enforcement Bureau had inspected 1141 stores and websites and issued 261 citations notifying retailers of their violations of the labeling rule and warning of possible enforcement action, including monetary forfeitures, for future violations.


On July 21, 2007, the Commission adopted a Notice of Proposed Rulemaking requesting comment on several proposals relating to consumer education about the DTV transition that were raised by Congressmen Dingell and Markey in a letter to the Commission.

The NPRM requested comment on rules that would require industry actions in a coordinated, nationwide consumer outreach campaign about the DTV transition. Specifically, the NPRM solicited comment as to whether the Commission should require all stations to broadcast public service announcements (“PSAs”) about the transition and require broadcasters to report on these and other consumer education efforts, and whether MVPDs likewise should be required to include periodic notices about the transition in customer bills. The NPRM also requested comment on whether the Commission should require all manufacturers of “television receivers or related devices” to include DTV transition information with the devices. The NPRM also proposes coordinating with NTIA to require retailers who participate in the converter set-top box coupon program to establish employee training and consumer information plans and file them with the Commission, and requiring the “Partners” listed on the Commission’s DTV.gov page to report their consumer outreach efforts.

The comment and reply cycle closed on October 1, 2007, and an order was circulated on October 16, 2007 which, if approved, would mandate a number of actions to implement the proposals. First, the draft order proposes that broadcasters must provide information to their viewers about the DTV transition via public service announcements (PSAs) and crawls, and report those efforts to the Commission and the public. Second, MVPDs would be required to provide monthly notices about the DTV transition in their customer billing statements. Third, manufacturers of television receivers and related devices would be required to provide notice to consumers of the transition’s impact on that equipment, and the entities listed as “Partners” on DTV.gov must provide the Commission with regular updates on their consumer education efforts. In addition, the order would require telephone companies participating in the Low Income Federal Universal Service Program to provide notice of the transition to their low income customers and potential customers, and the winners of the 700 MHz spectrum auction to

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report their own consumer education efforts. The Order further states that the Commission will assist NTIA in policing and enforcing the requirements of the digital converter box retail program.


On March 12, 2007, the Bureau circulated a Notice of Proposed Rulemaking to seek comment on several initiatives to increase participation in the broadcasting industry by new entrants and small businesses, including minority- and women-owned businesses.

The Notice invites comment on several possible ways to define the entities that would benefit from any measures that ultimately may be adopted (“Qualified Designated Entities” or “QDEs”). The Notice also proposes to revise the rules regarding construction permit buildout deadlines to afford QDEs additional time to construct their broadcast facilities and recognize innovative arrangements between qualified television broadcasters and QDEs that would allow QDEs to become digital television broadcasters by using a full power broadcaster’s multicast streams and thereby obtain cable carriage through must carry. In addition, it seeks comment on whether the equity/debt plus (“EDP”) attribution rule should be waived or modified where doing so would assist QDEs in acquiring a broadcast station, retaining an existing station, or building out a construction permit.

11. DTV Public Interest Proceeding (1999 NOI, NPRM is next step)

In December 1999, the Commission issued a Notice of Inquiry on the nature of television broadcasters’ public interest obligations as they transition to DTV.\(^{11}\) The DTV Public Interest NOI sought comment on the application of television stations’ public interest obligations to the new capabilities of digital television; how television stations, operating in either analog or digital, could better serve their communities; how digital broadcasters could increase access to television programming by people with disabilities and further diversity; and whether digital broadcasters could enhance the quality of political discourse through use of the airwaves for political issues and debate, including whether digital broadcasters should be encouraged or required to provide free airtime to political candidates.

The DTV Public Interest NOI also pointed out the difficulties that arise in determining how to apply public interest obligations to a DTV broadcaster that multicasts or provides ancillary or supplementary services. The resulting record in the DTV Public Interest NOI proceeding reflects that there is no consensus among parties in deciding how to apply public interest obligations in the context of advanced digital capabilities. The next action to be taken in the DTV Public Interest docket is preparation of a NPRM based on the findings in the NOI record.

\(^{11}\) In re Public Interest Obligations of TV Broadcast Licensees, Notice of Inquiry, 14 FCC Rcd 21633 (1999).
Several separate rulemaking proceedings have resulted from the DTV Public Interest NOI. The first is the children’s DTV proceeding, which addresses digital broadcasters’ children’s programming obligations. On September 26, 2006, the Commission adopted a Second Order on Reconsideration and Second Report and Order\(^\text{12}\) resolving issues regarding the obligations of television broadcasters to protect and serve children in their audiences, including application of the children’s television core programming processing guidelines to DTV.

The second proceeding is the broadcast Localism proceeding, which addresses more broadly whether both television and radio broadcasters’ public interest programming obligations should be modified: in July 2004, the Commission released the Broadcast Localism NOI.\(^\text{13}\) The Commission has completed five in a series of six hearings on localism to solicit input from the public on these issues. The final hearing is in the planning stages.

The Enhanced Disclosure proceeding encompasses several proposals to change television broadcasters’ disclosures of their public interest activities. In September 2000, the Commission adopted a Notice of Proposed Rule Making to determine whether the Commission’s requirements pertaining to television stations’ public inspection files are sufficient to ensure that the public has adequate access to information on how the stations are serving their communities.\(^\text{14}\) The NPRM proposed to replace the current “issues/programs” list for TV stations with a standardized form and to require TV broadcasters to make their public inspection files available on the Internet. A Report and Order and Further Notice of Proposed Rulemaking was circulated on March 13, 2007. The Report and Order on circulation would adopt a standardized form for the quarterly reporting of programming aired in response to issues relevant to a station’s community which would replace the current “issues/programs” list. The new form would require quarterly reporting on the programs aired by the station that provided its most significant treatment of community issues during the preceding three-month period and broadcasters’ efforts to determine the issues facing their communities. This Report and Order also would require that that much of each station’s public inspection file be placed on the station’s website, if they have one, or in public files on the website of their state broadcasters association provide a link to that site from their own. The item as circulated includes an FNPRM that seeks public comment on whether these obligations should be extended to radio, whether operating in analog or digital. But the issues raised in the FNPRM were recently included in an FNPRM in the Digital Audio Broadcasting item,\(^\text{15}\) so the FNPRM should be removed from this Enhanced Disclosure

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\(^{13}\) In re Broadcast Localism, Notice of Inquiry, 19 FCC Rcd 12425 (2004).


\(^{15}\) In re Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Radio Broadcast Service,
item prior to adoption. Comments on the Digital Audio Broadcasting FNPRM are due on October 15, 2007, and replies are due November 13, 2007.16


16 Id.