HIGH DEFINITION TELEVISION: A NEW BREED OF TELEVISION ENTERS THE REGULATORY JUNGLE

A new generation of television is emerging. It is high definition television ("HDTV"), and it promises to generate $50 to $250 billion in communications industry expansion.\(^1\) HDTV is an advanced concept of television technology\(^2\) that is at the forefront of the consumer electronics industry. It will offer approximately twice the vertical and horizontal resolution of the present NTSC system,\(^3\) thereby creating a higher quality picture approaching that of thirty-five millimeter film, while also providing wider pictures and audio quality equal to that of a compact disc.\(^4\) At a time when the United States electronics industry is lagging behind that of other competing nations, HDTV may provide the "recovery of our faith in the nation's capacity to discover and invent."\(^5\) Likewise, U.S. participation in HDTV could assist major segments of the country's electronics industry and its ability to compete in the new global marketplace.\(^6\)

The term "HDTV" is often used interchangeably with "ATV," or advanced television,\(^7\) but the two terms should be distinguished. ATV broadly represents a major advance in television technology, and includes both HDTV and enhanced definition television, or EDTV.\(^8\) In each of the proposed HDTV systems, the number of scan lines utilized in the NTSC format\(^9\) was extended and, depending on the system, was increased by at least fifty percent to improve the vertical resolution.\(^10\)

Not surprisingly, this significant breakthrough in television technology has generated controversy within the communications industry. There will be great costs associated with HDTV as it becomes either a domestic or international industry standard.\(^11\) Broadcasters face the prospect of having to replace their current studio and transmission equipment with HDTV apparatus.\(^12\) Such new equipment should eventually render the broadcasters' existing NTSC television systems obsolete. The issue thus becomes whether Federal Communications Commission ("FCC" or "Commission") policy decisions will facilitate an adequate transition to this technological expansion.

This Comment seeks to evaluate recent regulations that results in improved television audio and video quality." FCC, Office of Public Affairs, Fact Sheet on Advanced Television, Fact Sheet, at 1 (Jan. 1992) [hereinafter ATV Fact Sheet].
\(^8\) Id.; ATV Second Report and Order, supra note 4. EDTV systems are an improvement over NTSC, yet less advanced than HDTV. ATV Fact Sheet, supra note 7, at 1. As the Commission is currently anticipating a final policy determination on an HDTV standard, it has stated that it would not be adopting an EDTV standard at this time. ATV Second Report and Order, supra note 4, at n.1.
\(^9\) The standard NTSC format is 525/60 resolution and 4:3 aspect ratio. The resolution consists of electrical images scanned 60 times per second (based on U.S. power line frequency of 60 hertz), which in turn traces 525 scan lines to produce each single frame of the picture. The aspect ratio consists of a picture screen size of 4 units wide by 3 units high. Whitehouse, supra note 1, at 14.
\(^10\) The scan lines are extended so as to increase the aspect ratio from 4:3 to 16:9.
\(^11\) Whitehouse, supra note 1, at 14.
\(^12\) Id. Depending on a broadcaster's circumstances or plans, a broadcaster may be required to invest in transmitters, tape players and studio equipment, resulting in costs estimated in the $8 million to $12 million range. Lloyd Covens, Local Spot Beams May Pave Way to HDTV, SATELLITE COMM., Apr. 1992, at 19.
drafted by the FCC that were designed as a framework for final implementation of HDTV. This Comment first provides background on congressional legislation and FCC policy that have served as the basis for future HDTV implementation. Next, it analyzes recent FCC proposals and rules on HDTV implementation. This Comment concludes by addressing the legal implications and industry concerns raised by the FCC’s action with respect to HDTV policy.

I. FCC AND LEGISLATIVE POLICIES CONCERNING HDTV PRIOR TO 1992

The current policies on HDTV are the result of steady, supportive efforts by both the FCC and Congress. Although HDTV was conceived in Japan in the mid-1970s, it was not until 1987 that the United States’ broadcasting industry tendered a Petition for Notice of Inquiry that urged the Commission to initiate proceedings to explore the uses of advanced television systems. As a result of that petition, the Commission initiated a wide-ranging inquiry to consider the technical and policy issues surrounding the use of ATV technologies by television broadcast licensees. Simultaneously, the Commission ordered a freeze on applications for new television stations and allotments in thirty major cities “in order to preserve the future possibility of allotting additional spectrum to existing television broadcasters for use with advanced television systems.”

Furthermore, as part of its inquiry into the possible implementation of ATV systems, the FCC formed the Advisory Committee on Advanced Television Service that began work in November 1987. The purpose of the Advisory Committee was to apprise the Commission of the technical and public policy issues concerning ATV. In June 1988, the Advisory Committee submitted its first Interim Advisory Report, which recognized the public interest in maintaining the broadcasting industry and “asserted that Advanced Television is essential to our [broadcasting industry’s] continued ability to compete with other media.”

On September 1, 1988, the Commission adopted and released a Tentative Decision and Further Notice of Inquiry in reference to ATV systems. In that report, the Commission reached tentative decisions on six of the most fundamental issues for HDTV implementation. In addition, the FCC requested additional comments by industry members in order to better assist the Commission in addressing all of the remaining complex and interrelated technical, legal, economic and policy issues surrounding authorization of use of ATV technology by terrestrial broadcasters. The Commission also sought comment on a number of specific issues, including the accommodation of ATV within the existing television spectrum and the establishment of standards including its “Second Interim Report” in April, 1989, its “Third Interim Report” in March, 1990, its “Fourth Interim Report” in March, 1991 and its “Fifth Interim Report” in March, 1992.

The Commission reached tentative decisions on six of the most fundamental issues in this report: (1) providing for terrestrial broadcast use of ATV techniques would benefit the public; (2) the benefits of ATV technology could be realized by the public most quickly if existing broadcasters were permitted to implement ATV; (3) any spectrum needed for a broadcast ATV system would be obtained from the spectrum currently allocated to broadcast television; (4) existing service to viewers utilizing NTSC receivers should be continued, irrespective of ATV service, at least during the transition period; (5) systems requiring more than 6 MHz to broadcast an incompatible signal could not be authorized for terrestrial broadcast service; (6) it would be in the public interest not to retard the independent introduction of ATV in other services or on nonbroadcast media. Id.; see also ATV Tentative Decision, supra note 20.

13 While both Japan and Western Europe have made significant contributions to HDTV before U.S. involvement, emphasis was placed on analog systems. The Commission, however, recognized that the development of HDTV service in the United States was for terrestrial broadcasting and thus focused on digital HDTV service as opposed to the analog systems of both Europe and Japan. James H. Quello, Intelevent ’92 Global Alliances in Telecommunications: Partnership for Progress Luncheon, Address by Commissioner James H. Quello, Cannes, France (Oct. 21, 1992) (available in Lexis, 1992 FCC Lexis 5956).


16 Broadcast Regulations, supra note 14, at 192.

17 ATV Fact Sheet, supra note 7, at 1.

18 Broadcast Regulations, supra note 14, at 192 (citing Interim Report of the FCC Advisory Committee (June, 1988); The Advisory Committee has also submitted additional reports.
for ATV service.\textsuperscript{23}

In 1989, in an effort to ensure the role of the U.S. in producing HDTV technology, members of the 101st Congress proposed several bills that would specifically aid the HDTV industry.\textsuperscript{24} Those legislative endeavors indicated congressional support in the areas of research and government funding for HDTV systems. More importantly, the bills illustrated that “HDTV [was] indeed becoming the paradigm of American competitiveness [and was] a test of the country’s ability to survive under rival pressure.”\textsuperscript{25} Shortly thereafter, on August 24, 1990, the Commission adopted its First Report and Order\textsuperscript{26} in which several policy decisions concerning the introduction of ATV service were adopted.\textsuperscript{27} While the First Report and Order addressed only a limited number of issues, the FCC indicated that additional issues would be pursued through subsequent actions.\textsuperscript{28} On May 8, 1992, the Commission adopted its Second Report and Order and Further Notice of Proposed Rule Making\textsuperscript{29} that decided the most critical issues relating to HDTV, as well as requested comments on additional FCC proposals for HDTV implementation.\textsuperscript{30}

II. CURRENT POLICY DECISIONS BY THE COMMISSION ON HDTV

Recently, the FCC issued a Third Report and Order\textsuperscript{30} that addressed the most substantive policy decisions concerning HDTV in the U.S.\textsuperscript{31} The Third Report and Order fixed the time frame and other broadcasting requirements that broadcasters were to adhere to for HDTV implementation.\textsuperscript{32} In reaching its determinations, the Commission analyzed and reconciled such issues as spectrum allocation, frequencies assignment, simulcasting, and conversion.\textsuperscript{33}

Consistent with Commission proposals in prior proceedings, the Third Report and Order specified that HDTV would utilize 6 MHz bandwidths that had been previously allotted for the NTSC system.\textsuperscript{34} For the first time, the Commission indicated that it might limit those HDTV allotments to the ultrahigh frequency (“UHF”) band.\textsuperscript{35} An HDTV system would be selected that could coexist with the preexisting NTSC technology so that consumers would not prematurely lose the benefits of their existing NTSC television receivers.\textsuperscript{36}

The Third Report and Order clarified the Commission’s preliminary decision regarding the simulcasting of HDTV and NTSC.\textsuperscript{37} First, in an effort to provide flexibility for television broadcasters, the Commission defined simulcasting for HDTV purposes as twenty-four hour broadcasting of the same basic program material broadcast on the NTSC systems, excluding advertisements and promotions.\textsuperscript{38} Second, the Commission adopted a phased-in simulcasting requirement which obliged stations to simulcast at least fifty percent of their programming on NTSC and HDTV channels within one year after the six-year application and construction period, and to move to 100 percent simulcasting within two years thereafter.\textsuperscript{39} At the point of full conversion to

\textsuperscript{23} Id. (citing ATV Tentative Decision, supra note 20, para. 5).


\textsuperscript{25} Id. at 1189.

\textsuperscript{26} ATV First Report and Order, supra note 16.

\textsuperscript{27} Id.

\textsuperscript{28} Action in Docket Case—FCC Decision on ATV Explained and Discussed (MM Docket 87-268), FCC News, Aug. 28, 1990, at 5.

\textsuperscript{29} ATV Second Report and Order, supra note 4, para. 1.


\textsuperscript{31} See generally ATV Third Report and Order, supra note 30.


\textsuperscript{33} ATV First Report and Order, supra note 16, para. 8. To better understand this process, note the following clarification: “spectrum space is ‘allocated’ to a particular service . . . [a]llocated channels are then ‘allotted’ to specific geographic areas, and allotted channels are then ‘assigned’ to a licensee.” ATV Third Report and Order, supra note 30, at 27 n.106.

\textsuperscript{34} ATV First Report and Order, supra note 16, para. 8.


\textsuperscript{36} ATV Third Report and Order, supra note 30, para. 64; see also Digital Da Nang, supra note 30, at 5.

\textsuperscript{37} ATV Third Report and Order, supra note 30, para. 72. “Program” is defined as material excluding commercials and promotion, for simulcasting purposes. Id. para. 73.

\textsuperscript{38} Id. para. 64. The phased-in simulcasting requirement results in 50 percent simulcasting by the seventh year and 100 per-
HDTV, the Commission would then recoup the 6 MHz NTSC channel. The Commission indicated that this simulcast system would help protect the value of NTSC equipment until final conversion to HDTV. In addition, the flexible time frame would provide television broadcasters with an opportunity to explore the creative potential of the ATV market, to convert to ATV programming properly, and to adjust to the new demands of ATV.

Furthermore, as the Commission had recognized in its First Report and Order and affirmed in its Third Report and Order, the simulcast system would be spectrum efficient. The simulcast system, with its paired channel characteristics, would provide broadcasters with the flexibility needed to handle any implementation issues that might arise once ATV service commenced. In addition, simulcasting would ease consumer worries about the wisdom of purchasing an HDTV receiver, thus increasing the market penetration of HDTV.

The Third Report and Order also indicated that the FCC would set aside specific HDTV channels for noncommercial broadcasters. Such reserve channels would ensure the availability of HDTV channels for qualified noncommercial broadcasters, thus avoiding possible competition for channels between noncommercial and commercial television entities. The Commission recognized the unique services that noncommercial entities provide to the public and the reliance of those entities upon government appropriations for their survival. As a result, the Commission sought comment on whether it should exercise greater flexibility in regard to the application of its licensing and construction periods to noncommercial television broadcasters. The Commission deferred announcement of an assignment methodology because it had not yet determined its overall allotment approach for ATV channels.

In the Third Report and Order, the Commission discussed appropriate assignment procedures for the aforementioned 6 MHz allocations. Existing broadcasters would have first priority in obtaining the paired NTSC/ATV channels if they elected to implement HDTV service. The Commission would issue existing broadcasters a three-year application deadline for the licensing of a guaranteed ATV channel, which would commence with the adoption of either an ATV allotment table or an ATV standard, whichever came later. Furthermore, existing broadcasters would have an additional three-year period for construction of an ATV facility capable of emitting ATV signals. Broadcasters would therefore be given a total of six years for both the application and construction processes. The Third Report and Order modified the earlier, narrower deadline proposals in order to provide broadcasters with some flexibility in coping with any unforeseen problems that might arise during HDTV implementation.

The Third Report and Order created a "use or lose" application/construction deadline. If a broadcaster failed to construct an adequate ATV facility in the limited time frame, it would forfeit its right to the assigned set-aside channel. The broadcaster could then apply for any channel at a later time, but on an equal basis with other applicants. The FCC essentially wanted to deter television broadcasters from "warehousing" spectrum, since warehousing was inconsistent with the Commission's goal of bringing HDTV to the public as expeditiously as

will be ranked in the following order: "(1) licensees and permittees with program test authorization as of the date ATV applications are accepted; (2) other permittees; and (3) all parties with applications for a construction permit on file as of October 24, 1991." ATV Third Report and Order, supra note 30, para. 10.

ATV Third Report and Order, supra note 30, paras. 5, 16; see also Digital Da Nang, supra note 30, at 5.

ATV Third Report and Order, supra note 30, para. 5.

Those that apply before the end of the three-year period will still have a total of six years to start broadcasting from the time the Commission sets an HDTV standard. Digital Da Nang supra note 30, at 5. The Commission noted that it will review both the application and construction deadlines at the time the ATV standard or Allotment Table is effective, whichever is later. ATV Third Report and Order, supra note 30, para. 19.

ATV Third Report and Order, supra note 30, para. 18.

Id. at para. 21; see also ATV Third Report and Order, supra note 30, para. 16.

ATV Third Report and Order, supra note 30, para. 21.
possible.\textsuperscript{58} Once the assignment of HDTV licenses was complete, no one would be able to apply for new NTSC licenses, thus further discouraging any expansion of NTSC service.\textsuperscript{60}

The \textit{Third Report and Order} reiterated the Commission’s decision in its \textit{Second Report and Order} to limit initial license eligibility to existing broadcasters.\textsuperscript{60} In its \textit{Second Report and Order}, the FCC recognized that existing broadcasters had invested heavily in the current NTSC system and therefore possessed the know-how and experience to implement HDTV efficiently.\textsuperscript{61} According to the Commission, the continued involvement of existing broadcasters in ATV was the “most practical, expeditious, and non-disruptive way to bring improved service to the American public.”\textsuperscript{62}

Under the \textit{Third Report and Order}, the FCC announced that it would award existing NTSC broadcasters a second license for each 6 MHz ATV channel.\textsuperscript{63} Thus, a broadcaster would have separate licenses for its NTSC and ATV channels, which would simplify enforcement and administration of those varied and distinct services.\textsuperscript{64} Moreover, the Commission would issue HDTV licenses for periods similar to current NTSC licenses.\textsuperscript{65} The Commission determined that this assignment procedure would be spectrum efficient because it would enable the Commission to “award existing broadcasters an additional 6 MHz ‘conversion channel’ on an interim basis, giving existing broadcasters the opportunity to move to ATV technology.”\textsuperscript{66} Thereafter, “[at] the time of conversion to ATV, [the Commission would] be able to reclaim one of the two 6 MHz channels—the ‘reversion channel’—without abruptly disenfranchising television broadcast licensees.”\textsuperscript{67} The Commission would “not permit an NTSC license to be transferred independently of the associated ATV license, or vice versa.”\textsuperscript{68}

A noteworthy element of the \textit{Second Report and Order} was the Commission’s pronouncement that if either a broadcaster’s NTSC or ATV license was revoked or not renewed, then the broadcaster’s remaining license would automatically be revoked.\textsuperscript{69} The rationale behind that policy was the Commission’s desire to ensure the preservation of the additional allotment of spectrum, as well as the efficient conversion to HDTV.\textsuperscript{70} However, the FCC would consider, on a case-by-case basis, the surrender or loss of an NTSC channel by a broadcaster and would analyze factors such as ATV receiver penetration in the market in order to determine whether such a surrender or loss would deprive communities of their NTSC systems.\textsuperscript{71}

Furthermore, both the \textit{Second Report and Order} and the \textit{Third Report and Order} maintained that once initial ATV allotments and licenses were issued to all existing broadcasters that submitted timely applications, any unassigned channels would then be open to qualified new entrants.\textsuperscript{72} The Commission deferred determining the assignment procedures applicable to that new class of broadcasters, as it has still not decided the details of the assignment methodology to be used for existing broadcasters.\textsuperscript{73}

In mid-1992, the Commission proposed a draft ATV table of allotments which it hoped to finalize prior to the adoption of a definitive ATV standard.\textsuperscript{74}

---

\textsuperscript{58} \textit{ATV Third Report and Order}, supra note 30, para. 17; \textit{ATV Second Report and Order}, supra note 4, para. 21.  
\textsuperscript{59} \textit{ATV Third Report and Order}, supra note 30, para. 12.  
\textsuperscript{60} Id. paras. 6, 8.  
\textsuperscript{61} \textit{ATV Second Report and Order}, supra note 4, para. 6.  
\textsuperscript{62} Id. The Commission believes limiting initial eligibility is consistent with Ashbaker Radio Corp. v. FCC, 326 U.S. 327 (1945), which is discussed in \textit{ATV Third Report and Order}, supra note 30, n.9.  
\textsuperscript{63} \textit{ATV Second Report and Order}, supra note 4, para. 11.  
\textsuperscript{64} Id.  
\textsuperscript{65} Id. para. 16.  
\textsuperscript{66} Id. para. 7.  
\textsuperscript{67} Id.  
\textsuperscript{68} Id. para. 11. It is the Commission’s belief that transfer of either an NTSC or ATV license would threaten spectrum efficiency and thwart the Commission’s adopted conversion procedures. Id.  
\textsuperscript{69} Id. para. 12.  
\textsuperscript{70} Id.  
\textsuperscript{71} Id. paras. 5, 13.  
\textsuperscript{72} Id. para. 7; \textit{ATV Third Report and Order}, supra note 30 para. 9. Qualified new entrants are considered: (1) parties ultimately awarded a construction permit based on an allotment petition pending as of the date of the Notice, regardless of whether or not permittee has filed the original allotment petition; (2) parties awarded waivers of the current freeze on television broadcast applications in major markets and who are subsequently awarded an NTSC authorization; and (3) any other parties authorized to construct NTSC facilities in the interim period after adoption of the Notice.  
\textsuperscript{73} \textit{ATV Third Report and Order}, supra note 30, para. 9 n.11. “Similarly, if [an existing] broadcaster has failed to apply for and construct an ATV facility within the specified time, that broadcaster will lose initial eligibility for the assigned channel, which would then be open to competing applicants.” \textit{ATV Second Report and Order}, supra note 4, para. 7.  
\textsuperscript{74} \textit{ATV Third Report and Order}, supra note 30, para. 9.  
\textsuperscript{75} \textit{Action in Docket Case; Methods for Allotting Channels for ATV Service and Draft ATV Table of Allotments Proposed}, (MM Dkt. No. 87-268), FCC News, July 16, 1992, at 1 [hereinafter \textit{ATV Channel Allotment}]. The Commission proposed four broad ATV allotment objectives: To accommodate all existing NTSC stations, e.g., provide a second channel for ATV service for all existing broad-
Prior to completion of the table of allotments, broadcasters will have an opportunity to negotiate amongst themselves for assignments and to thereafter submit all negotiation determinations to the Commission for its consideration in the preparation of its final ATV table of allotments. Furthermore, all qualified parties will have the opportunity, through the filing of petitions for rulemaking, to modify the ATV table of allotments. Of course, the Commission has assumed ultimate responsibility for ensuring additional ATV channel availability.

The Third Report and Order set a final date for full conversion to ATV. Indeed, it stated that broadcasters would have fifteen years for total transition to HDTV from NTSC, which would commence with the effective date of the selection of an ATV system or with the adoption of the final table of allotments, whichever is later. During this fifteen-year interim period, the FCC would permit a broadcaster that had been awarded a 6 MHz ATV channel to utilize their second, paired channel for NTSC transmissions. However, after the expiration of the fifteen-year period and full conversion to ATV, broadcasters would have to discontinue all broadcasting in the NTSC format and surrender their 6 MHz reversion channel. Such a schedule would enable consumers to obtain full use of their NTSC equipment before final conversion to HDTV and would allow for a significant decline in retail prices for HDTV equipment. The Commission rejected the adoption of a "staggered" deadline for total conversion, stating that it would be difficult to determine specific conversion needs for each market. Finally, the Commission contended that the "establishment of a firm date for conversion would keep administration simple, assure progress toward freeing spectrum on a timely basis, and give affected parties the benefits of a clearly defined planning horizon."

III. LEGAL IMPLICATIONS OF HDTV

Generally, there has been widespread support in the broadcasting community for HDTV. However, while the introduction of such advances could bring television broadcasters to the forefront of technology, there are several issues that the Commission has had to reconcile in its treatment of HDTV. Indeed, HDTV-related issues such as spectrum allocation, frequency assignment, construction deadlines, and conversion deadlines could have serious implications for the broadcasting industry as a whole.

A. Simulcasting: Will It Deprive Broadcasters of Spectrum Use?

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.

Throughout the mid-1980s, the Commission reiterated its belief that sufficient spectrum must be preserved to allow all broadcasters to upgrade to HDTV and, later, that such spectrum allocation should be allotted to the UHF band. In an effort to preserve spectrum needed to advance HDTV implementation, the Commission issued a Freeze Order in 1987 which prohibited acceptance of any new petitions for rulemaking, to modify the ATV table of allotments, supra note 4, para. 14. See also Digital Da Nang, supra note 30, at 8.
tions for amendments to the TV table of allotments.\textsuperscript{87} The Freeze Order also barred approval of applications for construction permits for vacant spectrum allotments within the minimum co-channel distance of 189.5 miles\textsuperscript{88} in or around certain metropolitan cities.\textsuperscript{89} The Commission initiated the “freeze” so as to preserve additional spectrum for use by advanced television systems.\textsuperscript{90} However, the Commission maintained that it “would consider waiver requests on a case-by-case basis for noncommercial educational channels, or for applicants which provided compelling reasons why the freeze should not apply to their particular situation or class of stations.”\textsuperscript{91}

The Freeze Order set up new obstacles for existing television broadcasters in their attempts to secure channel allotments. Fortunately, the order provided for the continuance of normal processing procedures with respect to applications for vacant allotments already on file and the tendering of “applications mutually exclusive with TV applications already announced as acceptable for filing on ‘cut-off’ lists.”\textsuperscript{92} Nevertheless, some broadcasters in major metropolitan areas found that, even after timely filing, the Commission had denied their applications in its zealous effort to preserve ATV spectrum for simulcasting.\textsuperscript{93} Moreover, since 1987, broadcasters have found that obtaining waivers of the freeze on allotments in congested metropolitan areas has been difficult. This is due, in part, to the limited availability of spectrum in those regions and the possible threat that conventional broadcasting would pose to effective and efficient ATV service.\textsuperscript{94}

The Freeze Order was aimed at preventing potential harmful interference between NTSC and ATV stations.\textsuperscript{95} In addition, during mid-1992, the Commission considered further proposals for specific minimum spacing requirements between such stations. The Commission contended that “[s]trict adherence to the spacing requirements reflected in the Table [of allotments] is necessary . . . in order to provide a consistent, reliable and efficient scheme of [allotments].”\textsuperscript{96} Thus, if an applicant fails to demonstrate a compelling need for departure from established interstation separation standards, the Commission will not grant a waiver of the minimum spacing rules for allotment purposes.\textsuperscript{97} Grounds such as expended costs on construction permit applications, productive use of an already vacant channel, and serving the public interest through the advent of a new service have all failed to result in a waiver of the Freeze Order.\textsuperscript{98} Thus, many applicants have failed to secure channel allotments as a result of the Freeze Order, which, as noted, was instituted to further the widespread implementation of ATV.

Of course, broadcasters have also been extremely concerned about the FCC’s restriction of HDTV stations to the UHF band.\textsuperscript{99} In a recent filing, at least 105 broadcast groups joined together and insisted that access by broadcasters to the VHF band was necessary for successful HDTV implementation, as it would allow eighty-five percent of current television stations to serve their audiences as opposed to only 48.5 percent audience coverage capability with restriction to the UHF band.\textsuperscript{100} The broadcasters indicated that a viable table of allotments might need to include at least 100 to 200 VHF allotments and that the absence of such allotments would increase interference problems.\textsuperscript{101} Those points have not been confirmed by definitive studies nor has the FCC concurred in them. However, the FCC has argued that other services could make more efficient use of VHF allotments, and it tentatively has no plans to use VHF spectrum for HDTV implementation. It is the position of the Commission that the simulcasting requirement during the transition from NTSC to HDTV will produce efficient use of spectrum and will maintain fair consumer competition between NTSC and HDTV broadcasters. Moreover, according to the Bureau of Economics of the Federal Trade Commission (“FTC”),\textsuperscript{102} broadcasting of the same program material on the two different systems

\textsuperscript{87} In re Freeze on Applications to Amend TV Table of Allotments, 52 Fed. Reg. 28,346 (July 29, 1987).
\textsuperscript{88} In re Amendment of Section 73.606(b), Table of Allotments, Memorandum Opinion and Order, 1992 FCC Lexis 5169, para. 6 (Sept. 9, 1992) [hereinafter Allotment Memorandum Opinion].
\textsuperscript{89} 52 Fed. Reg. 28,346.
\textsuperscript{90} Id.
\textsuperscript{91} Mohawk, supra note 85, at 2252 (citing 52 Fed. Reg. 28,346).
\textsuperscript{92} 52 Fed. Reg. 28,346.
\textsuperscript{93} See generally Mohawk, supra note 85, at 2252.
\textsuperscript{94} See id. at 2253.
\textsuperscript{95} ATV Channel Allotment, supra note 74, at 1.
\textsuperscript{96} Allotment Memorandum Opinion, supra note 88, para. 8 (Sept. 9, 1992) (citing Millington, Maryland, 45 Rad. Reg. 2d (P & F) 1689 (1979)).
\textsuperscript{97} See generally id.
\textsuperscript{98} Mohawk, supra note 85, para. 5.
\textsuperscript{99} Broadcasters Attack FCC Plan to Pack all HDTV into UHF Band, COMM. DAILY, Nov. 18, 1992, at 3.
\textsuperscript{100} Id.
\textsuperscript{101} Id.
\textsuperscript{102} “The FTC is an independent regulatory agency responsible for maintaining competition and safeguarding the interests of consumers.” In re Advanced Television Systems, Comments of
The FCC is responsible for issuing broadcasting licenses and permits for operation of television and radio stations. The Communications Act of 1934 ("Act")\textsuperscript{112} authorized the FCC to grant construction permits and operation licenses for television stations when "public convenience, interest, or necessity will be served thereby."\textsuperscript{113} The Commission was also authorized to prescribe qualifications for station operators and to issue licenses to those operators deemed to be so qualified.\textsuperscript{113}

The current HDTV policy gives existing broadcasters priority over new entrants in applying for ATV licenses on a set of reserved channels. The rationale behind giving incumbents preference is based on the expertise and investments that existing broadcasters have in the television arena.\textsuperscript{114} Furthermore, the FCC desired to protect existing broadcasters from "unfettered competition from new entrants who might have a strong economic interest in speeding ATV development and who would thereby create pressure for broadcasters to keep pace."\textsuperscript{115}

However, in \textit{Ashbacker Radio Corp. v. FCC,}\textsuperscript{116} the U.S. Supreme Court held that "where two bona fide applications are mutually exclusive, the grant of one without a hearing to both deprives the loser of the opportunity for a hearing to which he is entitled under Section 309."\textsuperscript{117} Section 309(a) of the Act, which provides for equitable treatment of mutually exclusive applicants, states:

> If upon examination of any application for a station license or for the renewal or modification of a station license the Commission shall determine that public interest, convenience, or necessity would be served by the granting thereof, [the Commission] shall authorize the issuance, renewal or modification thereof in accordance with said finding. In the event the Commission . . . does not reach such decision, it shall notify the applicant thereof, shall fix

\textsuperscript{108} Id.

\textsuperscript{109} 47 U.S.C. § 303(c) (1989); Springfield Television of Utah, Inc. v. FCC, 710 F.2d 620 (10th Cir. 1983).

\textsuperscript{110} 47 U.S.C. § 303(c); Logansport Broadcasting Corp. v. United States, 210 F.2d 24 (D.C. Cir. 1954).

\textsuperscript{111} Pub. L. No. 73-416, 48 Stat. 1064 (codified as amended in scattered sections of 47 U.S.C. §§ 301-399(b) (1988)).

\textsuperscript{112} 47 U.S.C. §§ 307(a), 309(a); see also Lamprecht v. FCC, 958 F.2d 382, 383 (D.C. Cir. 1992).

\textsuperscript{113} 47 U.S.C. § 303(0)(1).

\textsuperscript{114} \textit{ATV Second Report and Order, supra note 4, para. 6.

\textsuperscript{115} \textit{ATV Third Report and Order, supra note 30, para. 22.

\textsuperscript{116} \textit{Ashbacker Radio Corp. v. FCC,} 326 U.S. 327 (1945).

\textsuperscript{117} Id.
and give notice of a time and place for hearing, and shall afford such applicant an opportunity to be heard.\textsuperscript{118}

The central issue thus becomes whether the FCC, by shying away from traditional license eligibility standards in regard to HDTV, has acted contrary to the public interest.\textsuperscript{119} In the past, the Commission recognized that the Ashbacker doctrine guaranteed unlicensed and licensed broadcasters equal opportunity for licenses;\textsuperscript{120} however, with respect to HDTV, it might be argued that the Commission has turned its back upon the notion of equal treatment of unlicensed and licensed broadcasters.\textsuperscript{121} In defense of the Commission, the Supreme Court in \textit{U.S. v. Storer Broadcasting Co.}\textsuperscript{122} found that “section 309(b) does not withdraw from the Commission the rulemaking authority necessary for the orderly conduct of its business, nor does it bar rules that declare a present intent to limit the number of stations consistent with a permissible ‘concentration of control.’”\textsuperscript{123} Hence, criticism of the FCC for its HDTV licensing policy may not be warranted. After all, the Commission acted in accord with its mandate to promote the public interest in formulating its HDTV policy. For example, when the FCC amended its rules in 1989 to allow licensees or permittees of television stations to petition to amend the table of allotments for new communities of license, it conducted itself in a manner consistent with perceived public interest.\textsuperscript{124}

As the FCC noted at that time, “This amendment is not precluded by the Ashbacker doctrine. The Commission can promulgate rules limiting eligibility to apply for a newly allotted channel when such action promotes the public interest, convenience and necessity.”\textsuperscript{125} Furthermore, the Ashbacker doctrine does not give unlicensed broadcasters special rights with regard to HDTV, since the doctrine applies only “to parties whose applications are mutually exclusive and not to prospective applicants” for broadcast licenses.\textsuperscript{126} Thus, it is clear that the hearing requirement of Section 309 does not preclude the Commission from promulgating singular rules concerning licensee eligibility for HDTV outlets.\textsuperscript{127} The Commission may take such actions as limiting license eligibility or revoking a station license, as well as imposing additional regulatory requirements in issuing a construction permit, if the Commission determines the policy is in furtherance of the public interest.\textsuperscript{128}

C. The Dual Channel Allotment Invalidates the Multiple Ownership Rule and the Dual Network Rule

Section 73.3555 of Title 47 of the Code of Federal Regulations limits multiple ownership of broadcasting stations.\textsuperscript{129} It states, in part, that “[n]o license for . . . [a] TV broadcast station shall be granted to any party (including all parties under common control) if such party directly or indirectly owns, operates, or controls one or more broadcast stations” which serve substantially the same service area.\textsuperscript{130} The \textit{Storer} Court found that the “rules provide that licenses for broadcasting stations will not be granted if the applicant, directly or indirectly, has an interest in other stations beyond a limited number” because overconcentration of broadcasting facilities in a particular

\textsuperscript{118} 47 U.S.C. § 309(a) (1992). Although Section 319(b) regulates the issuance of construction permits for broadcasting stations, Section 309 is also referred to when regulating construction permits, since similar procedures under Section 309(a) are followed in applications for construction permits. \textit{Ashbacker}, 326 U.S. at 327 n.1.

\textsuperscript{119} \textit{ATV Second Report and Order}, supra note 4, para. 6.

\textsuperscript{120} \textit{Unesteemed and Unloved; Wiley Says FCC Shouldn’t Switch to Multichannel NTSC from HDTV}, COMM. DAILY, Oct. 1, 1991, at 3.

\textsuperscript{121} \textit{ATV Second Report and Order}, supra note 4, para. 6.


\textsuperscript{123} Id. at 193.

\textsuperscript{124} \textit{In re Amendment of the Commission’s Rules Regarding Modification of FM and TV Authorizations to Specify a New Community of License, Report and Order}, 4 FCC Rcd. 4870, para. 22 (1989) [hereinafter \textit{FM and TV License Report and Order}]. “The procedure is limited to situations in which the new allotment would be mutually exclusive with the existing allotment and will not apply to nonadjacent channel upgrades.” Id. “This rule will apply to adjacent upgrades and co-channel changes for FM stations and to co-channel, adjacent channel, and UHF taboo channels in the television service.” Id. at 4876 n.14; see 47 CFR §§ 73.207, 73.610, 73.698 (1992).

\textsuperscript{125} \textit{FM and TV License Report and Order}, supra note 124, para. 23; see also \textit{Storer}, 351 U.S. 192 (1956).

\textsuperscript{126} \textit{FM and TV License Report and Order}, supra note 124, para. 23.

\textsuperscript{127} \textit{ATV Second Report and Order}, supra note 4, at 3342 n.10; see also \textit{Storer}, 351 U.S. 192 (1956).

\textsuperscript{128} \textit{Ashbacker Radio Corp. v. FCC}, 326 U.S. 327, 332 (1945).

\textsuperscript{129} \textit{FCC Multiple Ownership Rule}, 47 C.F.R. § 73.3555(a) (1991).

\textsuperscript{130} Id. “These rules prohibit the award of licenses for TV broadcast stations that result in an applicant directly or indirectly owning, operating or controlling (1) two TV stations with overlapping grade B contours, (2) more than 14 television stations, or 12 stations which are not minority-controlled and (3) TV stations which have an aggregate national audience reach exceeding 30 percent, or which reach exceeds 25 percent and are not minority-controlled.” \textit{ATV Second Report and Order}, supra note 4, para. 17 n. 35.
geographic area is not desirable.\textsuperscript{131} Traditionally, it has been the Commission's position that providing the public with a diversity of viewpoints is in the public interest.\textsuperscript{132}

However, the paired channel allotment proposed for HDTV broadcasting will necessitate suspension of application of the television multiple ownership rule for a limited period of time.\textsuperscript{133} As a result, a broadcaster could temporarily hold an NTSC and ATV permit or license in the same broadcast area, despite the existence of overlapping signals.\textsuperscript{134} According to the Commission, the "limited suspension of the multiple ownership rules is an essential component of the Commission's regulatory approach to ATV implementation."\textsuperscript{135}

In general, broadcasters support the modification or elimination of the multiple ownership rule. They contend that with increased group ownership comes an incentive to produce new, diverse, and locally-produced video programming.\textsuperscript{136} However, notwithstanding HDTV, the alleviation of the multiple ownership restriction could present possible antitrust implications, inasmuch as smaller geographic areas with fewer broadcasters could have less competition and could, in effect, monopolize spectrum. In contrast, antitrust implications are at a minimum in larger geographic regions with a larger broadcasting community.\textsuperscript{137} Nevertheless, the suspension of the multiple ownership rule may allow owners who wish to operate multiple stations that are close in proximity to make efficient use of the unused stations and to provide additional service to the public.

The dual network rule\textsuperscript{138} prohibits television stations from affiliating "with a network that operates simultaneously and serves substantially overlapping geographic areas."\textsuperscript{139} The Commission, in its desire to eliminate unfair competition, recognized that the operation of two same-network affiliates in substantially the same geographical areas would constitute excessive control over affiliates.\textsuperscript{140} However, despite the Commission’s prohibition against dual networking, television networks have ample opportunities to provide or to participate in multiple networks which are distributed over cable, satellite technology and associated video.\textsuperscript{141} Furthermore, with respect to HDTV, the dual network restriction could fail to serve the public interest by hampering the advancement of innovative technology and program diversity. Thus, the Commission has suspended the dual network rule in relation to HDTV programming, thereby allowing networks to operate both an NTSC and an ATV network during the transition to HDTV.\textsuperscript{142} However, in lieu of the dual network rule, the Commission will require that "any second feed transmitted by a network in a given community be destined for a station broadcasting in the ATV mode."\textsuperscript{143}

D. Construction Deadlines Might Not Promote Economic Efficiency

The FCC’s decision to employ a "use or lose" application/construction deadline has concerned the broadcasting industry. Under that procedure, broadcasters must complete construction of their proposed ATV facilities or forfeit the right to use their assigned channels.\textsuperscript{144} Under the FCC’s definition of "construction," a broadcaster has constructed an ATV facility if the facility is capable of emitting ATV signals.\textsuperscript{145} Prior to the Third Report and Order, which extended the construction deadline to three years, comments filed in opposition to proposed licensing requirements provided arguments against making awards contingent upon construction of an ATV facility within two years of receiving the construction permit. Indeed, the FTC asserted that the two-year requirement would "encourage construction but [might] result in excessively rapid or inappropriate construction."\textsuperscript{146} The FTC suggested an extension of the construction period due to the un-

\textsuperscript{131} United States v. Storer, 351 U.S. 192, 193 (1956).
\textsuperscript{132} TV Broadcasting Notice of Proposed Rule Making, supra note 32, para. 23.
\textsuperscript{133} ATV Third Report and Order, supra note 30, para. 14.
\textsuperscript{134} Broadcast Services; Advanced Television Systems, Policy Decision, 57 Fed. Reg. 21,744, 21,746; see ATV FTC Comment, supra note 102, at 7.
\textsuperscript{135} 57 Fed. Reg. 21,744, 21,746.
\textsuperscript{136} See TV Broadcasting Notice of Proposed Rule Making, supra note 32, para. 9.
\textsuperscript{137} See ATV FTC Comment, supra note 102, at 20.
\textsuperscript{138} 47 C.F.R. § 73.658(g) (1991); TV Broadcasting Notice of Proposed Rule Making, supra note 32, para. 29.
\textsuperscript{139} TV Broadcasting Notice of Proposed Rule Making, supra note 32, para. 29.
\textsuperscript{140} Id.
\textsuperscript{141} Id. at paras. 32, 33.
\textsuperscript{142} ATV Third Report and Order, supra note 30, para. 15; Digital Da Nang, supra note 30, at 5; see also Broadcast Regulations; Advanced Television Systems, 57 Fed. Reg. 21,755 (1992) (proposed May 22, 1992). The Commission will review this temporary suspension of the dual network rule in 1999.
\textsuperscript{143} ATV Third Report and Order, supra note 30, para. 6.
\textsuperscript{144} ATV Third Report and Order, supra note 30, para. 15.
\textsuperscript{145} ATV Second Report and Order, supra note 4, para. 17.
certainties surrounding the implementation of HDTV in the U.S.\textsuperscript{147} According to the FTC, an extension of the construction deadline would allow firms to experiment with different methods of transmission in order to find the most cost-effective mode.\textsuperscript{148}

Under the current ATV construction deadline of three years, a licensee could be forced to undertake premature and economically inefficient attempts to meet the deadline.\textsuperscript{149} Furthermore, in the event a small broadcaster failed in its attempt to implement HDTV, the broadcaster could be forced to shut down. According to Capital Cities/ABC President and CEO Daniel Burke, the result would be "a nation of urban haves and small-community have-nots."\textsuperscript{150} The loss of affiliates would result in the loss of a significant portion of the national audience and would thus have serious implications for the networks since affiliates connect networks to a substantial portion of the national audience.\textsuperscript{151} Thus, many argue that the Commission has failed to recognize the financial pressures that HDTV construction/conversion procedures have placed on the broadcasting industry.

The Commission, for its own part, has disagreed with the notion that the deadline could promote premature and inefficient construction. In fact, in the \textit{Third Report and Order}, the FCC contended that even if existing broadcasters failed to meet the construction deadline and subsequently forfeited their initial eligibility in the marketplace, new entrants would certainly not be ready for ATV implementation.\textsuperscript{152} The Commission has argued that if existing broadcasters were not able to meet the construction requirements within the specified period with their substantial resources, it would be unlikely that other parties would apply for and construct an ATV facility in such an area.\textsuperscript{153} Thus, while the Commission has decided that permission to broadcasters to determine the appropriate time for full studio conversion for their respective facilities in order to successfully "phase-in" full ATV implementation as their individual circumstances and markets permit,"\textsuperscript{154} it has remained generally intransigent with respect to the ATV construction deadline. According to the Commission, the adoption of the three-year construction deadline will ensure the availability of HDTV to the public and avoid pre-allotted spectrum to remain unused.\textsuperscript{155}

Furthermore, the Commission emphasized that the absence of a construction deadline would allow for the possibility of broadcasters delaying construction, as some broadcasters might choose to postpone converting their studios in order to monitor the potential success of ATV systems implemented by other pacesetting broadcasters.\textsuperscript{156} While broadcasters are not obligated to construct ATV facilities and may elect to defer construction, such wary broadcasters would assume the risk of foregoing a construction permit if HDTV was proven successful and eventually implemented. Moreover, any delays in ATV construction by broadcasters might prove to be damaging to the expeditious implementation of HDTV. The adherence to an adopted construction deadline for an ATV facility could therefore help avoid potential market failure of HDTV. As many consumers are generally wary of new technologies until it is clear there has been widespread acceptance in the market, an ATV construction deadline would alert the public to the eventual arrival of HDTV in the marketplace.\textsuperscript{157} According to the Commission, the deadline would thus notify consumers when to purchase HDTV systems and, consequently, would provide a smooth transition to HDTV programming.\textsuperscript{158}

\section*{IV. CONCLUSION}

Implementation of HDTV will be a costly process that raises many serious legal issues, some of which were heretofore addressed.\textsuperscript{159} Stringent FCC rules have broadcasters concerned about the costs they will incur to implement an HDTV service. The Commission maintains that "ATV implementation should be structured to protect the existing invest-

\begin{itemize}
  \item \textsuperscript{147} \textit{Id.}
  \item \textsuperscript{148} \textit{Id.} at 26.
  \item \textsuperscript{149} \textit{Id.}
  \item \textsuperscript{150} \textit{FCC and Broadcasters Battle Toward Flexible HDTV Conversion, Broadcasting}, Oct. 5, 1992, at 4.
  \item \textsuperscript{151} See \textit{Sikes Backs Multichannel; Burke Calls HDTV Threat to Small Broadcasters and Networks, Comm. Daily}, Oct. 2, 1992, at 2.
  \item \textsuperscript{152} See \textit{ATV Third Report and Order, supra note 30, para. 21.}
  \item \textsuperscript{153} \textit{Id.}
  \item \textsuperscript{154} 57 Fed. Reg. 21,744, 21,746.
  \item \textsuperscript{155} \textit{Id.}
  \item \textsuperscript{156} \textit{ATV Second Report and Order, supra note 4, para. 21.}
  \item \textsuperscript{157} \textit{ATV FTC Comment, supra note 102, at 23.}
  \item \textsuperscript{158} \textit{See ATV Third Report and Order, supra note 30, para. 25.}
  \item \textsuperscript{159} Several additional legal issues would be raised with the implementation of HDTV, including production issues involving programming for simulcasting, labor and contract issues regarding rights to showings, syndication contracts, local broadcasting issues regarding networks and affiliates and patent rights. Joe Flint, \textit{Programming Big Question in HDTV, Broadcasting}, Oct. 5, 1992, at 41.
\end{itemize}
ment in consumer equipment so that consumers are not prematurely forced to purchase new receivers to enjoy top quality over-the-air television.  

Nevertheless, FCC Commissioner Duggan has realized the need to strike a balance between a smooth and expeditious conversion process and “giving broadcasters the flexibility they need in the interim to respond to uncertain consumer demand, to evolving program availability and to changing equipment costs.” Thus, the FCC has created a timetable for review of HDTV deadlines to allow for periodic adjustments after balancing the needs of the broadcasters with those of consumers. The Commission has indicated that it expects to adopt an ATV standard and a final table of allotments by late 1993. That date is, of course, subject to change and depends heavily on the successful development of a prototype HDTV system.

HDTV implementation involves substantial risk, as decisions to regulate this new technology will affect the very existence of an industry that enters virtually every home in the United States. In 1987, when broadcasters approached the Commission to consider providing spectrum for HDTV, the economy was prospering and broadcasters were optimistic about the success of HDTV. However, in these intervening years of economic recession, it is the broadcasters who face difficulty in financing the sizable costs of HDTV in the absence of new revenue sources, if they choose to implement HDTV. Understandably, in recent months, broadcasters have expressed less enthusiasm and more pessimism about effective HDTV implementation. Nevertheless, the FCC appears confident about the future success of HDTV and the recognition the United States will receive as the leader in this emerging technology. Indeed, HDTV promises to be the next generation of television. As Commissioner Ervin S. Duggan recently stated: “The 21st century motto of consumers will mimic the slogan of cable’s most successful music video channel: ‘I want my HDTV.’”

Susan R. Athari

---

162 See ATV Third Report and Order, supra note 30, para. 3.
163 Id. The Commission is awaiting the results of the extensive tests taken on each of the five proposed HDTV systems under review at the Advanced Television Testing Center (ATTC), in order to assist the Commission in determining an appropriate HDTV standard. The proposed systems include: two digital systems by General Instrument and MIT; one digital system by AT&T and Zenith; one digital system by the Advanced Television Research Consortium, which consists of NBC, North American Philips Corporation, Thomsen Consumer Electronics, Sarnoff Research Center, and Compression Labs; and one analog system by Japan-based NHK. As of March 1, 1993, four prototype systems remain under review. NHK Eliminated From HDTV Competition, More Testing Recommended for Others, Comm. Daily, Feb. 16, 1993, at 2. The NHK model was eliminated for further testing by ATTC, since it was the only analog HDTV system and was considered clearly inferior in quality. Id. Additional testing will be done on the remaining four digital systems, as ATTC determined that each proposed system contained some flaws. Id. There has been a discussion of a possible merger or “grand alliance” between all the remaining companies, in an effort to combine their resources to create a superior-quality system that combines the merits of each of the four proposed systems. Serious Talks Underway Aimed at Forming HDTV ‘Grand Alliance’, Comm. Daily, Feb. 22, 1993, at 2. Selection of the winning system should be made in late 1993, although there is the possibility of additional testing after that date.
164 See Action in Docket Case, supra note 107 (statement by Commissioner Ervin S. Duggan).
166 However, television broadcasters should be aware that HDTV may be implemented by CATV and Direct Broadcast Satellite (DBS) operators once HDTV is underway. Furthermore, it appears that HDTV is being promoted in competing foreign countries, which appear to be in the process of developing new electronic devices for use with HDTV systems. Thus, broadcasters should strive to further HDTV implementation in order to evolve as the forerunner of this new technology.
167 Remarks of Sikes, supra note 165.
168 ATV Third Report and Order, supra note 30 (statement of Commissioner Ervin S. Duggan).