

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Digital Broadcast Copy Protection)	MB Docket No. 02-230
)	
)	
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NOTICE OF PROPOSED RULEMAKING

Adopted: August 8, 2002

Released: August 9, 2002

Comment Date: October 30, 2002

Reply Comment Date: December 13, 2002

By the Commission: Commissioner Copps concurring and issuing a statement.

I. INTRODUCTION

1. The ongoing digital television (“DTV”) transition poses many unique logistical and technological challenges. The current lack of digital broadcast copy protection may be a key impediment to the transition’s progress. Digital copy protection, also referred to as digital rights management, seeks to prevent the unauthorized copying and redistribution of digital media. Without adequate protection, digital media, unlike its analog counterpart, is susceptible to piracy because an unlimited number of high quality copies can be made and distributed in violation of copyright laws. In the absence of a copy protection scheme for digital broadcast television, content providers have asserted that they will not permit high quality programming to be broadcast digitally.¹ Without such programming, consumers may be reluctant to invest in DTV receivers and equipment, thereby delaying the DTV transition.²

2. Since 1996, an inter-industry group called the Copy Protection Technical Working Group (“CPTWG”) has served as a discussion forum for general copy protection issues. On November 28, 2001, the Broadcast Protection Discussion Subgroup (“BPDG”) was formed under the auspices of CPTWG in order to specifically address digital broadcast copy protection. According to the *BPDG Final Report*, more than 70 representatives of the consumer electronics, information technology, motion picture, cable and broadcast industries took part in the group.³ As a result of its deliberations, the BPDG recently announced a consensus on the use of a “broadcast flag” standard for digital broadcast copy protection. This consensus would require use of the Redistribution Control Descriptor, as set forth in ATSC Standard A/65A (the “ATSC flag”), to mark digital broadcast programming so as to limit its improper use. Despite

¹ See, e.g., Letter from Susan L. Fox, Walt Disney Company, to Magalie Roman Salas, Secretary, FCC, CS Docket No. 97-80 (Nov. 8, 2001).

² See NCTA, *The Transition to Digital Television*, <http://www.ncta.com/legislative/legAffairs.cfm?legRegID=15>.

³ Final Report of the Co-Chairs of the Broadcast Protection Discussion Subgroup to the Copy Protection Technical Working Group at 4 (June 3, 2002) (“*BPDG Final Report*”).

⁶ *BPDG Final Report* at 14-17.

the consensus reached on the technical standard to be implemented, final agreement was not reached on a set of compliance and robustness requirements to be associated with use of the ATSC flag, enforcement mechanisms, or criteria for approving the use of specific protection technologies in consumer electronics devices.⁶ While the *BPDG Final Report* indicated that a parallel discussion group may be established by CPTWG to continue discussions in some areas where BPDG participants were unable to reach a consensus, including enforcement mechanisms, it remains unclear whether such group will serve as a forum for ongoing industry negotiations.⁷

II. THE BROADCAST FLAG

3. In light of the importance placed upon digital broadcast copy protection by some industry participants, and with a view towards facilitating the DTV transition, this *Notice* seeks comment on whether a regulatory copy protection regime is needed within the limited sphere of digital broadcast television. As an initial matter, we seek comment on whether quality digital programming is now being withheld because of concerns over the lack of digital broadcast copy protection. In particular, we seek comment on the nature and extent of the piracy concerns expressed by content providers. If such programming is being withheld, will it continue to be withheld in the absence of a regulatory regime? To what extent would the absence of a digital broadcast copy protection scheme and the lack of high quality digital programming delay or prevent the DTV transition? Would the resulting dynamic threaten the viability of over-the-air television? What impact would this have on consumers?

4. If a digital broadcast flag or other regulatory regime is needed, we seek comment on whether the Commission should adopt rules or create some other mechanism to resolve outstanding compliance, robustness and enforcement issues. We also seek comment on whether there are any technical impediments to implementation of a digital broadcast copy protection scheme. We ask commenters to elaborate on whether the ATSC flag is the appropriate technological model to be used, or whether there are alternatives to the ATSC flag. We seek comment on the effectiveness of any such technological model in protecting digital broadcast content from improper redistribution. For example, we seek comment on the technological robustness of the ATSC flag and whether it can be upgraded or improved upon over time. If the ATSC flag is the best means of protection currently available, but it still has technical flaws, is it better to mandate the flag now and monitor it as technology develops, or to wait until a more effective means of digital broadcast copy protection is developed? Would a regulatory copy protection regime create and maintain industry incentives to continually innovate to improve the method of digital content protection?

5. With respect to the type of Commission regulations that would be appropriate in the digital broadcast copy protection area, we seek comment on whether a government mandate on the transmission side is needed. In other words, we seek comment on whether broadcasters and content providers should be required to embed the ATSC flag or another type of content control mark within digital broadcast programming, or whether they have sufficient incentive to protect such programming such that a government mandate is unnecessary.

6. On the reception side, we seek comment on whether the Commission should mandate that consumer electronics devices recognize and give effect to the ATSC flag or another type of content control mark. If so, we seek comment on whether this mandate should include devices other than DTV broadcast receivers and what the resulting impact would be on consumers. More specifically, the *BPDG Final Report* anticipates that digital broadcast copy protection will begin at the point of demodulation.⁹

⁷ *Id.* at 18-21.

⁹ *Id.* at 11.

We seek comment on whether this is an appropriate point for digital broadcast copy protection to begin in consumer electronics devices. We also seek comment on whether and how downstream devices would be required to protect the content. In addition, we seek comment on whether and how an ATSC flag or other system would work for broadcast stations carried on cable or direct broadcast satellite systems.

7. As to the means by which digital broadcast copy protection would be achieved, we seek comment on whether to require the use of specific copy protection technologies, such as those identified in Table A to the *BPDG Final Report*, in consumer electronics devices.¹⁰ Table A identifies those copy protection technologies considered by BPDG for use in conjunction with digital outputs in consumer electronics devices, such as Digital Transmission Content Protection (“DTCP” or “5C”) or High-Bandwidth Digital Content Protection (“HDCP”).¹¹ However, BPDG members were unable to agree on the criteria by which a copy protection technology would be evaluated and approved for digital broadcast use and chose to reserve the topic for potential further discussion by a CPTWG parallel group.¹² We seek comment on how a particular technology would receive approval for use in consumer electronics devices for digital broadcast copy protection purposes. We also seek comment on identifying the appropriate entity to make an approval determination.

8. We also seek comment on the extent to which broadcast copy protection technologies raise privacy concerns and whether rules are needed to ensure that consumers' privacy interests are protected. In addition, we seek comment on whether there are First Amendment or any other constitutional issues that we should consider from the point of view of the industries involved or individual consumers.

9. Finally, we seek comment on the impact of the ATSC flag or other digital broadcast copy protection mechanism on consumers. The *BPDG Final Report* asserts that a broadcast flag system would not interfere with consumers' ability to make secure copies of DTV content for their personal use, either on personal video recorders or removable media.¹³ Similarly, the *BPDG Final Report* states that the requirements to protect digital outputs should not interfere with consumers' ability to send DTV content across secure digital networks, such as “home digital network connecting digital set top boxes, digital recorders, digital servers and digital display devices.”¹⁴ We seek comment on these assertions. We also seek comment on the appropriate scope of protection to be accorded DTV broadcast content. In addition, some parties have raised concerns about the potential impact of a broadcast flag requirement on consumers' existing and future electronic equipment. We seek comment on these concerns, as well as the potential effect of a broadcast flag requirement on the development of new consumer technologies. Finally, we seek comment on the cost impact, if any, that a broadcast flag requirement would have on affected consumer electronics equipment.

III. JURISDICTION

10. We seek comment on the jurisdictional basis for Commission rules dealing with digital broadcast television copy protection. Is this an area in which the Commission could exercise its ancillary jurisdiction under Title I of the Act? We ask commenters to identify provisions of the Act that provide the Commission with authority to implement its ancillary jurisdiction. If the Commission has ancillary

¹⁰ *Id.* at Schedule A.

¹¹ *Id.*

¹² *Id.* at 18-20.

¹³ *Id.* at 12.

¹⁴ *Id.*

jurisdiction over digital broadcast copy protection, are there any limits upon its scope? For example, does the Commission have authority to mandate the recognition of the ATSC flag in consumer electronics devices? We also ask commenters to identify any statutory provisions that might provide the Commission with more explicit authority to adopt digital broadcast copy protection rules. For example, do Sections 336(b)(4) and (b)(5) impact upon the Commission's ability to adopt digital broadcast copy protection regulations?

IV. ADMINISTRATIVE MATTERS

11. *Authority.* This *Notice of Proposed Rulemaking* is issued pursuant to authority contained in §§ 1, 4(i), 4(j), 303(r), 403 and 601 of the Communications Act of 1934, as amended.

12. *Ex Parte Rules – Non-Restricted Proceeding.* This is a non-restricted notice and comment rulemaking proceeding. Ex parte presentations are permitted, except during the Sunshine Agenda period, provided that they are disclosed as provided in the Commission's Rules. See generally 47 C.F.R. §§ 1.1202, 1.1203, and 1.1206(a).

13. *Accessibility Information.* Accessible formats of this *Notice of Proposed Rulemaking* (computer diskettes, large print, audio recording and Braille) are available to persons with disabilities by contacting Brian Millin, of the Consumer & Governmental Affairs Bureau, at (202) 418-7426, TTY (202) 418-7365, or at bmillin@fcc.gov.

14. *Comment Information.* Pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before **October 30, 2002**, and reply comments on or before **December 13, 2002**. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998).

15. Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appear in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). The Commission's contractor, Vistrionix, Inc., will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, SW, Washington, D.C. 20554. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

16. *Regulatory Flexibility Act.* As required by the Regulatory Flexibility Act,¹⁵ the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities of the proposals addressed in this Notice. The IRFA is set forth in Appendix A. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the Notice, and they should have a separate and distinct heading designating them as responses to the IRFA.

V. ORDERING CLAUSES

17. **IT IS ORDERED** that, pursuant to Sections 1, 4(i) and (j), 303, 403 and 601 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 303, 403, 521, **COMMENT IS HEREBY SOUGHT** on the analysis, questions, discussions and statements of issues in this Notice of Proposed Rulemaking.

18. **IT IS FURTHER ORDERED** that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Notice, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the Regulatory Flexibility Act.¹⁷

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

¹⁵ See 5 U.S.C. § 603.

¹⁷ See 5 U.S.C. § 603(a).

APPENDIX A INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act of 1980, as amended ("RFA"),¹⁸ the Commission has prepared this Initial Regulatory Flexibility Analysis ("IRFA") of the possible significant economic impact on small entities by the policies and rules proposed in this Notice of Proposed Rulemaking ("Notice"). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Notice provided above in paragraph 15. The Commission will send a copy of the Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.¹⁹ In addition, the Notice and IRFA (or summaries thereof) will be published in the Federal Register.²⁰

A. Need for, and Objectives of, the Proposed Rules. The need for FCC regulation in this area is that the lack of digital broadcast copy protection has been identified as a key impediment to anticipated rate and scope of the transition for digital television ("DTV"). In the absence of a digital copy protection scheme preventing the unauthorized copying and redistribution of digital media, content providers have asserted that they will not permit high quality programming to be broadcast digitally. Without such programming, consumers may be reluctant to invest in DTV receivers and equipment, thereby delaying the DTV transition. While private industry negotiations have reached consensus on the technical "broadcast flag" standard to be implemented, ATSC Standard A65/A, agreement was not universally reached on compliance and robustness requirements to be associated with the flag's use.²¹ Agreement was also not reached on enforcement mechanisms for digital broadcast copy protection. The Notice seeks comment on whether the Commission can and should mandate a regulatory copy protection regime for digital broadcast television. The objective of the Proposed Rules will be to facilitate the DTV transition.

B. Legal Basis. The authority for the action proposed in this rulemaking is contained in Sections 1, 4(i) and (j), 303, 403 and 601 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 303, 403, and 521.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply. The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules.²² The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental entity" under Section 3 of the Small Business Act.²³ In addition,

¹⁸See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

¹⁹See 5 U.S.C. § 603(a).

²⁰See *id.*

²¹ ATSC Standard A65/A: Program and System Information Protocol for Terrestrial Broadcast and Cable (May 31, 2000) and Amendment 3 (Feb. 6, 2002). The "broadcast flag" is a redistribution control descriptor.

²²5 U.S.C. § 603(b)(3).

²³5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies, "unless an agency, after consultation with the Office of Advocacy of the SBA and after opportunity for public comment, establishes one or more definitions of such the term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.

the term “small Business” has the same meaning as the term “small business concern” under the Small Business Act.²⁴ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (“SBA”).²⁵

In this context, the application of the statutory definition to television stations is of concern. An element of the definition of “small business” is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimates that follow of small businesses to which rules may apply do not exclude any television station from the definition of a small business on this basis and are therefore over-inclusive to that extent.

An additional element of the definition of “small business” is that the entity must be independently owned and operated. We note that it is difficult at times to assess these criteria in the context of media entities and our estimates of small businesses to which they apply may be over inclusive to this extent.

Television Broadcasting. The proposed rules and policies could apply to television broadcasting licensees, and potential licensees of television service. The Small Business Administration defines a television broadcasting station that has no more than \$12 million in annual receipts as a small business.³¹ Television broadcasting consists of establishments primarily engaged in broadcasting images together with sound, including the production or transmission of visual programming which is broadcast to the public on a predetermined schedule.³² Included in this industry are commercial, religious, educational, and other television stations.³³ Also included are establishments primarily engaged in television broadcasting and

²⁴ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

²⁵ 15 U.S.C. § 632.

³¹ 13 C.F.R. § 121.201 (North American Industry Classification System (“NAICS”) Code 513120).

³² Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Source of Receipts, Information Sector 51, Appendix B at B-7-8 (2000).

³³ *Id.* See Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987), at 283, which describes “Television Broadcasting Stations (SIC Code 4833)” as:

Establishments primarily engaged in broadcasting visual programs by television to the public, except cable and other pay television services. Included in this industry are commercial, religious, educational and other television stations. Also included here are establishments primarily engaged in television broadcasting and which produce taped television program materials.

NAICS Code 513120, by its terms, supercedes the former SIC Code 4833, but incorporates the foregoing inclusive definitions of different types of television stations. See Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Source of Receipts, Information Sector 51, Appendix B at B-7-8 (2000).

which produce programming in their own studios.³⁴ Separate establishments primarily engaged in producing programming are classified under other NAICS numbers.³⁵

There were 1,509 television stations operating in the nation in 1992.³⁶ That number has remained fairly constant as indicated by the approximately 1,686 operating television broadcasting stations in the nation as of September 2001.³⁷ For 1992, the number of television stations that produced less than \$10.0 million in revenue was 1,155 establishments.³⁸ Thus, the new rules could affect approximately 1,686 television stations; approximately 77%, or 1,298 of those stations are considered small businesses.³⁹ These estimates may overstate the number of small entities since the revenue figures on which they are based do not include or aggregate revenues from non-television affiliated companies.

Cable and Other Program Distribution. The SBA has developed a small business size standard for cable and other program distribution services, which includes all such companies generating \$12.5 million or less in revenue annually.⁴⁰ This category includes, among others, cable operators, direct broadcast satellite (“DBS”) services, home satellite dish (“HSD”) services, multipoint distribution services (“MDS”), multichannel multipoint distribution service (“MMDS”), Instructional Television Fixed Service (“ITFS”), local multipoint distribution service (“LMDS”), satellite master antenna television (“SMATV”) systems, and open video systems (“OVS”). According to the Census Bureau data, there are 1,311 total cable and other pay television service firms that operate throughout the year of which 1,180 have less than \$10 million in revenue.⁴² We address below each service individually to provide a more precise estimate of small entities.

³⁴Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Source of Receipts, Information Sector 51, Appendix B at B-7 (2000).

³⁵NAICS Code 512110 (Motion Picture and Video Production); NAICS Code 512120 (Motion Picture and Video Distribution); NAICS Code 512191 (Teleproduction and Other Post-Production Services); NAICS Code 512199 (Other Motion Picture and Video Industries).

³⁶FCC News Release No. 31327, Jan. 13, 1993; Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, Appendix A-9.

³⁷FCC News Release, Broadcast Station Totals as of September 30, 2001 (rel. Oct. 30, 2001).

³⁸The amount of \$10 million was used to estimate the number of small business establishments because the relevant Census categories stopped at \$9,999,999 and began at \$10,000,000. No category for \$12 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

³⁹We use the 77 percent figure of TV stations operating at less than \$10 million for 1992 and apply it to the 2001 total of 1,686 TV stations to arrive at 1,298 stations categorized as small businesses.

⁴⁰ 13 C.F.R. § 121.201 (NAICS Code 513220). This NAICS Code applies to all services listed in this paragraph.

⁴² Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Establishment and Firm Size, Information Sector 51, Table 4 at 50 (2000). The amount of \$10 million was used to estimate the number of small business firms because the relevant Census categories stopped at \$9,999,999 and began at \$10,000,000. No category for \$12.5 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

Cable Operators . The Commission has developed, with SBA's approval, our own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company" is one serving fewer than 400,000 subscribers nationwide.⁴³ We last estimated that there were 1,439 cable operators that qualified as small cable companies.⁴⁴ Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,439 small entity cable system operators that may be affected by the decisions and rules adopted in this *Report and Order*.

The Communications Act, as amended, also contains a size standard for a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1% of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."⁴⁵ The Commission has determined that there are 68,500,000 subscribers in the United States. Therefore, an operator serving fewer than 685,000 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed \$250 million in the aggregate.⁴⁶ Based on available data, we find that the number of cable operators serving 685,000 subscribers or less totals approximately 1,450.⁴⁷ Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

Direct Broadcast Satellite ("DBS") Service. Because DBS provides subscription services, DBS falls within the SBA-recognized definition of cable and other program distribution services.⁵⁰ This definition provides that a small entity is one with \$12.5 million or less in annual receipts.⁵¹ There are four licensees of DBS services under Part 100 of the Commission's Rules. Three of those licensees are currently operational. Two of the licensees that are operational have annual revenues that may be in excess of the threshold for a small business.⁵² The Commission, however, does not collect annual revenue data for DBS and, therefore, is unable to ascertain the number of small DBS licensees that could be impacted by these proposed rules. DBS service requires a great investment of capital for operation, and we acknowledge, despite the absence of specific data on this point, that there are entrants in this field that may not yet have generated \$12.5 million in annual receipts, and therefore may be categorized as a small business, if independently owned and operated.

⁴³ 47 C.F.R. § 76.901(e). The Commission developed this definition based on its determinations that a small cable system operator is one with annual revenues of \$100 million or less. *Sixth Report and Order and Eleventh Order on Reconsideration*, 10 FCC Rcd. 7393 (1995).

⁴⁴ Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

⁴⁵ 47 U.S.C. § 543(m)(2).

⁴⁶ 47 C.F.R. § 76.1403(b).

⁴⁷ Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

⁵⁰ 13 C.F.R. § 121.201 (NAICS Code 513220).

⁵¹ *Id.*

⁵² *Id.*

Home Satellite Dish (“HSD”) Service. Because HSD provides subscription services, HSD falls within the SBA-recognized definition of cable and other program distribution services.⁵³ This definition provides that a small entity is one with \$12.5 million or less in annual receipts.⁵⁴ The market for HSD service is difficult to quantify. Indeed, the service itself bears little resemblance to other MVPDs. HSD owners have access to more than 265 channels of programming placed on C-band satellites by programmers for receipt and distribution by MVPDs, of which 115 channels are scrambled and approximately 150 are unscrambled.⁵⁵ HSD owners can watch unscrambled channels without paying a subscription fee. To receive scrambled channels, however, an HSD owner must purchase an integrated receiver-decoder from an equipment dealer and pay a subscription fee to an HSD programming package. Thus, HSD users include: (1) viewers who subscribe to a packaged programming service, which affords them access to most of the same programming provided to subscribers of other MVPDs; (2) viewers who receive only non-subscription programming; and (3) viewers who receive satellite programming services illegally without subscribing. Because scrambled packages of programming are most specifically intended for retail consumers, these are the services most relevant to this discussion.⁵⁶

Multipoint Distribution Service (“MDS”), Multichannel Multipoint Distribution Service (“MMDS”) Instructional Television Fixed Service (“ITFS”) and Local Multipoint Distribution Service (“LMDS”). MMDS systems, often referred to as “wireless cable,” transmit video programming to subscribers using the microwave frequencies of the MDS and ITFS.⁵⁷ LMDS is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.⁵⁸

In connection with the 1996 MDS auction, the Commission defined small businesses as entities that had annual average gross revenues of less than \$40 million in the previous three calendar years.⁵⁹ This definition of a small entity in the context of MDS auctions has been approved by the SBA.⁶⁰ The MDS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (“BTAs”). Of the 67 auction winners, 61 met the definition of a small business. MDS also includes licensees of stations authorized prior to the auction. As noted, the SBA has developed a definition of small entities for pay television services, which includes all such companies generating \$12.5 million or less in annual receipts.⁶¹ This definition includes multipoint distribution services, and thus applies to MDS licensees and wireless cable operators that did not participate in the MDS auction. Information available to us indicates that there are approximately 850 of these licensees and operators that do not generate revenue in excess of \$12.5 million annually. Therefore, for purposes of the IRFA, we find there are approximately 850 small MDS providers as defined by the SBA and the Commission’s auction rules.

⁵³ 13 C.F.F. § 121.201 (NAICS Code 513220).

⁵⁴ *Id.*

⁵⁵ *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 12 FCC Rcd 4358, 4385 (1996) (“*Third Annual Report*”).

⁵⁶ *Id.* at 4385.

⁵⁷ *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, 10 FCC Rcd at 9589, 9593 (1995) (“*ITFS Order*”).

⁵⁸ *See Local Multipoint Distribution Service*, 12 FCC Rcd 12545 (1997) (“*LMDS Order*”).

⁵⁹ 47 C.F.R. § 21.961(b)(1).

⁶⁰ *See ITFS Order*, 10 FCC Rcd at 9589.

⁶¹ 13 C.F.R. § 121.201 (NAICS Code 513220).

The SBA definition of small entities for cable and other program distribution services, which includes such companies generating \$12.5 million in annual receipts, seems reasonably applicable to ITFS.⁶² There are presently 2,032 ITFS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in the definition of a small business.⁶³ However, we do not collect annual revenue data for ITFS licensees, and are not able to ascertain how many of the 100 non-educational licensees would be categorized as small under the SBA definition. Thus, we tentatively conclude that at least 1,932 licensees are small businesses.

Additionally, the auction of the 1,030 LMDS licenses began on February 18, 1998, and closed on March 25, 1998. The Commission defined "small entity" for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.⁶⁸ An additional classification for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding calendar years.⁶⁹ These regulations defining "small entity" in the context of LMDS auctions have been approved by the SBA.⁷⁰ There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 40 winning bidders. Based on this information, we conclude that the number of small LMDS licenses will include the 93 winning bidders in the first auction and the 40 winning bidders in the re-auction, for a total of 133 small entity LMDS providers as defined by the SBA and the Commission's auction rules.

In sum, there are approximately a total of 2,000 MDS/MMDS/LMDS stations currently licensed. Of the approximate total of 2,000 stations, we estimate that there are 1,595 MDS/MMDS/LMDS providers that are small businesses as deemed by the SBA and the Commission's auction rules.

Satellite Master Antenna Television ("SMATV") Systems. The SBA definition of small entities for cable and other program distribution services includes SMATV services and, thus, small entities are defined as all such companies generating \$12.5 million or less in annual receipts.⁷¹ Industry sources estimate that approximately 5200 SMATV operators were providing service as of December 1995.⁷² Other estimates indicate that SMATV operators serve approximately 1.5 million residential subscribers as of July 2001.⁷⁴ The best available estimates indicate that the largest SMATV operators

⁶² *Id.*

⁶³ SBREFA also applies to nonprofit organizations and governmental organizations such as cities, counties, towns, townships, villages, school districts, or special districts, with populations of less than 50,000. 5 U.S.C. § 601(5).

⁶⁸ See *LMDS Order*, 12 FCC Rcd at 12545.

⁶⁹ *Id.*

⁷⁰ See Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau (FCC) from A. Alvarez, Administrator, SBA (January 6, 1998).

⁷¹ 13 C.F.R. § 121.201 (NCAIS Code 513220).

⁷² See *Third Annual Report*, 12 FCC Rcd at 4403-4.

⁷⁴ See *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 17 FCC Rcd 1244, 1281 (2001) ("*Eighth Annual Report*").

serve between 15,000 and 55,000 subscribers each. Most SMATV operators serve approximately 3,000-4,000 customers. Because these operators are not rate regulated, they are not required to file financial data with the Commission. Furthermore, we are not aware of any privately published financial information regarding these operators. Based on the estimated number of operators and the estimated number of units served by the largest ten SMATVs, we believe that a substantial number of SMATV operators qualify as small entities

Open Video Systems (“OVS”). Because OVS operators provide subscription services,⁷⁶ OVS falls within the SBA-recognized definition of cable and other program distribution services.⁷⁷ This definition provides that a small entity is one with \$ 12.5 million or less in annual receipts.⁸⁰ The Commission has certified 25 OVS operators with some now providing service. Affiliates of Residential Communications Network, Inc. (“RCN”) received approval to operate OVS systems in New York City, Boston, Washington, D.C. and other areas. RCN has sufficient revenues to assure us that they do not qualify as small business entities. Little financial information is available for the other entities authorized to provide OVS that are not yet operational. Given that other entities have been authorized to provide OVS service but have not yet begun to generate revenues, we conclude that at least some of the OVS operators qualify as small entities.

Electronics Equipment Manufacturers. Rules adopted in this proceeding could apply to manufacturers of DTV receiving equipment and other types of consumer electronics equipment. The SBA has developed definitions of small entity for manufacturers of audio and video equipment⁸¹ as well as radio and television broadcasting and wireless communications equipment.⁸² These categories both include all such companies employing 750 or fewer employees. The Commission has not developed a definition of small entities applicable to manufacturers of electronic equipment used by consumers, as compared to industrial use by television licensees and related businesses. Therefore, we will utilize the SBA definitions applicable to manufacturers of audio and visual equipment and radio and television broadcasting and wireless communications equipment, since these are the two closest NAICS Codes applicable to the consumer electronics equipment manufacturing industry. However, these NAICS categories are broad and specific figures are not available as to how many of these establishments manufacture consumer equipment. According to the SBA’s regulations, an audio and visual equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern.⁸⁵ Census Bureau data indicates that there are 554 U.S. establishments that manufacture audio and visual equipment, and that 542 of these establishments have fewer than 500 employees and would be classified

⁷⁶ See 47 U.S.C. § 573.

⁷⁷ 13 C.F.R. § 121.201 (NAICS Code 513220).

⁸⁰ *Id.*

⁸¹ 13 CFR § 121.201 (NAICS Code 334310).

⁸² 13 CFR § 121.201 (NAICS Code 334220).

⁸⁵ 13 CFR § 121.201 (NAICS Code 334310).

as small entities.⁸⁶ The remaining 12 establishments have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. Under the SBA's regulations, a radio and television broadcasting and wireless communications equipment manufacturer must also have 750 or fewer employees in order to qualify as a small business concern.⁸⁷ Census Bureau data indicates that there 1,215 U.S. establishments that manufacture radio and television broadcasting and wireless communications equipment, and that 1,150 of these establishments have fewer than 500 employees and would be classified as small entities.⁸⁸ The remaining 65 establishments have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. We therefore conclude that there are no more than 542 small manufacturers of audio and visual electronics equipment and no more than 1,150 small manufacturers of radio and television broadcasting and wireless communications equipment for consumer/household use.

Computer Manufacturers. The Commission has not developed a definition of small entities applicable to computer manufacturers. Therefore, we will utilize the SBA definition of electronic computers manufacturing. According to SBA regulations, a computer manufacturer must have 1,000 or fewer employees in order to qualify as a small entity.⁹⁰ Census Bureau data indicates that there are 563 firms that manufacture electronic computers and of those, 544 have fewer than 1,000 employees and qualify as small entities.⁹¹ The remaining 19 firms have 1,000 or more employees. We conclude that there are approximately 544 small computer manufacturers.

D. Description of Projected Reporting, Recordkeeping and other Compliance Requirements. At this time, we do not expect that the proposed rules would impose any additional reporting or recordkeeping requirements. However, compliance may require the manufacture of broadcast flag-compliant DTV receivers and other consumer electronics equipment. Compliance may also require broadcasters and/or content providers to include a content control mark within digital broadcast television programs. While these requirements could have an impact on consumer electronics manufacturers, broadcasters and content providers, such impact would be similarly costly for both large and small entities. We seek comment on whether others perceive a need for extensive recordkeeping and, if so, whether the burden would fall on large and small entities differently.

E. Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered. The RFA requires an agency to describe any significant alternatives that it has

⁸⁶ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Audio and Video Equipment Manufacturing, Table 4 at 9 (1999). The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information.

⁸⁷ 13 C.F.R. § 121.201 (NAICS Code 513220).

⁸⁸ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, Table 4 at 9 (1999). The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information.

⁹⁰ 13 C.F.R. § 121.201 (NAICS Code 334111).

⁹¹ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Electronic Computer Manufacturing, Table 4 at 9 (1999).

considered in reaching its proposed approach, which may include the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

As indicated above, the Notice seeks comment on whether the Commission can and should mandate a regulatory copy protection regime for digital broadcast television in order to facilitate the DTV transition. This regime may require the manufacture of broadcast flag-compliant DTV receivers and other consumer electronics equipment. It may also require broadcasters and/or content providers to include a content control mark within digital broadcast television programs. At this writing, no alternatives to our proposals herein have been mentioned because we anticipate no differential impact on smaller entities. However, we welcome comment on modifications of the proposals if based on evidence of potential differential impact.

F. Federal Rules Which Duplicate, Overlap, or Conflict with the Commission's Proposals. None.

CONCURRING STATEMENT OF COMMISSIONER MICHAEL J. COPPS

Re: In the Matter of Digital Broadcast Copy Protection, Notice of Proposed Rulemaking

The Commission today takes two major steps to encourage the nation's long-delayed transition to digital television. With this last agenda item, we move to resolve the continuing industry deadlock over inclusion of technologies to provide digital broadcast copy protection. In the previous item, we addressed the important issue of requiring digital tuners in our television receivers.

I have often said that the transition to digital television involves a number of moving parts. Each of these parts -- the broadcasters, the cable industry, set-top box manufacturers, receiver manufacturers and content producers -- spent a lot of time looking to the others to take the first step. Five years ago, the Commission established a schedule for broadcasters' transition to DTV, with the presumption that the other parts of the transition would follow. Instead, the transition has been delayed, partly by the lack of digital content, partly by the lack of sets capable of receiving digital signals. No one is wholly to blame for the delays. Like Pogo, we have met the enemy and it is... us. All of us. The Commission can be faulted for lack of judgment on what it would take to get the job done, and just about every segment of the industry can be faulted for delay and obfuscation along the way.

The history is not pretty, but it is just that -- history. That was then and this is now. "Now" is Congress telling us to get the transition done. "Now" is important segments of the industry finally stepping up to the plate and investing large amounts of money to make the transition happen. "Now" is Chairman Powell pushing all the players to commit the resources and the effort to get us, finally, across the finish line. "Now" is logjam-breaking time. And I believe many of the players understand this and should be commended for it.

Given digital media's susceptibility to piracy, the issue of content protection must be resolved before broadcasters will make new, innovative and expensive digital content widely available. Yet a decade of discussion among the players has yielded no solution. It is time for a solution. Today's Commission action should make this plain for all to understand. It should also make clear to various industry stakeholders that they have only a small window to reach agreement on the technicalities involved or they will face a solution imposed upon them in the near-term future.

I concur here because I would have preferred us to reach today a determination on the matter of the Commission's authority to impose a solution. I believe a strong case can be made that the statute provides us with such authority. I fear this question could cost us precious additional time, when we could have resolved it at the outset. I caution my colleagues not to let this become an issue that impedes our final action.

Although there is not a majority here to resolve the issue of the Commission's authority, I am nevertheless pleased that we are moving forward today to solicit stakeholder input on a number of other questions pertinent to the Commission's rulemaking on digital broadcast copy protection. I look forward to a full record that includes the views of all interested stakeholders, particularly consumer groups. Finally, permit me to reemphasize the urgency which I believe attends these digital television transition issues and my hope that the record can be expeditiously compiled so that we can proceed to final action within a very few months, at most.