The New Video Marketplace: A Regulatory Identity Crisis

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Executive Summary

- The Federal Communications Commission (FCC) finds itself in the midst of a regulatory identity crisis precipitated by technological change and by its stated policy of promoting competition in the video marketplace. Long-standing regulatory principles have been called into question as an increasing number and diversity of video services compete with traditional broadcast television to deliver information and entertainment to the home.

- Growth in the number and diversity of broadcast outlets as well as in sources of programming has called into question the notion that spectrum scarcity justifies the imposition of public interest obligations upon broadcasters. With techological developments blurring the distinctions between broadcasting, common carriage, and private radio, stakeholders in these video technologies have forced the FCC to reevaluate traditional regulatory classifications based upon these distinctions.

- While the FCC's efforts to adapt the existing regulatory scheme to new technologies have not always been consistent, three distinct trends can be perceived: (1) the Commission has increasingly permitted licensees to self-select the manner in which they will be regulated; (2) the Commission has professed a goal of regulatory parity, which seeks to place providers of comparable services on the same regulatory footing; and (3) the Commission has declined to apply the traditional regulatory classifications to services it has characterized as hybrid on the grounds that it may forbear from imposing particular regulations where the public interest warrants.

- Changes in the video marketplace, particularly the growth in number of broadcast outlets and the increasing availability of alternative video delivery systems, have been cited by the FCC as justification for a marketplace approach to regulation. Under that approach, the FCC has sought to eliminate governmental barriers that, in its view, interfere with the free play of market forces.

- In 1984, the average television household in the United States could receive at least nine broadcast signals and 97 percent could receive at least four signals. More than three-fourths of television-equipped households could receive at least one independent television signal.

- Between 1976 and 1983 the number of cable subscribers nearly tripled, to about 40 percent of television households. By the end of 1984, nearly one household in five had a videocassette recorder. Along with the estimated one million households with their own satellite antenna to receive programming similar to that carried by cable operators, hundreds of thousands of households have access to additional television programming by subscribing to satellite master antenna services and MDS services. Other transmission systems, particularly direct broadcast satellites and low power television, have been authorized and offer the potential for additional alternatives to existing delivery systems.

- Reflecting its view that the current radio-television market is workably competitve, the Commission has eliminated a number of regulatory requirements for broadcast licensees, including ascertainment, minimum program percentages, commercialization guidelines, and program logs. Regional concentration rules have been repealed and group ownership restrictions relaxed. In the area of technical standards, the FCC has increasingly relinquished its "traffic cop" role, reflecting its belief that the marketplace, not the government, should determine which technical system will prevail.

- The FCC's increasing reliance upon marketplace forces has been accompanied by a renewed emphasis upon antitrust law as a means of insuring that those forces remain unrestricted. Civil actions brought by the federal government and private parties are perceived as a remedy for market failure. In addition, the Commission has shown a heightened interest in antitrust law, and in economic measures of concentration, as a source of guidance for its public interest determinations.

- Congress and the Commission recently have acted to insure that state or local regulators do not interfere with the implementation of national telecommunications policies. As the Commission has moved to deregulate, state and local authorities have evidenced enthusiasm to extend their jurisdictions. The FCC has been careful to indicate to the states that deregulation at the federal level does not constitute an invitation for state regulations and that the decision not to regulate can establish a preemptive national policy as well as can a detailed regulatory scheme.

- The consequences of a marketplace approach, and the validity of its underlying assumptions, remain to be seen. Congress and the courts may place an ultimate check on the FCC's activities. The courts have already, for example, placed limits on the FCC's exemption of the new technologies from broadcast regulation. In addition, pressure from some stakeholders may mount on Congress to pursue further deregulation through statutory reform or, alternatively, other players may find they were better off in the stable regulated environment and seek Congressional relief.

- The challenge to policymakers over the rest of the decade is to develop a regulatory structure that accomodates the new and emerging technologies and the interests of conflicting stakeholders, consistent with the Communications Act and marketplace principles. Policymakers must not only weigh the needs of different spectrum users, but also accommodate the desire of players with existing markets for stability and restrictive rules on entry.

INTRODUCTION

Justice Holmes' observation that "[i]t cannot be helped . . . the law is behind the times"[1] has particular relevance to the communications industry which, since its inception, has been characterized by the "rapid pace of its unfolding."[2] Today, the Federal Communications Commission (FCC) finds itself in the midst of a regulatory identity crisis precipitated by technological change and by its stated policy of promoting competition in the video marketplace.

As a result of technological and regulatory developments, an increasing number and diversity of video services compete with traditional broadcast television to deliver information and entertainment to the home. At present, cable television, multipoint distribution service (MDS), subscription television (STV), satellite master antenna television (SMATV), videocassette recorders (VCR) and videodisc players (VDP), or some combination of these video services, are available to consumers. Direct broadcast satellites (DBS), low power television (LPTV), electronic publishing services (teletext and videotex) and private operational-fixed microwave (OFS) stations offer additional potential video programming outlets. Fiber optic technology could further expand the delivery of video, voice and data signals to the home. Increased spectrum efficiency, through analog compression, digital transmission, spectrum sharing and multiplexing techniques, could provide even more delivery system opportunities.

The changing competitive nature of the video marketplace can be attributed in large part to the proliferation and continual refinement of communications satellites as vehicles of video programming

distribution. By making possible an economical, efficient, national means of program transmission, satellite technology has contributed to the growth of independent television stations, cable television, SMATV and MDS. The impact of satellites may become even more apparent over the next decade with the attempts of various providers to sell home satellite broadcasting on a mass scale. As a result of recent developments in spectrum efficiency, such as reduced spacing between satellites and greater spectrum reuse, domestic satellites promise continuing growth in video delivery services.

This abundance of video delivery systems, many of which do not utilize broadcast spectrum, and the introduction of new firms seeking to employ these systems in the video marketplace, have led the FCC, the courts and Congress to reevaluate the fundamental tenets of broadcast regulation. The growth in number and diversity of broadcast outlets, and in non-traditional program sources, has called into question the notion that spectrum scarcity justifies the imposition of public interest obligations upon broadcasters.[3] Moreover, with technological developments blurring the distinctions between broadcasting, common carriage and private radio, stakeholders in these video technologies have forced the FCC to reevaluate traditional regulatory classifications based upon those distinctions.[4] Reflecting an increased recognition that there may be little difference to the consumer whether a movie is provided by broadcast television, MDS, cable or VCR, the Commission appears to be moving toward a regulatory approach under which the function of the service and the manner in which it is offered to consumers, rather than the spectrum allocation, determines the regulatory treatment. In the wake of a 1984 federal court decision[5]

expressing concern with the FCC's exemption of certain video delivery systems from broadcast regulation, the current FCC is likely to strive for a more consistent approach to regulation of the new technologies.

The emergence of a more diversified and flexible video marketplace — as well as a shift in regulatory philosophy — has been accompanied by a "marketplace" approach to regulation. Under that approach, the FCC seeks to promote competition by eliminating governmental interference with market forces and by easing regulatory burdens. That approach also reflects a belief that the marketplace is workably competitive and will achieve the desired public interest objectives without government regulation.

Objectives

In an effort to assist policymakers, both in and out of government, this paper attempts to provide a framework for the analysis of the video marketplace, leading to a more consistent and uniform approach. To this end, the video technologies that are presently, or will shortly be, available are described in an appendix, entitled "A Primer on the Video Marketplace." This paper begins with a discussion of the FCC's efforts to develop a coherent regulatory approach which accommodates the rapidly changing technology. It also traces the efforts of the Commission and the Congress to replace the traditional "public trustee" model of regulation with a marketplace approach. The paper concludes with a discussion of the issues that are likely to occupy telecommunications policymakers over the rest of the decade and perhaps beyond, and an assessment of how various stakeholders will fare as a result of changes in technology and regulation.

I.

AN IMPENDING REGULATORY IDENTITY CRISIS

A. LOSS OF SCARCITY AS A REGULATORY RATIONALE

A fundamental tenet of broadcast regulation is the scarcity of broadcast frequencies. Because one person's transmission is another's interference, Congress concluded in the Radio Act of 1927 and the Communications Act of 1934 that the federal government has the duty both to select who may and who may not broadcast and to regulate the use of the electro-magnetic spectrum to serve the public interest. Justice Frankfurter observed in 1943: "The radio spectrum simply is not large enough to accommodate everybody."[6] Government regulation, therefore, has been deemed essential to prevent "etheric bedlam."[7] In addition, the "inherent physical limitation"[8] of spectrum has justified the imposition of certain public service or program-related obligations upon broadcasters in return for the "free and exclusive use of a limited and valuable part of the public domain . . . ."[9]

Apart from natural limitations, the Commission's television allocation scheme has perpetuated spectrum scarcity.[10] The table of assignments adopted in 1952[11] confined television to the VHF and lower UHF spectrum,[12] even though other portions of the spectrum could have been reserved for home video and audio programming. Moreover, due to limitations in television receiver performance and the nature of the spectrum, not all of the commercial television channels allocated in 1952 are available for assignment in each community. As a result, only three VHF commercial outlets prevail in most markets.[13]

In the years since the scarcity rationale for broadcast regulation was first articulated, there have been dramatic changes in technology and in the broadcasting marketplace. In 1934, for example, there were 583 AM stations and no FM or television stations on the air.[14] As of December 31, 1984, there were 4,754 AM stations, 3,716 commercial FM stations, 1,172 noncommercial FM stations, 904 commercial television stations (539 VHF, 365 UHF) 290 non-commercial educational television stations (112 VHF, 204 UHF), and 336 low power television stations (204 VHF, 112 UHF).[15] The increase in television outlets, moreover, has not been confined to the major markets but has occurred in markets of varying size and in every region of the country.[16]

The increased number of broadcast outlets can be attributed, in part, to passage of the All Channel Receiver Act in 1962, which required manufacturers to equip most television sets to receive UHF signals.[17] The implementation of that legislation through various proceedings at the FCC has had a considerable impact on the growth and viability of the UHF service.[18] Improvements in receiver technology may further improve receivability of UHF stations. A 1983 report by the FCC's Office of Science and Technology describes the results of laboratory testing of an advanced UHF television receiver and other options for UHF receiver improvement.[19] Widespread interest in the development of better television pictures led to the formation of the Advanced Television Systems Committee, an industry-wide group dedicated to the investigation and standardization of new television systems and techniques.[20]

As a result of the growth in television outlets, broadcast service is now widely available. The average television household can receive 9.8 signals. And 97 percent of all television households can receive

four or more signals.[21] The Commission's television allocation goal -- to provide a choice of at least two television services to all parts of the United States[22] -- has thus largely been met. The authorization of LPTV and DBS may further expand the availability of free over-the-air television nationwide.[23] Moreover, outside the larger markets, channels in the VHF and UHF bands are still available.[24]

The growth in number of broadcast outlets has been accompanied by an increase in the number of video programming offerings. The use of satellites for program distribution has been largely responsible for this development, by providing a new source of programming for network affiliates as well as independent stations and alternative distribution networks.[25] Satellite technology has been perhaps the most significant reason why independent stations are more competitive.[26] For example, there are currently 86 different TV markets with independent stations, accounting for 78 percent of all TV households.[27] The networks' combined share of the television audience dropped 10 percent in one year when it fell in 1982 from 90 percent to approximately 80 percent, while independents and other over-the-air TV stations achieved a 17 percent share.[28]

Alternatives to conventional television further undermine the scarcity rationale. Although additional VHF outlets may be foreclosed in the larger markets, cable, MDS, LPTV, DBS, and videocassettes are increasingly available to American households.[29] Many of these delivery modes do not utilize broadcast spectrum, and thus are not subject to the natural limitations upon the use of those frequencies. Moreover, ownership of the newer video technologies is not highly concentrated.[30]

There has been an increase in the number of subscribers to these alternatives to standard television service. The number of cable subscribers almost tripled between 1976 and 1983.[31] The A. C. Nielsen Co. estimates that in 1983, cable television households increased 18 percent, to 39.3 percent of all television homes.[32] It has been predicted that up to 58 percent of television households will subscribe to cable channels by 1990 when cable will be available to an anticipated 84 percent of television households.[33]

In addition, there were about 500,000 MDS subscribers in 1983, with as many as 3 million subscribers predicted by 1990.[34] VCRs were present in more than 3.5 million homes in 1983, about 4.2 percent of all television households.[35] By early 1985, more that 17 million VCRs were in use or nearly one television household in five.[36] Video disc players were in 300,000 TV households.[37] It has been predicted that by 1990 more than 40 million television households -- almost 50 percent -- will own VCRs.[38] SMATV (satellite master antenna television -- found mostly in apartment complexes) has shown rapid growth and passed approximately 500,000 households in 1983, of which 150,000 subscribe.[39] It could reach an estimated 800,000 subscribers by 1990.[40] DBS and LPTV are other alternatives which have been described as having considerable audience potential in the future.[41] Except for cable and VCRs, these projections are for nascent industries and may not develop in the manner envisioned by industry prognosticators.[42]

The media environment is thus substantially different from that of 1927 when Congress, fearing that a small number of stations and equipment manufacturers were about to monopolize the limited frequencies available, passed the Radio Act of 1927.[43] In contrast to the early

history of broadcasting, a 1982 FCC study suggests that the supply of video programming exceeds demand since only 43.9 percent of homes with access to cable, STV and MDS services actually subscribe.[44] The same conclusion can be drawn from the fact that television channels outside the larger markets remain unused.[45] Moreover, even greater abundance has been predicted over the next decade as the result of growth in non-traditional programming sources and more efficient use of spectrum.[46]

Recognizing that changing competitive conditions in the video marketplace may have invalidated regulatory approaches based upon notions of spectrum scarcity,[47] the Commission, in several rulemaking proceedings, pointed to the growth in the number and diversity[48] of broadcast outlets and non-traditional programming sources as reason for reevaluating certain program-related rules. As more fully discussed below, these proceedings include the decisions not to impose mandatory programming quotas for children's programming and to eliminate ascertainment requirements, non-entertainment programming guidelines and commercial time standards for commercial television stations. In a July 1984 decision in League of Women Voters of California v. FCC, the Supreme Court indicated, in a footnote, its awareness that "[t]he prevailing rationale for broadcast regulation based on spectrum scarcity has come under increasing criticism in recent years" and stated that it might be prepared to reconsider its long-standing approach to the notion of broadcast spectrum scarcity upon receiving "some signal from Congress or the FCC that technological developments have advanced so far that some revision of the system of broadcast regulation may be required."[49]

B. EMERGENCE OF NEW TECHNOLOGIES AND NEW REGULATORY CLASSIFICATIONS

1. Traditional Regulatory Classifications

Technological developments have blurred the distinction between broadcasting and other services, leading to what one commentator has called a "convergence of modes."[50] To illustrate the extent to which the traditional classifications have been strained, the basic features of broadcast, cable, common carrier and private radio regulation are outlined below.

a. Broadcasting

(i) Commercial Broadcasting

The Communications Act of 1934 defines broadcasting as the "dissemination of radio communications intended to be received by the public, directly or by the intermediary of relay stations."[51] The meaning of the term derives mainly from a comparison with common carrier services, since, as the Act provides, "a person engaged in radio broadcasting shall not . . . be deemed a common carrier."[52] Broadcasting is also distinguished from "point-to-point" communications addressed to one or more specified reception points.[53]

Broadcasters are regulated under Title III of the Communications Act.[54] Under Title III, broadcasters are given broad discretion to determine the content of the programming they transmit and, with limited exceptions, are not required to provide access to their stations by others.[55] Detailed technical regulations are imposed upon licensees to prevent interference with other stations, and to insure maximum service to the community and the nation.[56] The main objectives are spectrum

management, compatibility of receiving and transmitting equipment, and assurance of a high-quality signal.

Broadcast licensees are considered to be public trustees with a responsibility to provide public service to their communities. For example, the Communications Act requires broadcasters to provide equal opportunities, reasonable access to their facilities and the lowest rates to candidates for political office.[57] FCC rules prohibit broadcasting lottery information,[58] running rigged contests,[59] and failing to disclose the source of consideration for material broadcast.[60] Broadcasters have specific obligations concerning coverage of political events and issues,[61] and they must provide adequate coverage of public affairs.[62] Broadcast regulation is also concerned with ensuring a diversity of voices. To this end, the Commission restricts ownership of multiple broadcast stations[63] and cross-ownership of broadcast stations by owners of other communications media.[64]

(ii) Noncommercial Broadcasting

The FCC has allocated spectrum exclusively for noncommercial broadcasters--public radio and television.[65] Stations using these reserved frequencies are licensed by the FCC and, with a few exceptions, are subject to the same regulations as commercial licensees.

Underlying the regulation of noncommercial broadcasters is the belief that freedom from profit-oriented commercial pressures will produce distinctive programs appealing to small, highly differentiated markets. Thus, licensees of public television stations are required to be nonprofit institutions with a cultural or educational orientation.[66] To maintain their noncommercial character, public broadcasters are

not permitted to accept compensation for on-air promotion of the goods and services of "for-profit" organizations.[67]

Unlike their commercial counterparts, many public broadcasters receive federal funding. A primary means of distributing such funds is through the Corporation for Public Broadcasting (CPB), a nonprofit entity created by the Public Broadcasting Act of 1967.[68] Between 1975 and 1980, the Public Broadcasting Act authorized $634 million in matching grants to be distributed to public stations through CPB.[69]

b. Cable Television

The FCC was initially reluctant to regulate cable television, believing that it lacked jurisdiction under the Communications Act. In the mid-1960s, however, the Commission resolved these doubts and embarked upon a period of active regulation in order to promote nationwide television service.[70] The Commission's jurisdiction over cable television was upheld in United States v. Southwestern Cable Co.[71] insofar as this jurisdiction is "reasonably ancillary . . . for the regulation of television broadcasting."[72] The Supreme Court subsequently applied the "reasonably ancillary" standard in United States v. Midwest Video Corp. (Midwest Video I)[73] to uphold FCC rules requiring cable systems to originate programming and to make available facilities for local production of programs.

The Supreme Court later limited the FCC's jurisdiction over cable television in the second Midwest Video case (Midwest Video II).[74] It interpreted section 3(h) of the Communications Act as preventing imposition of common carrier-type obligations upon cable operators. In so holding, it struck down Commission rules requiring systems with more

than 3,500 subscribers to provide access channels, to increase capacity to 20 channels, and to provide two-way non-voice communications.[75]

Since Midwest Video II, the Commission has retreated from further regulation of cable systems, and has, in fact, repealed the core of the cable regulatory structure which was based on an interindustry consensus reached in 1972.[76] In particular, the Commission rescinded distant signal carriage and syndicated program exclusivity restrictions on cable retransmissions.[77] Presently, the FCC ensures nonduplication protection for network and sports programs[78] and requires carriage of local broadcast signals by cable systems.[79] To the extent that a cable system engages in origination cable-casting, it must comply with equal time, fairness, lottery, and sponsorship identification requirements.[80]

Cable television systems, unlike broadcasters, are also subject to extensive local and, in some cases, state regulation. However, in the 1984 Capital Cities Cable decision the Supreme Court appears to have recognized the Commission's authority to regulate cable directly and not only as "reasonably ancillary" to its jurisdiction over broadcasting.[81] Shortly thereafter, the Commission clarified its claim of exclusive jurisdiction over the regulation of cable content and of rates charged for other than basic service, preempting state and local regulation in this field.[82]

Subsequent to the Capital Cities decision, Congress enacted the Cable Communications Policy Act and it is unclear whether the Supreme Court's apparent affirmance of the FCC's plenary or direct jurisdiction over cable remains viable.[83] The Cable Act, signed into law on October 30, 1984, establishes a national policy to encourage the growth and development of cable television services and to asssure that cable

systems are responsive to the needs and interests of the local communities they serve.[84] The Act, which reflects a compromise between the National Cable Television Association and the National League of Cities, limits franchise fees to five percent of a system's gross revenues, prohibits rate regulation except in areas with fewer than three over-the-air television signals, largely guarantees renewal of franchises, restricts the number of access channels required by local governments, and allows cable operators unilaterally to abrogate certain franchise terms.

c. Common Carrier

The Communications Act defines a common carrier as "any person engaged as a common carrier for hire."[85] In wrestling with this circuitous definition, the courts have concluded that a common carrier holds out, as available to the entire public for hire, facilities whereby all members of the same class of users who choose to employ such facilities may transmit intelligence of their own design.[86] Although AT&T still dominates the interexchange domestic common carrier industry, diverse new entities have entered the market.

Although common carriers and common carrier service offerings are regulated, in general, under Title II of the Communications Act, the FCC forbears from imposing some of these requirements where the carrier is nondominant. As a general matter, Sections 201 and 202 of the Communications Act outlaw unjust, unreasonable, and discriminatory practices by common carriers furnishing interstate and foreign communications.[87] The Act also requires the common carrier to file with the FCC "schedules showing all charges for itself and its connecting carriers for interstate or foreign wire or radio communications . . .

and showing the classification, practices, and regulations affecting such charges."[88] The Commission is empowered to determine the lawfulness of any new or existing charge, classification, regulation, or practice of a common carrier, and to prescribe just and reasonable ones.[89]

A common carrier must obtain a certificate of public convenience and necessity before constructing, expanding, or terminating lines of communication.[90] It must also establish terms and conditions of the service offering pursuant to a tariff. Common carriers are subject to rate of return and rate base regulation and may not discriminate unreasonably against users.[91] Unlike broadcasters, common carriers are subject to overlapping state and local as well as federal regulation of their rates and services. The states maintain their own regulatory agencies to exercise jurisdiction over common carriers operating within their borders.

d. Private Radio

Private radio services "include nationwide and international uses of radio by persons, businesses, state and local governments, and other organizations licensed to operate their own communications systems for their own use as an adjunct of their primary business or other activity."[92] Such services, which range from taxicab radios to police radios and radios used by persons in the motion picture, petroleum and forestry industries, include almost all users of the spectrum that fit neither the broadcast nor the common carrier model. The regulations are primarily technical and procedural, because the primary functions of private radio regulation are to allocate spectrum and to ensure its efficient and orderly use.[93]

Unlike broadcast and common carrier regulation, eligibility is usually restricted to those engaged in a specific activity. These special eligibility requirements are used as a means of allocating spectrum among classes of users and controlling the number of users. Technical regulation beyond allocation and frequency assignment is limited to interference control.[94]

2. The FCC's Attempts To Forge A New Regulatory Approach

The traditional, and discrete, regulatory classifications have been strained by the new technologies and older technologies used in new ways. DBS, MDS and STV, for example, resemble traditional, over-the-air broadcasting in that the programming may be similar to conventional television fare and they use a portion of the spectrum. When they transmit in scrambled form to subscribers, however, these services are akin to point-to-point communications which are directed to specific reception points. Entertainment programming, traditionally provided by broadcasters, can now be delivered by MDS, a common carrier service, and OFS, a private radio service. Regulatory dilemmas are also created by electronic publishing (e.g., teletext), which combines features of the print media, broadcasting and computers.

The FCC's efforts to adapt the existing regulatory scheme to these new technologies have not always been consistent. Nonetheless, three distinct trends can be perceived. First, the Commission has, in an effort to encourage greater autonomy, permitted the licensee essentially to self-select the manner in which it will be regulated. This approach appears in the Commission's treatment of DBS, teletext and subsidiary communications services, and in its decisions authorizing licensees to share excess spectrum capacity in the ITFS and broadcast auxiliary

service. Second, the Commission has professed a goal of "regulatory parity," which seeks to place providers of comparable services on the same regulatory footing. Third, the Commission has declined to apply the traditional regulatory classifications to services it has characterized as "hybrid" (such as STV, teletext, DBS and LPTV) on the grounds that it may forbear from imposing particular regulations where the public interest warrants.[95]

Although the Commission has, in some instances, eliminated artificial regulatory distinctions between services delivering comparable programming, it has in other proceedings, most notably in MDS, perpetuated these distinctions. Following the 1984 NAB v. FCC decision, however, the Commission has expressed its intention to initiate a new proceeding for the purpose of reexamining the regulatory classifications of such pay video services as DBS, MDS, STV and teletext.[96] And, at least in the case of multichannel MDS, the FCC has reversed its prior treatment of that service and decided, for the purpose of lottery selection, to classify it as a "medium of mass communication."[97] In addition, the Commission's reorganization of the Cable Television and Broadcast Bureaus into the Mass Media Bureau, including branches for cable, TV, LPTV, DBS and other technologies, indicates an interest in establishing a structure for a more uniform approach.[98]

a. Subscription Television

Ever since STV was introduced, the Commission has been troubled by the appropriate classification for the service and has attempted to reconcile the subscriber relationship with the definition of broadcasting as a service intended for general public reception.[99] Although

the Commission concluded that the subscription operations of radio stations were point-to-point communications, not broadcasting,[100] it reached the opposite conclusion about subscription television.[101] The FCC based its decision on the STV industry's "intent to provide a radio or television program service without discrimination to as many members of the general public as can be interested in the programs."[102]

The Commission more recently acknowledged that subscription television may be a hybrid, possessing qualities of both broadcasting and point-to-point services. In discussing subscription television operations, the Commission observed:

> [W]hile a service authorization by the Commission cannot at the same time be classified as both broadcasting and common carrier, it does not follow that all services which may be authorized by the Commission must be classifiable by the Commission as either one or the other. There is no question as to the Commission's authority to authorize the use of radiofrequencies [sic] for numerous kinds of services which are neither broadcast services nor common carrier services. The safety and special radio services abound in examples . . . .[103]

Consistent with this approach, the Commission concluded that it had authority to exempt subscription broadcast services from regulatory provisions that apply to conventional broadcasting.[104] It so held in the Third Report and Order[105] which, among other things, relieved STV operators of ascertainment and conventional programming requirements. In eliminating these "behavioral" rules, the Commission compared STV to other pay services such as cable which are not hampered by traditional broadcast regulations.[106]

b. Direct Broadcast Satellite Service

The Commission opted for a flexible regulatory approach in its interim rules for DBS.[107] It declined to specify a particular service

classification, emphasizing the need to gather experimental data as to whether, for example, "satellite operators find it most feasible to operate as broadcasters, common carriers, private radio operators, or some combination or variant of these classifications."[108] In the meantime, the appropriate regulatory approach will be determined on an ad hoc basis. The Commission stated:

> The appropriate statutory provisions will depend on the specific characteristics of the service each applicant proposes, including the proposed method of financing, whether the service would be offered to the general public, and the degree of control the applicant would exercise over program content. If the proposal falls within any of the conventional regulatory classifications for radio services, i.e., broadcast, common carrier or private radio, we will impose the statutory requirements of that service.[109]

Departing from the traditional approach, whereby utilization of spectrum allocated to a particular service defines the appropriate regulatory approach, the Commission indicated that a DBS applicant could choose the manner in which it would be regulated. Direct-to-home subscription services, over which the applicant retains control of the transmission content, would generally be classified as broadcast services.[110] On the other hand, if a DBS applicant chose to operate as a common carrier, it would have been required to offer its satellite transmission facilities indiscriminately to the public pursuant to tariff, under Title II of the Communications Act.[111] Under this approach, a DBS operator could "function as a broadcaster with respect to some channels and a common carrier with respect to others."[112]

The DBS proceeding also raised the question of how to regulate programmers who provide service directly to the public through facilities and frequencies licensed to a common carrier. The existing regulatory scheme, which clearly distinguishes broadcasters from common

carriers, does not address this problem. The Commission concluded that Congress did not intend that customers of common carrier operators be licensed and regulated as broadcasters. It cited the fact that similar systems, such as MDS, which provide subscription programming services to individual residences, were not subject to traditional broadcast regulation.[113] In so concluding, the Commission essentially permitted DBS channel programmers to avoid the same basic responsibilities and limitations as their counterpart terrestrial broadcasters, including the broadcast multiple ownership rules. In 1984, the U.S. Court of Appeals for the District of Columbia Circuit vacated the portion of the FCC's interim DBS regulations exempting DBS programmers from the statutory requirements imposed upon broadcasters. The court held that "[n]othing in the statutory definition [of broadcasting] allows the Commission to elevate form over function in this way nor suggests that the definition of broadcasting turns on whether the provider of the service leases satellite facilities from a common carrier or owns the satellite outright."[114] Noting the FCC's "strained statutory construction"[115], the court expressed concern that the FCC's exemption of common carrier DBS lessees from broadcast restrictions -- particularly the political broadcasting provisions -- could lead to "consequences at odds with the basic objectives of the Communications Act."[116] The court held that "DBS, at least when directed to individual homes, is radiocommunication intended to be received by the general public -- despite the fact that it can be received by only those with appropriate reception equipment."[117]

The court's decision creates uncertainty about the Commission's finding of "no inherent inconsistency" between the DBS rules and the

proposal of the now-defunct United Satellite Communications, Inc. (USCI), a video programmer, to use a fixed-satellite system for a DBS-type service.[118] In so concluding, the Commission relied on the technical differences between the fixed and DBS services, such as power, satellite spacing and antenna size.[119] As a result, however, two separate regulatory schemes govern the provision of essentially the same services. While home video programming is permitted under the fixed-satellite service rules, the satellite licensee leases or sells transponder capacity to a program distributor and is usually treated as a common carrier[120] in contrast to the DBS licensee who may, under certain circumstances, be regulated as a broadcaster. Like the DBS programmer, however, entities such as USCI are exempt from broadcast regulation.

c. Teletext

Teletext, which combines characteristics of publishing and broadcasting, has also posed a regulatory dilemma for the FCC.[121] On the one hand, teletext resembles the print media which are free from government regulation of programming content. On the other hand, broadcasters who lease transmission time to teletext operators may have little meaningful control over the programming transmitted, and, therefore, resemble common carriers. Teletext could also be considered broadcasting in that broadcast frequencies are often leased and the teletext transmission is frequently linked to the broadcast material, consisting, for example, of program schedules or subtitles. In authorizing the service, the Commission addressed the regulatory implications of teletext's hybrid nature, characterizing the service as representing a "unique blend of the print medium with radio technology."[122]

From all appearances, the Commission intends to perpetuate the traditional common carrier and broadcast distinctions in regulating teletext. The novel aspect of the Commission's approach is that broadcasters may, in certain circumstances, be subjected to common carrier or private radio regulation. The broadcast licensee who uses the VBI for teletext would be responsible for all transmissions of a broadcast nature. Nonbroadcast teletext activities, such as data transmission and paging, will be subject to the private radio and common carrier rules.[123] The licensee bears the responsibility for determining which regulatory classification applies.

The decision is significant in acknowledging that teletext's "unique blending of the print medium with radio technology fundamentally distinguishes it from traditional broadcast programming," and for exempting the service from political broadcasting and fairness requirements on those grounds.[124] The Commission did not, however, eliminate the fundamental discrepancy in regulatory treatment based upon the delivery system utilized. If teletext is delivered by a common carrier service, for example, it would be free from content regulation. In contrast, the television licensee who uses the VBI for teletext would be required to retain control over all material transmitted in a broadcast mode with the right to reject any material that it deems inappropriate or undesirable.[125]

d. <u>Multipoint Distribution Service</u>

Licensees in the Multipoint Distribution Service have traditionally been subject to the full panoply of Title II common carrier regulation. In reallocating an additional eight channels for MDS use in 1983, the Commission initially declined to alter the service's traditional

regulatory status. Under that scheme, MDS licensees are treated as common carriers, while MDS programmers are essentially unregulated even though those programmers are, in many respects, functionally similar to broadcast licensees. In a partial retreat from this traditional view, the FCC decided that for some purposes an MDS facility may be a medium of mass communication.[126] In so holding, the FCC moved closer to Commissioner Rivera's previously minority view that "[w]hile MDS is nominally regulated as a common carrier service . . . to the viewer, the wireless cable transmission is indistinguishable from other home video mediums [sic], no matter what their regulatory classification."[127] As he further pointed out, "MDS transmissions can influence social, cultural, political and moral values to the same extent as conventional broadcast television."[128] In Commissioner Rivera's view, the similarity between MDS and conventional television calls for the imposition of broadcast structural and behavioral regulation upon MDS licensees. Among the regulatory options proposed by Commissioner Rivera were various tariff prescriptions (e.g., preventing MDS licensees from leasing channels to entities already owning other media interests in the same market), a dual licensing scheme for MDS carriers and their programmer-customers or reclassification of MDS as a broadcast service.

Following the 1984 decision in NAB v. FCC, and the court's suggestion that the FCC's exemption of MDS programmer-customers from broadcast regulation may not withstand judicial scrutiny, the FCC indicated its intention to reevaluate its regulatory scheme for multichannel MDS and to resolve the question of whether any Title III broadcast responsibilities apply to MDS licensees.[129] That reevaluation

could ultimately mean that MMDS operators would be permitted to fully program their facilities and to be classified as non-common carriers.[130]

e. Instructional Television Fixed Service

The Commission has authorized licensees in the Instructional Television Fixed Service (ITFS) -- reserved for the transmission of instructional and cultural materials[131] -- to share or lease excess spectrum capacity to other entities.[132] As a result of that decision, ITFS frequencies can now be used by pay TV entrepreneurs and others to offer MDS-type services.

Even though ITFS licensees who engage in leasing will functionally resemble MDS carriers, the Commission decided that common carrier regulation would be inappropriate. It reasoned that such treatment might discourage or inhibit ITFS licensees from making spare capacity available. The Commission concluded that ITFS licensees were unlikely to deal with the public indiscriminately, since the primary purpose of the service, and the individual licensee's growth requirements, would require lessees to be selected on an individualized long-term basis. As the Commission explained: "We find nothing inherent in the potential leasing activities of ITFS licensees that would lead them to make indifferent offerings of excess capacity on the main channel."[133] In so holding, the Commission essentially adopted the approach it had utilized with respect to the sharing of broadcast auxiliary facilities.[134]

As in the teletext and FM subcarrier proceedings, however, the Commission indicated that, to the extent that the ITFS licensee uses its subcarrier or VBI to provide services of a common carrier or private radio nature, it will be treated in the same manner and with the same

benefits, obligations and responsibilities as the providers of similar services.

f. Private Operational-Fixed Service

The Commission had an opportunity, in authorizing the use of OFS systems for video entertainment distribution, to clarify the regulatory status of the service. It had deferred a decision on that issue at an earlier stage of the proceeding, pending the outcome of the DBS rulemaking.[135]

Initially, the Commission concluded that, due to the more limited, point-to-multipoint nature of the signals to be transmitted, the licensing of program distributors in the OFS does not prompt the same regulatory concerns as does nationwide DBS. It further held that OFS services are not broadcasting, even though the programming content may be similar. The key difference, in the Commission's view, was the fact that "OFS services are 'addressed' communications intended for, and directed to, specific points of reception -- the licensee's paying customers."[136] For this reason, the Commission characterized OFS entertainment transmissions as "hybrid" and exempted them from broadcast regulation.

Such services will be exempted from common carrier regulation as well since, under Commission rules, OFS licensees are required to have an ownership or contractual interest in the information or services they distribute.[137] However, the Commission has proposed to liberalize the scope of permissible sharing arrangements in the OFS by allowing eligible licensees to sell their excess capacity on a for-profit, private carrier basis.[138]

g. Noncommercial Broadcasting

Another distinction that has been blurred, in recent Commission decisions, is the one between commercial and noncommercial broadcasters. Reflecting a decrease in federal financial support of public broadcasting and a Congressional interest in encouraging alternative sources of funding,[139] the Commission has eliminated some of the distinctions between commercial and noncommercial broadcasters.[140] In authorizing non-commercial television broadcasters to share their auxiliary facilities on the same basis as commercial stations, the Commission expressly acknowledged its desire to insure the viability of public stations:

> Several factors lead us to this conclusion. First, it clearly reflects the intent of Congress in its recent decision to permit noncommercial broadcast stations to offer their facilities to others for remuneration. The noncommercial broadcasters commenting on this issue indicate that the additional revenues gained through offering their auxiliary stations to others may prove crucial in their efforts to overcome reduced federal funding. By allowing profitmaking, we are continuing our efforts to develop a regulatory environment that permits public broadcasters to make the most efficient use of their facilities and thereby supplement their revenues in the face of dwindling federal financial support.[141]

The FCC has also amended its rules to permit public broadcasters to broadcast logos and to identify product lines of program underwriters, thus relaxing the prohibition against promotional announcements of any kind.[142] It has also authorized public television stations to offer teletext services on a profit-making basis.[143] ITFS licensees, many of whom are public broadcasters, have been authorized to lease excess spectrum capacity for profit.[144] The FCC decided against allowing noncommercial television stations to offer STV services, but indicated that it would consider waiver requests for such operations.[145]

Thus, noncommercial broadcasting has become more like commercial broadcasting as the Commission has sought to create profitmaking opportunities for those licensees to offset decreases in funding.[146]

II.

THE INTERPLAY BETWEEN INDUSTRY CHANGES AND REGULATORY PHILOSOPHY

As growth in the video marketplace has undermined the traditional rationale for, and regulatory distinctions of, mass media law, the FCC has increasingly relied upon market forces to effectuate the policy objectives underlying its regulatory scheme. After describing the role that Congress has played in establishing national policies favoring the encouragement of new technologies and the elimination of burdensome regulatory requirements, this section discusses the FCC's efforts to implement a marketplace approach.

A. CONGRESSIONAL ACTION

1. Rewriting The Communications Act

Congressional actions have influenced the Commission's regulatory philosophy and have reflected changes in industry characteristics. From 1976 to 1980, Representative Lionel Van Deerlin, Chairman of the House Communications Subcommittee, proposed in the 94th, 95th and 96th Congresses a "basement to attic" rewrite of the Communications Act.[147] Although Van Deerlin's rewrite bill was not adopted, the introduction of other rewrite bills and the debate they elicited has had a significant impact on communications policy. For example, congressional oversight of the FCC's actions improved. Former FCC Commissioner Glen Robinson observed:

> As part of a studied effort over the last two years [1976-1977] to review and revise the entire legislative mandate of the FCC, the Subcommittee on Communications and its staff have shown greater attentiveness to, and more understanding of, important policy issues than has been evident for at least twenty years . . . .[148]

Robert Bruce, former FCC General Counsel, said he regards the "rewrite process" as having "an enormous impact" on the development of substantive policies by the Commission.[149]

The rewrite proposals, by threatening the FCC's survival, spurred the agency to action. The Commission adopted major decisions deregulating radio,[150] cable television,[151] and earth station licensing.[152] The FCC also took several bold initiatives providing open entry and federal deregulation in the common carrier industry.[153] With respect to the provision of new broadcasting outlets, the FCC "dropped in" four VHF television channels,[154] created a new low power television service,[155] and authorized a direct-to-home satellite broadcast service.[156] Van Deerlin and many other Washington, D.C. observers concluded that the FCC's bold actions "would have been impossible without the thunder and lightning sparked by those first two comprehensive bills."[157] The Commission implemented administratively many of the rewrite's legislative goals of deregulation and increased marketplace competition, thus taking some of the steam out of the drive for legislation and establishing the agency in a leadership role.

2. Federal Paperwork And Regulatory Flexibility Policies

The Commission has been influenced by recent Congressional policies placing a greater obligation upon federal agencies to reduce and/or minimize the scope of the regulations they generate. For example, the Regulatory Flexibility Act of 1980 is specifically designed to relieve small businesses and other entities from pervasive government regulation.[158] That Act requires the Commission and other administrative agencies to limit the potential impact of new regulations, and to reassess the continued necessity of existing regulations. Of particular

significance, the Act requires the Commission to reassess existing rules periodically so as to determine "the degree to which . . . economic conditions or other factors have changed in the area affected by the rule."[159]

The Congressionally mandated goal of federal paperwork reduction has also spurred the FCC's deregulatory efforts. In recognition of mounting and unprecedented paperwork burdens, Congress in 1974 determined that a renewed effort was necessary to control federal information requests, and created a Commission on Federal Paperwork to study the federal government's information-gathering activities.[160] In 1980, incorporating many of the Paperwork Commission's recommendations, Congress enacted the Paperwork Reduction Act to minimize the federal paperwork burden. That Act set a statutory goal of reducing the burden of existing information demands upon the public 15 percent by October 1, 1982, and an additional 10 percent the following year through the elimination of regulatory burdens that are found to be unnecessary and thus wasteful.[161] Heeding this Congressional mandate, the Commission has taken a number of actions designed to reduce paperwork burdens, including simplifying the license renewal application for broadcast stations.[162]

3. National Policy Favoring The Encouragement Of New Technologies

In enacting the "Federal Communications Commission Authorization Act of 1983,"[163] Congress added language expressing a national policy "to encourage the provision of new technologies and services to the public."[164] Not only has a statutory presumption been created that any new technology or service is in the public interest -- placing the burden on those opposing introduction -- but the Commission is now

obligated to make a public interest determination as to any new technology or service within one year after a petition or application is filed, or 12 months after the date of enactment of the statutory provision, if later.[165] This statutory amendment thus makes more explicit the Commission's obligation under Section 303(g) of the Communications Act to "study new uses for radio, provide for experimental uses of frequencies and generally encourage the larger and more effective use of radio in the public interest."[166] It reflects an intention to provide for a more competitive telecommunications marketplace by easing entry: "The development of new technologies and the efforts of competitors seeking to respond to consumer demands will bring more service to the public than will administrative regulations."[167]

4. National Policy Promoting Competition In Cable Communications

The Cable Communications Policy Act of 1984 amends the Communications Act to establish a comprehensive national cable television policy.[168] The Act reflects a wide variety of political tradeoffs and policy decisions, many of which resulted from last-minute negotiating sessions between the National Cable Television Association, the National League of Cities, and the U.S. Conference of Mayors.[169] The Act's ambivalent nature (namely, a mixture of regulatory and deregulatory provisions) is underscored by the statements of purpose scattered throughout its legislative history. The Senate bill (S.66) contained "findings" that "competition is a more efficient regulator than government," and that "the deregulation of telecommunications services should occur."[170] A stated "purpose" of S.66 was to "eliminate government regulation in order to prevent the imposition of an unnecessary economic burden on

cable systems."[171] As passed by the Senate in June 1983, S.66 was largely deregulatory by limiting the powers of state and local governments. On the other hand, the House bill (H.R. 4103) restricted local authorities less and imposed new federal regulations on cable operators.[172] Its legislative purposes included not deregulation, but rather the growth of the cable industry, its responsiveness to local needs, and the provision of a diversity of information sources and services to the public.[173]

The final compromise measure retained the "purposes" of the House bill, to which the Senate added one further goal: "promot[ing] competition in cable communications and minimiz[ing] unnecessary regulation that would impose an undue economic burden on cable systems."[174] This weakened version of the original Senate declaration is in keeping with the Act's reduced emphasis on deregulation. Perhaps the most noteworthy achievement of the Act is its assurance of stability of franchise renewal. One of the Act's stated purposes is to "establish an orderly process for franchise renewal which protects cable operators against unfair denials of renewal where the operator's past performance and proposal for future performance meets the standards established by [the Act]."[175]

B. FCC IMPLEMENTATION OF A MARKETPLACE APPROACH TO BROADCAST REGULATION

1. Changes In FCC Regulatory Philosophy

The FCC's conception of a wide-open video marketplace and the resulting structural changes within the agency (such as the creation of a Mass Media Bureau) are rooted in actions taken by President Carter's FCC chairman, Charles Ferris. Ferris in effect transformed the Office of Plans and Policy into an office of "Chief Economist." He introduced

a substantial number of economists into the highest levels of FCC decision making and created an atmosphere in which past legal structures for broadcast regulation were challenged by economic models favoring open entry for new technologies.[176] His legacy includes the Network Inquiry Special Staff Report, which has served as the basis for many of the recent deregulatory initiatives.

The succeeding chairman, Mark Fowler, appointed by President Reagan, has also endorsed an open entry philosophy, whereby "new players [are] encouraged to come into the field."[177] Calling the FCC the "last of the New Deal dinosaurs,"[178] Fowler advocates a marketplace approach under which broadcasters are viewed not as fiduciaries of the public, but as marketplace competitors.[179] Instead of defining public demand and specifying categories of programming to serve this demand, Fowler believes that the Commission should rely on "the broadcasters' ability to determine the wants of their audience through the normal mechanisms of the marketplace."[180]

Reflecting these new regulatory philosophies and changing competitive conditions in the video marketplace, the Commission has consolidated all video services under one Mass Media Bureau, including branches for cable, broadcast television, LPTV, DBS and other new technologies.[181] In the Commission's view, "this reorganization creates an integrated organizational structure for the administration of Commission policies regarding traditional broadcasting, cable television and the emerging television delivery systems by combining these essentially similar consumer services into a single Bureau."[182] This consolidation, the Commission believes, will lead to faster and more efficient authorization of service, reduction of duplicate recordkeeping, less confusion

about FCC services among consumers, greater flexibility of staff utilization and more orderly development of emerging television delivery technologies.

2. Specific FCC Actions

a. Radio Deregulation

The analysis employed in the FCC's radio deregulation decision has served as a basis for the "marketplace approach" employed in later deregulatory actions. In that proceeding,[183] the Commission eliminated its internal processing guidelines, which required full Commission consideration of any renewal application proposing less than eight percent (AM stations) or six percent (FM stations) non-entertainment programming, or proposing to broadcast more than 18 minutes of commercial matter per hour. Formalistic requirements for ascertainment of community leaders and for a general public survey were also eliminated for commercial radio licensees, as was the Commission's program log requirement.

These Commission actions were upheld by the U.S. Court of Appeals for the D.C. Circuit.[184] The court decision made clear that none of the Commission requirements under consideration is mandated by the Communications Act or judicial intepretation of that statute but, rather, that they are regulatory devices created by the Commission and can be changed in light of experience.[185] While the court held that nothing in the Communications Act compelled the FCC to retain program logs, it directed the Commission to give further consideration to that issue, particularly the alternatives that might be employed to permit the public to assess individual station performance and to permit the agency to monitor the success of its deregulatory regime.[186]

The Commission, with court approval, relied upon present market conditions in the radio industry as the basis for deregulation. In particular, the agency noted the dramatic growth of the radio industry, of FM radio service and of alternative sources of informational programming.[187] It stressed that the increased number of outlets has led, in turn, to increased specialization and competition in the radio marketplace.[188] Radio, the Commission concluded, has been largely transformed into a specialized medium, offering programming geared to narrower audiences.[189]

The Commission concluded that its public interest mandate compelled it to review and modify its regulations in light of changes in the radio industry. Indeed, it observed, "failure to so do could constitute less than adequate performance of our regulatory mission."[190] The Commission stated:

> It is well settled that [the public interest] standard was deliberately placed into the Act by Congress so as to provide the Commission with the maximum flexibility in dealing with the ever changing conditions in the field of broadcasting. Moreover, a wide latitude has been provided the Commission to modify its regulations in the face of such changes. We believe that it is entirely consistent with our authority, and our mandate, to consider the changes in broadcasting that have occurred, at an ever accelerating pace, over the past half century, and to adapt our rules and policies to those changes.[191]

In addition to establishing the Commission's authority to adapt its regulations to changing characteristics of the industry, the decision also evidences a belief that marketplace forces, rather than government regulation, can act as an incentive for licensees to provide program diversity.

In this regard, the radio program format case, FCC v. WNCN Listeners Guild,[192] is also significant. The Supreme Court there upheld

the Commission's decision to no longer review format changes in radio license renewal or transfer cases, but instead to rely upon market forces rather than government supervision to promote diversity in entertainment programming.[193] Calling the market the "allocation mechanism of preference," the Commission found that competition had already produced a "bewildering array of diversity" in entertainment formats.[194] In the Commission's view, the market is more flexible than government regulation and responds more quickly to changing public tastes.[195] The Supreme Court agreed with the FCC's conclusion that, for these reasons, "its statutory duties are best fulfilled by not attempting to oversee format changes."[196]

b. <u>Television Deregulation</u>

(i) <u>Low Power Television</u>

In authorizing a low power television service, the FCC relied upon "marketplace forces" to fulfill many of the policy objectives underlying conventional broadcast regulation.[197] This decision, therefore, established a framework for further deregulation.

The Commission adopted minimal programming requirements for the new service. As a result, LPTV stations need not comply with the formal ascertainment, minimum hours of operation, commercial time, program log, and programming requirements applicable until June of 1984 to full service television stations except where compelled by statute.[198] The Commission reasoned that "government surveillance" of LPTV stations would interfere with marketplace conditions.[199] Given the limited coverage areas of LPTV stations, the FCC concluded that responsiveness to local needs would be a condition of economic survival. The technical nature of the new service, the Commission observed, also warranted

departure from the general principle of broadcast regulation that all elements of the community be provided with program service.[200] For these reasons, the agency left programming decisions to the discretion of licensees, and to the demands of the marketplace:

> In many instances, particularly in rural or remote areas, low power stations will be set up specifically to fill local needs. In areas where the marketplace demands coverage of local events of common interest, licensees can be expected to provide it. In some urban markets, unserved ethnic enclaves may be targeted for low power service. But in a major market that already receives adequate local coverage from several full service stations, a low power licensee may discover and attempt to fill a need for additional national news, sports or entertainment programming. Such judgments properly are left to licensees; it is in their interest, and the public's, to garner audience by attempting to serve unmet needs.[201]

The Commission also adopted flexible ownership policies for the new service, dispensing with limits on the maximum number of stations permitted in common ownership, and with the restrictions on ownership by existing broadcast licensees in their markets. Due to the uncertain viability of the new service, it concluded that the possible loss of new entrants would be outweighed by the benefit of permitting experienced broadcasters to develop the service initially.[202]

(ii) Children's Programming

Concluding a 13-year inquiry into television programming and advertising addressed to children, the Commission, in December 1983, declined to impose a national mandatory quota for children's programming.[203] Instead, the Commission stressed each licensee's continuing duty, under the statutory public interest standard, to respond to the needs of the child audience.[204] In so holding, the Commission disagreed with the 1979 conclusions of the Children's Television Task Force that the economic incentives of the advertiser-

supported broadcasting system do not encourage the provision of specialized programming for children. In particular, the Commission found that the Task Force had erroneously failed to consider (1) the growth in the number of commercial stations and their increased receivability; (2) programming on noncommercial stations; (3) cable program service; and (4) child viewing of "family"-oriented television.[205] The growth of alternative video outlets, the Commission noted, tended to result in market segmentation and a resultant greater attention to specific subgroups such as the child audience.[206]

(iii) Elimination Of Other Content-Related Requirements

On June 27, 1984, the Commission eliminated the minimum program percentages, ascertainment requirements, commercial time standards and program log rules for commercial television stations,[207] paralleling the rule changes previously adopted for radio. In instituting the proceeding a year earlier, the Commission had announced an intention "to evaluate the marketplace to determine whether the public interest can be furthered by competitive forces rather than by the Commission's existing rules and policies."[208] While inviting comment on several options, ranging from substantial deregulation to no deregulation at all, the Commission's decision ultimately opted for the most extreme revisions, reflecting its view that the marketplace will achieve the underlying regulatory objectives without government intervention.

As justification for regulatory review, the Commission noted several factors. First, it pointed to the increasingly competitive nature of the video marketplace.[209] Second, it raised a question as to whether these changing competitive conditions could inhibit the ability of television licensees to compete with other unregulated or less

regulated technologies.[210] Third, the Commission noted the Congressional expression of a strong national policy against government regulation, reflected in the Paperwork Reduction and Regulatory Flexibility Acts.[211] Fourth, the Commission noted that its programming guidelines and commercialization policies relate to the sensitive area of program content and could impinge upon the broadcaster's editorial discretion, presenting an even more compelling case for reassessment.[212] Finally, the Commission acknowledged that broadcasters appear to be presenting more informational, local and nonentertainment programming than called for under the programming guidelines and less commercial material than permitted.[213]

The Commission has also instituted a proceeding in 1984 to reexamine the fairness doctrine obligations of broadcast licensees.[214] The fairness doctrine imposes upon broadcasters the obligation to cover controversial issues of public importance and to provide reasonable opportunities for the presentation of contrasting viewpoints on such issues.[215] In initiating reexamination of the 30-year-old policy, the Commission noted that "significant new developments and changes in the electronic and print media over the past decade have contributed to an extremely dynamic, robust, and diverse marketplace of ideas that may call into question the continued necessity of the doctrine as a means of insuring the attainment of First Amendment objectives."[216]

c. Cable Television Deregulation

In June 1981, the United States Court of Appeals for the Second Circuit affirmed the Commission's decision to deregulate cable television by rescinding the distant-signal and syndicated-program exclusivity rules.[217] The distant-signal rules limited the number of

signals from distant commercial stations (beyond 35 miles of the cable system) that the system could retransmit to its subscribers, in order to protect local stations.[218] The syndicated-program exclusivity rules authorized local television stations, which had purchased exclusive exhibition rights to a program, to demand that local cable systems delete that program from distant commercial signals.[219] The extent of this protection varied according to market size, program type, and time of showing.[220]

The Commission based cable deregulation upon several econometric and case studies concerning the impact of cable television on local station audiences and future cable penetration rates.[221] It found that deregulation would have a negligible impact on local broadcast stations, and would, in fact, increase viewing options for consumers due to the greater availability of expanded cable services.

The Commission also cited the imposition by Congress of copyright liability upon cable television systems as a justification for deregulation.[222] In 1976, Congress established a compulsory licensing system, under which cable operators would be permitted to retransmit programs without the consent of the copyright owners, in return for payment of a prescribed royalty fee based upon the system's gross revenues and its carriage of distant signals.[223] The Commission believed that enactment of this statutory scheme eliminated the need for regulations that had served to protect broadcast property rights in the absence of copyright liability.[224]

Since deletion of those rules, it appears that copyright royalties may, in fact, operate to limit carriage of distant signals and syndicated programming. The Copyright Royalty Tribunal substantially

increased the rates that cable operators must pay for broadcasting such signals.[225] This economic factor initially caused many cable systems to drop the programming they picked up after the Malrite decision and substitute other, made-for-cable program services for some distant television signals.[226] However, during 1984, the distant carriage of television stations WTBS, WOR and WGN increased, with two additional "superstations" (WPIX, New York, and KTVT, Dallas-Ft. Worth) being offered to cable systems.

d. Subscription Television Deregulation

The Commission has deregulated subscription television in significant respects in an effort to give free reign to marketplace forces: (1) It eliminated the "complement-of-four" rule that restricted STV operation to communities primarily served by at least five commercial television stations including the STV operator; (2) it deleted the requirement that STV stations broadcast at least 28 hours of conventional (free) programming per week; (3) it decided to permit operators to sell, as well as lease, decoders; and (4) it relieved STV licensees from ascertainment obligations with respect to STV programming.[227] More recently, the Commission has exempted STV stations from the conventional television signal quality standards.[228]

The "complement-of-four" rule was originally adopted to assure that pay TV would not replace an existing free service or utilize a vacant channel that would otherwise be available for a conventional station. The Commission later concluded, however, that current market conditions ensure that conventional programming would not be significantly impaired by eliminating the rule. Moreover, the Commission observed that the

rule placed STV licensees at a competitive disadvantage compared to pay cable operators.[229]

The "28 hour" rule, also designed to ensure the availability of conventional programming, mandated that a minimum amount of such programming be broadcast by STV stations. In deleting this requirement, the Commission noted that the "mix of conventional and pay programming might better be determined by the judgment of the individual entrepreneur and the demands of the marketplace,"[230] rather than by "an arbitrary government rule."[231] The rule, in the Commission's view, served no public interest function, and its elimination would result in greater programming diversity by enabling the licensee to make programming determinations in response to audience demands.

Other elements of STV deregulation were also motivated by the FCC's analysis of the video marketplace. The decision to permit the sale of decoders by STV licensees and other entities, over the objections of system operators concerned about piracy, was influenced by the fact that "other pay technologies, such as cable, are offered on a lease or purchase basis. . . ."[232] Elimination of ascertainment obligations for STV licensees also reflected a marketplace approach. The Commission stated:

> [W]e believe that ascertaining the community's STV interests can be more than adequately accomplished by the operation of the marketplace. It seems evident that consumers subscribe only to those pay television systems offering programs meeting their STV interests. It is clearly in the operator's best interest to fashion station offerings to meet those needs.[233]

In sum, this recent deregulatory decision is significant in its assumption that STV competes with alternative forms of home video entertainment such as cable, pay cable and MDS, and that the STV licensee should be placed on an equal footing with its competitors.

e. Common Carrier Deregulation

The FCC has decreased its regulation in the common carrier field in ways that parallel its marketplace approach in the broadcast area. While a detailed discussion of this issue is beyond the scope of this paper, some of the more noteworthy FCC decisions in this area are briefly mentioned.

In its Second Computer Inquiry (Computer II), the Commission provided the conditions under which AT&T could engage in the competitive data processing business.[234] The FCC there decided to limit common carrier regulation to "basic transmission services," defined as the provision of pure transmission facilities indifferent to the information transmitted.[235] Any offering that is more than a basic transmission service is considered an "enhanced service" not subject to common carrier regulation.[236] The Commission also decided that all new customer premises equipment (CPE) would be offered on an unregulated basis after January 1, 1983.

The decision reflects the Commission's recognition that any new attempt to formulate regulatory distinctions between communications and data processing would be quickly outdated by technological advances, further blurring the already elusive boundary. The Commission identified several advantages in forbearing from regulation of enhanced services. First, it would be able to focus its regulatory efforts on the underlying basic services clearly covered by the Communications Act, and would be relieved of the time-consuming chore of *ad hoc* determinations to distinguish enhanced services which may arise from future technological advances. Second, it would provide maximum flexibility to service vendors in structuring their enhanced offerings to meet

individualized customer needs without fear of overstepping some arbitrary boundary delineating the regulated from the unregulated. Third, consumers would benefit from the additional economies of scale that would be likely to result from the greater use of the basic telecommunications network.[237]

Other than almost complete deregulation of customer premises equipment, the basic interexchange telecommunications business is still regulated, especially as it applies to AT&T. Moreover, the FCC has to contend with the effect of the ruling of Federal District Judge Harold Greene, under whose auspices the restructuring of AT&T is proceeding, Congress also continues to make waves in this area. The 50 state utility regulatory commissions continue to hold a tight rein over the local exchange telephone companies. It may take years, if it happens at all, to evaluate the ultimate ability of AT&T, the local telephone companies, and other common carriers such as MCI and Western Union, to compete in the video and data-carriage markets with cable and Title III regulated entities.[238]

In another decision, the FCC concluded that it has the authority to forbear from regulating common carrier services under appropriate circumstances.[239] In particular, Title II regulatory requirements may be waived "[w]here [the FCC] determine[s] that the cost of such regulation outweigh[s] any perceivable benefits."[240] Initially, this authority will be exercised to eliminate section 214[241] and tariff requirements with respect to certain "pure resellers" (i.e., carriers that do not own any transmission facilities). This action represents a limited first step toward deregulation that is probably intended to

serve as a court test for the FCC's newly asserted discretion to forbear from regulating common carriers under the Communications Act.

f. Technical Standards

The FCC's actions with respect to technical standards reflect a belief that the marketplace, not the government, should determine which technical system will prevail. With respect to new communications services, the Commission has opted merely to establish minimum performance standards. In the case of existing services, the FCC has undertaken to examine the continued validity of various technical standards, proposing in some cases to retain these standards only as voluntary guidelines.[242]

After a half-decade of deliberations, the FCC decided to allow the marketplace to determine the AM stereo system or systems best suited for United States broadcasting.[243] Faced with five competing systems proposed by five different manufacturers, the Commission elected simply to set minimum performance standards that all five systems would be capable of meeting.[244]

In pursuing its "marketplace" approach, the FCC wrote that its failure to select a system could mean that no system would be adopted widely enough to sustain AM stereo in the market.[245] The Commission, however, viewed this outcome as preferable to one in which the government, by endorsing a particular technical system, guarantees its success.[246] Governmental interference with normal market development, in the Commission's view, could only be justified by extraordinary circumstances. The Commission observed:

> A very strong case would have to be made in order to override the inherent benefits of consumers making their own choices rather than having their decisions made by government . . . [O]ur society generally has not seen fit

> to supplant the free decisions of consumers with those imposed by government, and there is no convincing reason why AM radio represents a special case.[247]

The Commission employed a similar "open marketplace" approach in the DBS proceeding. It declined to impose technical standards upon DBS systems since, in its view, such standards could stifle development of the new service.[248] A flexible approach was perceived as the best way to permit DBS operators to respond to advances in technology, and to encourage the introduction of new services.[249]

In authorizing broadcast teletext, the Commission similarly concluded that the choice of a technical system should be left to the discretion of individual licensees.[250] The Commission pointed out that an open market approach would allow licensees the freedom of choice necessary to operate teletext services tailored to their own specific situations and to respond to changes in demand and technical options.[251] The open market approach, in its view, would best provide a mechanism for resolving the trade-offs among system features and prices that are extremely difficult for regulatory decision makers to resolve. Additionally, the Commission believed that its approach would hasten introduction of the service, by avoiding years of delay, while the agency attempted to specify standards for a single system.[252]

A marketplace approach was also adopted in the Commission's proceeding to authorize multichannel television sound (popularly referred to as "TV stereo").[253] Consistent with its AM stereo, DBS and teletext decisions, the Commission declined to select a single technical system, opting instead to "allow the processes of change and development associated with both user preference and technology to evolve unencumbered by the costs and delays associated with changing government

regulations."[254] In addition, the Commission proposed to govern TV aural subcarrier use only by the technical rules necessary to ensure integrity of service and to preclude interference to other licensees.

Unlike AM stereo, the TV stereo proeeding was marked by general industry agreement. Industry representatives, through the Multichannel Sound Subcommittee of the Electronic Industries Association, presented the FCC with a specific proposal for adoption of a single technical system, known as the Broadcast Television Systems Committee (BTSC) system. The Commission sought to reconcile the investments of television receiver owners who purchase units designed for BTSC reception with the opportunity for marketplace advances in technology. It did so by insuring that receivers designed for the BTSC system will not respond to non-BTSC signals.[255]

In another development affecting technical standards, the Commission instituted a proceeding in April of 1983 with the view to eliminating many of its technical rules and policies.[256] The FCC proposed the deletion of all transmission system requirements for AM, FM and television stations and began an inquiry into the continued usefulness of minimum quality or performance standards for equipment and services; equipment interoperability requirements; interference control regulations; and spectrum efficiency rules.

Section 624(e) of the 1984 Cable Communications Policy Act confirms the jurisdiction of the FCC to establish technical standards relating to the facilities and equipment of cable systems that are required by a franchising authority. While the FCC has proposed to delete regulation of the technical quality standards for carriage of broadcast signals by

cable systems, it intends to retain those standards as simply unenforceable guidelines in order to preempt state regulation.

g. Ownership Rules And Policies

The Commission's ownership rules and policies have been directed toward insuring diversification of control over local mass communications media as a means of promoting ideological and economic diversity.[257] The Commission has undertaken significant revisions of its ownership rules and policies under the marketplace rationale.

(i) Elimination Of The Trafficking Rule

On November 18, 1982, the Commission deleted the "trafficking" rule, which, in effect, required that broadcast licenses be held for at least three years before an assignment or transfer of stock control could be consummated.[258] The Commission concluded that, in the present competitive environment, the public interest would be best served by allowing marketplace forces to regulate station sales.[259] Under the new approach, broadcast licensees who obtain their licenses through means other than the comparative hearing process are no longer required to hold their licenses for a particular period before those licenses can be sold for a profit.[260]

The FCC's decision, characterized by Chairman Fowler as "a true blockbuster in the unregulation process,"[261] marks a significant step forward in the Commission's overall policy of increased reliance on marketplace forces rather than restrictive regulation to achieve its public interest objectives.[262] Consistent with Chairman Fowler's view, the Commission's "trafficking" decision finds profit and public service to be compatible.

Responding to the concern that "a licensee who acquired a station with a primary interest in imminent resale would work to increase the station's resale value rather than making a meaningful effort to provide programming in the public interest,"[263] the Commission observed that marketplace forces would mitigate against such a result. "[I]n broadcasting, like any other business, important services can be performed by people who trade broadcast properties, rehabilitate ailing stations with new capital and ideas or relieve unwilling licensees of the responsibility of running a station they no longer want."[264]

(ii) Modification Of The Ownership Attribution Rules

Effective June 6, 1984, the FCC adopted comprehensive revisions to its rules specifying the ownership interests in broadcast, cable television and newspaper properties that will be considered in determining whether particular media transactions are consistent with its multiple and cross-ownership rules and policies.[265] The rule revisions greatly expand the opportunities for ownership by entities with existing media interests and thus narrow the scope of the Commission's multiple and cross-ownership rules and policies. Prompting the revisions was the Commission's recognition that "the industry and the investment community have evolved dramatically" and its belief that a relaxation of the benchmark "might serve the public interest by increasing investment in the industry and by promoting the entry of new participants, particularly minorities, by increasing the availability of start-up capital."[266]

(iii) Elimination Of The "Top-50" Policy

The Commission's "Top-50" Policy required those seeking to acquire a fourth TV station (either UHF or VHF) or third VHF station in the top 50 television markets to make a compelling public interest showing that the benefits of such ownership would "overcome the detriment with respect to the policy of diversifying the sources of mass media communications to the public."[267] In abolishing this policy, the Commission relied largely upon changes in the video marketplace that had lessened concentration levels.[268]

The Commission noted that the creation of new, competitive video outlets such as LPTV, and the existence of other multiple ownership rules, tend to foster diversity of program voices on the local and national levels.[269] Based on an analysis of economic concentration in the top-50 markets since 1968, the Commission found no trend toward increasing concentration.[270] To the contrary, the Commission determined that "the top fifty markets are the very markets with the greatest number of competing voices, so that each owner's expected share of that potential audience will be much less."[271]

(iv) Relaxation Of The Cable Telephone Cross-Ownership Rule

The Commission has carved out a limited exemption from the ban on cable telephone cross-ownership, for rural areas.[272] Now telephone companies may operate cable television systems in rural areas, defined as places with fewer than 2,500 inhabitants, a definition encompassing roughly 26.3 percent of the United States population.[273] Waivers of the rule are still required where a competing cable system is under construction or in existence.

In authorizing this limited entry by telephone companies, the Commission noted that competition would facilitate service to under served rural areas. This benefit, in the FCC's view, outweighed the need to protect the cable television service from competition.[274]

Congress, in enacting the Cable Communications Policy Act of 1984, codified the thrust of the FCC's rules governing cable/telephone company cross-ownership. The Act makes it unlawful for a telephone company to provide video programming to cable subscribers in its service area, but exempts telephone companies in "rural areas."[275] Unlike the FCC's rules described above, the Act provides that a telephone company need not apply for waiver.

(v) Modification Of The "7-7-7" Restrictions

On July 26, 1984, the FCC modified the so-called seven-station rule which prohibits a single person or entity from owning more than seven AM stations, seven FM stations or seven TV stations, only five of which may be VHF.[276] The FCC opted for a gradual phase-out of these broadcast ownership restrictions, adopting a six-year transitional limitation of 12 AM, 12 FM and 12 TV (whether VHF or UHF) stations. As initially proposed by the FCC, the transitional limitation would expire at the end of six years, permitting unrestricted national ownership of broadcast stations, unless experience should show that continued FCC involvement is warranted to prevent undue concentration.

Following the FCC's action, several members of Congress requested that implementation of the rule changes, with respect to television stations, be suspended to permit review and reconsideration of the issues raised. Responding to this expression of strong Congressional interest, the FCC first stayed the effect of the decision insofar as it

relates to television station ownership,[277] and then modified the rule to provide an ownership cap for television stations of a 25 percent aggregate national audience reach. The FCC also eliminated the six-year phase-out, and provided for ownership of up to 14 broadcast stations in the same service with an ownership ceiling of 30 percent national audience reach for television stations for minority group-controlled organizations.

In relaxing the national limits on the ownership of radio and television stations, the FCC emphasized that it was retaining its local "one-to-a-market" and duopoly restrictions, and that it would defer to the Department of Justice and/or the Federal Trade Commission for challenges to particular acquisitions.[278] The group ownership restrictions, in their final form, incorporate limits on the ownership of radio and/or television stations based upon a national economic concentration index measured in terms of various audience standards, (an approach strongly favored by Commissioner Mimi Dawson but initially opposed by the majority).[279] The FCC did reject two other options outlined in its 1983 Notice of Proposed Rulemaking, namely, proposals (1) to abolish all limits but adopt a limitation which would be applicable to local markets which are non-competitive;[280] or (2) to allow a single entity to own the number of radio and television stations which are equivalent (in relation to present radio and television stations) to the 7-7-7 limits when adopted in 1953-1954.[281]

In modifying the seven-station rule, the Commission relied upon changes in the video marketplace since 1953, when the 7-7-7 rules were adopted. These marketplace changes, including growth in the broadcasting industry and the emergence of new technologies, render the rules

"obsolete" in the FCC's view.[282] Underlying the FCC's decision was the belief that media cross-ownership at the national level would not reduce the number of independently owned radio, TV and cable outlets available to the consumer and could, in fact, foster viewpoint diversity by facilitating group ownership with the resultant economies of scale.[283]

(vi) National Limitations On The Ownership Of Cable Systems

Acting upon a Notice of Proposed Rulemaking and Inquiry adopted more than ten years earlier, the Commission, in a 1982 decision, refused to adopt any rule limiting, nationally, the ownership of cable television systems.[284] The Commission there concluded that "while the amount of concentration in the cable television industry is increasing, it is still not a concentrated industry."[285] It pointed to numerous studies and analyses which reached this conclusion, including the Network Inquiry Special Staff Report and a comprehensive study of cable ownership prepared by the Office of Plans and Policy.[286] The Commission also noted that it had reviewed a series of merger proposals involving firms in the cable television industry and ruled, in each instance, that the merger was in the public interest.[287]

The Commission also noted that national ownership limits could prevent certain efficiencies of scale. In this regard, it pointed to the conclusion of the OPP study that "substantial benefits may be derived from multiple system ownership and that, given the absence of a real threat from over-concentration, cable owners and subscribers should be permitted to realize these organizational benefits."[288]

Consistent with these studies and with the growth in the cable television and video markets, the Commission concluded that no national limitations on the ownership of cable television systems were warranted.

(vii) Repeal Of The Regional Limitations On The Ownership of Broadcast Stations

In April 1984, the FCC repealed the regional concentration-of-control rules,[289] which prohibited the acquisition of a broadcast facility where the result would be common ownership of three stations where any two are within 100 miles of the third and any of the three has primary service contour overlap with another.[290]

In proposing to eliminate the rules, the FCC again cited the significant changes in the telecommunications marketplace that have occurred, namely, the growth of both broadcast and nonbroadcast outlets.[291] As a result of these changes, the Commission stated, "the potential influence of any given combination of commonly owned outlets is diluted and our concern with the impact of such combinations on diversity and levels of competition declines accordingly."[292] The Commission ultimately concluded that marketplace developments and the continued applicability of local market (i.e., duopoly and one-to-a-market) rules have obviated the need for regional ownership restrictions as a means of ensuring diversity and economic competition. As further reason for repeal, the FCC also noted the administrative and opportunity costs of the regional ownership rules.

C. ANTITRUST LAW AS A REMEDY FOR MARKET FAILURE

The FCC's increasing reliance upon marketplace forces has been accompanied by a renewed emphasis upon antitrust law[293] as a means of ensuring that those forces remain unrestricted. Civil actions brought by the federal government and private parties[294] are perceived as a remedy for market failure. In addition, the Commission has shown a heightened interest in antitrust law, and in economic measures of

concentration, as a source of guidance for its public interest determinations.

1. Recent Antitrust Settlements

a. AT&T-Department Of Justice Consent Decree

On August 24, 1982, the United States District Court for the District of Columbia approved a settlement agreement in the Department of Justice's antitrust suit against AT&T and Western Electric Company.[295] In exchange for divestiture of the 22 Bell Operating Companies which provide local telephone services, AT&T was allowed to retain its manufacturing and research subsidiaries (Western Electric and Bell Laboratories) and to engage in certain business activities prohibited by the 1956 Consent Decree.

The 1956 Consent Decree restricted AT&T to the provision of regulated common carrier services. The settlement agreement, as originally proposed by AT&T and Justice, would have eliminated any line-of-business restraints on AT&T following divestiture of its operating companies. In approving the settlement, however, Judge Harold Greene imposed a number of restrictions on AT&T including one with respect to provision of "electronic publishing services" transmitted over facilities owned by AT&T.

Based upon First Amendment concerns, the nascent nature of the industry, and AT&T's ability to delay time-sensitive transmissions of its competitors, Greene required a modification of the decree, barring AT&T from the provision of "electronic publishing over its own transmission facilities" for at least seven years.[296] Judge Greene defined electronic publishing as "the provision of any information which AT&T or its affiliates has, or has caused to be, originated, authorized,

compiled, collected, or edited, or in which it has a direct or indirect financial or proprietary interest, and which is disseminated to an unaffiliated person through some electronic means."[297]

The modifications, however, would not preclude AT&T from offering electronic directory services that list general product and business categories, the service or product providers under these categories, and their names, telephone numbers, and addresses. Nor is AT&T prevented from providing the time, weather, and such other audio services, already offered as of the date of the entry of the decree, to the geographic areas of the country receiving those services as of that date.

b. National Association of Broadcasters-Department Of Justice Consent Decree

In 1982, the United States District Court for the District of Columbia ruled that the commercial advertising format restrictions in the Television Code of the National Association of Broadcasters (NAB) violated the antitrust laws by artificially enhancing the demand for commercial time.[298] The legality of the other code advertising restrictions was reserved for trial. An underlying issue in the litigation was the appropriate role to be played by broadcast industry self-regulation, government regulation and the free play of market forces.

The Justice Department argued that the competition resulting from elimination of the Code provisions would operate to prevent excessive commercialization, as would the "emergence of new technologies (e.g., satellites) and the proliferation of new entertainment sources (e.g., cable, video tape)."[299] The court did not speculate on the accuracy of this prediction, but said the commercial restrictions were inconsis-

tent with the basic Sherman Act policy favoring "free and fair competition."[300]

Judge Harold Greene approved a proposed consent decree between the NAB and Justice on November 23, 1982.[301] In exchange for the government's promise not to object to the dismissal of Judge Greene's March 3, 1982 order, the NAB agreed to stop disseminating or enforcing any rule governing the quantity, placement or format of non-program material.

c. Networks-Department Of Justice Consent Decree

The three national commercial television networks -- ABC, CBS and NBC -- are subject to consent decrees terminating the government antitrust suits that were first instituted in 1972.[302] The Department of Justice alleged in the suits that the networks, by refusing to exhibit programs they did not produce, or in which they did not have a monetary interest, had abused their power to control the access of program producers and advertisers to commercial television audiences.

Each of the decrees provides for restrictions on the networks that generally parallel (but sometimes exceed) those imposed by the syndication and financial interest rule.[303] The consent judgments limit the exhibition rights and interests in a program that each network may obtain from independent program suppliers. The judgments also limit each network's program production to two and one-half hours per week in prime time hours, eight hours per week in daytime hours and eleven hours in fringe time. Although the FCC has instituted a proceeding which looks toward elimination of the financial interest and syndication rules,[304] FCC repeal of the rules would have little practical effect unless relevant provisions of the decrees are vacated or modified.[305]

2. Economic Models For Measuring Competition In The Marketplace

While the Commission technically does not enforce the antitrust laws, it takes cognizance of antitrust policies as an important part of its public interest calculus. The Commission has acknowledged its duty, for example, "to refuse licenses or renewals to any person who engages or proposes to engage in practices which will prevent either himself or other licensees or both from making the fullest use of radio facilities."[306] Although the Commission has the responsibility to reach its own conclusions as a matter of communications policy, it has increasingly turned to antitrust law models for guidance. Illustrative of this trend is the renewed interest in economic concentration indices as a means of measuring competition in the marketplace.

The interest in concentration indices is most apparent in recent Commission proceedings involving ownership restrictions. Commencing with the 1980 Network Inquiry Special Staff Report, the FCC has employed tools of antitrust policy and economic analysis in order to distinguish "patterns of ownership integration that threaten competition and diversity from those that will not harm these vital interests but, instead, may encourage a more efficient system of television networking."[307] In seeking to identify harmful conduct, the Network Inquiry Report used a traditional antitrust framework classifying ownership patterns as horizontal, vertical or conglomerate.[308] Using this approach, the staff recommended the elimination or substantial modification of several ownership rules, including the prohibition against network cable cross-ownership and the restriction on group ownership (the so-called seven station rules).

The theoretical approach recommended by the Network Inquiry Special Staff was utilized in the Commission's proceeding to delete the network-cable cross-ownership rule, which prohibits ownership by the three national broadcast networks of any cable television system.[309] In a 1982 Notice of Proposed Rulemaking, the Commission requested comments on a methodology for defining the product and geographic boundaries of the relevant market and specific techniques for measuring concentration in that market. The Commission indicated that "we do not expect to arrive at a simple 'magic' number but may wish to employ several measures and/or a zone within which proposed combinations may be scrutinized rather than a strict 'cutoff' point."[310]

Commissioner Mimi Weyforth Dawson suggested that the public and the Commission focus on the larger question of the need for a sophisticated measure of concentration in the expanding video marketplace as a whole, with particular attention paid to the extent of concentration in communications properties that any one entity, or group of entities, may accumulate before public interest concerns are raised. In her view, "such an approach of adopting a 'safety net' is essential to ensure a procompetitive transition to a deregulatory marketplace."[311]

In response to the request of FCC Commissioners for an analysis of appropriate measures of concentration in the relevant markets, the Office of Plans and Policy (OPP) prepared a staff report entitled _Measurement of Concentration in Home Video Markets_.[312] The report examines techniques for measuring concentration and market definition issues and recommends procedures the Commission could follow to develop a "media concentration index" as part of a program for monitoring ownership. Although the staff report recommends an expansive definition

of product and geographic markets, including video discs and cassettes as well as the audio and print media, it makes sample calculations based on four "core" media in a video delivery market -- broadcast television, STV, MDS and cable.[313]

The OPP Study found that the video market, even if limited in definition to the four core media, is extraordinarily unconcentrated.[314] It concluded, therefore, that no rigid national ownership rules are appropriate.[315] The OPP Study recommends, however, that mergers and acquisitions in non-competitive local markets be scrutinized, by means of the Justice Department's Herfindahl-Hirschman Index, to determine the effect upon concentration.[316]

In proposing to abolish the 7-7-7 rules (see pp. 50-52), the Commission again called for a definition of the relevant marketplace and for a uniform measure of concentration in that marketplace.[317] The Commission used the Herfindahl-Hirschman Index and the market share approach -- two measures of market concentration applied by the Justice Department to ensure that mergers do not violate the Clayton Act -- in order to demonstrate that the broadcast industry is extremely unconcentrated.[318]

On reconsideration of its decision to adopt a transitional ownership cap of 12 AM, 12 FM and 12 television broadcast stations per owner, the FCC stated that it had become increasingly aware of the limitations of proceeding solely with a numerical multiple ownership limit in the event that there was a rapid expansion of group ownership in the wake of its decision to relax the 7-7-7 rule.[319] The Commission also acknowledged that a numerical approach may not give appropriate consideration to wide discrepancies in population coverage because a

station in the largest market is deemed equivalent to a station in the smallest market for purposes of ownership regulation.[320] While recognizing that the concept of audience reach is an untested regulatory mechanism as applied to multiple ownership regulation, the FCC concluded that retaining the numerical limit would provide the Commission with an opportunity to gain experience with this type of regulation without risking an entire regulatory system should it find that the audience reach approach proves unworkable.[321]

As the OPP Study and the 7-7-7 proceeding reflect, the Commission has relied increasingly on the Herfindahl-Hirschman Index to identify anti-competitive behavior. In seeking to redefine the interests taken into account under the multiple ownership rules, for example, the Commission indicated that the rule should be tailored to avoid inhibition of "the most efficient combination of video distribution resources by erecting ownership standards which proscribe combinations that would not be suspect under the Justice Department's recently revised antitrust and merger guidelines."[322] Similarly, the Commission's proposal to delete the network cable cross-ownership rule was based largely on the desire to eliminate restrictions that could interfere with the formation of more efficient business arrangements. As the Commission noted in proposing to modify the Syndication and Financial Interest Rule, the Communications Act requires that the Commission's regulations "not impose undue costs or unreasonably interfere with the efficient conduct of business."[323]

D. COPYRIGHT LAW

A fundamental problem of copyright law, like communications law, has been to keep pace with technological change. Each new use for

broadcast programs -- cable transmission, distribution by DBS, MDS, STV or videotaping -- raises new problems of defining property rights. While the complex area of copyright law cannot be fully discussed in the context of this paper, it must be noted as an additional factor which influences the video marketplace and the course of FCC regulation.[324]

Of particular importance, both the FCC and the courts have been reluctant to make the choice between two communications policies grounded in the Constitution -- encouraging the free flow of information and protecting intellectual property rights -- without express Congressional direction. Reflecting this reluctance, the FCC and the courts have declined to impose onerous and potentially crippling copyright restrictions upon the emerging cable television and videotaping industries.

With respect to cable television, the Supreme Court held in the _Fortnightly_[325] and the _Teleprompter_[326] cases that transmission of distant signals by cable systems has no copyright significance since, in the Court's view, a cable system is a passive intermediary that "simply carr[ies], without editing whatever programs [it] receive[s]."[327] As a result, cable systems were free to retransmit broadcast programming without any copyright liability. While the Commission had, at various times during the late 1960s and early 1970s, considered action directed to protection of property rights in broadcast programming, it also deferred to Congress.[328] To resolve the conflict between traditional copyright law principles and the emergence of a viable cable industry, Congress amended the Copyright Act in 1976 to create a compulsory license scheme under which cable television systems are permitted to retransmit broadcast programs in return for payment of royalty fees

based upon the number of distant television broadcast signals transmitted.[329] The 1976 Act also created the Copyright Royalty Tribunal to adjust the rates cable systems pay and to determine how the royalty fees should be distributed.[330]

Reflecting a similarly narrow construction of the Copyright Act, the Second Circuit held, in October 1982, that retransmission of the New York Mets baseball games by Eastern Microwave, Inc., a resale carrier which distributes the signal of television station WOR-TV, New York, New York, to more than 600 cable systems via microwave and satellite networks, was exempt from the copyright laws under the "passive carrier" exemption.[331] That exemption applies to those carriers which have "no direct or indirect control over the content or selection of the primary transmission or over the particular recipients of the secondary transmission, and whose activities with respect to the secondary transmission consist solely of providing wires, cables, or other communications channels for the use of others."[332]

The Seventh Circuit has shown a reluctance, however, to apply the passive carrier exemption to inhibit the growth of a new technology. In 1982, it held that teletext services transmitted over the television vertical blanking interval are entitled to copyright protection as part of the station's main signal.[333] Chicago superstation WGN had brought suit for copyright infringement against United Video, a telecommunications common carrier, based upon United Video's deletion of WGN's teletext service and substitution of Dow Jones' teletext service in its place. In the court's view, United Video was not entitled to exemption from copyright liability as a passive carrier since it altered the copyrighted work by deleting the teletext service. Although the court

held that WGN's copyright for its news program included the teletext transmission, it suggested that a contrary conclusion might be reached where the teletext was unrelated to the main program and was not intended to be viewed with, and as an integral part of, that program.[334]

In another copyright case involving the new technologies, Sony Corporation of America v. Universal City Studios, the Supreme Court held that off-the-air taping of audio visual materials by owners of VCRs, in their homes, for private, noncommercial use does not constitute copyright infringement and, therefore, that the sale of VCRs to the general public is consistent with the Copyright Act.[335] Emphasizing that "sound policy, as well as history, supports our consistent deference to Congress" and that "Congress has the constitutional authority and the institutional ability to accommodate fully the varied permutations of competing interests that are inevitably implicated by such new technology,"[336] the Court was clearly reluctant to expand the protections afforded by the Copyright Act without explicit legislative guidance.

Reversing the Ninth Circuit and affirming the district court, the Supreme Court held that home "time-shifting" (recording a broadcast for later playback) is a fair use under the Copyright Act. It concluded that time-shifting for private home use is a noncommercial, nonprofit activity,[337] and that time-shifting merely enables viewers to see a televised work which they had been invited to witness in its entirety free of charge.[338] The Court also pointed out that substantial numbers of copyright holders who license their works for broadcast on free television would not object to having their broadcasts time-shifted by private viewers.[339] The copyright holders, in the Court's view, failed to demonstrate that time-shifting would cause any likelihood of non-

minimal harm to the potential market for, or the value of, their copyrighted works.[340]

As the foregoing cases illustrate, the courts and the FCC hesitate to impose copyright burdens upon new technologies such as cable, teletext and home videotaping. Not only does that hesitation reflect the practical difficulty of finding activities that have become widespread (as in the case of private satellite dishes[341] and videotaping) to be illegal, but it also reflects the fact that the courts and the FCC lack the tools to fashion compensatory schemes. As Justice Stevens commented in the _Sony_ case, "It may well be that Congress will take a fresh look at this technology, just as it so often has examined other innovations in the past. But it is not our job to apply laws that have not yet been written."[342] That task lies with Congress, which could decide, for example, to impose a surcharge on the sale of blank tapes to compensate copyright holders just as it adopted a compulsory license scheme for cable systems. In enacting the Cable Communications Policy Act of 1984, Congress included a provision which makes clear that unauthorized interception and use of encrypted or "scrambled" satellite signals is illegal, whether by individuals in their homes or by commercial enterprises.[343] A specific limited exemption was adopted under which individual satellite dish owners are authorized to receive _unscrambled_ satellite-delivered services. Such reception of cable programming delivered by satellite is legal as long as no marketing mechanism has been established by the programmer to make a program service available to backyard dish owners and that the signal is not used for commercial resale.[344]

E. FEDERAL PREEMPTION

The FCC's Mass Media Bureau Chief James McKinney has warned: "As we move to deregulate at the federal level, we cannot ignore what is happening at the local and state levels. Mini-FCCs, disguised as public utility commissions, cable franchising authorities and public health and radiation authorities are now ready and willing, and some are even able, to fill any vacuum created by FCC unregulation."[345] Congress and the Commission recently have acted to insure that state or local regulators do not interfere with the implementation of national telecommunications policies.

One observer characterized the most important accomplishment of the Cable Communications Act of 1984 as ending an era where conflicting state and local laws in many areas could jeopardize the growth of cable and its ability to compete against other video technologies.[346] The Act reflects the use of preemption as a means of achieving deregulation, a strategy which is particularly effective with a locally regulated medium such as cable.[347] The Act eliminates local rate regulation except in areas where cable is found by the FCC to be "subject to effective competition."[348] Significant restrictions are placed on the ability of local governments to exercise editorial control over the content of programming on cable channels.[349] In some respects, however, the Act confirms and even expands the powers of local authorities. Most significant in this regard is the requirement that every cable operator obtain an authorization to operate from a local or state government;[350] states and cities also retain authority to regulate cable consistent with the Act.[351]

Paralleling these Congressional efforts, the FCC has also sought to prevent state and local governments from imposing burdensome requirements upon the new technologies. For example, the Commission preempted an order of the Nevada Public Service Commission which would have instituted rate regulation for "all cable television service provided other than pay channel services."[352] Community Cable TV, Inc., operator of a cable television system serving Las Vegas, Nevada, had filed a "Petition for Special Relief Requesting Declaratory Ruling" as to this state action. In its ruling, the Commission made clear that the proposed Nevada Order would be inconsistent with the federal objective of unregulated availability and pricing of nonbroadcast services.[353] Indeed, the Commission expressed concern that the Nevada Order would inhibit the flexibility of system operators and nonbroadcast programming entrepreneurs to experiment with types of program offerings and methods to pay for such programs.[354] Federal preemption, in the Commission's view, is necessary to prevent artificial and unnecessary skewing of the market by nonfederal regulation of price and entry. "[I]t is in the public interest for entrepreneurs and firms engaged in dynamic industries, such as video programming for cable television, to enjoy maximum flexibility in their responses to innovations and developments within the industry."[355]

The Commission sent a similar message to the State of New Jersey which had sought to exercise jurisdiction under its Cable Television Act over SMATV systems, by enjoining operation of an SMATV facility until it obtained a certificate of approval from the State.[356] The Commission upheld its authority to preempt state regulation which interferes with the reception of satellite-transmitted signals. Emphasizing the federal

interest in the interstate transmission of satellite signals, the Commission made clear that "State or local government regulatory control over, or interference with, a federally licensed or authorized interstate communications service, intentionally or incidentally resulting in the suppression of that service in order to advance a service favored by the state, is neither consistent with the Commission's goal of developing a nationwide scheme of telecommunications nor with the Supremacy Clause of the Constitution."[357] The Commission held that the interposition of prior approval requirements at the state or local level interferes with the development of a more rapid and efficient telecommunications marketplace.[358]

The Commission had before it in 1984 a "Petition for Declaratory Ruling," filed by Cox Cable Communications, Inc. ("CCCI"), which also illustrates the type of issue that pits federal preemption against local or state government jurisdictional claims in the introduction of new communications services.[359] CCCI, a multiple cable system operator, developed two interactive cable services: "Commline," an institutional cable service which provides a high-capacity business and institutional communications service for dedicated private line data, non-switched voice, and video communications; and INDAX, a residential subscriber service which permits a variety of transactional and information retrieval services to be conducted from the home. The Nebraska Public Service Commission invoked jurisdiction over Commline and Indax, ordering the cable operator to cease and desist until the state commission issued a certificate of public convenience and necessity. CCCI has now asked the FCC for a declaratory ruling that "state regulation which impedes the development and use of institutional cable

for interactive services on a noncommon carrier basis frustrates and interferes with Federal policies as enunciated and administered under the Act by this Commission, and is federally preempted."[360]

Under the standards laid down by the courts, the potential scope of FCC preemptive action seems boundless in light of the interrelationship of virtually all matters affecting the furnishing of interstate and intrastate communications service.[361] While the FCC has not attempted to preempt the full range of regulation, it has opportunities to expand its preemptive jurisdiction as long as it carefully establishes a plausible case that preemptive action is necessary for the implementation of Congressional objectives.[362]

III.

FINDINGS: WINNERS AND LOSERS IN MARKETPLACE REGULATION

The video marketplace is currently undergoing a period of rapid change and expansion. Due to technological developments and regulatory change, new media technologies supplement, complement or compete with conventional broadcast television to offer entertainment and information to the home. Some stakeholders will benefit and others will not fare as well as a result of changes in technology and regulation.

The FCC finds itself at a transition point where, as Justice Holmes said, "the law is behind the times." In seeking to respond to these marketplace changes, the FCC has faced a variety of new questions of control and access, of regulation and classification. While a new, coherent regulatory structure has not yet emerged to replace the FCC's traditional regulatory policies, a number of distinct trends are emerging with implications for new and old players.

A. EROSION OF TRADITIONAL REGULATORY CLASSIFICATIONS

Substantial inroads have been made, for example, in the traditional regulatory classifications. Utilizing a hybrid approach, the Commission has exempted new video services such as teletext, and DBS, from many of the broadcast ownership and content regulations. With respect to video services such as LPTV and STV, the FCC has adopted a policy of forbearance whereby these services are exempted from complying with various Commission program restrictions. To a great extent, however, the FCC has shown a reluctance to depart from the traditional regulatory classifications and seems to be motivated largely by a reluctance to encumber new technologies with onerous broadcast regulation. Thus, MDS

continues to be regulated as a common carrier service despite its functional equivalence to STV. Similarly, DBS and satellite programmers are unencumbered by broadcast regulation, despite the resemblance to their terrestrial counterparts. The Commission has indicated, however, that it intends to initiate a rulemaking for the purpose of adopting a more uniform regulatory approach to such "hybrid" services.[363] The outcome of such a proceeding would directly impact on the competition among players in the video marketplace since the classification of a service determines the level of regulatory restrictions.

In NAB v. FCC, the DBS appeal, the D. C. Circuit suggested that there may be limits on the FCC's exemption of the new technologies from broadcast regulation when it classifies those technologies as hybrid. The decision thus raises questions, which the FCC must answer, about the classification of MDS, OFS, ITFS, DBS and teletext. The court's decision represents the first judicial test of the FCC's classification of the new video technologies. That decision, at the least, makes clear that the FCC must define the new technologies as broadcasting to the extent that radio communications are disseminated with the intent that they be received by the public, rather than by a narrow class of subscribers.[364] While the court's holding appears to presage a more coherent approach to regulatory classification by the FCC,[365] it also introduces a new "wild card." The decision is the first time that a customer of a common carrier has been deemed subject to contact regulation.

B. SPECTRUM ALLOCATION UNDER A MARKET APPROACH

The erosion of the traditional regulatory classifications has been accompanied by changes in spectrum allocation policies. Whereas

spectrum allocation had been achieved by defining the permissible uses and users of particular frequencies, the disintegration of a one-to-one relationship between the medium and the use has rendered that approach unworkable. Over the next decade, using this spectrum allocation approach, the Commission appears set on a course to open up spectrum to new types of services and classes of users, by permitting licensees to determine the best use of their authorized channels.

The trend toward greater licensee autonomy is apparent in the FCC's increased willingness to permit licensees to select the method by which they will be regulated. In authorizing non-broadcast uses of the television VBI and FM subcarriers, for example, the FCC has moved away from the traditional service distinctions based upon spectrum allocation. In those instances, the broadcast licensee may be regulated as a common carrier or private radio licensee if it offers services in competition with those entities, enabling it essentially to self-select the manner in which it will be regulated. By permitting licensees to share their excess spectrum capacity — in the ITFS and broadcast auxiliary service — the Commission has also shown a willingness to let individual licensees determine the best use of spectrum.

The FCC appears to be moving toward a greater emphasis on electromagnetic compatibility, rather than the type of regulatory use, as the basis for allocation. Illustrating this approach, the Commission has, for example, proposed to reallocate frequencies for shared use by private fixed service users, common carriers and cable systems, enabling electronically compatible but diverse spectrum users to coexist.[366] Another illustration is the decentralized radio service, proposed in an FCC staff report, in which entities would be allowed to decide on their

own initiative, and in response to their own best judgments, the types of communications offered on their authorized channels.[367]

This approach is premised on the view stated in an FCC staff report that decisions rooted in private perceptions of market value will achieve a more economically efficient and socially desirable use of frequency spectrum than government decisions.[368] If carried to its logical extreme, this approach would allow natural economic forces to perform the Commission's current allocation and interference control functions, replacing regulatory or service distinctions. Licensees would be able to use their channels for whatever purpose they want consistent with their frequency rights and international and United States laws.[369]

C. LICENSING OF THE NEW TECHNOLOGIES

Not only has the Commission increasingly permitted the marketplace to determine how frequencies are used, but it has also begun to implement a marketplace solution for determining who uses frequencies. It has, for example, moved away from its comparative licensing policies which seek to find the best qualified licensee, relying instead on lotteries for selecting among applicants in such services as LPTV and MDS.[370] While relying heavily on the premise that lottery procedures will permit the prompt establishment of new and valuable communications services, the Commission has invoked its new Congressional authorization to abandon the comparative criteria (for example, minority ownership, diversification of media ownership, technical superiority) that have developed over the last 50 years.[371] Although lottery procedures may expedite the introduction of service, as well as encourage new entities to enter the field, that approach also results in the filing of skeletal

applications and, as evidenced by multi-channel MDS and LPTV, vast numbers of applications.

Other possible methods of deciding who uses the spectrum under a free market approach include auctions and spectrum fees.[372] Proponents of auctions contend that, by making spectrum available to the highest bidder, auctions would substitute decisions of the market for those of a regulatory agency, with the market determining the price for a given channel and its highest use.[373] Spectrum fees could duplicate the results of a competitive market, but would require Congress (or the FCC) to take into account all relevant information, such as, class of license, location, bandwidth, and area of coverage, in order to set a "fair market value" for the spectrum.[374] To date, however, the Commission's legal authority to utilize auctions or spectrum fees remains in doubt.[375]

D. BROADCAST REGULATION

While the Commission has exempted the new technologies from strict broadcast regulation, it has also taken steps to ease the restrictions on conventional broadcast stations under the rationale that the marketplace will achieve the regulatory objectives underlying those restrictions without government intervention. Reflecting its view that the radio-television market is workably competitive, the Commission has eliminated formal ascertainment requirements, minimum program percentages, commercialization guidelines, and program logs for radio and commercial television stations.[376] In the ownership area, the regional concentration rules have been repealed and the group ownership restrictions have been significantly relaxed. Steps have also been taken to lift cross-ownership restrictions.[377] While Chairman Fowler

has stated that he will not propose further ownership rule revisions, other Commissioners believe that there is still room for more sweeping deregulation of television consistent with the Communications Act.

E. FIRST AMENDMENT RIGHTS OF BROADCASTERS

The telecommunications changes spawned by cable and other technologies have also spurred a reexamination of the merits of content regulation of programming carried by broadcast stations. Content regulation in the broadcast area has traditionally focused upon non-entertainment and public affairs programming, and upon the licensee's responsiveness to community needs and interests.[378] Under a marketplace approach, market forces, not government prescriptions, determine the appropriate mix of programming. Consistent with this approach, the Commission has shown renewed sensitivity to program-related regulations that touch upon First Amendment concerns by limiting the licensee's editorial discretion.[379]

There have also been efforts to repeal portions of the Communications Act which are perceived as interfering with the First Amendment rights of broadcasters to make editorial judgments.[380] These statutory provisions include sections 312 and 315, which impose "reasonable access" obligations and "equal opportunities" requirements upon broadcasters in their dealings with political candidates.[381] Also targeted by the Commission are those sections of the Criminal Code prohibiting the broadcast of obscenity and lottery information.[382] In calling for First Amendment parity for the electronic media by eliminating the fairness doctrine, which requires licensees to present contrasting viewpoints on controversial issues of public importance,[383] the Commission stated:

> The "Fairness Doctrine" is a significant government intrusion on the First Amendment rights of broadcasters. The traditional spectrum scarcity argument which has provided the basis of the Doctrine has become increasingly less valid as new technologies proliferate and the number of broadcast facilities increases, particularly as compared with the print media. Consequently, there is no longer any justification for imposing these obligations on broadcasters when it would be unconstitutional to do so on the print media.[384]

Consistent with this view, Senator Robert Packwood has proposed statutory reform for the electronic media to bring their First Amendment rights more in line with those accorded print and speech communication.[385] While the fate of such legislation is uncertain, the Supreme Court's July 1984 League of Women Voters decision has given the FCC added impetus to repeal or modify of the Fairness Doctrine.[386]

F. ENDING THE FCC'S "TRAFFIC COP" ROLE

In the area of technical standards, the Commission is also moving toward greater reliance on the marketplace. Marketplace forces may in some instances be substituted for technical regulations, effectively ending the Commission's "traffic cop" function. Such technical deregulation could potentially eliminate transmission performance standards, allow any type of innovative transmission system to begin broadcasting without prior Commission approval and allow for the existence of multiple, incompatible transmission systems.[387] The Commission took a novel step in this direction in August 1982 when it established a "spectrum bubble" for certain land mobile radio licensees.[388] The licensees are permitted to follow any technical standard they want within their assigned frequencies so long as they do not interfere with reception on other channels. By decontrolling technical standards in this way, the FCC expressed a desire to give manufacturers of transmission equipment a greater incentive to innovate.

G. ECONOMIC, SOCIAL, AND REGULATORY CONSEQUENCES

Among the consequences of a marketplace approach is increased competition. Some of the rules and policies deleted by the FCC under Chairman Fowler have resulted, either directly or indirectly, in protecting existing services from competition. For example, while the FCC's cable policies in the 1960s were based on a desire to protect conventional television from destructive competition, the FCC today is less likely to restrict a new service on the grounds of harm to existing broadcasters. The Commission has said, in this regard, that it will consider the economic effect of a new service only if there is "strong evidence that a significant net reduction in service will result."[389] This means that broadcasters, and existing services such as cable television, are less able to obtain regulatory protection from competition from the new technologies. Alternatively, some of the new technologies may not survive in this competitive environment, making the heralded abundance of video outlets just so much hype.[390]

Another likelihood of a marketplace approach is that authorization of new services will interfere with other publicly beneficial services, as in the case of the existing terrestrial users of the 12 GHz band who will be displaced by DBS service, forcing the FCC to make difficult choices about future spectrum needs.[391]

A marketplace approach can entail a certain degree of uncertainty, as the area of technical standards illustrates. Widespread use of AM stereo, for example, has been indefinitely delayed because of marketplace uncertainties and manufacturers and broadcasters' difficulties in reaching a consensus due to antitrust law concerns.[392] It now appears that consumers may not get the opportunity the FCC has in mind for them,

namely, of "voting" with their dollars for the best system. Similar problems have delayed implementation of teletext.[393] The Commission's accommodation of an industry-recommended standard for multichannel television sound, however, signals a partial retreat from the pure marketplace approach espoused in the AM stereo proceeding, and reflects a recognition that the market may require FCC-selected standards to protect customers.[394]

Carried to its logical extreme, a marketplace approach could lead to the withdrawal of regulatory involvement or termination of regulatory programs designed to fulfill social objectives.[395] One result might be the elimination of Commission policies requiring broadcasters to air children's and public affairs programs which would not otherwise be justified by the marketplace.[396] Other Commission policies designed to implement social objectives, such as equal employment opportunity, could fall by the wayside under the pure marketplace approach. Also, if the FCC were to embrace Chairman Fowler's characterization of television as "just another appliance -- it's a toaster with pictures,"[397] it would make little sense for the Commission to be concerned about the qualifications or character of licensees.[398]

Implementation of a marketplace approach could potentially expand the role of the states in telecommunications matters. For example, to the extent that broadcasters are permitted to use their frequencies for common carrier purposes, regulation by state regulatory commissions may become a factor.[399] However, the FCC has been careful to indicate to the states that deregulation at the federal level does not constitute an invitation for state regulations and that the decision not to regulate

can establish a preemptive national policy as well as can a detailed regulatory scheme.

While the FCC has been unwilling to abdicate authority over communications matters to the states, it has increasingly deferred these questions to the expertise of other federal agencies, particularly those charged with enforcement of the antitrust laws[400] and deceptive trade practice regulations. Indeed, to the extent that other agencies, such as the FTC and the Justice Department, are empowered to scrutinize the business practices of communications entities, the FCC has found a justification for eliminating duplicative FCC review.

On the one hand, as the FCC strips away regulatory accretions, seeking to impose only those requirements mandated by the Communications Act, pressure from some stakeholders will mount on Congress to pursue further deregulation through statutory reform. As the Court of Appeals suggested in the radio deregulation decision, Congress and not the "unrepresentative bureaucracy and judiciary" may be the ultimate source of deregulation over the next decade.[401] On the other hand, other players may find they were better off in a stable regulated environment and seek Congressional relief. Moreover, a shift in the political philosophy of the Executive Branch could relatively quickly lead to a slowdown or even reversal in FCC policy.

H. CONCLUSION

The regulatory issues posed by classification of new video services, similar to other questions involving structure and technical standards for players in the new video marketplace, are not abstractions of interest primarily to a small coterie of communications lawyers, consulting engineers, and FCC staff members. Underlying these issues

are battles between the holders of vested interests who wish to preserve (and indeed, expand) their turf and the new players who see technology as opening up new avenues for their own entry into telecommunications businesses. Battles over spectrum have important economic results for the stakeholders and there will be as yet unpredictable winners and losers.

One observer described the battle over spectrum allocation as "beginning to look less like a regulatory process and more like the range wars a century ago between cattlemen and sheep ranchers" -- "[a]lready, the competition for the ungrazed piece of electronic pasture has become a multi-million dollar business for Washington consultants and lobbyists who want to persuade the FCC or Congress to open new frequencies or oust other users from old ones."[402] The turf battles are being fought in a variety of forums, from the FCC to Congress, from courts to state legislatures.

While the FCC has been recognized as "one of the foremost advocates of across-the-board deregulation for the entire broadcast industry,"[403] it has not, to date, successfully formulated a coherent regulatory framework that responds to the significant technical and industry changes that have occurred. As the House Subcommittee on Telecommunications, Consumer Protection and Finance suggested in a 1981 Report, "[D]eregulation is not an end in or of itself."[404] The challenge of policymakers over the rest of the decade is to minimize regulatory "jet lag" by developing a regulatory structure that accommodates the new and emerging technologies, and the interests of conflicting stakeholders, consistent with the Communications Act and marketplace principles. Policymakers must not only weigh the needs of different spectrum users,

but also accommodate the desire of players with existing markets for stability and restrictive rules on entry. Commenting on the random and incoherent national policy governing the new communications media, one observer has asserted that the resulting unsettled state of affairs, and the tensions to which it gives rise, are bound to affect adversely the long-term financial and market prospects of the various post-telephone, post-broadcasting technologies of information distribution.[405] Of course, one person's adverse effects are others' opportunities.

APPENDIX: A PRIMER ON THE VIDEO MARKETPLACE

I. OVER-THE-AIR VIDEO SERVICES TO THE HOME

A. Low Power Television (LPTV)

On April 26, 1982, the FCC established the first new broadcast service in 20 years.[1] The service, known as low power television (LPTV), utilizes vacant ultra-high frequency (UHF) and very-high frequency (VHF) channels,[2] and operates at power levels of 10 to 1,000 watts, significantly below those of full-service television stations.[3] When fully developed, low power television could provide up to 4,000 additional video outlets across the country.[4] Indicating interest in the new service, some 23,000 applications were pending at the FCC as of December 1984.[5]

The limited coverage area of low power television stations (typically no more than 25-30 miles), and the relatively low start-up cost (in comparison to conventional television stations),[6] is expected to encourage programming directed to specialized audiences. A sampling of the pending applications for low power television licenses reveals a wide diversity of proposals for religious, public affairs, sports, news and educational programming in addition to programming for Blacks, Hispanics, other minority groups and women.[7] (It remains to be seen, however, if such programming will be financially viable.) Other specialized programming proposals include a consumer-oriented network backed by Ralph Nader;[8] a system of low power stations featuring programming with country-western and rural American themes proposed by Neighborhood Television, a Sears Roebuck affiliate;[9] and a children's programming network.[10]

Television translators, the forerunners of LPTV, were first authorized by the Commission in 1956 as a means of receiving and re-broadcasting television signals into regions that otherwise would have been bypassed.[11] Licensees of television broadcast stations have also used translators to reach unserved areas within their Grade B contours[12] and, in some instances, to carry their signals beyond the Grade B contour. Translator operators were forbidden, however, to originate their own programming.[13]

Under the new LPTV rules, stations can originate live programming from a local studio, broadcast pre-recorded video tapes or movies, and broadcast programs received from a distant source, such as a satellite.[14] The rules allow low power stations to carry advertising or to "scramble" transmissions so that viewers must lease a decoder and pay a subscription fee to view the scrambled programming.[15] Existing translators may commence program origination merely by filing a notification with the Commission.[16]

As of October 1983, the FCC had licensed some 245 low power television stations and granted construction permits for hundreds more.[17] Implementation of computer processing and a lottery procedure for selecting applicants[18] is expected to increase greatly the pace at which authorizations are granted.[19]

B. Direct Broadcast Satellites (DBS)

In June 1982, the Commission authorized a Direct Broadcast Satellite (DBS) Service, a regulatory development that could make available as many as 40 additional channels of video programming nationwide.[20] DBS is a radiocommunication service in which signals from earth are retransmitted by satellites located in the geostationary orbit for

direct reception by small, relatively inexpensive receiving antennas. (See Figure 1.) Direct broadcast satellites, which were allocated spectrum in the 12 GHz band for downlinks and in the 17 GHz band for uplinks, are capable of transmitting a signal up to 40 times more powerful than those of current communications satellites.[21] As a result, they send a television signal which can be picked up by a two-foot dish antenna, typically mounted on the rooftops of subscribers.[22] Since the satellite's antenna beamwidth is narrower than conventional ones, up to four DBS satellites would be required to reach the entire country.[23]

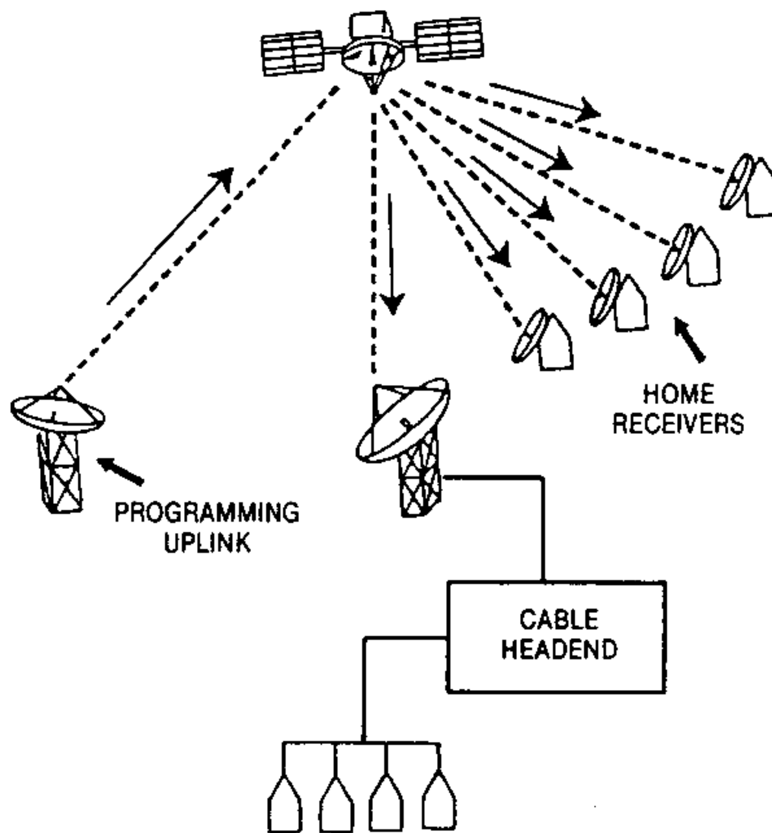

Figure 1. Direct Broadcast Satellite System (DBS)

After establishing interim rules for the DBS service, the FCC granted conditional construction permits to eight applicants with

diverse service proposals.[24] However, the Commission also imposed a due diligence test on the eight applicants, requiring them to enter into contracts for the construction of suitable communications satellites by July 17, 1984.[25] Of the original applicants, only the Satellite Television Corporation (STC, a subsidiary of Communications Satellite Corporation) and United States Satellite Broadcasting Company (USSB) had satisfied the Commission that it met the due diligence test by that date.[26] Subsequently, in November 1984, STC, after 5 1/2 years of planning and some $140 million in expenditures, announced that it would not move ahead with its plans for what would have been ultimately a six-channel national service.[27] By mid-1985, of the original eight applicants, only three -- United States Broadcasting, Direct Broadcast Satellite Corp. and Dominion Satellite Corp. -- were still committed to building and launching high-powered DBS systems.[28] The FCC accepted a second group of seven DBS applications on January 12, 1984, and on December 4, 1984, it granted the applications of Satellite Syndicated Systems, Inc., National Christian Network, Advanced Communications Corp., and Hughes Communications Galaxy, Inc.[29] The grants were conditioned on the applicants' demonstrating due diligence by contracting for satellites within a period of one year.

The proposals submitted by the original applicants reflected a wide variety of approaches to DBS service. For example, the Direct Broadcast Satellite Corporation proposed to provide transmission capability as a common carrier,[30] while STC said it would provide programming funded in whole or in part by audience subscriptions[31] and USSB proposed some advertiser-supported programming.[32]

When or if any of the applicants become fully operational, DBS systems could provide as many as 10 channels of programming.[33] While most of this programming is expected to be similar to conventional television and pay-cable fare, the proposals include some technically innovative services, such as high definition television (HDTV),[34] teletext, stereophonic sound and dual-language sound tracks. Other potential benefits of DBS include the provision of service to remote areas that receive no over-the-air television, the availability of additional channels of service throughout the country, and the development of more specialized programming.[35]

The FCC conditioned the construction permits on the outcome of the 1983 Region 2 Administrative Radio Conference (RARC) which determined the assignment of frequencies and orbital positions. The applicants thus risked the possibility that insufficient spectrum or orbital positions would ultimately be available to accommodate all the systems. The Commission believed, however, that authorization of interim DBS systems would permit earlier implementation of the service due to the long lead times required for satellite construction.[36] At the 1983 RARC, the United States received eight orbital slots, which are sufficient to accomodate all the pending applications.[37]

Although most attention had been focused on STC's announcement of plans to launch its service by late 1984,[38] "back door" or quasi-DBS programming services -- using other frequency bands -- were the first to offer direct-to-the-home satellite service. For example, United Satellite Communications, Inc., backed by General Instrument and Prudential Insurance Co., launched a five-channel home video programming service in November 1983 using fixed service satellites in the Ku-Band

(11.7-12.2 GHz) instead of the high-power direct broadcast satellites.[39] The service was initially offered to households throughout central Indiana, with plans to add 30 additional markets within one year,[40] but USCI abandoned the operation because of its inability to attract sufficient customers or raise sufficient capital while waiting for business to build.[41] Recent technological developments have made possible the use of small home receiving dishes (2 1/2- to 4-feet) in connection with satellites operating in the fixed satellite bands.

C. Satellite Master Antenna Television (SMATV)

With satellite-fed master antenna television (SMATV), an operator puts an earth station (satellite dish antenna) beside or on top of an apartment building or complex of buildings to obtain satellite programming.[42] The programming is delivered from the earth station to individual homes through coaxial cable. (See Figure 2.)

SMATV, also referred to as "mini-cable" or "private cable,"[43] is economically practical today only in high density dwellings, where installation costs can be absorbed by a large number of apartment units.[44]

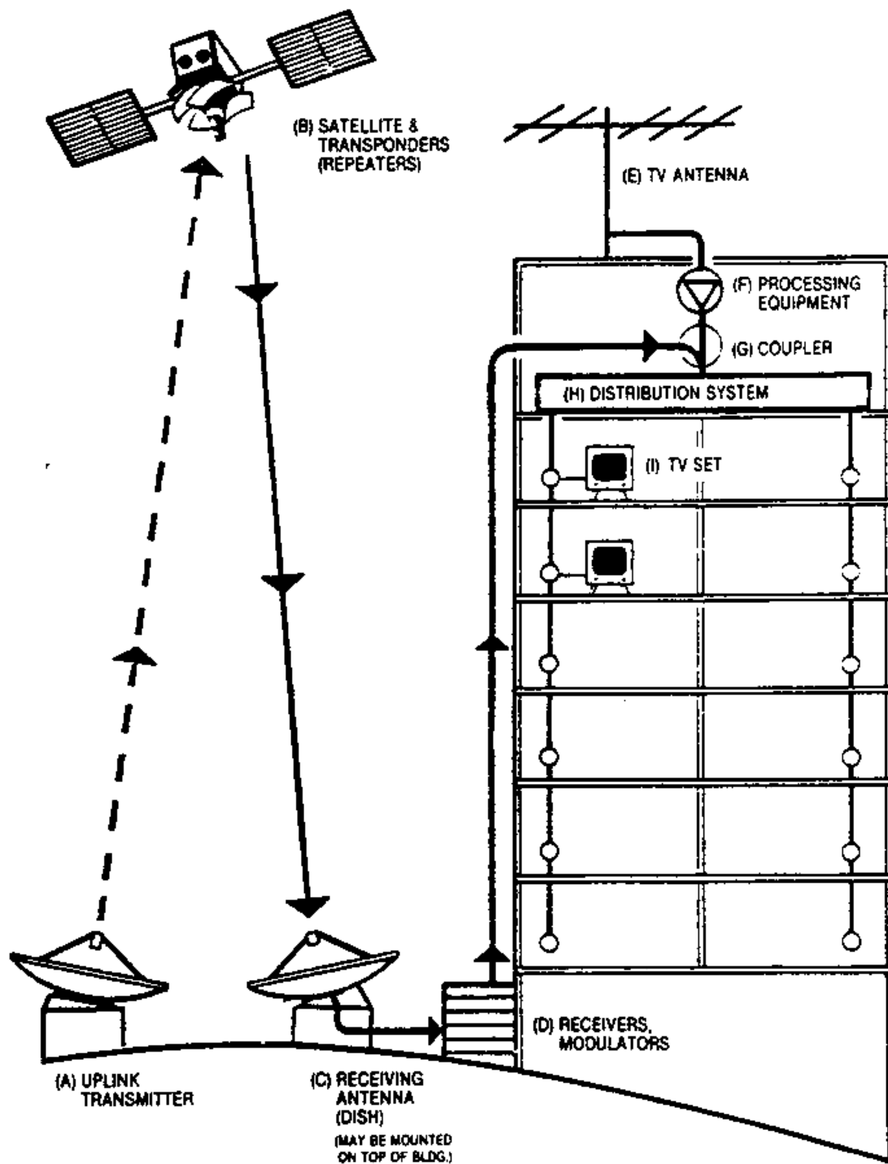

Figure 2. Satellite Master Antenna Television (SMATV)

Technological, regulatory and marketplace developments have spurred the growth of SMATV. Technical advancements led to a precipitous drop in the cost of earth station receivers, making such facilities practical for a wider range of users and purposes.[45] In 1979, the FCC deregulated receive-only domestic earth stations, and dispensed with licensing requirements for these facilities.[46] Commencing with the launching in

1975 of Time, Inc.'s Home Box Office (HBO), numerous satellite-delivered program networks have materialized, including "superstations," such as WTBS in Atlanta, as well as specialized news, cultural, sports, and religious programming services, which, in turn, have stimulated consumer demand for cable and SMATV. There is a technological breakthrough in the offing which is designed to remedy one of SMATV's limitations -- limited channel capacity; Cablecom, Inc., a Chicago SMATV system, is developing a 60-channel addressable system to overcome that limitation.[47]

Several developments could spur further growth of SMATV. HBO announced in March 1985 that it would begin offering its programming to SMATV systems, reversing its previous position. In another development, reflecting the increased "legitimization" of SMATV systems, the FCC held that when an SMATV operator seeks to offer its programming service to residents of apartment buildings not under common ownership, the operator is eligible for microwave licenses, effectively treating SMATV operations under those circumstances as cable television systems.[48] The use of microwave stations to transmit programming between buildings could facilitate program transmission and lower costs by eliminating the need for expensive wiring. SMATV systems received another favorable ruling from the FCC when it held that SMATV systems which do not use public streets and rights of way are exempt from local and state "entry" regulation (i.e., franchise) under the doctrine of preemption. The Commission struck down a New Jersey ordinance requiring SMATV operators to obtain prior approval from the state cable regulatory commission.[49]

D. Multipoint Distribution Service (MDS)

In 1974, the FCC allocated two channels to MDS[50] for the purpose of providing a common carrier microwave service for closed circuit tele-

vision or nonvideo transmissions from a central location to multiple fixed receivers.[51] MDS transmissions are receivable on the conventional television set with a special antenna and a "down converter" which converts the signal from a microwave frequency to a selected VHF television frequency.[52] (See Figure 3.) Although the FCC originally contemplated that MDS would satisfy educational, business, and governmental needs, entertainment programming emerged as its primary use.[53]

Since the MDS licensee is a common carrier, it cannot produce, write or influence the content of any information transmitted over its facilities, and may lease only 50 percent of the total transmission time to an affiliated entity.[54] Typically, the licensee leases transmission time to a pay TV service, such as HBO or Showtime/The Movie Channel, which obtains the rights to distribute programming in an area and solicits customers.[55] As a common carrier, the MDS operator sets rates pursuant to a tariff, and must offer its services to programmers on a first-come, first-served basis.[56]

MDS primarily serves high-rise, multi-unit structures such as apartment buildings and hotels, because of the limited distribution range of the transmitter (25 miles), the need for line-of-sight transmission to reception antennas, and the cost of installing the special receiving antenna.[57] It is used increasingly, however, in private homes and to distribute entertainment programming to cable television systems.[58] Through MDS, subscribers are able to receive programming similar to that carried on pay cable channels without the need for cable wiring.

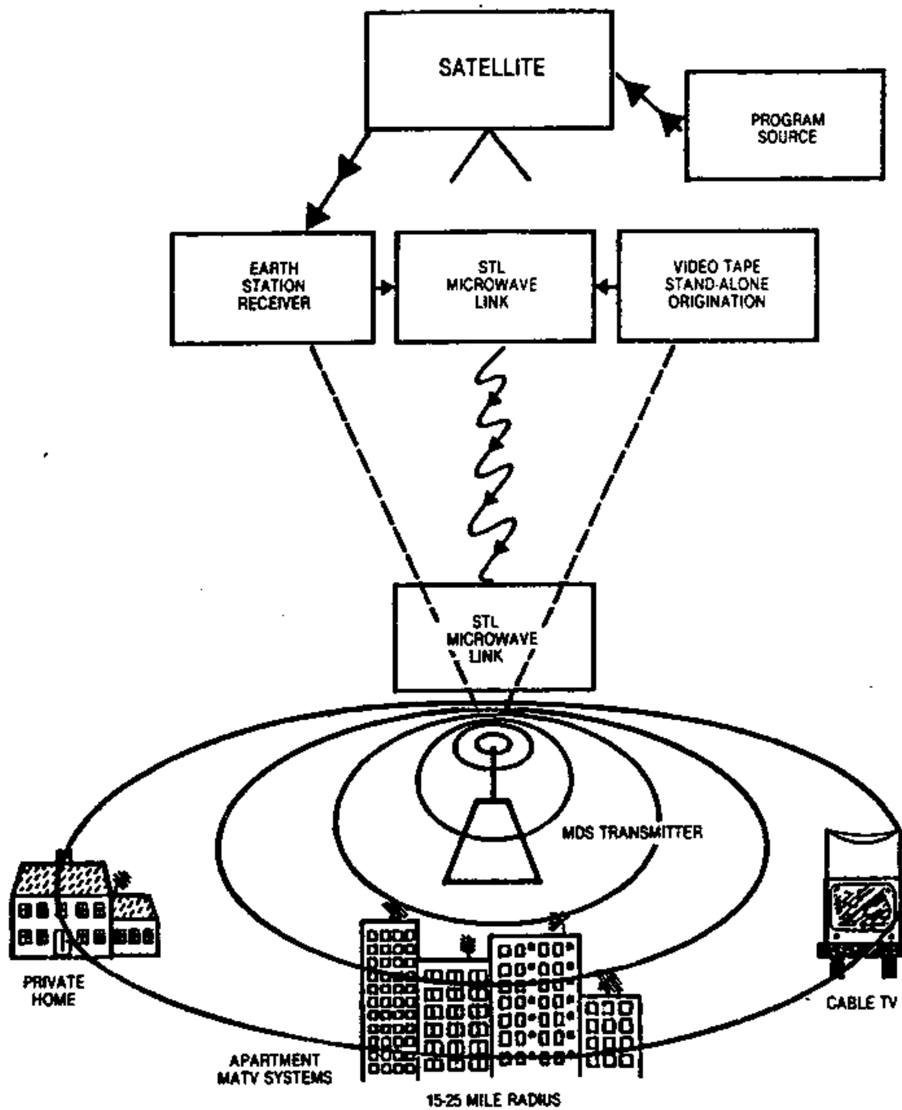

Figure 3. Multipoint Distribution Service (MDS)

In urban areas particularly, MDS provides a faster and, in many cases, cheaper method of providing broadband channels than cable, which has franchising requirements and extended construction periods.[59] MDS has an advantage over distribution modes such as STV and LPTV, in that it can increase the availability of video programming without utilizing broadcast frequencies.[60]

Several recent developments could potentially expand the availability of MDS. In May 1983, the Commission adopted a proposal to increase the number of channels available for MDS by giving the service access to eight channels in the 2500-to-2690 MHz band, previously allocated to the Instructional Television Fixed Service (ITFS).[61] In a related proceeding, the Commission adopted new MDS technical standards, which could facilitate, among other things, closer spacing of stations using the same frequency.[62]

The spectrum reallocation effectively authorizes two four-channel systems in each market nationwide. By making possible the transmission of multiple channels of video programming -- with associated efficiencies of scale and expansion of consumer choice -- the Commission enhanced the attractiveness of MDS as a delivery system. Indeed, multi-channel MDS could become a viable competitor of cable television since, as the Commission noted in adopting the rule changes, the growth of MDS has been limited by the lack of multi-channel capacity.[63] The rule changes could also facilitate use of MDS frequencies for electronic publishing, home banking and shopping, and high speed data transmission.

Reflecting interest in the new service, close to 17,000 applications for the new multi-channel MDS frequencies were filed with the Commission in September 1983.[64] The Commission has proposed to select among these applicants by means of rather than through the time-consuming comparative hearings employed for single channel MDS systems.[65]

E. Instructional Television Fixed Service (ITFS)

The Instructional Television Fixed Service (ITFS), which uses the same portion of the microwave spectrum as MDS, was established in 1963

for the primary purpose of transmitting instructional material to educational institutions.[66] Also authorized, as an incidental use, was the transmission of cultural and entertainment programming to schools, and the transmission of training, instructional and professional materials to other locations.[67] Eligibility was limited to accredited educational institutions and to those eligible to hold a non-commercial educational TV license.[68] Twenty channels are presently allocated to the ITFS.[69]

A number of new and innovative uses of ITFS were announced in 1983. In December, for example, the Commission granted 82 applications of the Public Broadcasting Service (PBS) for authority to construct ITFS stations.[70] PBS announced that it will use the facilities to establish a "National Narrowcast Service" with its member stations. PBS intends to form a nationwide system of ITFS stations through its satellite distribution network, to provide instructional, educational, cultural, professional training and informational video materials throughout the country.

Other uses of ITFS frequencies may result from the Commission's decision to permit ITFS licensees to lease their excess channel capacity to third parties.[71] By negotiating directly with ITFS licensees, anyone will be able to provide an MDS-type service without the delays and costs inherent in the FCC selection process. Indeed, in November 1983, Microband Corp. of America, one of the nation's largest MDS providers, announced plans to offer a multiple-channel television service, to be called MCTV, by leasing ITFS frequencies from National Instructional Television, Inc. (formerly National University of the Air, Inc.) and other ITFS operators.[72]

F. Private Operational-Fixed Microwave Service (OFS)

Through a rule change which became effective in August 1983, the FCC created new video opportunities by expanding the use of the Private Operational-Fixed Service (OFS).[73] This private radio service was previously restricted, as a result of FCC regulations, to aural transmissions by business entities among different parts of the same company.[74] The rule changes open up a distribution path between the licensee and its customers for the transmission of the licensee's own products, including video programming.[75] This places OFS on a comparable footing with MDS as a video entertainment delivery outlet.[76] The FCC foresaw a variety of potential uses for OFS systems including video material distribution, voice, and, in the future, high-speed data services distribution.[77]

As a result of the Commission's rulemaking, OFS frequencies can also be used for the first time to transmit video programming to the home. OFS licensees may use frequencies above 21.2 GHz for the delivery of their own products or services to any receiving location, including hotels, other commercial establishments, apartment house master antenna systems, and private residences.[78] After August 1, 1985, the Commission will also authorize private video entertainment systems in the 2.5 GHz band.[79] By allocating frequencies above 21.2 GHz for OFS, the Commission indicated that many more entertainment systems could be accommodated than possible at 2.5 GHz, making multiple channel use a future possibility.[80]

G. Subscription Television (STV)

Subscription or over-the-air pay television is not, technically, a new entrant in the video marketplace. The technology dates back to

1950, when the first STV test was conducted in New York.[81] STV is simply pay television transmitted over the air by local television stations that have chosen to offer subscription, rather than conventional advertiser-supported programming. To limit reception to subscribers, STV stations, most of them in the UHF band,[82] broadcast a scrambled signal which must be "decoded" by a device attached to the subscriber's television set. (See Figure 4.)

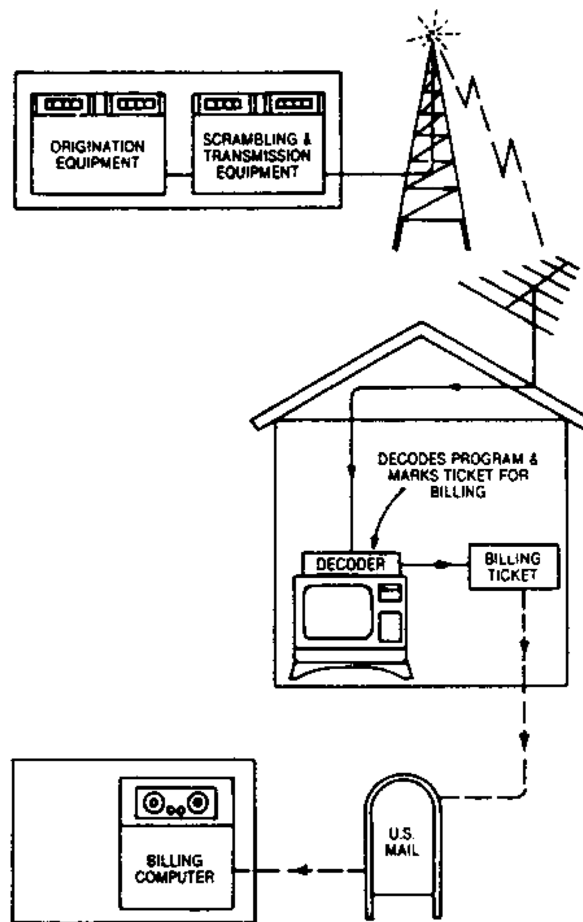

Figure 4. Subscription Television (STV)

Because subscription television operates over-the-air on a specific allocated frequency, STV stations have only one channel to program.[83]

The program fare is typically movies, entertainment specials and sporting events.

Although nonexperimental STV stations were permitted by 1961,[84] none commenced operation until almost a decade later.[85] Between 1980 and 1983, the number of STV operations have more than tripled as a result of increased public interest in pay television programming and the relaxation of FCC regulations.[86] Growth in the number of subscribers has been slow, however. As of September 1983, 19 STV stations were on the air serving some 985,560 subscribers.[87] Although the STV industry is currently experiencing economic difficulties,[88] it remains a video alternative, at least in certain markets, particularly those without large cable television penetration.

The elimination of virtually all regulatory restrictions upon STV activity has not done much to stimulate growth of this video service. In a 1982 rulemaking proceeding, for example, the FCC deleted the so-called "complement-of-four" rule. This rule restricted STV operation to those markets with at least four commercial television stations on the air, and allowed only one station in a community to engage in STV operations.[89] This regulatory change made vacant UHF and VHF allocations eligible for STV in 74 markets, encompassing more than 70 percent of television households.[90] In 1983, the Commission exempted STV stations from compliance with virtually all of its television technical standards.[91]

Increasing judicial protection against unauthorized distribution of decoding devices is another factor which could encourage the growth of STV.[92] The United States Courts of Appeals for the Sixth[93] and Ninth[94] Circuits have both held that STV transmissions are protected by Section

705 of the Communications Act, which prohibits interception of certain radio communications not intended for use by the general public.[95] Those cases establish an implied right of action by STV licensees against unauthorized distributors of decoders. In addition, improvements have been made in securing STV systems against signal theft, especially in the area of "addressable" systems which use a central computer to "address" or activate individual decoders.[96]

H. Teletext

Teletext is a generic term for systems which transmit textual and graphic information on a one-way basis to the home viewer.[97] (See Figure 5.) Teletext may be "narrowband," often utilizing the vertical blanking interval (VBI) of the television signal,[98] or "broadband," using an entire television channel.

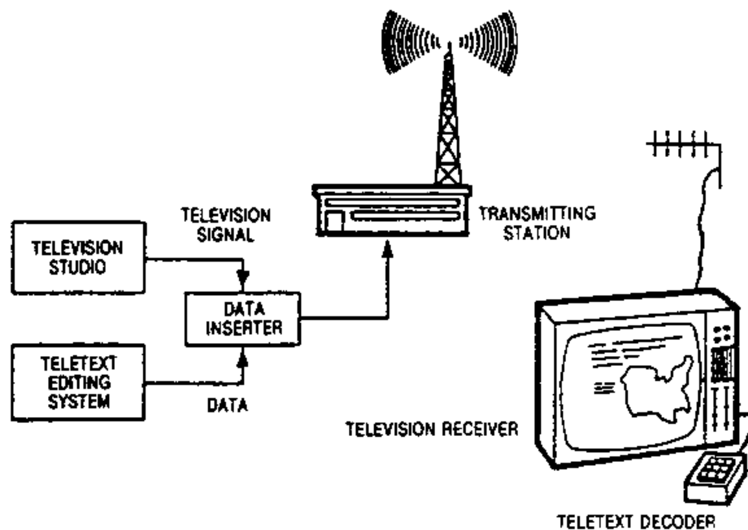

Figure 5. A Broadcast Teletext System

Broadband service would be delivered primarily by cable and MDS, while narrowband may be carried by cable, MDS, television stations (including low power), DBS and the subcarriers of FM stations.

Teletext offers substantial opportunities for diversifying television service into new areas and for improving the efficiency of spectrum usage. It has the potential to be used for a wide variety of services, including closed-captioning for the deaf, weather reports, news, comparative shopping prices, community bulletins, stock prices, movie listings, telephone directories, advertisements and airline schedules. It also offers interesting possibilities to enhance television viewing, such as permitting a viewer watching a baseball game the option of seeing a page of statistics about the batter.[99] Such information could be transmitted as an advertiser-supported or subscription service.

In March 1983, the Commission amended its rules to permit teletext transmissions by television stations.[100] Favoring an "open environment" for teletext systems, the FCC declined to adopt technical standards for a single, nationwide system with compatibility for all teletext operations. Instead, television licensees can choose any technical system for transmitting data signals, subject to minimum standards designed to prevent interference with the broadcast service of the originating station, signals of other broadcast stations or those of nonbroadcast radio stations.[101] This means that the two principal systems currently vying for acceptance -- the World System Teletext Standard (based on the British Ceefax system) and the compromise North American Broadcast Teletext Standard (adapted from the French Antiope and Canadian Telidon teletext systems) -- could be represented in a single television market with viewers required to invest in multiple decoders to receive all services.[102] (Or, more likely, viewers would

hesitate to purchase any decoder so long as confusion on standards prevailed.)

Consistent with its current marketplace approach, the Commission authorized transmission of broadcast and non-broadcast material.[103] Licensees can also choose to operate services on a lease, franchise or common carrier basis. In addition, the Commission declined to require mandatory carriage of teletext transmissions by cable systems, thus enabling cable operators to delete the teletext service provided by television stations and provide their own competing teletext or videotex services.[104]

The first commercial broadcast teletext service made available in the United States was Taft Broadcasting's 100-"page" teletext service called "Electra," which began broadcasting over WKRC-TV, Cincinnati in mid-1983.[105] Since the Commission's rules were amended, superstation WTBS, carried on many cable systems, launched a cable teletext service in 1984 provided by Keycom Electronic Publishing, a joint venture of Honeywell and Centel.[106] In addition, several other companies have announced plans to offer on-screen teletext magazines. CBS, for example, plans to launch "Extravision" through its affiliates as a national teletext service.[107] The service would have 100 pages of text, including airline schedules, movie and theater listings, weather and stock market reports, and would be supported by national and local advertising.[108] NBC also plans to offer a 100-page nationwide advertiser-supported magazine to its affiliates.[109] Satellite Network Delivery Corp., together with the Tribune Co., has proposed the first satellite-delivered teletext system, Business Teletext Network.[110] NBC, however, began transmitting a 100-page nationwide advertiser-supported

magazine to its affilitates in May 1983, but decided to end the service in late 1984 because of the high cost of decoders.[111]

II. CLOSED TRANSMISSION VIDEO SERVICES TO THE HOME

A. Cable Television

Cable television, as distinguished from over-the-air services, relies upon a wired network. The wire or coaxial cable is strung along utility poles or through underground conduits and is connected to the subscriber's residence. (See Figure 6.) About 39 percent of American television households subscribed to cable television by the start of 1984, an increase of 18 percent in one year.[112]

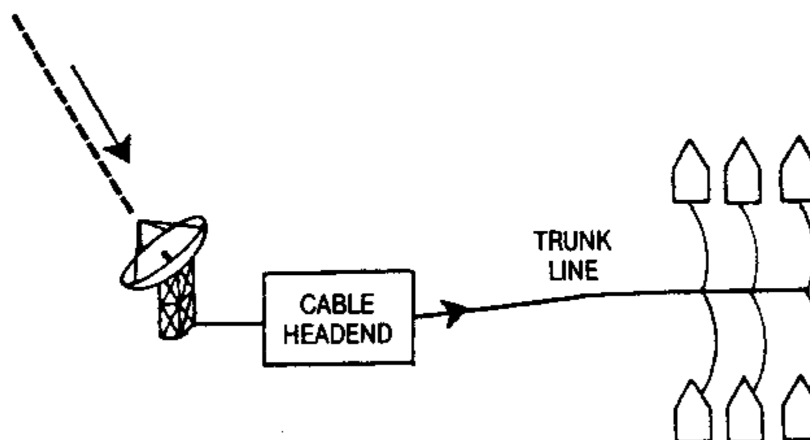

Figure 6. Cable Television System

From a technical standpoint, there is virtually no limit on the number of cable channels that can be provided. While older cable systems typically provided 12 channels, the development of converters in the 1960s increased the capacity of CATV systems to 20 channels. Refinements in line amplifiers have made possible the provision of 52 channels on a single cable line; by using two cables, systems can offer

104 channels of programming.[113] Other advances, such as General Electric's Comband technique, whereby two video program services can be transmitted over a single cable television channel through the use of analog compression, promise to expand further cable's already abundant channel capacity.[114]

The increases in channel capacity have, in turn, had an impact on programming, spawning new satellite-interconnected cable networks, such as the Entertainment and Sports Programming Network (ESPN), Cable News Network (CNN), MTV (music video), and Nickelodeon (children's programming).[115] In addition, the excess channel capacity of local cable television systems has been utilized by third parties, such as newpapers and broadcasters, on a leased or joint venture basis, to deliver program or information services to subscribers. By the end of 1981, 69 newspapers had arranged to provide video, audio, or text services on local cable systems.[116]

These technological and marketplace developments have been accompanied by the relaxation of federal regulation. The deregulatory trend began with the Supreme Court's 1979 Midwest Video decision,[117] which circumscribed the Commission's jurisdiction over cable television. It continued with the decision of the FCC, in 1981, to eliminate virtually all restrictions on the number of distant station signals that cable systems may import and to delete "syndicated exclusivity" rules requiring cable systems to "black out" some programs.[118] While cable television systems continue to be regulated by local governments through the franchise process, the extent of cable regulation by state and local franchising authorities has been reduced significantly by the Cable Communications Policy Act of 1984.[119]

In Capital Cities Cable, Inc. v. Crisp,[120] a June 1984 decision, the Supreme Court expanded the FCC's authority to preempt state and local restrictions on cable program content. The Court struck down an Oklahoma law that banned the carriage of wine and liquor advertising on cable systems even when the signal originated in another state where such advertising was lawful. The Court held that the Oklahoma law was preempted by the FCC's regulations requiring carriage of the program and advertising content of local television signals (including carriage of out-of-state signals by cable systems near state boundaries). There is language in the Supreme Court's decision which indicates that the FCC's jurisdiction over cable is original, not merely ancillary to its authority to regulate television broadcasting.[121]

A week after the Supreme Court's Capital Cities decision, the FCC clarified its position on state and local cable television regulation when it denied a series of petitions intended to overturn its preemption of the regulation of non-basic cable television service.[122] The Commission said cable systems were exempt from local government rate regulation in connection with "tiered services" (i.e., all cable programming other than local television signals). At the same time, the FCC also declared that local franchising authorities would not be permitted to prevent cable operators from adding or deleting any service offering other than local television signals.[123] The Commission declared that "franchise provisions which purport to control the content or placement of broadcast or cablecast signals have been preempted . . . ."[124]

B. Interactive Cable Television

While cable systems normally connect the home to the programming source with one coaxial cable, many of the newer systems possess inter-

active capacity, using two cables so that information can flow in both directions simultaneously.[125] Warner-Amex Cable pioneered interactive cable with its "Qube" system in 1977, and other operators have since developed their own versions.[126]

Two-way capability offers the potential for new and innovative services. For example, it permits the cable operator to poll its viewers on such matters as the expected winner of the next college football game, or a presidential press conference. Viewers have played game shows, "gonged" local talent off the air, ordered library books, and indicated their solutions to moral dilemmas dramatized by actors.[127] Subscribers have also been asked to offer their opinions (via limited options provided by the programmer) on President Carter's 1979 energy speech and Ralph Nader's petition to change children's advertising.[128]

A two-way shopping channel is available in markets served by the Times Mirror Cable systems.[129] Cox Cable has experimented in San Diego with a system called "Indax" that provides textual information, electronic mail, home banking and shopping services to subscribers.[130] In addition, interactive technology simplifies "pay-per-view" programming by eliminating the need for the installation of special decoders to unscramble the signal.[131] With interactive cable, the viewer registers a preference on the console, the computer supplies the signal, and the viewer is automatically billed.

C. Cable Interconnect Systems

Another significant development in the cable area is the use of "interconnects" to transform numerous, discrete cable systems into a mini-network.[132] Interconnects may be of the "hard" or "soft" variety. Hard or physical interconnects link neighboring systems together by a

microwave network or coaxial cable.[133] The soft or simulated interconnects do not actually establish electrical connection among the participating systems. Instead, they involve agreements allowing a common entity to sell advertising time on participating cable systems as a single network.

Hard interconnect systems have attracted more interest since they allow the appearance of commercials on multiple systems simultaneously. The first hard interconnect was the Bay Area Interconnect, linking 475,000 subscribers in the San Francisco area. Gill Cable, the San Jose cable operator that conceived the idea, receives satellite programming, inserts commercials supplied by national and regional advertisers, and sends the mixture over a microwave network to 31 other systems.[134] Other hard cable interconnects, based upon the Bay Area model, include Harron Cable, which is presently building a four-channel microwave network in the Philadelphia market; Cox Cable, which distributes KCOX, a programming service, via a one-channel microwave to two other systems in San Diego County; and Heritage Communications, a one-channel network interconnecting 21 systems in Iowa.[135]

Soft interconnect systems, although not as numerous, permit advertisers to choose the markets they want to reach, require no capital investment and provide more flexibility to insert local advertising.[136] Existing soft interconnects include New England Cable Rep, which represents 20 systems with 500,000 subscribers in an area stretching from Maine to Connecticut, and Eastman Cable Rep, which operates on a national level. Most recently, Group W and Viacom launched a soft interconnect, offering advertisers the opportunity to make a single buy for 245,000 cable subscribers in the Seattle area.[137] The system's four

common services -- ESPN, CNN, MTV and USA -- will screen the same commercials through the use of "bicycled" (or physically delivered) tapes.

D. Common Carrier Wireline Or Fiber Optics Services

Fiber optic technology is a relatively recent development. Unlike conventional wire, fiber optics transmit pulses of light from a tiny laser through flexible strands of glass. Since light waves are higher in the spectrum than radio waves and have a greater bandwidth, a much greater amount of information can be transmitted through an optical fiber than through a conventional wire.[138] Fiber optics are also free from signal interference.[139] It is technically feasible for optical fiber to provide telephone and video service to homes, as well as providing the delivery path for many additional services not previously available on terrestrial telecommunications systems.[140]

In the view of some, improvements in fiber optics communications technology will ultimately make an integrated wideband delivery system using fiber "loops" to the home the most efficient means of delivering voice, data and video services.[141] Other countries have experimented successfully with optical fiber home connections. In 1978, for example, Japan completed a fiber optic system which offers 158 subscribers a number of video signals, still pictures and textual material.[142] In the same year, Bell Canada installed fiber optic cables at 36 of its subscribers' residences in Toronto, offering telephone, FM and video services.[143]

Domestic cable and telephone companies have also demonstrated interest in applying fiber technology. For example, a system supplied by the telephone company for the Los Angeles Olympics made extensive use

of fiber optics. In 1983, AT&T began carrying some telephone calls between New York City and Washington, D.C. by means of a 372-mile fiber optic link, said to be the largest transmission system in the world using optical fibers.[144] MCI Communications Corp. plans to install fiber optic data and communications lines along railroad tracks in the Washington-New York corridor and elsewhere around the United States.[145] The Port Authority of New York and New Jersey has proposed a "teleport" on Staten Island, with 12 to 17 earth stations linked by fiber optic cable to the World Trade Center and other points in New York and New Jersey.[146] Southern New England Telephone Co. and the CSX Corporation, a major railroad company, plan to install a 5,000-mile fiber optic system to provide essentially a closed loop over railroad rights-of-way between the Boston, Detroit, New Orleans and Miami areas.[147] In the cable field, Fisher Communications has announced plans to build a 120-mile fiber optic cable system for United Cable Television in Alameda, California.[148] According to one report, a dozen companies planned to spend approximately $6 billion by 1990 to build new long-distance telephone networks that could be the backbone of the U.S. communications system in the next decade.[149]

Although FCC rules prohibit the cross-ownership of cable and telephone companies,[150] inhibiting the use of fiber optics for video transmission, the replacement of conventional telephone lines with fiber optics could facilitate telephone companies' entry into the video marketplace if those restrictions are lifted. Under the Cable Communications Policy Act of 1984, a telephone company is not prohibited from constructing or leasing a local distribution system capable of

delivering video programming and other communications services to multiple subscribers in a community.[151]

E. Videotex

A variety of interactive systems, called videotex, utilize telephone or two-way cable lines to disseminate text and graphic information for display on television screens or video display terminals.[152] (See Figure 7.) In addition to information retrieval, videotex offers the possibility of conducting transactions, such as shopping and banking, from the home. Electronic mail is also a potential use.[153]

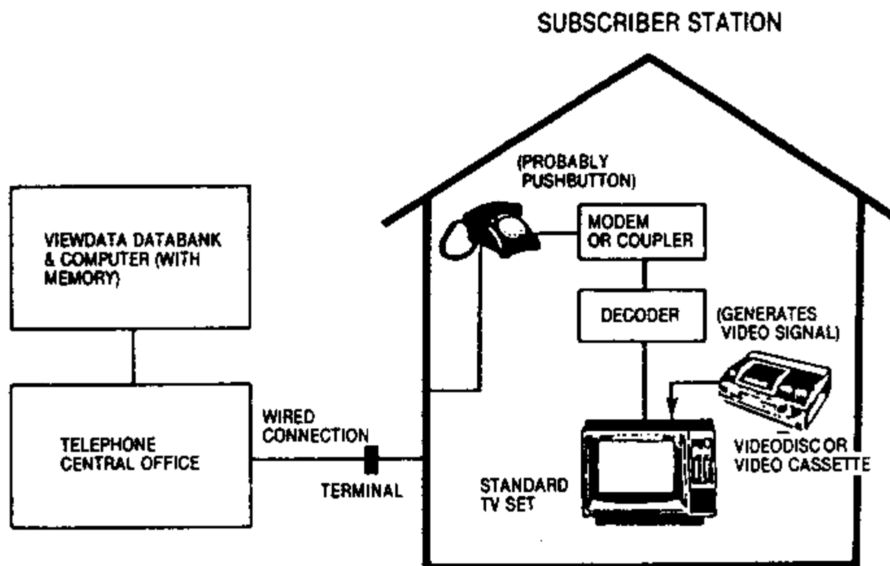

Figure 7. Electronic Publishing Services or Videotex

Several videotex services are now offered, including The Source, CompuServe and Dow Jones News Retrieval, which make available national data bases to personal computers via telephone lines.[154] The Source offers programs that include text editing, income tax preparation packages, games, airline ticketing services, the UPI News Wire Service, and electronic mail. CompuServe, operating from Columbus, Ohio, offers

similar services. CompuServe enlisted 11 newspapers for an experiment with electronic news and classified advertising, among other services. Dow Jones provides sports, movie reviews and shopping in addition to its mainstay, financial data. Among them, they count several hundred thousand subscribers, although many are not regular users.

Viewtron, provided by a subsidiary of Knight-Ridder Newspapers, Inc., is an interactive system that began operating on a commercial basis in Coral Gables, Florida, in late 1983. It is transmitted over telephone lines, using a special data network. Subscribers can retrieve news, weather, sports, product ratings, and classified ads, as well as order airline and theater tickets over the system.[155] Unlike Dow Jones, The Source, and CompuServe, Viewtron offers color graphics in addition to the text provided by others. However, Viewtron is a purely local service and has reportedly found little mass appeal at its current price of about $30 monthly; the other three are available nationally.

Other electronic publishing ventures include Newsnet, which uses telephone lines to transmit the contents of 100 newsletters to the personal computers of subscribers.[156] Two major consumer-oriented videotex systems -- Times Mirror's Gateway videotex service in Orange County, California, and Keycom Electronic Publishing Company, to be broadcast over Station WTBS, Atlanta -- began operations in late 1984.[157] In 1982, CBS & AT&T conducted a joint videotex experiment which offered 100 households in Ridgewood, New Jersey, a broad range of local and national consumer information and transaction services.[158]

III. PROGRAMMED VIDEO SERVICES FOR HOME USE

A. Videocassette Recorders and Videodisc Players

Videocassette recorders (VCRs) and videodisc players (VDPs) have altered the traditional pattern of television viewing. Fundamentally the same as audio recording devices, VCRs are capable of playing prerecorded tape cassettes, and of recording and playing back material from television or other video sources, including an attached video camera.[159] (See Figure 8.) VDPs use phonograph-type "records" rather than tape to store video information.[160] They are still restricted to playback of pre-recorded material only, however.

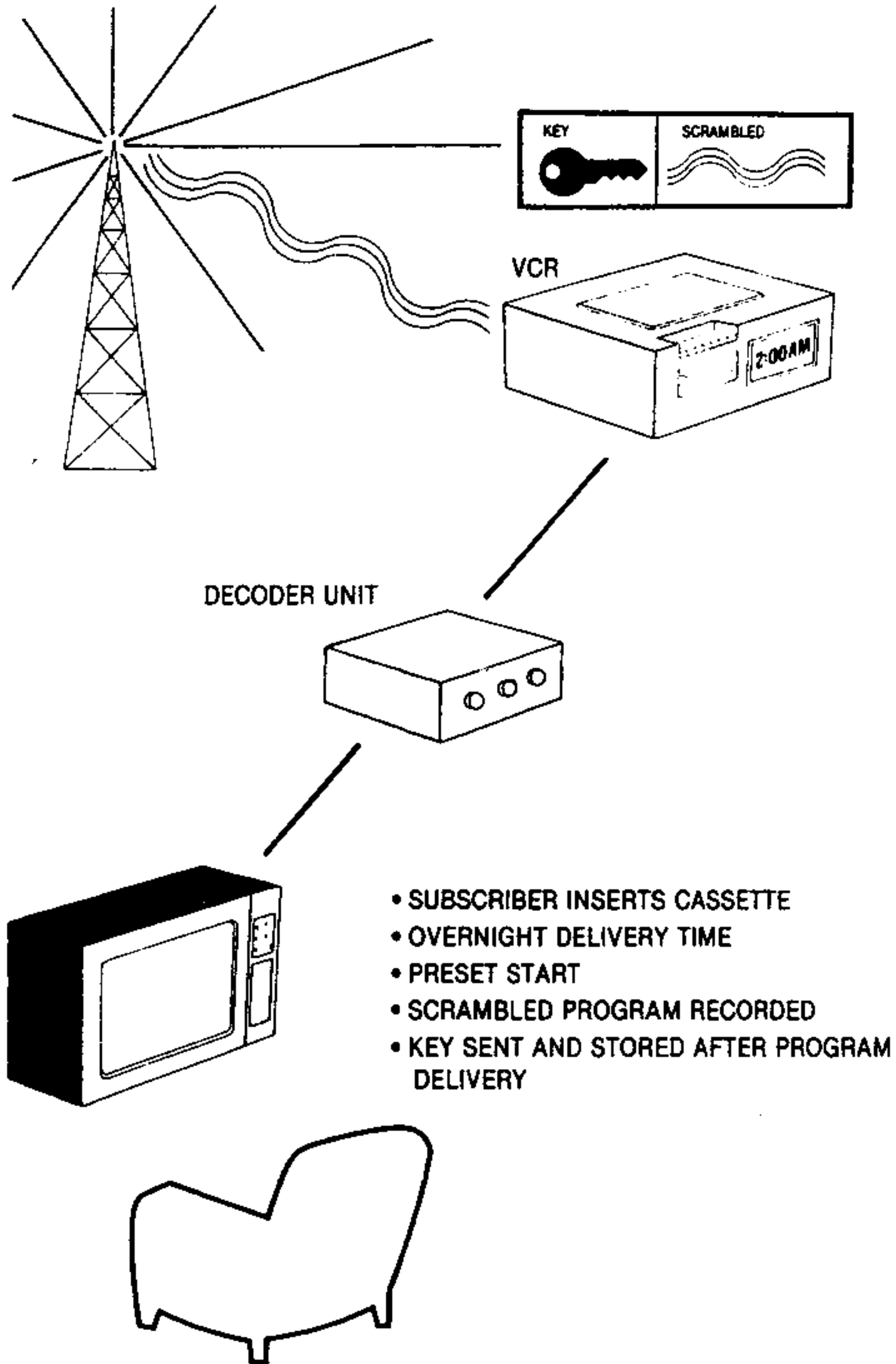

Figure 8. VCR Applications

Videocassettes have had a twofold impact on the video marketplace. First, the "time-shift" cabability of VCRs permits viewers to tape television or cable shows for viewing at home at more convenient times. Time-shift viewing liberates viewers from the programmer's rigid schedules, and for this reason, conceivably expands the audience for television and cable programming.[161] Second, VCRs make available a wide range of specialized, nonbroadcast programming. Many users purchase or rent video material for personal use to supplement the video information that is otherwise available through broadcast or cable services.

Videodisc players also allow the release of video information to the home market.[162] The advantage of the VDP is its ability to provide high quality stop action, slow motion and random access to individually addressed frames, thus providing a capability to display text and still photographs. Despite these advances, decreasing prices and increasing popularity of VCRs[163] prompted RCA's announcement in April 1984 that it would stop manufacturing VDPs and abandon a three-year attempt to gain "mass market" acceptance for the product.[164]

B. Video Game Cartridges and Systems

Video games are not directly competitive with broadcast and cable television as are VCRs and VDPs which offer similar entertainment.[165] They are significant, however, in that they use the television screen as a display device, permitting viewers to control the images on the screen. Video games were present in 25 percent of the nation's television homes in 1982.[166] The video game business suffered a slowdown in 1983, however, as home computers began to take over as a game player from the more specialized video game-only units.[167]

Video games are also melding with other new technologies. Plans have come and gone to distribute video games over subcarrier channels on FM stations, via telephone and cable lines.[168] The Nabu Network, for example, which wanted to download home computers over satellite and through cable affiliates for monthly subscription fees, planned to offer cable subscribers new video games software each month in the same way HBO offers new movies.[169] However, the principal backer of Nabu abandoned the operation in late 1984 in the wake of heavy financial losses.[170]

C. Telesoftware Applications

By combining VCR and broadcast technologies, entrepreneurs hoped to distribute programming electronically for over-the-air taping. Music, movies, video games and other forms of entertainment or information can be electronically transmitted to homes and recorded by machines automatically activated to receive the transmission. A new word, "telesoftware," has been coined to describe any form of electronically downloaded software.[171] ABC launched a telesoftware venture, known as "TeleFirst," in January 1984 over its owned-station WLS-TV in Chicago.[172] The service, which broadcast satellite-distributed broadcast pay programming in scrambled form over ABC's owned and affiliated stations during the early morning hours for taping by subscribers, was discontinued in June 1984, due to the rapidly dropping costs of VCRs and videocasette rentals.[173] ECO, Inc., an electronics company in Santa Ana, California, has announced plans to broadcast magazines, newspapers or catalogues over the air or by cable for taping on a VCR.[174]

IV. DEVELOPMENTS THAT COULD PERMIT MORE VIDEO DELIVERY SYSTEM OPPORTUNITIES

A. General Electric Company's Two-for-One Comband System

The General Electric Company Television Division, in November 1982, announced the development of Comband, an analog compression system intended to allow transmission of two video program services over a single cable television channel.[175] As reported in the trade press, "[b]y installing a Comband encoder at the headend and Comband converters in subscribers' homes . . . the cable operator can quickly and relatively inexpensively double the capacity of his own system."[176]

Comband will be marketed initially for the cable television industry, but GE indicates that the system will have future applications to over-the-air services such as television, STV, LPTV, MDS, and satellite and microwave links.[177] If successful, this system could permit an inexpensive doubling of services provided over broadband (6 MHz) allocations to broadcast, STV, LPTV, and MDS licensees.

B. Conversion From Analog To Digital Transmission Techniques

Television signals are normally transmitted in analog "wave" forms moving across the 6 MHz frequency range.[178] AT&T, ITT, and others are developing digital transmission techniques that convert audio and video signals into "on and off" impulses,[179] thereby permitting a number of different services to be transmitted over the same 6 MHz allocation.[180] The principal disadvantages of digital systems are the current high cost of conversion equipment, and the transition costs of moving from an analog to a digital approach for existing broadcast communications services. Nonetheless, if sufficient demand for new transmission delivery systems exists, such digital multiplexing techniques will provide

another method of "squeezing" more uses out of the same frequency allocations.

To cite one example, domestic satellites are relying increasingly upon digital modulation to increase capacity.[181] Also, digital television makes it possible to display multiple images -- for example, Matsushita Corp., which placed on the market the first digital television sets in June of 1984, designed the set so that it will display two images at once, thereby allowing the viewer to watch one show while monitoring a second channel or a VCR or videodisc playback in a corner of the screen.[182] NEC of Japan has developed a digital set that can freeze up to four frames in memory and print out the images on a thermal printer.[183] Digital technology, in addition to enabling such innovations, has the potential of eventually cutting the cost of television assembly by putting much of the circuitry on a few silicon chips.[184]

C. Shared Use Of Broadcast Auxiliary Stations

In April 1983, the Commission amended its rules to permit licensees of television auxiliary stations (studio-transmitter links, intercity relays and TV pickup stations) to use those facilities to transmit, on a profit-making basis, broadcast or nonbroadcast material to other entities.[185] The only restriction is that the use must be secondary to the primary purpose of the spectrum allocation, which is transmission of live program feeds to the associated television station.

The Commission's decision enables licensees to use excess capacity for nonbroadcast purposes, as well as to transmit program material to cable television systems and to other broadcast stations. The licensee may also, through multiplex techniques, transmit simultaneously two video channels, with one feeding the licensee's associated broadcast station while the second is being used for alternative purposes.

The Commission's decision facilitates a number of new business arrangements. For example, a broadcaster could relay signals received from a satellite over TV relay stations or transmitter studio links to the broadcaster's studio or another location. Interconnection of broadcast auxiliary stations with non-broadcast microwave stations would also be a possibility, enabling linkage to police or other governmental systems. TV pickup or electronic news-gathering facilities could also be made available to non-broadcast users.

In giving broadcasters wide latitude to use excess capacity on their broadcast auxiliary facilities, the Commission intended to foster more efficient use of the spectrum and to encourage the development of spectrum-efficient technologies such as channel compression.[186] It stated, "[f]orcing auxiliary stations to remain idle when legitimate demands for frequencies exist is precisely the situation that we are attempting to avoid."[187]

D. Subsidiary Communications Services

In 1983, the Commission amended its rules to eliminate most restrictions on the use of FM subcarriers, greatly facilitating the provision of subsidiary communications services.[188] FM subcarriers -- the unused portion of the broadcast signal adjacent to the main channel frequency -- have, for many years, been used for the provision of broadcast-related services, such as background music, ethnic and foreign language programming, medical and business information and reading services for the blind. The Commission's action, however, enables broadcasters to use their subcarriers to transmit material of either a broadcast or nonbroadcast nature (for example, paging by means of "beepers"), for a full 24 hours per day irrespective of main channel operation.

Besides eliminating content restrictions, the new rules facilitate more efficient use of broadcast spectrum by expanding the technical parameters of FM subcarriers. As a result, broadcasters will now have available two or more audio subcarriers or several data channels. In authorizing the use of modulation methods other than frequency modulation (FM), the Commission also encouraged the use of FM subchannels for new and emerging technologies.

The potential uses of FM subcarriers include non-aural services (such as slow-scan video, display data, telemetry, facsimile services, electronic mail delivery); enhancement of main channel service (such as paging services); and control signals (such as utility load management, municipal traffic light and sign control).[189] Since the rule changes were adopted, a number of new ventures have been announced. Mutual Broadcasting System, for example, plans to launch a series of specialized voice and data networks to be transmitted over its satellite system to the subcarriers of participating FM stations.[190] A Montpelier, Vermont, FM station (WNCS-FM) has joined with a local company, Mad River Video, to deliver ski slope information and maps to video displays at condominiums and hotels in the Vermont resort area by means of the station's subcarrier.[191]

Paralleling the Commission's actions with respect to FM subcarriers, the Commission has similarly expanded the use of television subcarriers[192] and AM subcarriers.[193]

V. MAPPING VIDEO REGULATION

As recently as 1978 the regulatory jurisdiction of the Federal Communications Commission was relatively straightforward. As seen in Figure 9, the main area of fuzziness was in the degree of regulation of

certain types of telecommunications equipment. Title II (common carriage) and Title III (broadcasting) areas were clearly delineated.

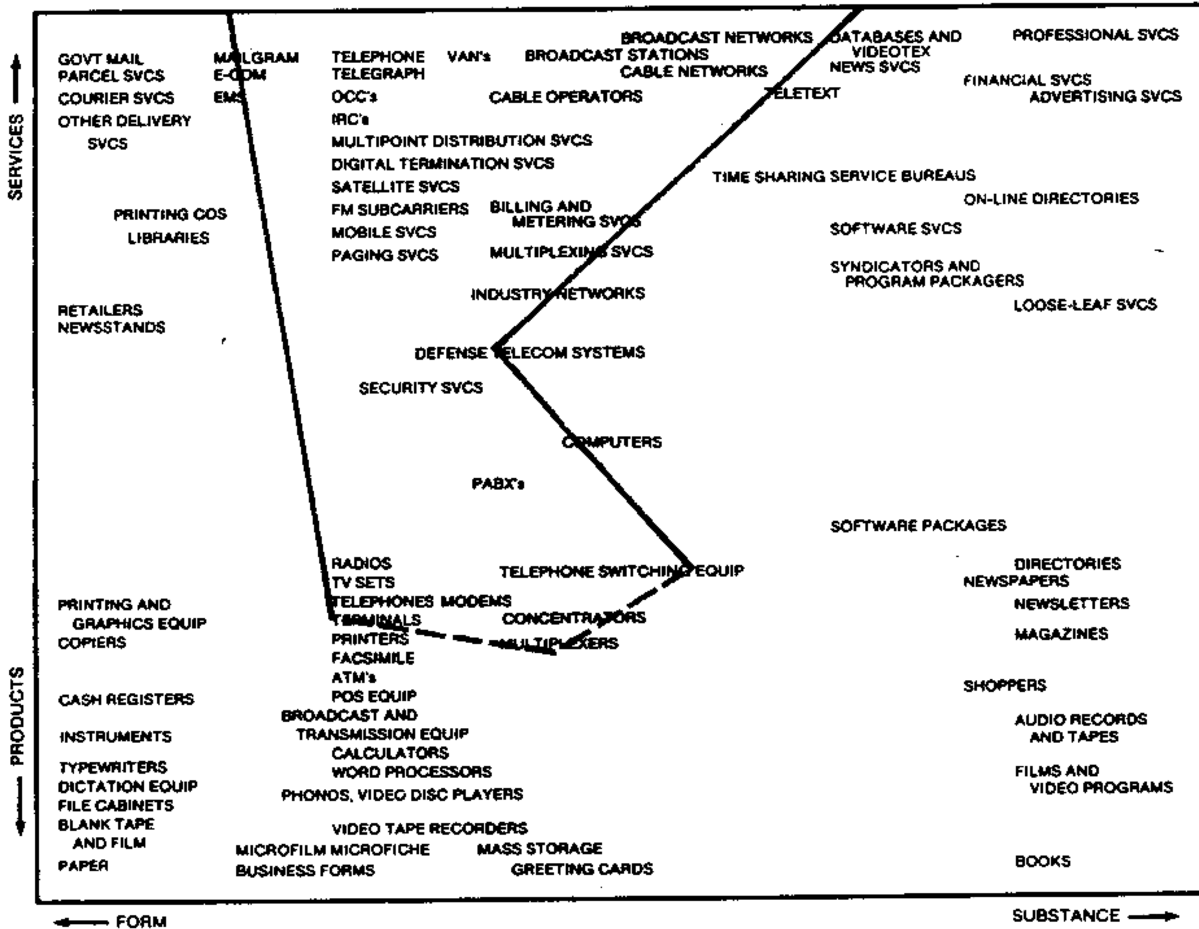

Figure 9. FCC Regulation -- 1978

By 1985, however, an attempt to draw neat boundaries had become a frustrating exercise, as Figure 10 suggests. Some services, such as MDS and DBS, could be regulated under Title II or Title III strictures, depending on individual circumstances. In the case of cable operators, Congress and the courts had become definitive in what could be regulated by the FCC and the states. States and local governments have some jurisdiction over cable operators, and there has been some question over

state authority for MDS under some conditions. In teletext, the FCC elected to forebear from regulation.

The map summarizes the regulatory identity crisis. For those players -- including users -- who preferred a stable, known business environment, life has perhaps become less enjoyable. For those previously on the outside or others who thrive on the challenge to find new niches, the current regime presents opportunities for success and failure.

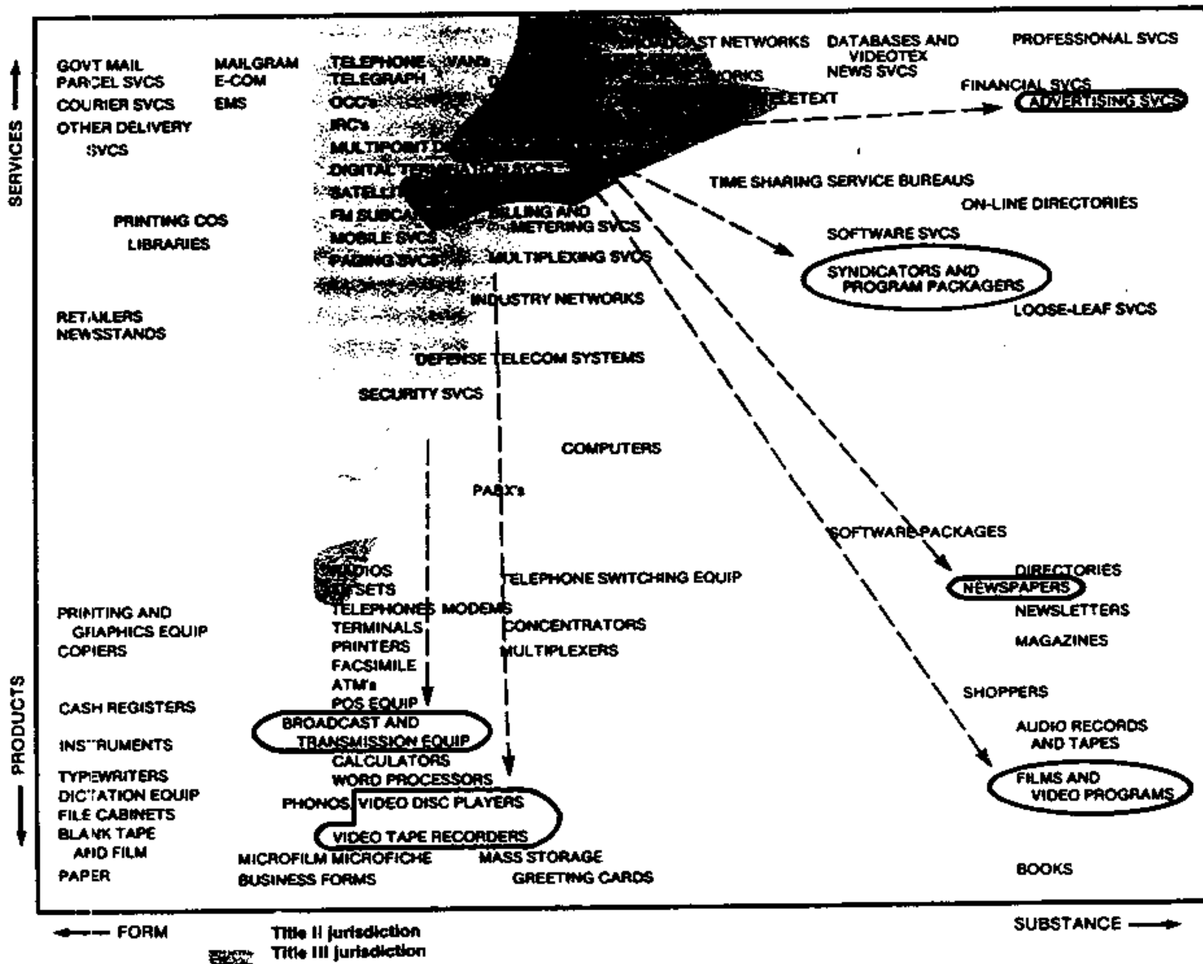

Figure 10. A Map of the New Video Marketplace: FCC Jurisdictions, 1985

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1 Oliver Wendell Holmes, Collected Legal Papers (Boston: Little, Brown, 1921), at 231.

2 National Broadcasting Co. v. United States, 319 U.S. 190, 219 (1943).

3 See, e.g., S. Rep. No. 562, 86th Cong., 1st Sess. 8 (1959), where Congress said in amending the Communications Act: "Broadcast frequencies are limited and, therefore, they have been necessarily considered a public trust. Every licensee who is fortunate in obtaining a license is mandated to operate in the public interest." FCC Chairman Mark Fowler has questioned the continuing vitality of scarcity as a justification for regulation. Fowler, "The Public's Interest," 4 Communications and The Law 51 (1983).

4 "The way a [television] service is classified may have substantial bearing on how it is regulated. And how it is regulated has profound consequences not only for the service providers but, ultimately, the public. Until recently, the FCC's service classifications were straightforward — services were either broadcasting, common carrier or private, and the lines between these categories were distinctly drawn. The lines of demarcation between classifications are no longer so sharp, and new classifications are emerging." Remarks of Henry M. Rivera, FCC Commissioner, Before the American Law Institute-American Bar Association, March 29, 1984, at 1 [hereinafter cited as Rivera Remarks].

5 National Association of Broadcasters v. FCC, 740 F.2d 1190 (D.C. Cir. 1984). See discussion infra at text notes 113-117 and accompanying text, and text note 364.

6 National Broadcasting Co. v. United States, 319 U.S. 190, 213 (1943). See also id. at 226 ("Unlike other modes of expression, radio inherently is not available to all . . . . [T]hat is why, unlike other modes of expression, it is subject to governmental regulation").

7 Id. at 212-13.

8 CBS v. Democratic Nat'l Comm., 412 U.S. 94, 101 (1973).

9 Office of Communication of United Church of Christ v. FCC, 359 F.2d 994, 1003 (D.C. Cir. 1966). See also Red Lion Broadcasting Co. v. FCC, 395 U.S. 367 (1969) ("It does not violate the First Amendment to treat licensees given the privilege of using scarce radio frequencies as proxies for the entire community, obligated to give suitable time and attention to matters of great public concern."); National Broadcasting Co., 319 U.S. at 215-16. One commentator has expressed a contrary viewpoint: "Spectrum scarcity justifies, if anything, diversity of speech in the broadcast medium, not government censorship." Thomas G. Krattenmaker and Marjorie L. Esterow, "Censoring Indecent Cable Programs: The New Morality Meets the New Media," 51 Fordham L. Rev. 606, 621 (1983). Another

commentator asserts that scarcity is primarily the product of, rather than the justification for, regulation. Bruce M. Owen, Economics and Freedom of Expression: Media Structure and the First Amendment (Cambridge, Mass.: Ballinger, 1975).

10 See Network Inquiry Special Staff, Federal Communications Commission, New Television Networks: Entry, Jurisdiction, Ownership and Regulation 14-30 (Oct. 1980) [hereinafter cited as Network Inquiry].

11 Sixth Report and Order on Television Allocation, 41 F.C.C. 148 (1952).

12 Very high frequency (VHF) and ultra high frequency (UHF) are in the 30-3,000 MHz band. See Head and Sterling, infra appendix note 178, at 31.

13 Co-channel and adjacent-channel stations must be separated geographically to avoid interference. See 47 C.F.R. secs. 73.610(b)(1) and (c)(1) (1982). UHF operation results in interference problems, known as "UHF taboos," which may preclude the use of up to 16 channels in a particular area. See Michael Wilhelm, "UHF and the FCC: The Search for a Television Allocations Policy," 28 U. Fla. L. Rev. 399, 402 (1976).

Based on an analysis of the A.C. Nielsen Company's Directory 1984-1985, there are fewer than three commercial VHF stations in 108 out of the 205 DMAs.

14 See Deregulation of Radio, 73 F.C.C.2d 457, 484 (1979).

15 "Broadcast Station Totals for December 1984," FCC News Release, No. 1810 (Jan. 9, 1985). A proposal is pending to increase the number of VHF stations by means of short-spaced television "drop-in" assignments. See Notice of Proposed Rulemaking (Gen. Docket No. 80-499), 45 Fed. Reg. 72902 (Nov. 30, 1980). Under the FCC proposal, as many as 139 new VHF stations would be allocated at less than the full traditional mileage separation from stations operating on the same channel.

16 National Telecommunications and Information Administration, Print and Electronic Media: The Case for First Amendment Parity 98-109 (May 1, 1983) reprinted in Staff Report to the Chairman, Senate Comm. on Commerce, Science & Transportation, 98th Cong., 1st Sess. (Comm. Print 1983) [cited as "NTIA Report"]. Some of the statistics concerning the number of operating television stations are somewhat misleading. A substantial number of television stations -- mainly UHF stations -- are "not reportable" by either Nielsen or Arbitron because their viewing levels are too small to be measured in any day-part. For example, as of May 1984, 36 television stations assigned to the "top 10" markets were "not reportable" with respect to viewing in those markets.

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17 Pub.L. 87-529, 76 Stat. 150, 47 U.S.C. sec. 303(s)(1962).

18 *See* Philip B. Gieseler, "UHF Television: A Review and Update," *Proceedings of the IEEE* 1254 (Nov. 1982).

19 "Advanced Technology UHF Receiver Study, Part 1, Receiver Performance Measurements," FCC/OST R83-1 (March, 1983).

20 "Perspective 1984," *Broadcasting*, Jan. 2, 1984, at 68.

21 Jonathan D. Levy and Florence O. Setzer, *Measurement of Concentration in Home Video Markets* 81 (Office of Plans and Policy, Dec. 23, 1982) [hereinafter cited as "*OPP Report*"]. For a summary of the report, *see* 48 Fed. Reg. 41 (Jan. 3, 1983).

22 *See* *Sixth Report and Order on Television Allocation*, 41 F.C.C. 148, 160 (1952).

23 At least one DBS applicant (Hubbard Broadcasting's United States Satellite Broadcasting) proposed offering advertiser-supported programming services. *See* *infra* appendix note 31 and accompanying text.

24 *See* FCC Public Notice, *Television Channel Utilization* (Apr. 27, 1983).

25 *See* *OPP Report*, *supra* note 21, at 101.

26 *See* "After 10 Years of Satellites, the Sky's No Limit," *Broadcasting*, Apr. 9, 1984, at 43.

27 *See* *Tentative Decision and Request for Further Comment* (BC Docket No. 82-345), 48 Fed. Reg. 38020, 38035 (Aug. 22, 1983) [hereinafter "*Tentative Decision*"].

28 *Id*.

29 The Commission's Office of Plans and Policy has broadly defined the home video market to encompass all services that deliver information and entertainment into the home. *OPP Report*, *supra* note 21, at 101. It concluded that "[a] narrow market definition, excluding the alternative media, will result in a severe underestimate of actual competition." *Id*.

30 The deconcentrated nature of the cable market, for example, has been acknowledged by the Commission. *See* *Network Inquiry*, *supra* note 10, at III-157-59; *FCC Policy on Cable Ownership*, *infra* appendix note 141, at 4.

31 *Notice of Proposed Rulemaking* (MM Docket No. 83-670), 48 Fed. Reg. 37239 (Aug. 17, 1983), Appendix A, Table III [hereinafter "TV Deregulation"]; *Tentative Decision*, *supra* note 26, at 38035.

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32 "Nielsen Says Cable Penetration Nears 40%, Up 18% from 1982," Broadcasting, Sept. 5, 1983, at 90.

33 TV Deregulation, supra note 30, at para. 28; Tentative Decision, supra note 26, at 38036-37 and Table 9 (58 million basic cable subscribers and 45 million pay cable subscribers by 1990).

34 Tentative Decision, supra note 26, at 38036, 38037 and Table 9.

35 Id., at 38036, para. 116; TV Deregulation, supra note 31, at para. 31.

36 Robert Lindsey, "VCR's Bring Big Changes in Use of Leisure," N.Y. Times, March 3, 1985, at A1.

37 See note 35 supra.

38 NTIA Report, supra note 16, at 81.

39 Tentative Decision, supra note 26, at para. 115.

40 Id. at 38037, Table 9.

41 Id.

42 The danger of relying on such projections was recently noted by Les Brown, editor-in-chief, Channels magazine: "People with a stake in the media are understandably on edge these days because fortunes are at risk, and they will seek out almost any educated theory on what's to come. The danger is that they may give too much credence to transitory indicators. The present is a notoriously poor guide to the future. It tends to be myopic and always on the edge of change. Anyone who had used the present as a road map in 1982 would have seen Atari as the future. A much better guide is the past, which affords some perspective and reminds us that we have lived through this, or something like it, before." 1984 Field Guide, infra appendix note 21, at 5.

43 For a further discussion of the early history of broadcast regulation, see Deregulation of Radio, 73 F.C.C.2d at 497-98.

44 OPP Report, supra note 21, at 84, table 2.

45 FCC Public Notice, Release No. 4772 (June 16, 1983). See Mark Fowler and Daniel Brenner, "A Marketplace Approach to Broadcast Regulation," 60 Tex. L. Rev. 207, 225 n.81 (1982).

46 As one commentator notes, "[t]echnology is an independent variable that makes scarcity a relative concept." Fowler and Brenner, supra note 45, at 222.

47 Some commentators urge that in any discussion of scarcity, a distinction be drawn between availability and accessibility. "First-class airline tickets are available to everyone, but they

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are only accessible to those who can afford the fare. Similarly, cable, MDS, STV and DBS may (or may not) add up to meaningful diversity; yet it is doubtful whether more than one of these will be accessible to the average consumer. (Indeed, all may not be available in many geographic areas)." Geoffrey A. Berkin, "Hit or Myth?: The Cable TV Marketplace, Diversity and Regulation," 35 Fed. Comm. L.J. 41, 49 (1983).

48 The term "diversity" in the context of television programming is difficult to define. Economists Robert Crandall, Roger G. Noll and Bruce M. Owen assert that the concept has to do with whether the programs offered on television span a sufficiently wide spectrum of qualitative attributes. They state that in this sense, diversity has two somewhat different but equally useful meanings. One is the range of social, cultural and political points of view, values and information that is presented. The second meaning focuses on whether the kinds of programs that are offered serve the broadest possible range of viewers. A premise of this meaning of diversity is that viewers differ widely in their tastes for programming, that differing combinations of the qualitative attributes of a program will consistently and systematically appeal to distinctly different groups of viewers. Crandall, Noll and Owen, "Economic Effects of the Financial Interest and Syndication Rule: Comments on the ICF Report," Reply Comments of CBS Inc., BC Docket No. 82-345 (April 26, 1984), at Vol. II, App. A, 10-11.

49 FCC v. League of Women Voters of California, 104 S.Ct. 3106, 3116 n. 11 (1984).

50 Ithiel de Sola Pool, Technologies of Freedom 23 (Cambridge, Mass.: Harvard University Press, 1983).

51 47 U.S.C. sec. 153(o) (1976). See also National Subscription Television v. S&H TV, 644 F.2d 820 (9th Cir. 1981); Functional Music, Inc. v. FCC, 274 F.2d 543, 548 (D.C. Cir. 1958), cert. denied, 361 U.S. 813 (1959); Subscription Television, 15 F.C.C.2d 466, 472 (1968).

52 47 U.S.C. sec. 153(h) (1976).

53 See H.R. Rep. No. 1850, 73d Cong., 2d Sess. 2 (1934); S. Rep. No. 781, 73d Cong., 2d Sess. 3 (1934). See also Subscription Television Service, 3 F.C.C.2d 1, 9 (1966) ("[T]he primary touchstone of a broadcast service is the intent of the broadcaster to provide radio or television program service without discrimination to as many members of the general public as can be interested in the particular program as distinguished from a point-to-point message service to specified individuals").

54 47 U.S.C. secs. 301-386 (1976).

55 See, e.g., FCC v. WNCN Listeners Guild, 450 U.S. 582 (1981); CBS v. Democratic Nat'l Comm., 412 U.S. 94 (1973).

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56 47 C.F.R. secs. 73.603-73.615 (1982). The Commission has the authority to impose less than the full complement of technical, behavioral and structural rules. It recently eliminated ascertainment requirements, nonentertainment programming guidelines, and commercial limits for licensees of commercial radio stations. Deregulation of Radio, 84 F.C.C.2d 968, 971 (1981), aff'd in part, remanded in part sub nom. Office of Communication of the United Church of Christ v. FCC, 707 F. 2d 1413 (D.C. Cir. 1983), reh. denied, Dec. 12, 1983, cert. denied, 104 S.Ct. 3545 (1984). The Commission also declined to impose many of the traditional broadcast regulations on LPTV. Report and Order (BC Docket No. 78-253), 47 Fed. Reg. 21468 (May 18, 1982).

57 47 U.S.C. secs. 311, 315.

58 47 C.F.R. at sec. 73.1211 (1982).

59 Id. at sec. 73.1216.

60 Id. at sec. 73.1212.

61 New Primer on Political Broadcasting and Cablecasting, 69 F.C.C.2d 2209 (1978).

62 Fairness Report, 48 F.C.C.2d 1 (1974).

63 See 47 C.F.R. sec. 73.636 (1982).

64 See 47 C.F.R. secs. 73.636, 76.501(a) (1982).

65 See Sixth Report and Order on Television Allocation, 41 F.C.C. at 158-67, 227-563.

66 See 47 C.F.R. sec. 73.621(a)(1982).

67 Id. Noncommercial stations receiving public funds have also been prohibited by law from editorializing. 47 U.S.C. sec. 399 (1976) (as amended by Pub. L. No. 97-35, 95 Stat. 357, 730 (1981)). The Supreme Court, however, held that the editorializing prohibition is an impermissible burden on the First Amendment rights of non-commercial stations. FCC v. League of Women Voters of California, supra note 49.

68 Public Broadcasting Act, Pub. L. No. 90-129, 81 Stat. 365 (1967), 47 U.S.C. secs. 390-399 (1976 and Supp. III 1979) (as amended by the Public Telecommunications Financing Act, 92 Stat. 2405 (1982)). In addition, grants for construction of broadcasting facilities are provided through the Department of Commerce. 47 U.S.C. secs. 390-394 (1976). The Department of Education funds the production of television programs for use by public television stations. 20 U.S.C. secs. 3201(a)(2) (1976).

69 See 47 U.S.C. sec. 396(k) (1976). Between 1981 and 1986, $1.061 billion in matching grants has been authorized. See Federal

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Communications Commission Authorization Act of 1983, Pub. L. No. 98-214, 97 Stat. 1467 (1983) (codified at 47 U.S.C. sec. 396(k) (1) (c)).

70 See, e.g., CATV, 2 F.C.C.2d 725 (1966), aff'd sub nom. Black Hills Video Corp. v. FCC, 399 F.2d 65 (8th Cir. 1968).

71 392 U.S. 157 (1968).

72 Id. at 178.

73 406 U.S. 649 (1972).

74 FCC v. Midwest Video Corp., 440 U.S. 689 (1979).

75 Id. Some cable systems, however, do provide these services pursuant to franchising agreements, negotiated with municipalities.

76 See CATV Syndicated Program Exclusivity Rules, 79 F.C.C.2d 663 (1980), aff'd sub nom. Malrite TV of New York v. FCC, 652 F.2d 1140 (2d Cir. 1981), cert. denied, sub nom. National Ass'n of Broadcasters v. FCC, (1982). 454 U.S. 1143 (1982). The FCC's cable policy, in the view of one commentator, "has been characterized by frequent reversals of protectionism of broadcasting at the expense of cable television and misguided efforts to shape cable television into preconceived molds." George H. Shapiro, Philip B. Kurland, and James P. Mercurio, "Cable Speech," The Case for First Amendment Protection (1984), at 15.

77 CATV Syndicated Program Exclusivity Rules, 79 F.C.C.2d at 813-15.

78 47 C.F.R. secs. 76.67, 76.92 (1982).

79 Id. at secs. 76.57, 76.59, 76.61.

80 Id. at secs. 76.206, 76.209, 76.213, 76.215, 76.221. In 1972, in connection with the passage of legislation making the lowest unit advertising rate available to candidates for public office, Congress amended Section 315 of the Communications Act to provide that for the purposes of the Section, "the term 'broadcasting station' includes a community antenna system." 47 USC sec. 315(c). Section 315(a) specifies equal opportunities and fairness doctrine obligations. See also Notice of Proposed Rulemaking (MM Docket No. 83-331), 48 Fed. Reg. 26472 (1983), in which the FCC proposed to revise the fairness doctrine and political telecasting rules applicable to cable systems.

81 Capital Cities Cable, Inc. v. Crisp, 104 S.Ct. 2694 (1984), infra appendix note 120.

82 See "FCC Affirms Cities Can Regulate Only Basic Cable Rates," Communications Daily, July 13, 1984, at 1.

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83 See Joseph R. Fogarty and Marcia Spielholz, "FCC Cable Jurisdiction: From Zero to Plenary in Twenty-Five Years," 37 Fed. Comm. L.J. 113, 123 (1985).

84 Cable Communications Policy Act, Pub.L. No. 98-549, sec. 1 et seq., 98 Stat 2779, (1984). See also H.R. Rep. No. 934, 98th Cong., 2nd Sess. (1984).

85 47 U.S.C. sec. 153(h) (1976).

86 See National Ass'n of Regulatory Utility Comm'rs v. FCC, 525 F.2d 630, 640-42 (D.C. Cir. 1976) (NARUC I); National Ass'n of Regulatory Utility Comm'rs v. FCC, 553 F.2d 601 (D.C. Cir. 1976) (NARUC II). The Commission adopted the NARUC I test for determining common carrier status in Domestic Fixed Satellite Transponder Sales, 52 Rad. Reg. 2d (P&F) 78, 87 (1982). It identified two criteria of common carrier status: "(1) whether there will be any legal compulsion to serve the public indifferently; and (2) if not, whether there are reasons implicit in the nature of the service to expect an indifferent holding out to the eligible user public." Id. The key features of common carrier regulation are that services must be provided on a "first come, first served" basis, without discrimination, and that common carriers cannot influence the content of the messages transmitted, but must act merely as conduits. The Commission has discretion to forbear from imposing the full panoply of Title II regulations where the entity lacks market dominance. See Competitive Common Carrier Serv., 52 Rad. Reg. 2d (P&F) 187, 189 (1982). See also ACLU v. FCC, 523 F.2d 1344 (9th Cir. 1975).

87 47 U.S.C. secs. 201, 202 (1976).

88 47 U.S.C. sec. 203(a) (1976).

89 Id. at secs. 204, 205 (1976).

90 Id. at sec. 214 (1976).

91 Id. at secs. 203, 205 (1976).

92 47 C.F.R. sec. 0.131 (1976).

93 See generally Federal Communications Commission, Office of Plans and Policy, Policies for Regulation of Direct Broadcast Satellites (Sept. 1980) at 53-56 [hereinafter cited as "DBS Report"].

94 See generally 47 C.F.R. Part 90 (1982). The Commission limits the ways in which various private radio users can share frequencies and equipment, and also restricts the types of communications which may be made in the private services.

95 In this regard, the Commission's actions in the broadcast area have paralleled those in the common carrier field. See, e.g., Competitive Common Carrier Serv., 91 F.C.C. 2d 59 (1982). The Commission

there concluded that Title II (common carrier) requirements may be waived "where [the FCC] determine[s] that the cost of such regulation outweighs] any perceivable benefits." Id. at 61. For a discussion of the forbearance and experimental authorization approaches in the DBS context, see John Lyons and Mike Hammer, "Deregulatory Options for a Direct Broadcast Satellite System," 33 Fed. Comm. L.J. 185 (1981).

96 See Fourth Report and Order (Docket No. 21502), FCC 83-485, released Nov. 16, 1983, at para. 32.

97 See Second Report and Order (Docket No. 80-112), FCC 84-568, released Feb. 1, 1985.

98 See infra text notes 181-182, and accompanying text. The proceeding would also include reexamination of the FCC's classification approach in light of the Court of Appeals decision in NAB v. FCC. Commissioner Henry Rivera has stated that such a reexamination should include the Commission's decisions concerning multichannel MDS, home delivery in the OFS, "private" DBS, and recent suggestions that pay television is not broadcasting. Remarks of Commissioner Henry M. Rivera Before the Advance Program IEEE Broadcast Symposium, Sept. 21, 1984, at 12-13.

99 Adding to the confusion have been a number of court cases interpreting sec. 605 of the Communications Act, 47 U.S.C. sec. 605 (1976). That section, which prohibits unauthorized reception of radio signals, does not apply if the service is classified as broadcasting. Compare National Subscription Television v. S&H TV, 644 F.2d 820 (9th Cir. 1981) and Chartwell Communications Group v. Westbrook, 637 F.2d 459 (6th Cir. 1980) (holding that STV transmissions are not broadcasting and therefore entitled to protection under sec. 605) with Orth-O-Vision, Inc. v. Home Box Office, 474 F. Supp. 672 (S.D.N.Y. 1979) (holding that HBO's MDS transmissions are broadcasting for purposes of sec. 605). For a discussion of the provisions of the Cable Communications Policy Act of 1984 governing the unauthorized reception of satellite signals, see infra text notes 343 and 344 and accompanying text.

100 Report and Order (Docket No. 10832), 11 Rad. Reg. (P&F) 1590, 1591 (1956). See also Functional Music, Inc. v. FCC, 274 F.2d 543 (D.C. Cir. 1958), cert. denied, 361 U.S. 813 (1959).

101 Subscription Television Serv., 3 F.C.C.2d 1, 9 (1966). See also Subscription Television, 15 F.C.C.2d 466, 472 (1968), aff'd sub nom. National Ass'n of Theater Owners v. FCC, 420 F.2d 194 (D.C. Cir. 1969), cert. denied, 397 U.S. 922 (1970).

102 Subscription Television, 15 F.C.C.2d at 472.

103 Amendment of Part 3 -- Subscription Television, 23 F.C.C. 532, 541 (1957).

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104 See Greater Washington Educ. Telecommunications Ass'n, 49 F.C.C.2d 948 (1974) (fairness doctrine, personal attack, and political broadcast rules not applicable); Subscription TV Serv., 90 F.C.C.2d 341 (1982). See generally DBS Report, supra note 93, at App. C.

105 90 F.C.C.2d 341 (1982).

106 See also Subscription Television Movie Restrictions, 41 Rad. Reg. 2d (P&F) 1491 (1977) (restrictions on feature films); Subscription Television Rules, 42 Rad. Reg. 2d (P&F) 1207 (1978) (restrictions on sports events); Enforcing Section 312(a)(7), 68 F.C.C.2d 1078, 1093 (1978) (exempting STV operators from sec. 312 requirements).

107 Direct Broadcast Satellites, 90 F.C.C.2d 676, 708 (1982), aff'd in part, rev'd in part, sub nom. National Ass'n of Broadcasters v. FCC, 740 F.2d 1190 (D.C. Cir. 1984).

108 Direct Broadcast Satellites, 90 F.C.C.2d at 708-09.

109 Direct Broadcast Satellite Servs., 86 F.C.C.2d 719, 750-51 n.64 (1981). See also Direct Broadcast Satellites, 90 F.C.C.2d at 708. At the oral argument in the NAB v. FCC appeal, Judge Abner Mikvah "rapped [the] FCC's non-regulatory view of DBS," and "expressed incredulity that neither authorized DBS companies nor satellite programmer United Satellite Communications (USCI) was being subjected to laws governing broadcasters." He chided the attorney for the FCC: "You have something that looks like broadcasting, smells like broadcasting, tastes like broadcasting and has all of the benefits of broadcasting, but we're not going to treat it as broadcasting because Congress didn't know about it [when it passed the Communications Act]?" "Court Hits FCC View of DBS," Television Digest, March 5, 1984, at 8.

110 Direct Broadcast Satellites, 90 F.C.C.2d at 709.

111 Id. The Commission, however, begged the question of how "common carrier" will be defined. See, e.g., Domestic Fixed Transponder Satellite Sales, 52 Rad. Reg. 2d (P&F) 78 (1982), where the Commission concluded that transponder sales are not common carrier offerings.

112 Direct Broadcast Satellites, 90 F.C.C.2d at 709.

113 Id. at 710. See the discussion of National Assn. of Broadcasters v. FCC, 740 F.2d 1190 (D.C. Cir. 1984), rehearing en banc denied, ___F.2d.___ (1984). The FCC chose not to seek Supreme Court review.

114 NAB v. FCC, id. at 1202.

115 Id.

116 Id. at 1202-1203.

117 Id. at 1204.

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118 GTE Satellite Corporation, 90 F.C.C.2d 1009, 1011, n.5 (1982), reconsideration, 94, F.C.C.2d 1184 (1983). See also WARC Implementation, 54 Rad. Reg. 2d (P&F) 101 (1983), aff'd sub. nom. United States Satellite Broadcasting Co., Inc. v. FCC, 740 F. 2d 1177 (1984) (remand to the FCC to consider which of the two entities, the common carrier or the customer-programmer, should bear the broadcast restrictions imposed by the Communications Act).

119 GTE Satellite Corporation, 94 F.C.C.2d 1184, 1195-96 (1983).

120 See Domestic Fixed Transponder Satellite Sales, 52 Rad. Reg. 2d (P&F) 78 (1982). By classifying domestic satellites as nondominant carriers, the FCC has significantly deregulated the satellite field by exempting domestic satellite operators from the burdensome tariff and Section 214 certification requirements. See Fourth Report and Order (CC Docket No. 79-252), FCC 83-481, released Nov. 2, 1983.

121 Teletext Transmission, 53 Rad. Reg. 2d (P&F) 1309, 1333 (1983). Former FCC Commissioner Anne Jones proposed "a single regulatory treatment" for broadcast and print media using the print model. She predicted that "[new] services like teletext and videotex . . . may provide the catalyst for change from the present regulatory scheme." Remarks of Commissioner Anne P. Jones Before the American Newspaper Publishers Ass'n, FCC News Release, Rep. No. 07762 (Mar. 5, 1981).

122 See Teletext Transmission, 53 Rad. Reg. 2d (P&F) 1309 (1983).

123 Id. at 1324-27. The Commission indicated that common carriage treatment will depend upon the manner in which the licensee conducts its business (i.e., whether the broadcaster holds out its transmission facilities to all people indifferently or whether it establishes stable, long-term contractual relationships with customers who are selected on a highly individualized basis). An analogous approach was utilized in the FM subcarrier proceeding (53 Rad. Reg. 2d (P&F) 1519 (1983)), and in the Commission's decision authorizing sale of excess capacity by television auxiliary stations (Broadcast Auxiliary Facility Sharing, 53 Rad. Reg. 2d (P&F) 1101 (1983)).

124 53 Rad. Reg. 2d (P&F) at 1322-24. Implicit in the FCC's decision is that broadcasters will fulfill fairness doctrine and political broadcasting obligations on their main channel. See also Memorandum Opinion and Order (BC Docket No. 81-741), released Jan. 24, 1985. Telecommunications Research and Action Center and Media Access Project have asked the U.S. Court of Appeals to review these portions of the FCC's decisions holding that teletext transmissions are not subject to the fairness doctrine and the equal opportunities and lowest unit rate provisions of the Act.

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125 Id. at 1321.

126 See note 97 supra.

127 Statement of Commissioner Henry M. Rivera, Concurring in Part, Dissenting in Part, CC Docket Nos. 80-112 and 80-116.

128 Id.

129 Second Report and Order (Gen. Docket No. 80-112) released Feb. 1, 1985, at n. 17.

130 See 47 C.F.R. secs. 21.903(b)(1)-(2) (1982), which prohibit MDS licensees from exercising control over the program content of their transmissions.

131 47 C.F.R. sec. 74.931.

132 Instructional Television Fixed Service (MDS Reallocation), 54 Rad. Reg. 2d (P&F) 107, 138-142 (1983).

133 Id. at 140.

134 Broadcast Auxiliary Facility Sharing, 53 Rad. Reg. 2d (P&F) 1101 (1983).

135 Use of Private Microwave Frequencies, 86 F.C.C.2d 299, 311 (1981).

136 Operational-Fixed Microwave Service, 54 Rad. Reg. 2d 439, 448, n.29 (1983).

137 See 47 C.F.R. sec. 94.9(a)(1) (1982). See also Use of Private Microwave Frequencies, 86 F.C.C.2d at 304, 309.

138 Notice of Proposed Rulemaking (PR Docket No. 83-426), 48 Fed. Reg. 24950 (June 3, 1983).

139 See Public Broadcasting Amendments Act of 1981, secs. 1231-1233 of the Omnibus Budget Reconciliation Act of 1981, Pub. L. No. 97-35, 97th Cong., 1st Sess., which created the Temporary Commission on Alternative Financing for Public Telecommunications to explore alternative sources of funding. The Act also authorized public stations "to engage in the offering of services, facilities, or products in exchange for remuneration" provided that "any such offering by a public broadcast station shall not interfere with the provision of public telecommunications services by such stations." Id. at sec. 1231, 47 C.F.R. sec. 399B(b)(1).

140 See Craig A. Dunagan, "Commercialization of Public Broadcasting," 5 Comm./Ent. L.J. 241 (Winter 1982-83).

141 Broadcast Auxiliary Facility Sharing, 53 Rad. Reg. 2d (P&F) 1101, 1107 (1983).

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142 Public Broadcasting Service, 86 FCC 2d 141 (1981).

143 Teletext Transmission, 53 Rad. Reg. 2d (P&F) 1309, 1322 (1983); see also, Memorandum Opinion and Order (BC Docket No. 81-741), released Jan. 24, 1985 (public broadcasters allowed to use their teletext facilities on a remunerative basis as an alternate source of financing).

144 Instructional Television Fixed Service (MDS Reallocation), 54 Rad. Reg. 2d (P&F) 107, 138-42 (1983). The Commission, however, has declined to permit noncommercial TV stations to engage in subscription operations. See FCC News Release, Report No. 17919, released March 30, 1984.

145 Report and Order (BC Docket No. 82-441), 49 Fed. Reg. 15581 (April 19, 1984). The Commission adopted its proposal to allow noncommercial FM stations to use their subcarrier channels for commercial purposes. See Report and Order (BC Docket No. 82-1), 48 Fed. Reg. 26608 (June 9, 1983).

146 The FCC initiated a rulemaking proceeding in 1985 on whether the licensee of a commercial UHF station could swap its facilities for a VHF station licensed in the same community to a public broadcaster without opening up the affected channels to application by third parties. Notice of Proposed Rulemaking (MM Docket No. 85-41), FCC 85-73, released March 8, 1985.

147 For a detailed discussion of this effort, see Erwin Krasnow, Lawrence Longley and Herbert Terry, The Politics of Broadcast Regulation (3d ed.1982), at 240-69.

148 Glen O. Robinson, "The Federal Communications Commission: An Essay on Regulatory Watchdogs," 64 Va. L. Rev. 169, 182 (1978).

149 Interview with Robert Bruce, Wash., D.C. (July 8, 1981).

150 Deregulation of Radio, 84 F.C.C.2d 968, aff'd in part, remanded in part, Office of Communication of the United Church of Christ v. FCC, 707 F. 2d 1413 (D.C. Cir. 1983).

151 See Malrite T.V. v. FCC, 652 F.2d 1140 (2d Cir. 1981).

152 Reregulation of Receive-Only Domestic Earth Stations, 74 F.C.C.2d 205 (1979).

153 For a discussion of these common carrier decisions, see Daniel Brenner, "Communications Regulation in the Eighties: The Vanishing Drawbridge," 33 Ad. L. Rev. 255 (1981).

154 VHF TV Top 100 Markets, 81 F.C.C.2d 233 (1980).

155 Low Power Television Serv., 51 Rad. Reg. 2d (P&F) 476 (1982).

156 Direct Broadcast Satellites, 90 F.C.C.2d 676 (1982).

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157 Lionel Van Deerlin, "Progress Made Via 'Rewrite' Dialog," Variety, Jan. 9, 1980, at 213.

158 Regulatory Flexibility Act of 1980, Pub. L. No. 96-354, 94 Stat. 1164 (1980) (codified at 5 U.S.C. secs. 601 et seq.). The Act requires federal administrative agencies such as the FCC to prepare an "initial regulatory flexibility analysis" before issuing a notice of proposed rulemaking. The analysis must identify the burden the proposed rule might place on small businesses, show how the proposed rule might overlap or conflict with other rules, and describe significant alternatives that might accomplish the same objectives. If an agency issues a final rule adopting its original proposals, it must show why it did not adopt one of the less burdensome alternatives. Agencies are also required to review and identify existing rules that place especially heavy burdens on small businesses.

159 5 U.S.C. sec. 610 (b)(5)(1980).

160 Commission on Federal Paperwork, Pub. L. No. 93-556 sec. 1(a), (c), 88 Stat. 1789 (1974), reprinted in 1974 U.S. Code Cong. and Ad. News, 93rd Cong., 2nd Sess. at 2057, 2058.

161 Pub. L. No. 96-511, sec. 2(a), 94 Stat. 2818 (44 U.S.C.A. sec. 3505, West Supp. Dec. 1981). Between fiscal years 1981 and 1982, the FCC reduced by nearly 65 percent the paperwork burdens it places on the public, making it the single most successful agency in the federal government in eliminating unnecessary paperwork. Council of Independent Regulatory Agencies, Regulation Relief at the Independent Regulatory Agencies (Nov. 1982) at 19.

162 Radio Broadcast Services: Revision of Applications for Renewal of License of Commercial and Noncommercial AM, FM, and Television Licensees, 49 Rad. Reg. 2d (P&F) 740 (1981), aff'd sub nom. Black Citizens for a Fair Media v. FCC, 719 F. 2d 407 (D.C. Cir. 1983).

163 In 1981, Congress changed the FCC from a permanently authorized agency to one with a two year authorization. The short-term authorization is designed to provide "[r]egular and systematic oversight" and to "increase Commission accountability for the implementation of Congressional policy." H. Rep. No. 208, Omnibus Budget Reconciliation Act of 1981, Conference Report, 97th Cong., 1st Sess. 899 (1981).

164 Federal Communications Commission Authorization Act of 1983, Pub. L. No. 98-214, 97 Stat. 1467 (1983).

165 Id.

166 47 U.S.C. sec. 303(g) (1982).

167 S. Rep. No. 67, 98th Cong., 1st Sess. 31 (1983).

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168 Pub.L. 98-549, 98th Cong., 2d Sess. (1984); see discussion supra at text note 84 and accompanying text.

169 See David M. Rice and Michael Botein, "The Ambivalent Nature of the Cable Communications Policy Act of 1984: An Analysis," N.Y.L.J., March 22, at 5-6. The courts, in questioning the constitutionality of certain provisions of the Act, may provide for greater deregulation than Congress. In Preferred Communications, Inc. v. City of Los Angeles, No. 84-5541, slip op. (9th Cir. March 1, 1985), the court held that when the public rights-of-way are physically capable of accommodating more than one cable system, First Amendment principles bar a local government from using a competitive franchising process to limit access to a single cable television company. The court observed that "the mandatory access and leased access requirements in the City's franchising scheme and called for by secs. 611-612 of the Cable Communications Policy Act . . . pose particularly troublesome questions." Id. at 37-38, n.4.

170 S.55, 98th Cong., 1st Sess. sec. 601(4) (1983).

171 Id. at sec. 601(2).

172 H.R. 103, 98th Cong., 1st Sess. (1983).

173 Id. at sec. 601(2), 4.

174 Id. at sec. 601(6).

175 Id.at sec. 601(5). One commentator notes that while the objectives stated in the "purposes" section of the Act are laudable, the following goals were not stated: the promotion of universal cable service, the provision of cable at reasonable rates, the encouragement of a nationwide system of cable television, and the need for protection of the interstate, satellite and distant signal aspects of cable from conflicting local regulations. Remarks of Daniel L. Brenner, Special Adviser to the Chairman, FCC, NCTA State Leadership Conference, Washington, D.C., Nov. 15, 1984, at 4.

176 See Krasnow, Longley and Terry, supra note 147, at 46.

177 Id. at 26; see also Fowler and Brenner, supra note 45, at 246-48. Chairman Fowler told a group of broadcasters in 1982: "I pledge to take deregulation to the limits of existing law." Martha Middleton, National Law Journal, Jan. 21, 1985, at 1.

178 Mark Fowler, "Broadcast Unregulation in the 1980's," Television Quarterly 8-9 (Spring 1982). See also Fowler and Brenner, supra note 45, at 256.

179 Fowler and Brenner, supra note 45, at 210. See also Statement of Mark S. Fowler Before the Subcomm. on Telecommunications, Consumer Protection and Finance Oversight Hearing on the Broadcast-Mass Media Activities of the Federal Communications Commission (Dec. 1, 1982).

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180 Fowler and Brenner, supra note 45, at 209-10.

181 Order, 47 Fed. Reg. 47828 (Oct. 28, 1982).

182 Id. at 47829.

183 Deregulation of Radio, 84 F.C.C.2d 968 (1981), aff'd in part, remanded in part, Office of Communication of the United Church of Christ v. FCC, 707 F. 2d 1413 (D.C. Cir. 1983). The Court remanded that aspect of the decision eliminating program logs and instructed the FCC to conduct a further proceeding to determine what records should be retained to demonstrate service to the community.

184 Office of Communication of the United Church of Christ v. FCC, 707 F. 2d 1413 (D.C. Cir. 1983).

185 Id.

186 Id. The Commission subsequently adopted a requirement that licensees compile local public inspection files, on a quarterly basis, a list of the significant issues facing their communities and examples of responsive programming. Second Report and Order (BC Docket No. 79-219), FCC 84-67, released Apr. 27, 1984.

187 84 F.C.C.2d at 969.

188 See Deregulation of Radio, 73 F.C.C.2d 457, 486 (1979):

> [T]he dramatic growth in the number of radio stations, particularly FM, has not simply represented an increase in the number of fringe or marginal stations in urban areas, but rather has increased the number of strong, viable competitors in these markets. This kind of competition tends to force stations, in their own self interest, to be responsive to shifts in consumer tastes or else lose their audience to more responsive stations.

189 See id. at 487-91; Deregulation of Radio, 84 F.C.C.2d at 969, 1065-66 ("the economic theory that holds that an increase in the number of stations promotes service to narrower and narrower segments of the community is correct"). See also Staff of House Subcomm. on Telecommunications, Consumer Protection and Finance, Telecommunications in Transition: The Status of Competition in the Telecommunications Industry, 97th Cong., 1st Sess. 340 (1981); FCC v. WNCN Listeners Guild, 450 U.S. 582, 590 (1981) ("competition among broadcasters had already produced 'an almost bewildering array of diversity' in entertainment formats").

190 Deregulation of Radio, 84 F.C.C.2d at 969.

191 Id.

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192 450 U.S. 582 (1981).

193 Entertainment Formats, 60 F.C.C.2d 858 (1976), reconsideration denied, 66 F.C.C.2d 78 (1977).

194 450 U.S. at 590.

195 Id.

196 Id. at 595.

197 Low Power Television Serv., 51 Rad. Reg. 2d (P&F) 476, 484-85 (1982).

198 Id. at 518-20.

199 Id. at 518-19.

200 Id. at 513-17.

201 Id. at 518-19.

202 Id. at 515, para. 89.

203 Children's Television Programming and Advertising Practices, Report and Order (Docket No. 19142), FCC 83-609, released Jan. 4, 1984 [cited as "Children's Television"], aff'd sub nom. Action for Children's Television v. FCC, No. 84-1052, slip op. (D.C. Cir. March 27, 1985). In 1971, Action for Children's Television, a consumer group based in Massachusetts, filed a petition with the FCC to require television stations to carry 14 hours of children's programming each week and to prohibit the broadcasting of commercials on such programs. See Children's Television Report and Policy Statement, 50 F.C.C.2d 1 (1974), recon. denied 55 F.C.C.2d 1 (1974), recon. denied 55 F.C.C.2d 691 (1975), aff'd sub nom. Action for Children's Television v. FCC, 564 F.2d 458 (D.C. Cir. 1977).

204 Children's Television, at para. 43.

205 Id. at para. 26.

206 Id. at para. 32.

207 Report and Order (MM Docket No. 83-670) FCC 84-293, released Aug. 21, 1984; see also Report and Order (BC Docket No. 81-496), FCC 84-924, released Aug. 22, 1984 (deregulation of noncommercial television ascertainment and programming requirements). FCC News Release, Report No. 18040 (June 28, 1984); "FCC Deregulates Commercial TV," Communications Daily (June 28, 1984), at 1-3.

208 Notice of Proposed Rulemaking (MM Docket No. 83-670), 48 Fed. Reg. 37239 (Aug. 17, 1983), at para. 5.

209 Id. at para. 34.

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210 Id. at para. 35.

211 Id. at para. 36.

212 Id. at para. 37.

213 Id. at paras. 45-46.

214 Notice of Inquiry (Gen. Docket No. 84-282), 49 Fed. Reg. 20317 (May 14, 1984). The Commission, in June 1983, instituted a rulemaking proceeding which looks toward the repeal or modification of the personal attack and political editorializing rules. Notice of Proposed Rulemaking (Gen. Docket No. 83-484), 48 Fed. Reg. 28295 (June 21, 1983).

215 See 47 C.F.R. sec. 73.1910.

216 Notice of Inquiry, supra note 214, at para. 1.

217 Malrite T.V. v. FCC, 652 F.2d 1140 (2d Cir. 1981), cert. denied, 454 U.S. 1143 (1982).

218 47 C.F.R. secs. 76.59(b)-(e), 76.61(b)-(f), 76.63 (1980).

219 Id. at secs. 76.151-76.161.

220 For a summary of the history of FCC regulation of cable television, see Stanley M. Besen and Robert Crandall, "The Deregulation of Cable Television," 44 Law and Contemp. Probs., 77, 81-107 (1981).

221 See, e.g., Economic Relationship Between TV Broadcasting and CATV, 71 F.C.C.2d 632 (1979). The Report concluded that cable penetration might, at most, reach 48 percent of all households, id. at 672; that the presence of cable television would reduce local station audiences by less than 10 percent; and that the incremental audience diversion caused by eliminating the signal carriage rule would be less than 10 percent. Id. at 674. It should be noted that the study dealt with retransmission of over-the-air signals, not pay cable, and was conducted before most cities were wired for cable.

222 CATV Syndicated Program Exclusivity Rules, 79 F.C.C.2d 663, 763-64 (1980).

223 17 U.S.C. sec. 111 (1976 and Supp. V 1981).

224 See CATV Syndicated Program Exclusivity Rules, 79 F.C.C.2d at 763-64.

225 Federal Communications Commission's Deregulation of the Cable Industry, 47 Fed. Reg. 52146 (Nov. 19, 1982), aff'd Christian Broadcasting v. Copyright Royalty Tribunal, 720 F. 2d 1295 (D.C. Cir. 1983).

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226 The "superstations" such as WTBS, Atlanta; WOR-TV, New York; and WGN-TV, Chicago, which have grown 50 percent since Malrite, could be the hardest hit. See "Cox's San Diego System to Drop Superstation," Communications Daily, Dec. 23, 1982, at 4; "Feeling the Weight of the CRT Signal Fee Increases," Broadcasting, Jan. 10, 1983, at 31-32. In June 1984, the House Copyright Subcommittee reported out H.R. 5879, a bill designed to modify the Copyright Royalty Tribunal's cable rate-setting procedures, and to modify the existing royalty structure for distant signals. As approved by the Subcommittee, H.R. 5879 would allow cable operators to import two distant non-network-affiliated signals without paying the new royalty rate (3.75 percent of gross revenues for each distant signal) imposed by the CRT in 1982. H.R. 5879 would also provide the CRT with a full-time economist and general counsel, and it would reduce the body from five to three commissioners. See "New Copyright Bill Goes to House Panel," CableVision, July 2, 1984, at 24.

227 Subscription TV Serv., 90 F.C.C.2d 341 (1982).

228 Fourth Report and Order (Docket No. 21502), 95 F.C.C. 2d 457 (1984).

229 "The growth of pay cable and other pay services provides a compelling reason for removing restrictions to the introduction of STV. In facing the competition offered by pay cable, STV stations are at a potential disadvantage because they operate on a single channel, whereas cable offers multiple channels. It has been found that pay services which enter a market first have an advantage over similar types of services which follow. We do not believe that the public interest is served by a regulation which restricts market entry by one pay service but leaves those markets open to others. Rather, the public is best served by allowing interested parties to estab lish STV stations wherever they believe a market exists and a channel is available." 90 F.C.C. 2d at 350 (citations omitted).

230 Id. at 351.

231 Id. at 353.

232 Subscription Television Serv., 88 F.C.C.2d 213, 231-32 (1981).

233 Id. at 231-32.

234 Second Computer Inquiry, 77 F.C.C.2d 384 (1980), reconsideration, 84 F.C.C.2d 50 (1980); further reconsideration, 88 F.C.C.2d 512 (1981), aff'd sub nom. Computer and Communications Indus. Ass'n v. FCC, 693 F.2d 198 (D.C. Cir. 1982), cert. denied sub nom. Louisiana Pub. Services Commission v. FCC, 103 S. Ct. 2109 (1983).

235 77 F.C.C.2d at 419-20.

236 Id. at 420.

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237 Id. at 425-30.

238 See Illinois Bell Tel. Co. v. FCC, 740 F.2d 465 (67th Cir. 1984) (FCC affirmed in continuing to apply the Second Computer Inquiry restrictions to the divested Bell operating companies).

239 Common Carrier Services, 91 F.C.C.2d 59 (1982).

240 Id. at 61. See also Domestic Fixed Satellite Transponder Sales, 52 Rad. Reg. 2d (P&F) 79 (1982).

241 47 U.S.C. sec. 214 (1976 and Supp. V 1981) (requiring common carriers to obtain a certificate of convenience and necessity).

242 See Report and Order (BC Docket No. 79-145), FCC 85-123, released March 22, 1985 (designating current maximum blanking interval standards as recommended limits for broadcasters, production houses and manufacturers).

243 AM Stereophonic Broadcasting, 51 Rad. Reg. 2d (P&F) 1 (1982).

244 Id. The Commission adopted a similar "open environment" for teletext. Teletext Transmission, 53 Rad. Reg. 2d (P&F) 1309 (1983).

245 AM Stereophonic Broadcasting, 51 Rad. Reg. 2d (P&F) at 12.

246 Id.

247 Id. See generally Christopher Sterling, "The FCC and Changing Technological Standards," J. of Comm. 137 (Autumn 1982). See also "The Odd Couple," Broadcasting, Nov. 29, 1982, at 40; "Technology: Waiting for the Marketplace," Broadcasting, Jan. 3, 1983, at 80.

248 Direct Broadcast Satellites, 90 F.C.C.2d at 716-17.

249 Id.

250 See Teletext Transmission, 53 Rad. Reg. 2d (P&F) 1309, 1327-28 (1983).

251 Id.

252 Id.

253 Second Report and Order (Docket No. 21323), FCC 84-116, released Apr. 23, 1984. See also Further Notice of Inquiry (Docket No. 21323), 48 Fed. Reg. 37475 (Aug. 18, 1983); Notice of Inquiry (Docket No. 21323), 42 Fed. Reg. 38606 (July 29, 1977); Notice of Proposed Rulemaking (Docket No. 21323), 44 Fed. Reg. 70201 (Dec. 6, 1979); and First Report and Order (Docket No. 21323), 46 Fed. Reg. 39145 (July 31, 1981). On July 27, 1984, the FCC denied petitions for reconsideration of its decision authorizing

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multi-channel sound transmission on television. FCC News Release, Report No. 5652 (July 27, 1984).

254 Further Notice of Inquiry (Docket No. 21323), 48 Fed. Reg. 37475, 37478 para. 22 (Aug. 18, 1983).

255 The Zenith/dbx standard approved by the FCC provides three audio channels for each video channel — two for stereo sound and a third for separate audio programs, which broadcasters are expected to use for simultaneous foreign-language broadcasts. "TV Sets of the Future." Newsweek, Aug. 6, 1984, at 56. In Japan, where stereo TV has been available since 1978, the extra audio channel is used by television stations to give baseball viewers a choice of listening to announcers who root either for or against the hometown team. Id.

256 Notice of Inquiry and Proposed Rulemaking (Gen. Docket No. 83-114), 48 Fed. Reg. 14399 (April 4, 1983).

257 See, e.g., FCC v. National Citizens Committee for Broadcasting, 436 U.S. 775, 780 (1978); Policy Statement on Comparative Broadcast Hearings, 1 F.C.C. 2d 393, 394-95 (1965); Multiple Ownership of Standard AM, FM and Television Broadcast Stations, 45 F.C.C. 1476, 1476-77 (1964).

258 Transfer of Broadcast Facilities, 52 Rad. Reg. 2d (P&F) 1081 (1982). The Commission defined "trafficking" in broadcast licenses and permits as the licensee's acquisition of a station "for the purpose of reselling it at a profit rather than for the purpose of rendering a public service." Powel Crosley, Jr., 11 F.C.C. 3, 23 (1945).

259 52 Rad. Reg. 2d (P&F) at 1087, para. 23.

260 Id. at 1089, para. 34. Licenses obtained as a result of a comparative hearing must be held for at least one year before they can be sold for a profit. The Commission concluded that this restriction was necessary to maintain the integrity of its hearing processes.

261 47 Fed. Reg. at 55930.

262 The decision also acknowledges that "artificial mechanisms" such as the trafficking rule may, by disturbing marketplace forces, inflate station prices. Id. at 55927.

263 Transfer of Broadcast Facilities, 52 Rad. Reg. 2d (P&F) at 1088.

264 Id.

265 Report and Order (MM Docket No. 83-46), FCC 84-115, released Apr. 30, 1984.

266 Id. at para. 6.

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267 Multiple Ownership of TV Broadcast Stations, 22 F.C.C.2d 686, 700 (1968).

268 Top 50 Ownership Policy, 75 F.C.C.2d 585, 590 (1979), aff'd sub nom. NAACP v. FCC, 682 F. 2d 993 (D.C. Cir. 1982).

269 Id. at 592-93.

270 Id. at 593-96.

271 Id. at 595.

272 Telephone Co. CATV Cross-Ownership, 88 F.C.C.2d 564 (1981).

273 Id. at 574-75.

274 Id. at 572.

275 47 U.S.C. sec. 613(b) (1) (1984). See also Notice of Proposed Rulemaking (MM Docket No. 84-1296), released Dec. 11, 1984.

276 Report and Order (Gen. Docket No. 83-1009), FCC 84-350, released Aug. 3, 1984, appeal pending sub nom. Black Citizens for a Fair Media v. FCC, No. 84-1503 (D.C. Cir., 1984). See also Notice of Proposed Rulemaking (Gen. Docket No. 83-1009), 48 Fed. Reg. 49438 (Oct. 25, 1983).

277 Order (Gen. Docket No. 83-1009), FCC 84-400 (Aug. 9, 1984).

278 Id. at 49446-47, para. 41.

279 Id. at 49447, para. 42.

280 Id. at 49450, para. 56.

281 Id. at 49451, paras. 64-65.

282 Id. at 49445-46, para. 37.

283 Id. at 49451, para. 61. The FCC's Report and Order states that while "the record contains no evidence of potential harm from the ownership changes that would be made possible by immediate repeal of the rule," the decision to establish a transitional limitation for a period of six years was made "out of an abundance of caution." Report and Order (Docket No. 83-1009), 49 Fed. Rg. 31877, 31891 (Aug. 8, 1984). See also "FCC Considers 12-12-12 'Cautious' Action," Broadcasting, Aug. 6, 1984, at 28.

284 Diversification of Control of Community Antenna Television Systems, 52 Rad. Reg. 2d (P&F) 277 (1982).

285 Id. at 280, para. 6.

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286 Id. at para. 8.

287 Id. at 279, para. 7.

288 Id. at 280, para. 8.

289 Report and Order (MM Docket No. 84-19), FCC 84-15, released May 1, 1984, appeal pending sub nom. National Association of Better Broadcasting v. FCC, No. 84-1274 (D.C. Cir. filed June 29, 1984).

290 See First Report and Order (Docket No. 20548), 63 F.C.C. 2d 824 (1977) and Notice of Proposed Rulemaking (Docket No. 20548), 54 F.C.C. 2d 331 (1975).

291 Notice of Proposed Rulemaking, (MM Docket No. 84-19), FCC 84-10, released Jan. 17, 1984, at paras. 2, 21-23.

292 Id. at para. 20.

293 See Michael Botein, "New Communications Technology: The Emerging Antitrust Agenda," 4 Comm./Ent. L.J. 685, 686 (1981); see also Michael Botein, "Jurisdictional and Antitrust Considerations in the Regulation of the New Communications Technologies," 25 N.Y. Law School L. Rev. 905-23 (1980).

294 Alberto-Culver Co., for example, filed a class-action suit in the U.S. District Court for the District of Columbia against CBS, NAB and 10 group owners over restrictions against television commercials that promote two or more unrelated products in a 30-second spot. Alberto-Culver v. National Assoc. of Broadcasters, Case No. 83-3427 (D.D.C. filed Nov. 17, 1983). See "Alberto-Culver Sues Over TV Commercial Guidelines," Broadcasting, Nov. 21, 1983, at 25. The suit was subsequently settled.

295 United States v. American Telephone & Telegraph Co., 552 F. Supp. 131 (D.D.C. 1982), aff'd 103 S. Ct. 1240 (1983).

296 Id. at 225. The modified consent decree, in recognition of the rapidly changing nature of the market, provides that "this restriction shall be removed after seven years from the date of entry of the decree, unless the Court finds that competitive conditions clearly require its extension." Id. at 231. This means that, in 1989, AT&T could petition the court for permission to enter the electronic publishing market and unless another party could show that competitive conditions clearly require maintenance of the ban, the prohibition would be lifted.

297 Id. at 225.

298 United States v. National Assn. of Broadcasters, 536 F. Supp. 149 (D.D.C. 1982). The Code restricted the number of products or services an advertiser could promote in a single commercial announcement.

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299 Id. at 166-67.

300 Id. at 167.

301 Memorandum, United States v. National Assoc. of Broadcasters, Civil Action No. 79-1549 (D.D.C. 1982). For a discussion of the implications of Judge Greene's decision and the consent decree, see Patricia Brosterhous, "United States v. National Association of Broadcasters," 35 Fed. Comm. L.J. 313 (Fall 1983).

302 United States v. National Broadcasting Co., 449 F. Supp. 1127 (C.D. Cal. 1978), aff'd mem. No. 77-3381 (9th Cir. April 12, 1978), cert. denied sub nom. CBA v. U.S. District Court for Central Division of Calif., 48 U.S. L.W. 3188 (1979); United States v. CBS Inc., Civ. No. 74- 3599-RJK (C.D. Cal. July 31, 1980), reprinted in 45 Fed. Reg. 34463, 34466 (1980); United States v. ABC, Inc., Civil No. 74-3600 RJK (C.D. Cal.), reprinted in 45 Fed. Reg. 58441 (1980).

303 47 C.F.R. sec. 73.658(j). See Network Inquiry Special Staff, Federal Communications Commission, A Review of the Proceedings of the Federal Communications Commission Leading to the Adoption of the Prime Time Access Rule, the Financial Interest Rule, and the Syndication Rule (Oct. 1979).

304 Notice of Proposed Rulemaking (BC Docket No. 82-345), 47 Fed. Reg. 32959 (July 30, 1982).

305 In light of President Reagan's support of a two-year moratorium on any FCC action on repeal or relaxation of the financial interest and network syndication rules, the Department of Justice is unlikely to counter the President's expressed desires. "Fin-Syn Repeal Doubtful," Broadcasting, Apr. 2, 1984, at 70.

306 Report on Chain Broadcasting, Commission Order No. 37, Docket No. 5060 (May 1941), at 83, aff'd NBC v. U.S., 319 U.S. 190 (1943).

307 Network Inquiry, supra note 10, at 165.

308 Id. at III-23, III-157-63.

309 Notice of Proposed Rulemaking (CT Docket No. 82-434), 47 Fed. Reg. 39212 (Sept. 7, 1982).

310 Id.

311 Id. (Separate Statement of Commissioner Mimi Weyforth Dawson).

312 OPP Report, supra note 21.

313 Id.

314 Id.

315 Id. at Executive Summary.

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316 Id. The Herfindahl-Hirschman Index is used by the Department of Justice as a measure of relative market concentration. The index is designed to quantify the threat of anticompetitive practices and undue economic power based upon the structure of the industry.

317 Notice of Proposed Rulemaking (Docket No. 83-1009), 48 Fed. Reg. 49438 (Oct. 25, 1983).

318 Id. at paras. 44-45.

319 Memorandum Opinion and Order (Gen. Docket No. 83-1009), FCC 84-638, released Feb. 1, 1985, at para 36.

320 Id.

321 Id.

322 Notice of Proposed Rulemaking (Docket No. 20521), 48 Fed. Reg. 10082, 10084 (Mar. 10, 1983).

323 Tentative Decision, supra note 26, 48 Fed. Reg. at 38034.

324 In a statement dissenting to the FCC's rejection of a petition for rulemaking which would provide television stations with full syndicated program exclusivity in all markets for carriage of distant television signals, Commissioner James Quello observed: "The broadcast industry does not operate in a vacuum. Copyright issues are a crucial element of the broadcast marketplace, and the Commission cannot fulfill its responsibilities if it ignores the effects of its actions on the very market place forces on which it has placed such heavy reliance . . . ." Memorandum Opinion and Order, FCC 84-336, released July 17, 1984 (Dissenting Statement of Commissioner James H. Quello).

325 Fortnightly Corp. v. United Artists Television, Inc., 392 U.S. 390 (1968) (holding that the reception and distribution of television broadcasts by cable television systems does not constitute a performance within the meaning of the Copyright Act).

326 Teleprompter Corp. v. CBS, Inc., 415 U.S. 394 (1974) (holding that program origination, sale of commercials and interconnection by cable systems are extraneous functions with respect to copyright infringement).

327 392 U.S. at 400.

328 Report and Order (Docket Nos. 20988 and 21284), 74 FCC 2d 663 (1980), aff'd Malrite TV of N.Y. v. FCC, 652 F. 2d 1140 (2d Cir. 1981), cert. denied, 454 U.S. 1143 (1982).

329 Pub. L. No.94-553, 90 Stat. 2541 (1976) (codified at 17 U.S.C. sec. 111 (Supp. III 1979)).

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330 Id. at sec. 801. See National Cable Television Association v. CRT, 689 F. 2d 1077 (D.C. Cir. 1982). Almost as soon as the Copyright Royalty Tribunal began setting cable royalty rates, broadcasters and program producers contended that the rates were much too low. As noted earlier, in 1982, the CRT responded by approving higher rates for the carriage of distant signals by cable, and Congress in turn responded to that change in policy by considering legislation that would again allow cable operators to carry two distant independent television stations without any copyright royalty liability at all.

331 Eastern Microwave, Inc. v. Doubleday Sports, Inc. 691 F. 2d 125 (2d Cir. 1982), cert. denied, 103 S.Ct. 1232 (1983).

332 17 U.S.C. sec. 111(a) (3).

333 WGN Continental Broadcasting Co. v. United Video,Inc., 693 F. 2d 622 (7th Cir. 1982).

334 Id. at 628.

335 Sony Corporation of America v. Universal City Studios, Inc., 104 S. Ct. 774 (1984).

336 Id. at 783.

337 Id. at 789.

338 Id. at 792-93.

339 Id.

340 Id.

341 Satellite dishes (also referred to as TVROs, television receive-only private earth stations) are "one of the most rapidly expanding segments of the American economy." "Satellite Dishes Vie With Cable," N.Y. Times, Aug. 9, 1984, at C 18. As of August 1984, approximately 400,000 private or "backyard" satellite dishes were in use in the United States -- sales are growing at an annual rate of 300 percent. Id.

342 Sony Corporation of America, supra, 104 S. Ct. at 789. The narrow grounds upon which the Supreme Court acted left open the legal consequences for home tapers of programming transmitted on cable and other new technologies. Edward Samuels, "'Betamax' The Cable Issues Remain Open," Cable T.V. Law & Finance, March 1984, at 3.

343 47 U.S.C. sec. 705 (1984).

344. Id. See also Timothy Wirth, "No Free Lunch in the New Satellite-Dish Law," N.Y. Times, Dec. 10, 1984, at A30.

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345 "McKinney Warns of Deregulation Roadblocks at State, Local Levels," Broadcasting, Oct. 24, 1983, at 58.

346 Remarks of Daniel L. Brenner, Special Advisor to the Chairman, FCC, NCTA State Leadership Conference, Washington, D.C., Nov. 15, 1984, at 10.

347 See David M. Rice and Michael Botein, "The Ambivalent Nature of the Cable Communications Policy Act of 1974: An Analysis," N.Y.L.J., March 22, 1985, at 5.

348 47 U.S.C. sec. 541(b). See also "3 Signals Chosen as Cable Competition Standard," Television Digest, April 15, 1985, at 5.

349 47 U.S.C. sec. 531(e).

350 Id. at sec. 541(b).

351 Id. at sec. 556(a)(b).

352 Community Cable TV, Inc., CSR-2269, FCC 83-525, released Nov. 15, 1983.

353 Id. at para. 13.

354 Id. at para. 20.

355 Id. at para. 21.

356 Earth Satellite Communications, Inc., 55 R.R.2d (P&F) 1427(1983), aff'd sub. nom. New York State Commission on Cable TV v. FCC, Nos. 83- 2190, 83-2196 (D.C. Cir. Nov. 30, 1984).

357 Id. at para. 20.

358 The Commission has also preempted State regulation that has the effect of prohibiting or impeding entry of radio common carrier services operating on FM and television subcarriers. See Memorandum Opinion and Order (BC Docket No. 82-536), FCC 84-187, released May 2, 1984; Second Report and Order (Docket No. 21323), FCC 84-116, released Apr. 23, 1984, at paras. 28-30.

359 In the matter of Cox Cable Communications, Inc., Commline, Inc. and Cox DTS, Inc., Preemption of and Jurisdiction over Broadband Coaxial Cable's Local Distribution of Inter/Intrastate Communications and Interconnection with Digital Termination Systems, Petition for Declaratory Ruling, filed Apr. 22, 1983.

360 Id. at 12.

361 Richard McKenna, "Pre-Emption Under the Communications Act," 37 Fed. Comm. L.J. 1 (1985), at 5.

362 Id. at 62.

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363 See supra note 96.

364 The court noted that while the FCC's discretion is "particularly capacious when the Commission is dealing with new technologies unforeseen at the time the Communications Act was passed, that discretion is not boundless: the Commission has no authority to experiment with its Statutory obligations." NAB v. FCC, supra note 113 at 1200-1201.

365 See however, Separate Statement of Commissioner Henry M. Rivera, Further Notice of Proposed Rulemaking (MM Docket No. 83-523, FCC 84-363, released Aug. 10, 1984) characterizing as an "unfortunate head-in-the-sand approach," the FCC's failure to include in the Notice, which raised a broad array of issues pertaining to the ITFS service, questions as to the appropriate regulatory classification for ITFS.)

366 Notice of Proposed Rulemaking (Gen. Docket No. 82- 334), 48 Fed. Reg. 6730 (Feb. 15, 1983).

367 Alex Felker and Kenneth Gordon, A Framework for a Decentralized Radio Service (Office of Plans and Policy, FCC, Sept. 1983) at 11 n. 17.

368 Id.

369 Douglas W. Webbink, Frequency Spectrum Deregulation Alternatives 25 (Office of Plans and Policy, FCC, Sept. 1982). See also Notice of Proposed Rulemaking (MM Docket No. 82-523 48 Fed. Reg. 29553) (Comments were solicited as procedures for selecting among mutually exclusive applicants, including lotteries and "first-come-first-served.")

370 See 47 U.S.C. 309(i) (supp. v 1981). See also Conference Rep. No. 765, 97th Cong., 2d Sess. 37 (1982), for a discussion of the public interest parameters which limit the Commission's discretion to use a lottery system.

371 Report and Order (Gen. Docket No. 81-768), 88 F.C.C.2d 476 (1981), Second Report and Order (Gen. Docket No. 81-768), 93 F.C.C.2d 952 (1983), aff'd sub nom., National Latino Media Coalition v. FCC, No. 83-1785) D.C. Cir. Aug. 17, 1984). See also Memorandum Opinion and Order (Gen. Docket No. 81-768), released Dec. 4, 1984, appeal pending sub nom. Bahia Honda, Inc. v. FCC, No. 85-1046 (D.C. Cir. Jan. 29, 1985). See Arthur Stambler, "Carrying Lotteries to Logical Extreme," Broadcasting, Nov. 28, 1983, at 21.

372 See Webbink, supra note 369. The FCC has conducted both "pure" (i.e., even chance) and weighted lotteries. The lottery preferences in weighted lotteries are an attempted substitute for the comparative criteria of diversification and minority ownership.

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373 Id. at 25. See also Ira Barron, "There's No Such Thing as a Free Airwave: A Proposal to Institute a Market Allocation Scheme for Electromagnetic Frequencies," 9 J. of Leg. 205 (1982) and Nicholas Johnson, "Towers of Babel: The Chaos in Radio Spectrum Utilization and Allocation," 34 Law and Contemp. Prob. 505 (1969). Fowler is considering asking Congress for authority to auction off unassigned spectrum. "Up for Bids," Broadcasting, Jan. 7, 1985, at 10.

374 See David R. Siddall, Legal Analysis of Radio Spectrum Use Charges, Congressional Research Service, Library of Congress (Apr. 20,1979) (concludes that there is no legally sure method to collect fees for the use of spectrum which guarantees returns that exceed the cost of administering the fee system).

375 See, e.g., Notice of Inquiry and Proposed Rulemaking (CC Docket No. 80-116), 45 Fed. Reg. 29335 (May 2, 1980), at paras. 77-80.

376 FCC News Release, Report No. 18040 (June 28, 1984). See also Notice of Proposed Rulemaking (MM Docket No. 83-670), 48 Fed. Reg. 37239 (Aug. 17, 1983).

377 See supra notes 276-292 and accompanying text. The FCC, however, will not be able to rescind its restrictions on ownership of cable systems by local television stations. Section 613(a) of the Cable Communications Policy Act of 1985 prohibits the ownership of a cable system by a television licensee whose station's predicted grade B contour covers any portion of the cable community. Pub.L.No. 98-549 (1984).

378 See supra notes 57-62 and accompanying text.

379 See, e.g., Notice of Proposed Rulemaking (MM Docket No. 83-670), supra note 376; Report and Order (Docket No. 19142), supra note 203; Notice of Inquiry (Gen. Docket No. 84-282), 49 Fed. Reg. 20317 (May 14, 1984) (Fairness Doctrine obligations of broadcast licensees); Notice of Proposed Rulemaking (Gen. Docket No. 83-484), 48 Fed. Reg. 28295 (June 21, 1983)(repeal of the personal attack and political editorializing rules).

380 See, e.g., H.R. 2382, 98th Cong., 1st Sess. (1983) (introduced by Reps. Tauzin and Tauke).

381 47 U.S.C. secs. 312, 315 (1976).

382 18 U.S.C. secs. 1304, 1464 (1976).

383 47 U.S.C. sec. 315(a) (1976). See also Fairness Doctrine, 40 F.C.C. 598 (1964).

384 "FCC Sets First Proposal for Amending Communications Act," FCC Report No. 5068 (Sept. 17, 1981), at 34.

385 Senator Packwood had supported a constitutional amendment to guarantee broadcasters full First Amendment protection, but dropped

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the proposal because of the difficulty of adoption. He now favors legislation to repeal the fairness doctrine and political broadcasting rules. See "'Pragmatic' Sen. Packwood to Drop First Amendment Push for Broadcasters," Communications Daily, Apr. 12, 1983, at 1-2. On October 3, 1983, Senator Packwood introduced S.1917, the "Freedom of Expression Act of 1983," which would repeal the fairness doctrine and Sections 312(a)(7) and 315 of the Communications Act, and strengthen Section 326, the "no censorship" provision of the Act.

386 See FCC v. League of Women Voters of California, 104 S.Ct. 3106, 3117 n. 12 (1984).

387 Notice of Inquiry and Proposed Rulemaking (Gen. Docket No. 83-114), 48 Fed. Reg. 14399 (Apr. 4, 1983). Report and Order (Gen. Docket No. 83-114), released Dec. 4, 1984 (enunciation of general principles which the FCC will use in an incremental approach to deregulation).

388 See "And Now, a Spectrum Bubble," AEI Journal on Government and Society, May/June 1983, at 8.

389 Satellite Television Corp., 91 F.C.C. 2d 953, 976 (1982).

390 "The alphabet soup of the new media has grown cold. STV, MDS, MMDS, DBS and LPTV, which along with teletext and videotex were the technologically hot new media of the late '70s and early '80s, have filed to gain a collective foothold that could dislodge conventional broadcasters and cablecasters from their established places in electronic communications. Moreover, it is unlikely any will." "The New Order Passeth," Broadcasting, Dec. 10, 1984, at 83.

391 See, e.g., Notice of Proposed Rulemaking (Gen. Docket No. 82-334), 48 Fed. Reg. 6730 (Feb. 15, 1983).

392 See Mark P. Schreiber, "Don't Make Waves: AM Stereophonic Broadcasting and the Marketplace Approach," 5 Comm.L.J. 821 (1983).

393 "Teletext has suffered from the lack of a standard. . . . As a result [of the FCC's decision not to select a standard], bickering between proponents of the incompatible World System Teletext system and the North American Broadcast Teletext System has nearly eliminated what little momentum the media had," "The New Order Passeth," Broadcasting, Dec. 10, 1984, at 66.

394 One commentator points out that it is difficult to avoid the chicken-and-egg situation that arises in approaching the issue of setting standards. If standards are developed and enforced at too early a stage in hardware development, technological innovation could be retarded and the competitive marketplace for the service could be artificially skewed. However, absent standards, the production of necessary software may be inhibited, as software producers wait to see which system will win consumer acceptance. Stuart N. Brotman, "The Conundrum of Setting Standards: FCC Policy

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Options for New Communications Technologies," Communications Lawyer, Spring 1984, at 5.

395 In Telocator Network of America v. FCC, 691 F.2d 525, 544-50 (D.C. Cir. 1982), the Court of Appeals took special care to warn the FCC against pursuing "competition for competition's sake."

396 Commissioner Henry Rivera has criticized "the FCC's recent practice . . . to advance a restrictive interpretation of the term broadcasting wherever possible." Rivera Remarks, supra note 4, at 10. He commented that "this Commission abhors the program content-related duties that go with classification as a broadcaster."

397 See Caroline Mayer, "FCC Chief's Fears, Fowler Sees Threat in Regulation," Wash. Post, Feb. 6, 1983, at K6, col. 4.

398 In 1981, the FCC instituted a proceeding into the proper use of an examination into an applicant's character in the licensing process. Notice of Inquiry (Gen. Docket No. 81-500), 87 F.C.C.2d 836 (1981).

399 See 47 U.S.C. secs. 152(b), 221(b).

400 See Policy Statement and Order (MM Docket No. 83-842), FCC 85-25, released Feb. 5, 1985.

401 Office of Communication of United Church of Christ v. FCC, 707 F. 2d 1413 (D.C. Cir. 1983).

402 Michael Wines, "FCC Discovers That Carving Up The Spectrum Isn't What It Used To Be," National Journal, May 19, 1984, at 983.

403 Office of Communication of United Church of Christ v. FCC, supra note 401, 707 F.2d at 1443.

404 Staff Report, House Subcomm. on Telecommunications, Consumer Protection and Finance, Telecommunications in Transition: The Status of Competition in the Telecommunications Industry XII (Comm. Print 97-V, Nov. 3, 1981).

405 Roland S. Homet, Jr., "'Getting the Message': Statutory Approaches to Electronic Information Delivery and the Duty of Carriage," 37 Fed. Comm. L.J. 217, 288 (1985).

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1 Low Power Television Service, 51 Rad. Reg. 2d (P&F) 476 (1982).

2 UHF frequencies include television channels 14 through 69; VHF frequencies, television channels 2 through 13.

3 While LPTV stations are authorized at power levels of 10 to 1,000 watts, they operate with significantly higher effective radiated powers, the power function that is directly related to coverage. Thus, it is not unusual for VHF LPTV stations to operate at 100 watts ERP and for UHF LPTV stations to operate at 20 to ERP. The FCC does not set a limitation of the ERP of an LPTV station. The practical limit is a function of the gain of available transmitting antenna.

4 Notice of Proposed Rulemaking (MM Docket No. 83-670), 48 Fed. Reg. 37239 (Aug. 17, 1983), at para. 33.

5 See "Where Things Stand," Broadcasting, Jan. 7, 1983, at 46; "LPTV Interests Call for Fast Track Review of Applications," Communications Daily, Mar. 16, 1983, at 2. With certain limited exceptions, the FCC has imposed a moratorium on low power television applications pending processing of the backlog. See, e.g., Order (BC Docket No. 78-253), FCC 83-423, released Sept. 19, 1983.

6 See Caroline E. Mayer, "Low Power Television: New Rules Spur Licensee Competition," Wash. Post, Wash. Business Section, May 31, 1982, at 1, col. 4.

7 See National Association of Broadcasters, New Technologies Affecting Radio and Television Broadcasting 35 (1982) [hereinafter cited as "New Technologies"]; Margaret Warner and Laura Landro, "FCC Swamped with Applications for New Low-Power TV Stations," Wall St. J., Oct. 30, 1981, at 33, col. 3.

8 New Technologies, supra appendix note 7.

9 Id.

10 Id.

11 Report and Order (Docket No. 11611), 13 Rad. Reg. (P&F) 1561 (1956). See also Report and Order (Docket No. 12567), 17 Rad. Reg. (P&F) 1735 (1960) (increased maximum power output of UHF translator stations from 10 watts to 100 watts); Report and Order (Docket No. 12116), 20 Rad. Reg. (P&F) 1536 (1960) (authorized VHF television translators).

12 See 47 C.F.R. sec. 74.732 (1982). See also 47 C.F.R. sec. 73.683 (1982) for definition of the Grade B contour.

13 A limited exception was made for translators to originate, for 30 seconds an hour, announcements soliciting or acknowledging local

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public financial support. Solicitation for Contributions by VHF Translators, 47 Rad. Reg. 2d (P&F) 857 (1980); Slide and Voice Announcements, 54 F.C.C.2d 421 (1975). See also Television Broadcast Translator Station Rules, 13 F.C.C.2d 305 (1968).

14 47 C.F.R. sec. 74.731 (1982).

15 Id.

16 47 C.F.R. sec. 74.735 (1982); Warner and Landro, supra appendix note 7.

17 "Broadcast Station Totals for October 1983," FCC News Release (Dec. 19, 1983). See Ed Harrison, "LPTV: Service Coming of Age Despite Problems With Ill-Defined Name, Program Divergence," Broadcast Week, Feb. 14, 1983, at 24.

18 On March 31, 1983, the Commission adopted rules implementing a lottery system to select among competing low power television and translator applicants. Report and Order (Gen. Docket No. 81-768), 53 Rad. Reg. 2d (P&F) 1401 (1983). See Second Notice of Proposed Rulemaking (Gen. Docket No. 81-768), 47 Fed. Reg. 45046 (Oct. 13, 1982).

19 At the first lottery, held on September 29, 1983, 23 construction permits were granted. "23 LPTV Licenses Awarded by Lottery," Television Digest, Oct. 3, 1983, at 5.

20 Direct Broadcast Satellites, 90 F.C.C.2d 676 (1982), appeal pending sub nom. National Ass'n of Broadcasters v. FCC, Case No. 82-2233 (D.C. Cir.). See generally Federal Communications Commission, Office of Plans and Policy, Policies for Regulation of Direct Broadcast Satellites (Sept. 1980) [hereinafter cited as "DBS Report"]. DBS is distinguished from current domestic satellite operations which broadcast to known, fixed locations and generally use the C-band (4-6 GHz) or the Ku-band (12-14 GHz).

21 See, e.g., "1983 Field Guide to the Electronic Media," Channels, Nov./Dec. 1982, at 30 [hereinafter cited as 1983 Field Guide], and "1984 Field Guide to the New Media," Channels, Nov./Dec. 1983, at 5 [hereinafter cited as 1984 Field Guide].

22 See, e.g., id.

23 See, e.g., id. High-powered DBS' broad transmission coverage is such that the entire continental U.S. can be covered by two satellite signals.

24 CBS, Inc., 52 Rad. Reg. 2d (P&F) 1112 (1982); Satellite Television Corporation, 91 F.C.C. 2d 953 (1982). Interim rules for the new service were adopted in Direct Broadcast Satellites, 90 F.C.C.2d 676 (1982), aff'd in part, rev'd in part, sub nom. National Ass'n of Broadcasters v. FCC, 740 F.2d 1190 (D.C. Cir. 1984). The Commission has not yet adopted permanent policies for DBS.

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25 "Thinning Rank of DBS Pioneers Heads for July 17," Broadcasting, July 16, 1984, at 30.

26 "Comsat on the Verge of Changes," Washington Post, July 16, 1984, Business Week at 1.

27 Id. "The New Order Passeth," Broadcasting, Dec. 10, 1984, at 50.

28 Id.

29 Broadcasting, July 16, 1984, at 30; "Where Things Stand," Broadcasting, Jan. 7, 1985, at 42.

30 CBS, Inc., 52 Rad. Reg. 2d (P&F) at 1118.

31 Id. at 1117, 1120-21; Satellite Television Corporation, 91 F.C.C. 2d 953 (1982).

32 CBS, Inc., 52 Rad. Reg. 2d (P&F) at 1121-23, paras. 31-38.

33 Id. at 1117-24. See also "After 10 Years of Satellites, The Sky's No Limit," Broadcasting, Apr. 9, 1984, at 50. DBSC, for example, has proposed to broadcast, through spot beams, six channels of service to the continental United States and four additional channels to three discrete regions within the primary service area.

34 HDTV would provide much sharper detail and color fidelity than the current American television system which consists of a 525-line scan. One proposed HDTV system consists of 1,125 lines and would require five times the bandwidth of two normal 525-line pictures. See New Technologies, supra appendix note 7, at 20-21. HDTV, however, is incompatible with the television receivers presently in use in the United States.

35 Direct Broadcast Satellites, 90 F.C.C.2d at 680.

36 Id. at 683-84.

37 "U.S. Team Back from Geneva Pleased With Itself and ITU," Broadcasting, July 25, 1983, at 26-27.

38 "STC Lines Up Some Partners," Broadcasting, Jan. 2, 1984, at 39.

39 Simon Applebaum, "DBS Launch Detailed," CableVision, Oct. 10, 1983 at 20; see also Laura Landro, "United Satellite Plans TV Service Directly to Homes," Wall St. J., Feb. 26, 1982, at 18, col. 4; "DBS Set to Debut," Broadcasting, Nov. 7, 1983, at 74; "Prudential Places a Bet on DBS," Broadcasting, Feb. 7, 1983, at 31-32.

40 See "USCI Goes to Washington," Broadcasting, Jan. 30, 1984, at 78.

41 "USCI: Plug Pulled," Broadcasting, Apr. 8, 1985, at 44.

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42 See generally National Ass'n of Broadcasters, SMATV: Strategic Opportunities in Private Cable (Nov. 1982).

43 SMATV systems, however, are generally exempt from reporting and other requirements applicable to cable television systems if they are confined to subscribers "in one or more multiple unit dwellings under common ownership, control or management." 47 C.F.R. sec. 76.5(a) (1982).

44 The development of SMATV has troubled cable companies since it is faster and cheaper to install in urban areas. See "The Pack of Competitors Cable Must Keep at Bay," Business Week, Nov. 1, 1982, at 108. The cable systems contend that SMATV deprives cable of the lucrative, high density areas. See "Lawsuits Oppose Anti-SMATV Policy of Pay Networks," Broadcasting, June 14, 1982, at 36-37.

45 Reregulation of Receive-Only Domestic Earth Stations, 74 F.C.C.2d 205, 207 (1978).

46 Id. An equally significant decision in promoting satellite delivery of programming services was the FCC's 1972 "open skies" decision which opened the domestic communications satellite field to free competitive entry. Domestic Communications-Satellite Facilities, 35 F.C.C.2d 844 (1972), aff'd sub nom. Network Project v. FCC, 511 F.2d 786 (D.C. Cir. 1975). In May 1983, the FCC authorized the construction and launch of 19 new communications satellites, and, to accommodate them, adopted a plan to reduce the space between satellites in geostationary orbit. See "FCC Opens Up Another Slice of Sky," Broadcasting, May 2, 1983, at 31. See also Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, FCC 83-186, released August 12, 1983; Licensing of Space Stations in the Domestic Fixed-Satellite Service, 48 Fed. Reg. 40233 (Sept. 6, 1983).

47 Brooke Gladstone, "Competitive Challenge," CableVision, March 25, 1984, at 31.

48 Cable Dallas, Inc., 53 Rad. Reg. 2d (P&F) 651 (1983). See also Craig Leddy, "Microwave Permit OK'd," CableVision, March 14, 1983, at 16.

49 Earth Satellite Communications, Inc., 55 R.R.2d (P&F) 1427 (1983), aff'd sub nom., New York State Commission on Cable TV v. FCC, Case Nos. 83-2190, 83-2196 (D.C.Cir.).

50 Although two channels are available throughout the United States to MDS, only in 50 of the larger metropolitan areas are both channels six MHz wide and, therefore, adequate for transmission of standard television signals. Notice of Inquiry and Proposed Rulemaking (Gen. Docket No. 80-113), 45 Fed. Reg. 29350 (May 2, 1980).

51 Multipoint Distribution Serv., 45 F.C.C.2d 616 (1974). The origin of the service may, however, be traced to 1970 when the FCC removed the 3.5 MHz bandwidth limitation that had been imposed on stations

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using the 2150-2160 MHz band. Amendment of Part 21.703(g), 47 F.C.C. 2d 957 (1970).

52 Id. at 617.

53 Notice of Inquiry, Proposed Rulemaking and Order (Gen. Docket No. 80-112), 45 Fed. Reg. 29323, 29325 (May 2, 1980).

54 See 47 C.F.R. secs. 21.903 (b)(1)-(2).

55 45 Fed. Reg. at 29325-26.

56 See 47 C.F.R. sec. 21.903(b) (1982). See also 47 U.S.C. secs. 201-203; 47 C.F.R. Part 61. FCC regulations governing MDS are found in 47 C.F.R. secs. 21.900-21.908 (1982).

57 Multipoint Distribution Serv., 45 F.C.C.2d at 612. See also 1984 Field Guide, supra appendix note 21, at 33.

58 See New Technologies, supra appendix note 7, at 6.

59 Id. It has been estimated that cable operators must invest $1,200 in the homes of each of their subscribers, while MDS requires only the cost of the set-top converter and microwave antenna, about $200-225. "Movement Afoot on MCTV Front," Broadcasting, Jan. 2, 1984, at 40.

60 New Technologies, supra appendix note 7, at 6.

61 Instructional Television Fixed Service (MDS Reallocation), 94 F.C.C. 2d 1203 (1983). See also Notice of Inquiry, Proposed Rulemaking and Order (Gen. Docket No. 80-112), 45 Fed. Reg. 29323 (May 2, 1980).

62 First Report and Order (Gen. Docket No. 80-113), FCC, 84-175, released June 14, 1984; see also Notice of Inquiry and Proposed Rulemaking (Gen. Docket No. 80-113), 45 Fed. Reg. 29350 (May 2, 1980); Further Notice of Proposed Rulemaking and Notice of Inquiry (Gen. Docket No. 80-113), FCC 84-175, released June 14, 1984.

63 Instructional Television Fixed Service (MDS Reallocation), 94 F.C.C. 2d 1203, 1220-21 (1983). It is interesting to note that studies submitted in that proceeding suggest that consumers are satisfied with five channels of programming. See Proposal of Microband Corporation of America (Gen. Docket No. 80-112) (Feb. 10, 1982). Information Architects, a consulting firm, released a study in December 1984 which predicts that by the end of the decade, the MMDS industry will be thriving, with $2.5 billion in revenue and a minimum of $300 million in profits. "The New Order Passeth," Broadcasting, Dec. 10, 1984, at 46.

64 See FCC Public Notice, released Oct. 20, 1983. See also "Comes the Deluge in MDS," Broadcasting, Sept. 12, 1983, at 23.

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65 Further Notice of Proposed Rulemaking (Gen. Docket No. 80-112), FCC 83-466, released Oct. 14, 1983. ITFS and Private Operational Fixed Service (OFS) are called "fixed" services because they transmit to stationary reception points such as schools, homes, and offices. This distinguishes them from "mobile" services providing paging and dispatching services for pedestrians, automobiles and mobile service-call trunks or van fleets.

66 Educational Television, 39 F.C.C. 846 (1963), recon. denied, 39 F.C.C. 873 (1964).

67 Id. at 853.

68 Id. at 853-54. See also 47 CFR sec. 74.932.

69 See Instructional Television, 30 F.C.C. 2d 197 (1971); MDS Reallocation, supra appendix note 61.

70 Applications of Public Broadcasting Service for Construction Permits in the Instructional Television Fixed Service (FCC File Nos. BPH-820113MB, et al.), Memorandum Opinion and Order, FCC 83-611, released Jan. 9, 1984.

71 MDS Reallocation, supra appendix note 61, at 1249-55. ITFS licensees are permitted under the new FCC rules to lease their "excess channel capacity" to third parties as long as a "substantial" portion of each channel would continue to be used for educational purposes. Id. See also 47 C.F.R. sec. 74.931(e). The Commission has defined "substantial" use as more than 15 hours per week. See Memorandum Opinion and Order on Reconsideration (Gen. Docket No. 80-112), FCC 84-177, released June 5, 1984, at para. 24.

72 "Microband Plans Multichannel Service Through ITFS Band," Broadcasting, Nov. 7, 1983 at 74. See also "Movement Afoot on MCTV Front," Broadcasting, Jan. 2, 1984, at 40.

73 See Transmitting Program Materials to Hotels, 39 F.C.C.2d 527, 532-33 (1973).

74 Id.

75 Use of Private Microwave Frequencies, 86 F.C.C.2d 299 (1981), recon. granted in part, 54 Rad. Reg. 2d (P&F) 439 (1983).

76 Id.

77 Id. at 308-309.

78 Operational-Fixed Microwave Service, 54 Rad. Reg. 2d (P&F) 439, 448-49, para. 30 (1983). While the 21 GHz band is subject to attenuation under certain atmospheric conditions, the Commission hopes to encourage technological change to improve reception -- an

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instance where regulatory developments may spur technological innovations.

79 Id. at 447-48, para. 29.

80 Id. at 447, para. 28.

81 1983 Field Guide, supra appendix note 21. Federal Communications Commission, Subscription Television, Report on Prospects for Additional Networks (prelim. report 1980).

82 1983 Field Guide, supra appendix note 21, at 34.

83 While decoders are generally not capable of translating signals from different operators, technological developments may make system compatability a reality. A new decoder capable of bringing in more than one channel is being tested. See id.

84 See Connecticut Comm. Against Pay TV v. FCC, 301 F.2d 835 (D.C. Cir. 1962) (affirming FCC authorization of first STV station).

85 See Subscription TV Serv., 90 F.C.C.2d 341, 342 (1982). See also Subscription Television, 15 F.C.C.2d 466 (1968), aff'd sub nom. National Ass'n of Theatre Owners v. FCC, 420 F.2d 194 (D.C. Cir. 1969), cert. denied, 397 U.S. 922 (1970).

86 In 1979, for example, the FCC eliminated the one station to a community rule. Pay TV Serv., 46 Rad. Reg. 2d (P&F) 460 (1979).

87 "Bloom Is Off STV Rose," Broadcasting, Sept. 5, 1983, at 36.

88 Id. STV is currently in a tail spin; at the end of 1984, there were fewer than 20 STV stations serving 560,000 homes. "The New Order Passeth," Broadcasting, Dec. 10, 1984, at 44.

89 Subscription TV Serv., 90 F.C.C. 2d 341 (1982).

90 Id. See Subscription Television Serv., 88 F.C.C.2d 213, 221 (1981). As of March 1981, there were 222 vacant UHF and 36 vacant VHF allocations. Id.

91 Fourth Report and Order (Docket No. 21502), FCC 83-485, released Nov. 16, 1983.

92 Various legislative solutions have also been proposed. See, e.g., H.R. 4727, 97th Cong., 1st Sess. (1981) (introduced by Reps. Waxman and Wirth).

93 Chartwell Communications Group v. Westbrook, 637 F.2d 459 (6th Cir. 1980).

94 National Subscription Television v. S&H TV, 644 F.2d 820 (9th Cir. 1981).

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95 47 U.S.C. sec. 705 (1984). This section specifically exempts from its general prohibition "receiving, divulging, publishing or utilizing the contents of any radio communication which is broadcast . . . for the use of the general public . . . ." Id. (emphasis added).

96 Subscription TV Serv., 90 F.C.C.2d at 355-56 and n.23 (1982).

97 See generally Richard M. Neustadt, Gregg P. Skall, and Michael Hammer, "The Regulation of Electronic Publishing," 33 Fed. Comm. L.J. 331, 332-41 (1981); Sheila Mahony, Nick Demartino, and Robert Stengel, Keeping Pace With the New Television (New York; Carnegie Corp., 1980), at 188-93. The FCC defines "teletext" as "a data system associated with a television broadcast signal that is used for the transmission of textual and graphic information intended for display on the screens of suitably equipped receivers and of data that is intended to enhance the use of teletext information." 47 C.F.R. sec. 73. 646 (a).

98 The VBI is the black bar that appears on a television screen when the vertical hold needs adjusting. There are 21 lines in the VBI of which one is used to signal the end of a video frame and another is authorized to be used for a closed-captioned service for the hearing-impaired. All narrowband teletext systems require a terminal, wired to the display tube or built in, with a key pad and a decoder. Information is transmitted in a continuous cycle or loop. The user punches a page number into the terminal device, the terminal "grabs" the page as it flashes by and displays it on the screen. See Mahony, Demartino, and Stengel, supra appendix note 97, at 189-90.

99 Andrew Pollack, "Teletext is Ready for Debut," N.Y. Times, Feb. 18, 1983, at D1.

100 See Teletext Transmission, 53 Rad. Reg. 2d (P&F) 1309 (1983); "Teletext Substitution OK'd," CableVision, Apr. 11, 1983, at 14. See also Notice of Proposed Rulemaking (BC Docket No. 81-741), 46 Fed. Reg. 60851 (1981).

101 Transmission of teletext would initially be authorized on lines 14-18 and 20 of the VBI, with a phased-in approach allowing similar use of lines 10-13 in the future. The FCC voted to keep teletext off line 21 -- presently used for closed captioning for the hearing-impaired -- for a period of five years. Teletext Transmission, 53 Rad. Reg. 2d (P&F) at 1328. See also Notice of Proposed Rulemaking (BC Docket No. 81-741), 46 Fed. Reg. 60,851, 60,854 (1981).

102 Notice of Proposed Rulemaking (BC Docket No. 81-741), 46 Fed. Reg. 60851, at para. 7 (1981). For a discussion of the various teletext systems, see Mahony, Demartino and Stengel, supra appendix note 97, at 193-211. See also 1984 Field Guide, supra appendix note 21, at 41.

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103 A number of television stations had tested teletext systems, prior to adoption of the new rules, under experimental authority. See, e.g., Neustadt, Skall and Hammer, supra appendix note 97 at 345; "Testing the Waters," CableVision, Apr. 18, 1983, at 117; "Taft and Zenith Become Teletext Partners," Broadcasting, Jan. 10, 1983, at 36.

104 The United States Court of Appeals for the Seventh Circuit has held, however, that teletext services related to the main program are entitled to copyright protection as part of the station's main signal. See text notes 334 and 335, supra, and accompanying text. The FCC is postponing action on petitions seeking reconsideration of must carry status for teletext that is directly related to normal television service until it takes final action in Docket No. 21323 on the must carry issue for program-related TV aural sub-carriers. Memorandum Opinion and Order (BC Docket No. 81-741), released Jan. 24, 1985.

105 A number of television stations had tested teletext systems, prior to adoption of the new rules, under experimental authority. See, e.g., Neustadt, Skall and Hammer, supra appendix note 97 at 345; "Testing the Waters," CableVision, Apr. 18, 1983, at 117; "Taft and Zenith Become Teletext Partners," Broadcasting, Jan. 10, 1983, at 36.

106 Andrew Pollack, supra appendix note 99. See also Communications Daily, Jan. 5, 1984, at 3-4. Keycom is transmitting Keyfax National Teletext Magazine, which includes 100 pages of news, sports, information and advertising. 1984 Field Guide, supra appendix note 21, at 41.

107 "CBS Readies Extravision for April Launch," Broadcasting, Jan. 31, 1983, at 32-33. In April 1984, WBTV (TV), Charlotte, North Carolina, launched the first local teletext service by a CBS affiliate. "Teletext Launched on CBS Affiliate," Broadcasting, Apr. 9, 1984, at 36.

108 Id.

109 Udayan Gupta, "Distribution Services Grow as More Satellites Launched," Electronic Media, Dec. 16, 1982, at 16.

110 "Testing the Waters," CableVision, Apr. 18, 1983, at 111; Andrew Pollack, supra appendix note 98. See also "Teletext by the Bay," Broadcasting, Jan. 10, 1983, at 98, and "Decoder Problems Plague NBC's Try at Teletext," Broadcasting, Dec. 17, 1984, at 40.

111 See, e.g., Broadcasting, Sept. 5, 1983, at 90.

112 1983 Field Guide, supra appendix note 21, at 9.

113 Id.

114 See infra appendix notes 172-73 and accompanying text.

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115 See New Technologies, supra appendix note 7, at 3, 32-35. Pay-per-view cable sales totaled $28 million in 1984 and according to Paul Kagan, an industry consultant, could reach $2.2 billion in a decade. "Pay-Per-View TV is Gaining Subscribers As Fixed-Schedule Cable Loses Favor," Wall St.J., Jan 10, 1985, at 29.

116 See David Price, "The Magic Formula," CableVision Plus, Feb. 8, 1982, at 4; Stuart N. Brotman, and Larry S. Levine, The Opportunities of Channel Leasing; Strategic Considerations for Broadcasters (National Assoc. of Broadcasters, June 1982).

117 FCC v. Midwest Video Corp., 440 U.S. 689 (1979).

118 CATV Syndicated Program Exclusivity Rules, 79 F.C.C.2d 663 (1980), aff'd. sub nom. Malrite TV v. FCC, 652 F.2d 1140 (2d Cir. 1981), cert. denied sub nom. National Football League v. FCC, 454 U.S. 1143 (1982). Accompanying these deregulatory measures, however, have been changes in the copyright laws designed to impose an economic burden upon cable systems that carry signals. See discussion supra text notes 223-227 and accompanying text.

119 Pub. L. No. 98-549, 98th Cong., 2d Sess. (1984).

120 Capital Cities Cable, Inc. v. Crisp, 104 S.Ct. 2694 (1984), at 2705.

121 Some observers regard the Supreme Court's decision as a possible Pyrrhic victory for the cable industry: "By eliminating the threats associated with local cable content rules, the Court may have paved the way for future federal regulation of cable transmissions that the industry may find as onerous if not more so." James E. Graf II and Marcia Spielholz, "Court Affirms FCC's Jurisdiction in Cable Cases," Legal Times, July 9, 1984, at 16.

122 "Oklahoma Ban on Cable Wine Ads Struck Down," Television Digest, June 25, 1984, at 2.

123 "FCC Affirms Cities Can Regulate Only Basic Cable Rates," See Communications Daily, July 13, 1984, at 1.

124 Id. See also Frank W. Lloyd, "Issues of Retiering Hits the Courts," Cable T.V. Law & Finance, Octo. 1984, at 1.

125 The wires are hooked up to a large central computer that tabulates viewer responses by checking each home in the system every few seconds. Viewers can participate in programming by punching buttons on a hand-held console. 1983 Field Guide, supra appendix note 21, at 10.

126 Id. See also "Qube Anniversary," CableVision, Dec. 13, 1982, at 27.

127 1983 Field Guide, supra appendix note 21, at 10.

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128 Id.

129 John F. Cooney, "With Video Shopping Services Goods You See on the Screen Can Be Delivered to Your Door," Wall St. J., July 14, 1981, at 52, col. 1.

130 Neustadt, Skall and Hammer, supra appendix note 97, at 343; "Testing the Waters," CableVision, Apr. 18, 1983, at 111.

131 1983 Field Guide, supra appendix note 98, at 10.

132 See generally "Cable Interconnects: Making Big Ones Out of Little Ones," Broadcasting, Mar. 1, 1982, at 59.

133 Id.

134 Id. at 60.

135 Id.

136 Id.

137 "Interconnecting in Seattle," CableVision, Oct. 10, 1983, at 20.

138 A pair of glass fibers as thin as a hair can carry 1,300 simultaneous telephone conversations, compared with no more than 24 for the twisted pair of copper wires now used. To illustrate, the entire contents of Webster's 2,700-page unabridged dictionary could be transmitted through a single fiber in six seconds. See Andrew Pollack, "Cities Linked by Bell Laser," N. Y. Times, Feb. 11, 1983, at D-1.

139 See 1983 Field Guide, supra appendix note 21, at 61; Fred Dawson, "Changing the Speed of Light," CableVision Plus, Feb. 28, 1983, at 32-44.

140 The fiber optics industry is in its infancy. In 1983, AT&T began laying fiber-optic trunk lines for telephone communications between cities, but coaxial cables are currently less expensive for most users. The cable industry acknowledges the inherent superiority of fiber-optic transmissions over that of coaxial cable or conventional telephone lines. "But cable companies cannot muster the billions of dollars neded to switch from coaxial to fiber optics; AT&T can, and will." Mark Edmundson, "Fiber Optics: Splendor in the Glass," 1984 Field Guide, supra appendix note 21, at 62.

141 Kenneth Gordon, Jonathan O. Levy, and Robert S. Preece, FCC Policy on Cable Ownership (Office of Plans and Policy Nov. 1981) at 152, n. 24. See also Concurring Statement of Commissioner Joseph R. Fogarty at 5-6.

142 Id. Concurring Statement of Commissioner Joseph R. Fogarty at 6, n. 6.

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143 Id.

144 Andrew Pollack, "Cities Linked by Bell Laser," New York Times, Feb. 11, 1983, at D-1. See also Gary Rothbart, "Fiberoptic Reality," CableVision, Dec. 6, 1982, at 26.

145 "MCI to Lay Fiber Optic Cable Along CSX Tracks," Communications Daily, Dec. 27, 1982, at 2-3.

146 Gary Rothbart, "Manhattan Teleport," CableVision, Jan. 10, 1983, at 121.

147 "Southern New England, Major Railroad Company Form Joint Venture," Telecommunications Reports, Aug. 29, 1983 at 10.

148 Gary Rothbart, "Fiber Optic Reality, supra appendix note 144.

149 William B. Johnston, "The Coming Glut of Phone Lines," Fortune, Jan. 7, 1985, at 97.

150 47 C.F.R. sec. 63.56(a).

151 47 U.S.C. sec. 613(b). It should be noted that telephone carriers are currently permitted to provide cable television service outside their telephone service areas.

152 The terminology in this area is unsettled. See Neustadt, Skall and Hammer, supra appendix note 97, at 331.

153 See 1983 Field Guide, supra appendix note 21, at 46.

154 Neustadt, Skall and Hammer, supra appendix note 95, at 342.

155 Id. at 342 n. 34; "Testing the Waters," CableVision, Apr. 18, 1983, at 110.

156 Stanley Klein, "Now, the Electronic Newsletter," N. Y. Times, Mar. 14, 1982, at 8F, col. 1.

157 "The New Order Passeth," Broadcasting, Dec. 10, 1984, at 70.

158 "A Hookup Between Giants," Newsweek, Oct. 5, 1981; Eric Pace, "Videotex; Luring Advertisers," N. Y. Times, Oct. 14, 1982 at D-1; "Testing the Waters," CableVision, April 18, 1983, at 110.

159 Two incompatible VCR formats, Beta and VHS, presently coexist. Although the two systems offer essentially the same features, the VHS system offers longer recording time and the Beta, due to recent technical improvements, provides better audio quality. See Hans Fantel, "In the VCR Race, Beta Still Leads with High-Fidelity Sound," N. Y. Times, Nov. 20, 1983, at H-36.

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160 See generally Network Inquiry Special Staff, Federal Communications Commission, Home Video: A Report on the Status, Projected Development and Consumer Use of Videocassette Recorders and Videodisc Players (Feb. 1980).

161 See New Technologies, supra appendix note 7, at 27; see also "The Righteous Wrath of Jack Valenti," Broadcasting, Feb. 14, 1983, at 66-67. The Supreme Court has held that off-the- air home videotaping does not constitute copyright infringement. Sony Corporation of America v. Universal City Studios, Inc., 104 S. Ct. 774 (1984) See discussion supra at text notes 336-343 and accompanying text.

162 There are two incompatible videodisc systems with slightly different capabilities. The phonograph style player developed by RCA uses a stylus and grooved discs. Philips and Pioneer have introduced a more expensive system which uses a low-power laser to "read" the disc. See 1983 Field Guide, supra appendix note 21, at 49.

163 It is estimated that by the end of 1984, nearly 17 million American homes will have at least one VCR and that by 1990, 40 percent to 45 percent of U.S. homes will have at least one VCR. "VCRs: Coming on Strong," Time, Dec. 24, 1984, at 45 and 50. See also "The Video Revolution" Newsweek, Aug. 6, 1984, at 50.

164 "RCA Calls It Quits With Videodisks," Broadcasting, Apr. 9, 1984 at 39. RCA is the biggest U.S. marketer of the VDP's chief nemesis VCRs, and is expected to sell 1.5 million cassette machines in 1984, about 100 percent over 1983. "Slipped Disc", Time, April 16, 1984, at 47. In July 1984, CBS announced that it would take a $15-million write-down and get out of the manufacture of videodisks. "Other Side of Failure," Broadcasting, July 16, 1984, at 82. "But any significant growth of videodiscs as a home entertainment medium is likely 3-5 years away and will find its motivation from an entirely different source -- the potential use of videodiscs in conjunction with personal computers to provide interactive programming, an application seeing rapid growth in industry and government." David C. Butterfield & Patrick M. Irvin, Home Video & Broadcast Television: Impacts and Opportunities (National Assoc. of Broadcasters, Nov. 1984), at 10.

165 According to a recent study more than one-third of all surveyed households owning video games reported a decline in television viewing since the games were purchased. Benton and Bowles, Inc., The New TV Technologies: The View from the Viewer -- II (May, 1983), at 44.

166 Matthew Mansfield, "The Big Bang of Marketing Home Videogames," Advertising Age, Aug. 30, 1982, at M3; see "Computer Or Video Game," N. Y.k Times, Apr. 28, 1983, at D1; 1983 Field Guide, supra appendix note 21, at 54.

167 1984 Field Guide, supra appendix note 21, at 46.

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168 A 100-home cable test was conducted at Group W's Fullerton, Cal. system. See "CableScope," CableVision, Dec. 6, 1982, at 9; CableVision Plus, Jan 10, 1983, at 6. See also "Crossfire," CableVision Plus, Jan. 10, 1983, at 5-6; Pace, supra appendix note 158; "Testing the Waters," CableVision, Apr. 18, 1983, at 117; "Playing Games," Broadcasting, Jan. 2, 1984, at 113.

169 "What's New? Nabu," Broadcasting, Apr. 9, 1984, at 35-36.

170 "The New Order Passeth," Broadcasting, Dec. 10, 1984, at 70.

171 See Andrew Pollack, "Technology-Taping Shows off the Air," N. Y. Times, Oct. 28, 1982, at D2, Col. 1.

172 "ABC Sets TeleFirst Launch for Jan. 17", Broadcasting, Dec. 5, 1983, at 40.

173 "ABC Zaps TeleFirst", Broadcasting, June 18, 1984, at 30.

174 Pollack, supra appendix note 171.

175 "GE's 2-for-1 Proposition," Broadcasting, Oct. 18, 1982, at 30.

176 Id.

177 Id.

178 For a general discussion of the nature of radio waves, see Sydney Head and Christopher Sterling, Broadcasting in America 41-44 (4th ed. 1982).

179 For a general discussion of digital transmission techniques, see id. at 25-27.

180 Digital transmission techniques achieve these spectrum efficiencies through multiplexing. "Two or more independent signals transmitted simultaneously in the same channel are said to be multiplexed." Id. at 34.

181 See Alex Felker and Kenneth Gordon, A Framework for a Decentralized Radio Service, supra text note 368.

182 "TV Sets of the Future," Newsweek, Aug. 6, 1984, at 56.

183 Id.

184 Id.

185 Report and Order (BC Docket No. 81-794), 53 Rad. Reg. 2d (P&F) 1101 (1983).

186 53 Rad. Reg. 2d (P&F) at 1105.

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187 Id. See also Report and Order (MM Docket No. 84-530), FCC 84-530, released Jan. 24, 1985 (authorization of data transmission services on the vertical blanking interval by television stations).

188 First Report and Order (BC Docket No. 82-536), 53 Rad. Reg. 2d (P&F) 1519 (1983).

189 Id. at 1524, paras. 18-19.

190 "Lid's off FM SCA's," Broadcasting, Apr. 11, 1983, at 35.

191 "Montpelier, VT, FM Station Launches its First SCA Service," Communications Daily, Dec. 23, 1983, at 7.

192 Second Report and Order (Docket No. 21323), 49 Fed. Reg. 18100 (April 27, 1984).

193 FCC News Release, Report 18042, released June 28, 1984. See also Notice of Proposed Rulemaking (MM Docket No. 83-1322), 48 Fed. Reg. 56607 (Dec. 22, 1983).