Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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

COMMENTS OF VIACOM

Viacom hereby submits the following comments in the above-captioned proceeding. As the parent company of Paramount, a member of the Motion Picture Association of America, Viacom participated in the drafting of the technology- and jurisdiction-based comments filed separately by that entity and fully supports them. Viacom's comments below, therefore, are limited to addressing the critical questions raised in paragraph 3 of the Notice of Proposed Rule Making (NPRM). Those questions pertain to the withholding of digital programming in the absence of a broadcast flag regime and the impact such a reduction in high quality programming would have on the DTV transition and on the broadcast industry. For the reasons discussed below, if a broadcast flag is not implemented and enforced by Summer 2003, Viacom's CBS Television Network will not provide *any* programming in high definition for the 2003-2004 television season.

Viacom's Digital Content

Viacom is a leading global media company, with preeminent positions in broadcast and cable television, radio, publishing and online. With programming that

appeals to audiences in every demographic category across virtually all media, the company is a leader in the creation, promotion, and distribution of entertainment, news, sports, and music. It is a major producer of theatrical, premium cable, basic cable and broadcast television content, and syndicated programming through its Paramount, Showtime Networks, MTV Networks (including MTV, Nickelodeon, VH1, TNN, CMT: Country Music Television), BET, and CBS divisions. In addition to creating content, these Viacom divisions are also major distributors of content they license from other producers.

As a major content producer and program packager, Viacom has played a crucial role in the digital television transition. Showtime, Viacom's premium subscription television service, launched its two high definition feeds more than two years ago, in January 2000, when it aired the high-profile film *Star Trek: Insurrection* in HD. Since that time, Showtime HDTV has been made available directly to consumers nationwide. It is currently distributed nationally through both DBS and cable distributors and is available in 1080i, the highest transmission format available. Showtime offers high definition and other value-added DTV programming for more than half of its prime-time schedule. This past summer, Showtime aired the first-ever original series on a premium network to be completely shot and aired in HDTV, making Showtime the first premium network to create a series with complete end-to-end HD production and distribution. Showtime's HDTV programming furthers Showtime's commitment as a premium programmer to offer consumers the very best viewing experience.

Paramount, too, has advanced the transition to digital. Specifically, HDTV masters are created for all of Paramount's current major theatrical releases. In addition,

HDTV masters, along with standard definition masters, are delivered for a majority of its network television series. With respect to catalog product, Paramount is in the process of converting its library to HDTV on a title-by-title basis.

And CBS, the undisputed leader in broadcast digital television, has been producing high definition programming for its affiliates nationwide since the fall of 1998, when it documented in HD the historic space shuttle voyage of Senator John Glenn and the crew of the *Discovery* and pioneered the first HD broadcasts of three NFL games. CBS began airing at least half of its prime-time schedule in the 1999-2000 television season in HD. In the 2001-2002 season, all but one of CBS's scripted prime-time programs were broadcast in HD. And for the 2002-2003 season, CBS is offering all 18 of its prime-time comedies and dramas in HD.

CBS has also provided an unprecedented level of sports programming in HD. In 2000 and 2001, CBS broadcast in HD the majority of its AFC Playoff games, including the AFC Championship games both years and the 2001 Super Bowl. For the last three years, CBS has produced the NCAA Men's Basketball Final Four and Championship Games and The Masters Golf tournament in HD. In the 2001-2002 television season, CBS aired in HD more than 100 hours of its premier sports events. This year CBS improved its fourth consecutive HD broadcast of the U.S. Open Tennis Tournament by expanding its HD offering to CBS's entire coverage of the tournament, nearly 40 free, over-the-air broadcast hours including the Saturday night prime time women's final and the Sunday afternoon men's final. For the 2002-2003 season, CBS Sports HD coverage will expand to at least 120 hours.

Together with its prime-time schedule, selected CBS Sunday movies, weekday ratings leader *The Young and the Restless* and CBS Sports' leading HD schedule, CBS will provide an average of 24 hours of HD programming per week this television season, far more than any other broadcast network.

In addition, as a leader in HD programming, CBS has had to create technical solutions where none existed before. For example, CBS pioneered both the techniques and the cost of converting film-based prime-time content to HD. CBS Sports has pioneered "unified" productions where single production facilities produce both SD and HD broadcasts, as well as developments such as "super slow motion" equipment, production switchers, and HD hand-held RF cameras.

CBS has invested millions of dollars in HD production, separate and apart from the hundreds of millions it is spending to convert its broadcasting plant to HD.

The Unauthorized Redistribution Factor

Broadcast television content, which is available over the air for free, is extremely expensive to produce: A single episode of a one-hour drama series can cost as much as $2.2 million to make. Program creators rely on a multi-window distribution plan to recoup the initial investment in the content along with a return on that investment. These windows include the first-run domestic distribution via network or syndication, domestic syndication, and foreign first-run and syndication. The shattering of any of these windows will have a dramatic effect on producers' ability to recoup their costs, let along make a positive return on their investment.

Broadcast television programming is paid for through license fees paid by program packagers (such as cable and broadcast networks) and broadcast television

stations. Some television content, particularly syndicated product, both first-run and off-network, is also funded by advertising that the content owner inserts into the program. The initial release of the content usually does not pay for the production of the content. Producers who create network television series assume great financial risks in hopes that their shows will air long enough to reach the 100 episodes needed to later sell them as a package in syndication.

In addition, studios make their theatrical film titles --and sports leagues make their games and matches-- available for television for a license fee. In almost all cases, the license to televise content is limited in geographic scope in order to preserve the value of the programming for simultaneous distribution to other licensees or for later distribution domestically or to other parts of the world. Thus, a national program distributor such as a cable or broadcast network usually obtains rights to an entertainment program for transmission within the United States and to a sports program within a specified region, while a broadcast television station's rights to programming are limited to its market.

Because the number of media outlets chasing after television content has substantially increased over the last decade or so, the competition to acquire compelling content is fierce. Program creators have a wider choice of outlets and thus greater bargaining power with distributors. DTV broadcasters, who are vying for content without the ability to assure program creators that their content is secure from unauthorized redistribution, will be at a severe disadvantage in this competition. DTV's content is digitized, compressed and sent via digital transmissions to DTV receivers where the content is decompressed and made ready for viewing. It is the fact that the

content is digitized and compressed that makes it easy to be redistributed. In essence, the broadcaster puts the content in a form that is ready-made for Internet distribution. Once the digital signal leaves the transmitter's antenna, a digital set-top DTV tuner with an unprotected digital output is all that is needed to take the DTV content and make it available throughout the world via the Internet. The consequences of content escaping to the Internet are very significant.

In the absence of a broadcast flag regime, anyone receiving digital broadcast television signals on a digital set-top box with an unprotected digital output or a tuner card-equipped computer is capable of distributing the television content to millions of people all over the globe through peer-to-peer file mechanisms, through e-mail, or through a website. Left unaddressed, this vulnerability to unauthorized redistribution could destroy television production economics such that the value of syndicated product would plummet, advertisers would pay far less to buy time in devalued programming and out-of-market entertainment and professional and college sports transmissions. As a self-help measure, therefore, no doubt, those who produce digital content for television are apt to provide their most compelling and high-value content only to distribution platforms that can ensure the protection of their content, that is, to those with conditional access systems or copy protection systems. Thus, the highest quality entertainment and sports programming would migrate to cable and satellite, rendering free, over-the-air television the poor stepchild of the distribution platforms, if it can even survive carrying second-rate, leftover programming.

Efforts to Resolve the Unauthorized Redistribution Problem

Viacom recognized early on the importance of protecting its crucial content assets and, as a result, Viacom's engineering personnel have actively pursued development and evaluation of copy protection technology for digital content such as movies, images, and broadcast and cable television programming since the early 1990s. These technologies include user and device authentication, Content Scrambling System (CSS), conditional access systems, Digital Transmission Content Protection (DTCP or 5C), OpenCable POD Host Interface, HDCP, the broadcast flag, DVB, encryption algorithms, fingerprinting, and watermarking. Activities include participation in industry and trade associations and standard-setting organizations along with meetings with many of the equipment manufacturers and service providers.[1] These activities have easily consumed many years of effort by Viacom's engineering staff over this period.

Protection of free, over-the-air broadcast content alone has been the subject of intense inter-industry discussions for nearly two years, having been raised by the motion picture studios in their negotiations with the 5C companies relating to the protection of encrypted conditional access content. The 5C companies rejected including such broadcast protection as part of their license agreement, but agreed to contribute to a multi-industry effort to develop a solution for broadcast content.

In May 2001, one of the major broadcast networks, Fox, proposed the elegantly simple solution of the broadcast flag, which relied on the "redistribution control" descriptor that recently had been adopted as part of the ATSC transport stream standard,

[1] Industry and standards organizations include CableLabs, Copy Protection Technology Working Group (CPTWG), Digital Audio Visual Council (DAVIC), MPAA, MPEG, and the NCTA. Manufacturers and service providers include AT&T, Digimarc, Hitachi, IBM, Intel, Kowa, Lucent, Macrovision, Matsushita

as the method for protecting free, over-the-air broadcast content. Discussions with 5C ensued, but no real progress was made until October and November of that year, when a series of separate Congressional DTV Roundtables (convened by Congressmen Tauzin, Upton, Dingell and Markey, among others) and FCC gatherings separately were launched to facilitate a meeting of the minds between the studios and 5C companies. By the end of November, as a result of these meetings and the strong encouragement of Members of Congress and the FCC, the Broadcast Protection Discussion Group (BPDG) was born.

This entity is run under the auspices of the Copy Protection Technical Working Group (CPTWG), an open, cross-industry forum that includes representatives from the entertainment, information technology and consumer electronics industries, as well as consumer group representatives and other interested parties. The goals of the BPDG were to provide a detailed technical specification for the detection and response to the broadcast flag; to define the secure handling, output and recording of broadcast content marked with the flag (compliance and robustness); and to recommend how the flag should be implemented and the governmental and regulatory actions needed to support its enforcement in the U.S. market.

On June 3, after countless hours in face-to-face meetings, on conference calls and in drafting sessions, and the passing of more than one deadline for completion of its mission, the BPDG, consisting of 70 organizations, issued its final report to the CPTWG. The report demonstrated near-unanimous agreement on the broadcast flag descriptor itself. There was universal agreement that the flag would not prevent home copying of broadcast programming and would not interfere with the ability of consumers to send

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Electric Industrial Company, Microsoft, Motorola, NEC, Philips, RealNetworks, Sarnoff, Scientific-Atlanta, Sony, Soundtag, Telcordia Technologies, and Toshiba among many others.

authorized and secure copies of digital broadcast programming around home networks. As for compliance and robustness, only 14 of the 70 organizations dissented, and of these, six were small consumer groups opposing any restraints on the reproduction and redistribution of content.

In July, Members of Congress sent letters to Chairman Powell noting the BPDG broadcast flag consensus and urging FCC action.

Effects on the DTV Transition and Broadcast Television without a Broadcast Flag

The Commission is now addressing the issue of the broadcast flag and its mandated implementation. Viacom commends the Commission for launching this important proceeding and for asking difficult, but critical, questions. Specifically, the NPRM seeks comment on whether: (1) quality digital programming is now being withheld because of concerns over the lack of a broadcast flag; (2) such programming will be withheld in the absence of a regulatory regime; (3) the absence of a broadcast flag could delay or prevent the digital transition; and (4) this dynamic would threaten the viability of broadcast television and impact consumers. We respond to each of these in turn.

- **Viacom has not yet withheld quality digital programming**

Viacom has not withheld any of its digital content from broadcast television up to now. To the contrary, as discussed above, Viacom's broadcast television division CBS has been the undisputed leader in moving the television world from analog to digital, well along in the process of spending hundreds of millions of dollars to convert its plant and programs to digital. It so firmly believes in digital that it has gone beyond HD content production and reached out to other industry sectors important to a digital conversion.

CBS has partnered with consumer electronics manufacturers and consumer electronics retailers to identify and promote HD programming and to market DTV receivers. At the end of this past September, after four weeks of sales, for example, the CBS/Sears/ Samsung HDTV promotion of NCAA Saturday football games resulted in triple-digit growth of Samsung's HDTV set sales numbers.

As for Paramount, up to this time it has not withheld digital content which was available to it.

Viacom has continued to produce and provide digital content to broadcasters and viewers up to now because the concern for widespread piracy has been mitigated by the relatively low number of households with DTV receivers. In November 1998, the first DTV models were introduced. Broadcast television stations in eight cities were transmitting a digital signal and the average price for an HDTV monitor was $6,000.[2] From that launch through April of this year, 2.8 million DTV sales have been recorded, with an average unit price for digital TV sets and displays in 2002 of less than $1,700.[3] And in July of this year alone, DTV sales totaled 213,159 units.[4] The Consumer Electronics Association projects that 2.1 million DTV products will be sold this year, 4 million in 2003, 5.4 million in 2004, 8 million in 2005 and 10.5 million in 2006.[5]

As the digital TV receiver becomes a mainstream product, consumers will demand more and better digital programming. Content producers, in turn, will create that programming, and those equipped at home with a set-top box with an unprotected digital output or a computer and a TV tuner card will now have further incentives for

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[2] "Digital Television," *Digital America*, CEA Website, www.ce.org/publications/books_references/digital_america/video/digital_television.asp.
[3] "Digital Television Takes Off," *Digital America*, at id.
[4] "DTV Sales Flourish in July," September 5, 2002, Press Room of CEA Website, www.ce.org.

distributing that content via the Internet. Like DTV, broadband Internet connections, which will facilitate and feed the incentives for distributing content, are also on a rapid upward trajectory. Sixty percent of the 20 largest U.S. cities show at-home broadband population growth of more than 50 percent for the year ending April 30, 2002.[6] And by 2004, Forrester Research forecasts, 40 million North American households will have broadband Internet connections.[7] Internationally, it is estimated that by 2005, 24.2 percent of European homes will subscribe to a broadband Internet service, and one year later, 76 percent of Taiwanese homes will do the same, with the majority of new subscribers added over the next two years.[8]

Viacom believes that DTV sales and broadband subscriptions have reached the "tipping point" at which it can no longer afford to expose its content to piracy. A broadcast flag regime is needed now to protect the value of our important assets or we must withhold our quality HD digital content. The potential loss in revenues for Viacom alone due to the unauthorized redistribution of broadcast television content and the resulting devaluation of broadcasting could reach hundreds of millions of dollars. Thus, Viacom has much at stake in the success of all affected television industry sectors and the government joining together now to establish secure measures for the transmission of digital broadcast television programming. The benefits of such measures for broadcast television will inure to the benefit of other industry sectors and the American public, as well. With a continuing and ever-increasing flow of digital content, consumer electronics

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[5] Id.
[6] Nielsen/Net Rating, as reported by BroadJump, www.broadjump.com/mediarelations/mediakit/downloads/Broadband_Market_Trends.pdf.
[7] Id.
[8] Id.

manufacturers and retailers will enjoy flourishing DTV sales,[9] and with a stabilized broadcasting television system, Americans can continue to count on receiving high quality digital programming for free.

- **Viacom may begin withholding digital content**

Accordingly, Viacom wishes to make clear for the record in this proceeding that the absence of a broadcast flag regime in the near future will have a materially adverse effect on the levels of digital broadcast television programming it makes available. Specifically, if the broadcast flag is not implemented and enforced by next summer, CBS will cease providing any programming in high definition for the 2003-2004 television season. And, without the security afforded by a broadcast flag, Paramount will have less incentive and enthusiasm to make digital content available and will factor that into its decision-making at the time.

- **Without a broadcast flag, the digital transition will be delayed and broadcasting could be threatened**

That content is the single most important driver of the migration to digital is agreed upon by all. Chairman Powell recognized this last April in asking the major broadcast and premium cable networks to provide at least half of their prime-time schedule in HD or other value-added DTV programming as part of his plan to boost the digital transition. Indeed, in his letter to Congress announcing the plan, Chairman Powell cited an increase in the amount of compelling digital content as one of its two "key goals."[10] The Consumer Electronics Association recently said that "[t]he essential prerequisite for a successful DTV transition is high quality, compelling high definition

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[9] In July of this year alone, DTV product sales totaled nearly $370 million. "DTV Sales Flourish in July," September 5, 2002, Press Room of CEA Website, www.ce.org.

(HDTV) programming."[11] Programmers, of course, know that HD will lure viewers to their product and their brand, as evidenced by recent announcements by Discovery and ESPN of their new HD launches.[12] ""HD changes viewer habits," according to Discovery head John Hendricks.[13] His family, he says, seeks out HD shows no matter what, even if they have already seen the program before in analog format.[14] And retailers, who stand on the front line of the digital conversion campaign, understand that consumers buy DTV sets to watch enticing programming. As one salesman at a Southern store owned by Tweeter Home Entertainment Group said in response to the question of whether he would buy an HD set right now: "No, because there's not a lot of HD programming. . . ."[15] This salesman says he steers potential buyers away from HD "because they don't need it yet and they're going to end up bringing it [the sets] back. But some store visitors, he adds, say that they want to watch HD programming, citing specific shows such as CBS' *CSI*.[16]

Viacom alone cannot make or break the transition to a DTV era, but we undoubtedly have done more than our fair share in the digital migration, most notably through our creation of high quality, high value HD entertainment and sports programming and our provision of that product –as well as the television programming and motion picture product we obtain from other producers-- via the CBS Television Network over the air for free to all American households. If we are forced by the absence

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[10] Letter from Michael K. Powell to Senator Ernest F. Hollings, dated April 4, 2002; Letter from Michael K. Powell to Representative W.J. "Billy" Tauzin, dated April 4, 2002.
[11] "Cable Compatibility, Consumer-Friendly Copy Protection and Content Availability Remain Keys to Accelerating DTV Transition, Says CEA," September 25, 2002, Press Room of CEA Website, www.ce.org.
[12] "ESPN to Add HD Channel," CableWorld, September 30, 2002; "Discovery Launching HD Theater net," April 16, 2002, www.emonline.com/news/web041602.html.
[13] CableFAX Daily, October 23, 2002, at 4.
[14] Id.
[15] CableFAX Daily, Wednesday, October 23, 2002, at 4.

of a broadcast flag to withhold this content, millions of Americans who have already individually invested thousands of dollars in digital television receivers certainly will feel disenfranchised when they are no longer able to view current levels of CBS's HD programming. The ramifications of this will be felt in all sectors of the HDTV community. And those contemplating the purchase of DTV receivers may elect to cancel or postpone purchasing plans in light of a decreased menu of HD viewing options.

Worse, in the absence of a broadcast flag to protect against unauthorized redistribution over the Internet, not just Viacom but *all* content producers no doubt will be forced to reassess broadcast television as a medium for the provision of their high quality digital programming. And then the most profound concern of the day will not be how to save the transition to digital television but how to rescue digital broadcast television and, potentially, broadcast television overall. For some 50 years, the FCC has sought to preserve the broadcast network-affiliate system, that unique national-local partnership that has been a substantial engine for premier news, sports and entertainment programming that free, over-the-air broadcast television provides. Unauthorized Internet retransmission undermines the network-affiliate model and broadcasting itself.

We are all at a critical crossroads in the course to DTV. That includes not only those who create the content that drives consumer adoption of DTV, but those who distribute that content, those who manufacture digital receivers, those who design information technology, those who sell that equipment and technology, those in new wireless services who await the freeing up of spectrum now utilized for analog broadcasting, and those in government charged with overseeing the migration to DTV. Therefore, it is imperative that we all join together now, within the context of this FCC

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[16] Id.

proceeding, in moving down the road that leads most directly and expeditiously to a DTV world. That road is implementation of the broadcast flag.

Respectfully submitted,

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Dated: December 6, 2002