I. INTRODUCTION

One of the most visible consumer issues before Congress this term is whether consumers may receive network television service by satellite from Direct Broadcast Satellite ("DBS") providers. Currently, a satellite carrier's ability to lawfully retransmit a network signal via satellite depends on whether the household is "unserved" according to the 1988 Satellite Home Viewer Act ("SHVA"). The SHVA embodies a compulsory copyright licensing scheme whereby copyrighted works (i.e., broadcast programming) are licensed to users, in this case satellite carriers, at a government-fixed price and under government-set terms and conditions. Without the satellite compulsory copyright license, satellite carriers would have to clear with the myriad individual copyright owners all rights to retransmit a broadcast signal - a difficult and expensive process. Generally, the SHVA permits satellite carriers to retransmit distant network signals, but only to "unserved households." An unserved household is defined as a household that cannot receive, through the use of a conventional rooftop antenna, a local network affiliate's signal of Grade B intensity (as defined by the FCC), and has not received such a signal from a cable system within the previous 90 days. While the unserved household restriction in practice prevents satellite carriers from retransmitting network signals to a large sector of television households, the SHVA

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1 See 17 U.S.C. §119(a)(2)(B) (1994). Section 119(a)(2)(B) provides that the compulsory license granted under Section 119 for the retransmission of television network signals is limited to "persons who reside in unserved households." This provision of Section 119 is the network territorial limitation of the compulsory license, also known as the "white area" restriction. The term "white area" refers to an area unserved by television signals. The term originally meant a geographic area that was incapable of "over-the-air reception of any broadcast signals but the term now means in the context of the satellite [compulsory copyright] license a household which [1] is not capable of receiving an over-the-air signal [of 'Grade B intensity' from] a local network affiliate and [2] has not received a network signal from the local cable company within the previous 90 days." U.S. Copyright Office, A REVIEW OF THE COPYRIGHT LICENSING REGIMES COVERING RETRANSMISSION OF BROADCAST SIGNALS 102, n. 111 (August 1, 1997) [hereinafter CRO REPORT].

2 See CRO REPORT, supra note 1, at i-v. There are two compulsory licenses in the Copyright Act governing the retransmission of broadcast signals, one for satellite carriers, see 17 U.S.C. §119, and the other for cable operators. See 17 U.S.C. §111(c)-(e). There are significant differences between the two. For instance, the satellite compulsory license will expire on December 31, 1999, while the cable compulsory license is indefinite. See 17 U.S.C. §119 (regarding "termination of section"). Also, different rates apply to satellite carriers than to cable operators for the retransmission of the same broadcast signals. The satellite industry has studied the rates applied to each and has determined that satellite carriers pay up to ten times more than cable operators to carry the same signals under their respective compulsory copyright license.


4 See 17 U.S.C. §119(d)(10) (1994) (defining an unserved household as "a household that — (A) cannot receive, through the use of a conventional outdoor rooftop receiving antenna, an over-the-air signal of grade B intensity (as defined by the Federal Communications Commission) of a primary network station affiliated with that network, and (B) has not, within 90 days before the date on which that household subscribes, either initially or on renewal, to receive secondary transmissions by a satellite carrier of a network station affiliated with that network, subscribed to a cable system that provides the signal of a primary network station affiliated with that network").
has also served as a barrier to competition to incumbent cable operators because cable operators can retransmit network station broadcasts under the cable compulsory license.

When the SHVA was enacted, there were only approximately two million households with C-band dishes subscribing to multi-channel video programming distribution ("MVPD") service. Eligibility to receive distant network service was not a significant issue at the time. That may have been because networks and affiliates, the only parties who can challenge a subscriber's eligibility to receive distant network signals by satellite, did not feel threatened that they were losing audience shares to satellite carriers delivering distant network signals. Eligibility became an issue with the introduction in the mid-1990s, and subsequent growth and popularity of, DBS service.

Qualifying the new DBS subscribers for distant network service quickly became problematic for satellite carriers. As discussed above, in order to fall under the SHVA's definition of unserved household, a household must not be able to receive a signal of Grade B intensity from the local network affiliate. However, as a practical matter, Grade B signal strength is a meaningless concept to consumers—they do not understand the concept and cannot easily determine whether or not they receive a signal of Grade B intensity. Consumers can only tell whether they receive an acceptable over-the-air picture from the local network affiliate. Nothing in the SHVA provided satellite carriers a readily available mechanism to identify which households may or may not receive distant network service by satellite. Satellite carriers were forced to qualify subscribers for distant network service under a nebulous standard.

Not surprisingly, networks and their affiliates disagreed with satellite carriers over the eligibility of satellite network subscribers to receive distant network signals under the satellite compulsory copyright license. The controversy over the unserved household restriction has erupted in the past few years. In the last two years, the Copyright Office ("CRO"), two Federal courts, and the Federal Communications Commission ("FCC" or "Commission") have debated and made various decisions and pronouncements regarding which consumers are entitled to receive distant network signals by satellite. However, the decisions made by Federal courts and the decisions and recommendations made by Federal agencies are not satisfying to the consumer and do not provide for competition to cable. If anything is clear from the "Grade B" controversy, it is that consumers want choice. As the satellite compulsory copyright license is set to expire on December 31, 1999, there is pressure on Congress to revise the eligibility criteria while extending the license. This paper will examine the Grade B controversy through an analysis of the consumer and competitive concerns implicated by the satellite carrier's network retransmission restriction and the treatment of this issue by the CRO, Federal courts and the FCC.

II. CONSUMER AND COMPETITIVE CONCERNS RAISED BY THE "UNSERVED HOUSEHOLD" RESTRICTION

The availability of network service by satellite is important to consumers seeking an alternative to cable service. Subscribers to both satellite and cable seek a seamless video programming delivery service consisting of non-network programming and network programming. Because satellite carriers currently do not have the satellite capacity to deliver all local stations to subscribers in their respective local markets (as do cable operators which serve local markets), satellite carriers can

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5 See In re Competition, Rate Deregulation and the Commission's Policies Relating to the Provision of Cable Television Service, Report, 5 FCC Rcd. 4962, para. 103 & n.148 (1990). A "C-band" dish is 4-8 feet in diameter and C-band subscribers often purchase programming through program packagers that are licensed by programmers to facilitate subscribers' receipt of their programming transmitted from various C-band satellites. Because programming is received from satellites at several different orbital locations, most C-band dishes include motors that permit the receiving dishes to rotate and face the various satellites. See In re Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Third Annual Report, CS Dkt. No 96-133, para. 49 (1997).


7 See CRO Report, supra note 1, at 115.
generally offer subscribers only distant network signals. Moreover, even if the technology were available for satellite carriers to retransmit all local television stations into their local market, such local-into-local service is generally not permitted under the SHVA since many, if not most, homes within a station’s market are served. Only “unserved households” may receive such seamless service from satellite carriers. Satellite subscribers not eligible to receive distant network service by satellite are left with the options of receiving their local network signals over-the-air, if they can receive clear reception from the local affiliate, or by cable, if cable service is available. Neither of these options may be appealing to consumers, especially if they cannot receive an acceptable over-the-air signal from the local affiliates or do not live in areas where cable service is offered. Consumers often choose not to subscribe to satellite service because they cannot receive network signals by satellite. Thus, the inability of satellite carriers to retransmit network signals under the satellite compulsory copyright license hinders the ability of DBS to compete against cable operators.

Satellite carriers braced for another competitive blow as a Miami Federal District Court acted to enforce the SHVA by issuing two nationwide injunctions requiring satellite carriers to terminate network service to as many as one million subscribers by February 28, 1999, and to more than one million additional subscribers by April 30, 1999. Satellite carriers feared that massive court-ordered disconnections would frustrate satellite consumers across the country and cripple the satellite industry as a competitive force. They expected that once disconnected from network service, many subscribers would drop satellite service altogether and convert to cable, if available, or to other MVPD technologies. Satellite carriers believe these subscribers may be lost forever, even if it is determined at a later date that network reception is permissible. The damage to the satellite industry thus could be irreparable.

Legislation to permit satellite carriers to retransmit local network signals to subscribers in their local market (“local-into-local”) has been discussed by the CRO, members of Congress and the FCC as a solution to the restriction on the retransmission of distant network signals by satellite. However, local-into-local service is not feasible at this time because satellite carriers simply lack the satellite capacity to retransmit all local broadcast signals to their respective local markets.


A. The 1988 Satellite Home Viewer Act

The unserved household restriction has been a part of the SHVA since its inception in 1988. In 1988, the satellite industry was just emerging. Home satellite dishes were offering service to some consumers, but DBS service was years away. The satellite industry was relatively unregulated and, as Congress considered creating the satellite copyright license, the network broadcasters expressed concern that local network affiliates would lose viewers if satellite carriers imported distant network stations. Because no FCC regulation existed to prevent the importation of distant network signals by satellite carriers, Congress created the unserved household restriction.

The restriction was modeled after the FCC’s network nonduplication rules applicable to the cable industry. The network nonduplication rules are intended to allow affiliate broadcasters...
to negotiate network programming exclusivity rights with their respective networks so that the network affiliate stations are the only ones authorized to broadcast network programming in their areas.\textsuperscript{20} An affiliate's area of protection is determined by the terms of its programming contract with its network,\textsuperscript{21} but the area of protection cannot exceed an area more than 35 miles from the broadcast station.\textsuperscript{22} As is evidenced by the legislative history of the SHVA, Congress intended to protect the network-affiliate relationship by adopting a surrogate to cable's nonduplication rules for satellite carriers, while permitting consumers who could not receive an adequate local signal over-the-air to have access to network service by satellite.\textsuperscript{23} Rather than using a set mileage criterion, however, Congress adopted a definition of unserved household in the SHVA based on the FCC's discretion in defining Grade B signal strength.\textsuperscript{24}

B. The 1994 Amendments

Congress revisited the satellite carrier compulsory copyright license in 1994.\textsuperscript{25} At that time, Congress established a temporary enforcement mechanism to permit a network affiliate to challenge a satellite carrier's provision of network signals to subscribers it believed were "served."\textsuperscript{26} A network affiliate could challenge a satellite carrier's service to no more than 5% of the households receiving satellite service within the network station's local market in a single year.\textsuperscript{27} Signal intensity measurements were to be taken at the individual households, and if it was determined that a household was "unserved," the satellite carrier could continue to provide service and the network affiliate would be obligated to pay for the testing.\textsuperscript{28} The opposite would hold true if the signal intensity measurement determined that a household was served.\textsuperscript{29} The CRO, in its Report to Congress, concluded that the temporary enforcement mechanism was unsuccessful because it did not provide a well-defined, cost-efficient testing regime.\textsuperscript{30} Satellite carriers were forced to terminate network service to those households.\textsuperscript{31} Little, if any, testing occurred.\textsuperscript{32} A consumer uproar ensued because consumers could not understand why they were unable legally to receive network signals, even if they were willing to pay for the service.\textsuperscript{33}

The temporary enforcement mechanism failed on another level. It was also intended to provide an interim solution until satellite carriers and networks and their affiliates could agree on an eligibility criteria.\textsuperscript{34} However, no industry consensus was reached before the testing mechanism sunset on December 31, 1996.

IV. THE COPYRIGHT OFFICE'S REVIEW OF THE UNSERVED HOUSEHOLD RESTRICTION

On February 6, 1997, Senator Orrin Hatch, Chairman of the Committee on the Judiciary, requested that the CRO conduct a review of the copyright licensing regime and report its findings and recommendations to Congress by August 1, 1997.\textsuperscript{35} Senator Hatch identified several key issues to be addressed by the CRO in its Report to Congress.\textsuperscript{36} One of the principle issues which the Senator requested the CRO to reevaluate was the current "unserved household" restriction for the

\textsuperscript{21} 47 C.F.R. §76.92.
\textsuperscript{22} 47 C.F.R. §73.658(m). If the station is located in a smaller television market, an additional 20 miles of protection is added for a total of 55 miles. See 47 C.F.R. § 76.92.
\textsuperscript{26} See id.
retransmission of network television signals.\textsuperscript{38} The CRO responded that the transactional problems of clearing retransmission rights to individual programs justified the continued existence of the cable and satellite carrier compulsory license.\textsuperscript{39}

The CRO Report traced the history of the unserved household restriction of the SHVA from its inception in 1988. The CRO explained that its review of the SHVA was triggered by disgruntled satellite subscribers faced with the termination of their network service as a result of numerous challenges launched by network stations during the period when the temporary enforcement mechanism was in effect.\textsuperscript{40} These subscribers, angered by the fact that they could not obtain the programming they were willing to pay for, were vocal in raising their concerns with Congress, the CRO and the FCC.\textsuperscript{41}

Satellite carriers claimed that the current standard of measurement, Grade B signal strength, is flawed and unworkable.\textsuperscript{42} Broadcasters, on the other hand, found that the current standard worked well and that the problem lies with the satellite carriers' repeated violations of the restriction.\textsuperscript{43}

After considering comments and reply comments by representatives of the satellite industry, broadcasters, copyright owners and various cable interests, as well as oral testimony taken over three days of hearings, the CRO recommended to Congress that:

1. The Grade B signal intensity standard should be eliminated from the copyright law, and the FCC should be given jurisdiction to establish network exclusivity rules applicable to satellite carriers.\textsuperscript{44}

2. Network signals should be available nationwide via satellite.\textsuperscript{45} A temporary "green zone/red zone" approach should be adopted whereby subscribers in the "green zone" (outside an affiliate's local market) would be eligible to receive network signals by satellite under the compulsory licenses.\textsuperscript{46} Subscribers in the "red zone" (the affiliate's local market defined as its Area of Dominant Influence or "ADI") could receive the signals by paying a surcharge, which would be passed on to the local affiliates.\textsuperscript{47}

3. The satellite compulsory license should be clarified to permit the retransmission of a network affiliate's signals by satellite to subscribers located within the affiliate's local market.\textsuperscript{48}

4. Satellite subscribers to network signals should not be required to wait 90 days after discontinuing cable service before becoming eligible to receive satellite service.\textsuperscript{49}

Despite the CRO's recommendations to Congress, no Congressional action was taken in 1997-1998.

V. THE COURT CASES

When the temporary enforcement mechanism of the SHVA expired on December 31, 1996,\textsuperscript{50} networks and their affiliates aggrieved by a satellite carrier's violation of the unserved household restriction were left with only arbitration, mediation or litigation as a means for redress.\textsuperscript{51} Since the beginning of 1997, the networks and their affiliates have chosen to enforce the unserved household restriction by launching copyright infringement suits against satellite carriers.\textsuperscript{52}

A. The PrimeTime 24 Lawsuits

At the forefront of the broadcasters' copyright infringement suits is a suit brought by CBS and Fox against PrimeTime 24 in the United States District Court for the Southern District of Florida.\textsuperscript{53} That case is significant because of its

\textsuperscript{38} See id.
\textsuperscript{39} See CRO REPORT, supra note 1, at 32-33.
\textsuperscript{40} See id. at 115.
\textsuperscript{41} See id. at 112, 120.
\textsuperscript{43} See CRO REPORT, supra note 1, at 108-09. "[T]he battle lines between satellite carriers and broadcasters are clear and longstanding." Id.
\textsuperscript{44} See id. at 129.
\textsuperscript{45} See id. at 126.
\textsuperscript{46} See id. at 129.
\textsuperscript{47} See id. at 130. ADIs are large areas covering more than the 35-mile zone where the local affiliate is entitled to territorial exclusivity. The CRO did not propose the amount of the surcharge, but it did suggest that it should be established by Congress in the statute or by CARP in accordance to its copyright arbitration procedures. See id. at 126-28, 130.
\textsuperscript{48} See id. at 133.
\textsuperscript{49} See id. at 123.
\textsuperscript{50} See note 1, at 105.
\textsuperscript{51} See id.
\textsuperscript{52} See id.
tionwide impact. The action was brought by CBS, Fox and several affiliates alleging that PrimeTime 24, a satellite carrier, violated the SHVA by distributing distant network signals by satellite to households that were not "unserved" within the meaning of the SHVA.54

The court agreed with the networks and their affiliates,55 issuing a preliminary,56 and later a permanent,57 injunction ordering PrimeTime 24 not to deliver CBS or Fox television network programming to any customer that lives in the court's interpretation of a "served" household. The court outlined methods for predicting and measuring signal intensity,58 and required PrimeTime 24 to use them in identifying unserved households.59 Specifically, PrimeTime 24 was enjoined from providing CBS or Fox network programming to:

Any customer within an area shown on Longley-Rice propagation maps, created using Longley-Rice Version 1.2.2 in the manner specified by the Federal Communications Commission in OET bulletin Number 69, as receiving a signal of at least grade B intensity of a CBS or Fox primary network station, without first obtaining the written consent of the affected stations ... or providing the affected stations with copies of signal intensity tests showing that the household cannot receive an over-the-air signal of grade B intensity as defined by the FCC from any station of the relevant network.60

The court ruled that the signal intensity test requires at least 15 days advance notice to each affected station and outlined a specific procedure that the tester must follow at each household within a station's area, as established by the Longley-Rice map.61 The court also imposed the SHVA's "loser pays" regime on the testing procedure, whereby the loser to a challenge of a subscriber's eligibility must pay the costs of the test.62

The preliminary injunction took effect on February 28, 1999 and the permanent injunction was scheduled to take effect on April 30, 1999.63 The preliminary injunction resulted in the termination of network signals to the estimated 700,000 to one million subscribers nationwide who subscribed to PrimeTime 24 after the networks filed their lawsuit on March 11, 1997.64 The permanent injunction, which applies to the PrimeTime 24 customers who subscribed before March 11, 1997,65 could have affected an additional 1.5 million subscribers nationwide.66 The total number of PrimeTime 24 subscribers affected thus could reach 2.2 to 2.5 million.67 While the broadcasters have reached a settlement with DIRECTV, and several companies that provide network programming to large satellite dish subscribers, to postpone the April 30, 1999 termination date until June 30, 1999 for affected subscribers residing in the Grade B contour, the total number of subscribers subject to the court-ordered terminations remains the same.68

B. The Raleigh Law Suit

In a similar lawsuit, filed by the local ABC affiliate against PrimeTime 24 in Raleigh, North Caro-
lina, the federal district court there also found that PrimeTime 24 had violated the SHVA. Because the court found a "pattern or practice of willful or repeated" copyright infringement by PrimeTime 24, it determined that a ban on PrimeTime 24's retransmission of distant network signals within a specific "locality or region," as is provided for in the enforcement provisions of the statute, was warranted. Accordingly, the court issued a permanent injunction with its opinion on August 19, 1998 forbidding retransmission of distant network signals by PrimeTime 24 to all subscribers living within the affiliate's predicted Grade B contour of the affiliate's transmitting tower.

C. Other Lawsuits

Several other lawsuits seeking enforcement and interpretation of the SHVA's unserved household restriction have been filed by both broadcasters and satellite carriers. In Amarillo, Texas there is a pending copyright infringement suit between an NBC affiliate and PrimeTime 24.

On October 19, 1998, EchoStar Communications Corporation ("EchoStar") filed suit against CBS, Fox, NBC, and ABC in the United States District Court for the District of Colorado. In its complaint and request for declaratory judgment, EchoStar asked the court to make several specific rulings, including a request that the court endorse a more realistic Grade B predictive model and a Grade B signal measurement methodology as permissible for determining which households are unserved under the SHVA. Specifically, EchoStar asked the court to endorse a predictive model for identifying served households such that 95% of households receive a "Grade B signal 95% of the time with a 50% degree of confidence." EchoStar also asked the court to find that the Commission has never endorsed a particular model for predicting or measuring Grade B intensity for the purposes of the SHVA. The networks countered by filing a suit against EchoStar in the United States District Court in Miami. The networks asked for a ruling and injunction against EchoStar similar to the Miami district court's decision against PrimeTime 24. No decision has been issued in either EchoStar case.

VI. THE FCC'S INQUIRY INTO THE DEFINITION OF GRADE B

A. The National Rural Telecommunications Cooperative Emergency Petition

On July 8, 1998, the National Rural Telecommunications Cooperative ("NRTC") filed an declaratory Judgment at § V, ¶ 8, EchoStar Communications Corp. v. CBS, Inc., et al., supra note 73. EchoStar is not affected by the PrimeTime 24 injunction because it cancelled its contract with PrimeTime 24 and supplies network programming to its subscribers through its own subsidiary. See Jeanine Aversa, DirecTV says CBS, Fox to Remain on its System, DALLAS MORNING NEWS, Feb. 25, 1999, 1; David Hatch, Court Upholds Signal Cutoff: Congress Now Determined to Settle Issue, ELECTRONIC MEDIA, Mar. 1, 1999 at 1; The Skies Go Dark, MULTICHANNEL NEWS, Mar. 1, 1999 at 1; John Healey, Satellite TV Battle Rages over Network Programs, SAN JOSE MERCURY NEWS, Feb. 25, 1999. DirecTV also began directly supplying network programming to its customers. See John Shiffman, DirecTV Drops WKRN for New York ABC Affiliate, THE TENNESSEAN, Feb. 25, 1999 at 2E; Doug Levy, Satellite Dispute Creates Static, USA TODAY, Feb. 24, 1999 at 3B; Paul Farhi, DirecTV Says It Can Avert CBS, Fox Cutoff, WASHINGTON POST, Feb. 24, 1999 at A9.

The National Rural Telecommunications Cooperative ("NRTC") is a Multi-channel Video Program Distributor ("MVPD") that distributes DBS service to over one million households through its members and affiliates. See In re Matter or Definition of an Over-the-Air Signal of Grade B Intensity for the Purposes of the Satellite Home Viewer Act, Emergency Petition for Rulemaking of the National Rural


70 See supra note 73.

71 See id. at 490-91. [hereinafter ABC v. PrimeTime 24 Permanent Injunction].


74 See Plaintiffs' Original Complaint and Request for Declaratory Judgment at § V, ¶ 8, EchoStar Communications Corp. v. CBS, Inc., et al., supra note 73.


76 See id.

77 See supra note 73.

78 See id. at 499-91.
Emergency Petition for Rulemaking with the FCC to prevent the massive termination of satellite network service to millions of satellite subscribers as a result of the then-imminent Preliminary Injunction of the Miami District Court. In its Emergency Petition, NRTC argued that the unserved household restriction cannot be used literally to determine eligibility to receive distant network signals by satellite and that Congress, by referring specifically to the FCC in the SHVA’s definition of “unserved household,” intended the Commission to clarify the practical meaning of “signal of Grade B intensity” for purposes of the SHVA.

NRTC stated that the unserved household restriction was an individual household determination, not an estimate of the geographic area covered by a broadcast station’s signal. It noted that predictive models, which estimate an area of coverage, were being used to determine whether a household is served, regardless of whether expressly authorized in the SHVA or approved by the FCC.

NRTC also noted that, even if individual household measurements were to be taken, the FCC’s definition of Grade B field strength was outdated because it was based on lower viewer expectations and was not intended to be used for purposes of identifying “unserved households” under the SHVA.

NRTC was concerned that use of the Grade B contour to determine which households receive “an over-the-air signal of grade B intensity” for purposes of the SHVA would have the effect of preventing at least 50 percent of the households at the Grade B contour from receiving network signals by satellite, even though they cannot receive an acceptable over-the-air picture from their local affiliates.

NRTC concluded that such a result would result in the loss of subscribers to cable (assuming cable is available, which is usually not the case in many rural areas), and would clearly be anticompetitive and unfair to countless consumers who are unable to receive a picture of acceptable quality through the use of a conventional antenna.

Accordingly, “[t]o promote competition by satellite against cable, to maximize consumer choice in the selection of MVPD providers, and to clarify a situation that threatens to result in the termination of satellite service to millions of subscribers,” NRTC recommended that “the Commission initiate a rulemaking proceeding on an expedited basis to adopt a definition of Grade B signal intensity exclusively for purposes of interpreting the SHVA.” NRTC urged that “the new definition recognize as ‘unserved’ all households located outside a Grade B contour encompassing a geographic area in which 100 percent of the population receives over-the-air coverage by network affiliates 100 percent of the time using readily available, affordable receiving equipment.”

NRTC explained that “[t]his approach would ensure that the core service area of network affiliates is protected within the SHVA Grade B contour, while authorizing satellite reception by all households which in fact are unable to receive an acceptable over-the-air picture.”

On August 18, 1998, EchoStar Communications Corporation filed a Petition for Declaratory Ruling and/or Rulemaking With Respect to Defining, Predicting and Measuring “Grade B Intensity” For Purposes of the Satellite Home Viewer

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Telecommunications Cooperative, RM No. 9335, at para. 2 (filed July 8, 1998) [hereinafter NRTC Emergency Petition]. The NRTC is a client of Keller and Heckman LLP.

80 See id.


82 See NRTC Emergency Petition, supra note 79, at ii & para. 23.

83 See Order Granting NRTC Emergency Petition, supra note 81, at paras. 7-10.


85 See 47 C.F.R. §73.683(a) (1998) (providing a chart depicting the requisite field strength for the Grade A and Grade B contours of television stations transmitting on Channels 2-6, Channels 7-13 and Channels 14-69).

86 See NRTC Emergency Petition, supra note 79, at 6-8.

87 See In re Amendment of Part 90 of the Commission’s Rules To Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, Memorandum Opinion and Order on Reconsideration, 13 FCC Rcd. 14569, paras. 37-42 (1998). As detailed in the FCC’s Third Notice of Further Proposed Rulemaking in the Television Broadcast Service proceeding, 16 Fed. Reg. 3072, 3075, Dkt. Nos. 8736, 8975, 8976, 9175 (April 7, 1951), while the FCC provided a means to measure the Grade B contour where 50 percent of the households could receive a signal of Grade B field strength 50 percent of the time, it expected that 50 percent of the households at the contour would receive an acceptable picture 90 percent of the time. See id. at para. 37.


89 Id. at para. 25.

90 Id.

91 Id.
Act ("EchoStar Petition"). 92 The EchoStar Petition, similar in many respects to NRTC's Emergency Petition, urged the Commission to adopt a Grade B model which predicts the outermost boundary at which 99% of households receive a Grade B signal 99% of the time with 99% confidence. 93 EchoStar also urged adoption of a methodology for measuring signal strength that more closely reflects the signal that a viewer's television set actually receives. 94

B. The FCC's Inquiry

Both the NRTC and EchoStar Petitions were placed on Public Notice by the FCC. 95 "Various parties filed comments either opposing or supporting the petitions." 96 Those who opposed the petitions generally represented broadcast interests, while those who supported the petitions included direct-to-home satellite interests. 97 Generally, the majority of the satellite industry supported the Commission's adoption of an updated Grade B signal strength standard and better predictive and measurement methods to reflect today's operational environment and heightened viewer expectations. 98 The broadcasters vehemently opposed any changes to the FCC's Grade B standard, predictive models or measurement methodologies that would affect the application of the "unserved household" provision of the SHVA. 99 They argued that the Commission does not have authority to revise the Grade B standard for purposes of the SHVA and that any changes to the Grade B standard would be contrary to Congressional intent to preserve localism. 100

The FCC's quick response can be attributed not only to the immediacy of the projected impact of the Florida District Court's Preliminary Injunction, but by the concern expressed by consumers, NRTC, EchoStar, the direct-to-home satellite industry and a wide range of public figures. As recognized by several members of Congress and the FCC Chairman, the termination of distant network signals to unserved households would be devastating to the growth of competition in the MVPD market. For example, the Honorable John McCain, Chairman of the Senate Committee on Commerce, Science and Transportation and the Honorable Tom Biley, Chairman of the House Committee on Commerce, expressed their concern over the impact of the Preliminary Injunction and requested that FCC Chairman William E. Kennard provide a preliminary estimate of the impact of the Preliminary Injunction on consumers and MVPD competition. 101 Chairman Kennard responded that the fallout of the injunction is "an impending 'train wreck' that need not occur." 102 Notwithstanding the Broadcasters' denial in their responses to the Petition for Rulemaking that an emergency situation was presented by the imminent disenfranchisement of one million or more satellite subscribers, the broadcasting and satellite industries on September 18, 1998 reached an agreement on a set of principles

92 See Echostar Petition, supra note 75.
93 See id. at 29.
94 See id.
95 The NRTC petition was filed July 8, 1998 and was placed on public notice on August 5, 1998. Office of Public Affairs Reference Operations Division Petitions for Rulemaking Filed, Public Notice (August 5, 1998). The EchoStar petition was filed August 18, 1998 and was placed on public notice on August 26, 1998. Echostar Communications Corporation Files a Petition for Declaratory Ruling and/or Rulemaking, Public Notice (August 26, 1998).
98 See id. at paras. 10, 12.
99 See id. at paras 10, 11.
100 See id.
102 William E. Kennard Letter, supra note 64.
designed to ensure that the implementation of the Preliminary Injunction would be delayed until February 28, 1999.103 On September 30, 1998, the Court approved the parties’ agreement to delay the effective date of the Preliminary Injunction to February 28, 1999.104

On November 17, 1998, the Commission released a Notice of Proposed Rulemaking in response to the NRTC and EchoStar Petitions.105 The Notice sought comments on four issues raised in connection to the Petitions for Rulemaking and the court decisions: (1) the extent of the Commission’s authority to proceed, (2) Grade B signal strength definitions, (3) Grade B prediction models and methodologies, and (4) individual household measurements.106

Regarding the scope of its authority, the Commission tentatively concluded that Congress did not intend to “freeze” the definition of Grade B as it existed in 1988 when the SHVA was enacted.107 However, the Commission made no firm conclusions as to the extent of its “authority to revise its Grade B rules specifically for the purposes of the SHVA”108 or “to develop a model for predicting whether an individual household can receive a signal of Grade B intensity for purposes of the SHVA.”109 However, the FCC did conclude that its authority to define Grade B signal intensity “reasonably includes the authority to adopt a method of measuring signal intensity at an individual household.”110

The Commission requested comments on the wisdom of changing the definition of Grade B signal intensity so that truly unserved households can be better identified.111 With respect to defining Grade B signal strength, the FCC sought input addressing possible changes in the field strength levels specified in section 73.683 of its rules.112 The Commission also concluded that it “cannot modify the Grade B intensity so much that it effectively equals or exceeds Grade A signal intensity.”113

The Commission recognized “that predictive models can be effective proxies for individual household measurements,”114 and asked for comments and proposals on developing a methodology for accurately predicting whether an individual household is able to receive a signal of Grade B intensity.115 The Commission tentatively concluded that its traditional predictive methodology for determining a Grade B contour, outlined in section 73.684 of the Commission’s rules, was insufficient for predicting signal strength at individual households.116 Instead, the FCC favored the Longley-Rice propagation model, as implemented for DTV, to “refine the Grade B service prediction for purposes of SHVA determinations.”117 Lastly, the Commission asked for comments and proposals to develop an easy-to-use and inexpensive method for testing the strength of a broadcast network signal at individual households.118

In its Comments and Reply Comments to the FCC’s Grade B Notice of Proposed Rulemaking, the satellite industry, led by the Satellite Broadcasting and Communications Association (“SBCA”) proposed that:

(1) The Commission “immediately adopt Grade B signal strength values of 70.75 dBu for low-band VHF stations, 76.5 dBu for high-band VHF stations, and 92.75 dBu for UHF stations.”119

(2) The Commission adopt a modified version of the Terrain Integrated Rough Earth Model

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103 See, e.g., In re The Petition of EchoStar Concerning the Definition of an Over-the-Air Signal of Grade B Intensity for Purposes of the Satellite Home Viewer Act, Comments of the Network-Affiliated Station’s Alliance, RM No. 9345, at 20-21 (Sept. 25, 1998); see also CBS, Fox Programs Extended for Customers of Satellite TV, THE SEATTLE TIMES, Sept. 19, 1998, at A4.
106 See id.
107 See id. at para. 20.
108 See id. at para. 22.
109 Id. at para. 23.
110 Id. at para. 25.
111 See Satellite Delivery Notice, supra note 15, at para. 27.
112 See id.
113 Id. at para. 28.
114 Id. at para. 30.
115 See id. at para. 35.
116 See id. at para. 33.
117 See Satellite Delivery Notice, supra note 15, at para. 34.
118 See id. at para. 40.
119 In re Satellite Delivery of Network Signals to Unserved Households for Purposes of the Satellite Home Viewer Act, Part 73 Definition and Measurement of Signals of Grade B Intensity, Comments of the Satellite Broadcasting and Communications Association, CS Dkt. No. 98-201, at 13 (Dec. 11, 1998) [hereinafter Comments of the Satellite Broadcasting and Communications Association]. These values reflect the effects of some factors not accounted for when Grade B was developed in the 1950s, such as vegetation, buildings, other obstructions and terrain. See id. at 16. However, they do not adjust for man-made noise, ghosting (multipath) or consumers’ higher expectations of picture quality. See id. at 13-14.
("TIREM") as a predictive model to more accurately predict whether a household can receive a signal of Grade B intensity, and use the TIREM predictive model to create a "rebuttable presumption" as to whether a household is served or unserved, with the challenger paying for individual household measurements.

(3) The Commission adopt an individual household measurement methodology in which measurements are taken at an accessible location as close as possible to the residence and as close as possible to actual roof height, with signal strength readings every 30 seconds for five minutes, taking into account for "splitter loss." The SBCA further proposed that if more than one of the ten signal strength values is less than the Grade B signal strength values described above, the household should be deemed "unserved" and eligible to receive distant network signals by satellite.

Not surprisingly, the broadcasters criticized the updated Grade B signal strength values, use of the TIREM predictive methodology, and the measurement methodology proposed by the SBCA and endorsed by the majority of the satellite industry. The broadcasters argued that consumers should be required to purchase sophisticated over-the-air antennas with rotors and pre-amplifiers to receive a Grade B signal from the local affiliate.

C. The FCC's Decision

On Tuesday, February 2, 1999, the FCC released the text of its Report and Order in the proceeding to define and measure signals of Grade B intensity for purposes of the Satellite Home Viewer Act ("Grade B Order"). The only actual amendment to the FCC's rules made by the Grade B Order is the creation of a methodology for measuring signal strength at an individual household. "[T]he methodology requires a tester to make at least five measurements in a cluster as close as possible to the location being tested. The median value will be taken as the signal intensity at the [home]." The FCC's new rule will become effective upon publication in the Federal Register, but the new rule will not affect the Florida District Court's ordered termination of satellite network service to households it has deemed "unserved" unless the Court issues a supplemental order incorporating the FCC's new rule.

The FCC also put forth and endorsed a new predictive model, "Individual Location Longley-Rice" ("ILLR"), to predict which households can receive a signal of Grade B intensity and thus qualify as "served," and which cannot and will thus be deemed "unserved." The FCC found that it is not the primary enforcer of the SHVA and cannot require use of ILLR. The ILLR predictive model can only be used at the discretion of the satellite carriers, networks and local affiliates in determining the "served" status of satellite consumers and potential satellite consumers. The FCC also recommended that the predictive model be used to create a rebuttable presumption that a consumer is or is not served. The FCC recommended that when the rebuttable presumption is challenged, whether in court or out of court, an individual household measurement should be taken and the loser of any challenge to a predictive model's presumption should pay for the testing.

The FCC declined to redefine the Grade B signal strength standard for purposes of the SHVA because it believed that it did not have the authority to create a special Grade B standard solely for purposes of the SHVA and that such an approach

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120 See id. at 15-19.
121 See id. at 18-19.
122 See id. at 21.
123 See id., at 12-14, 16, 18-19, 21.
126 Grade B Order, supra note 6.
127 See id. at paras. 45, 48.
128 Id. at para. 50.
129 See id. at para. 98.
130 See id. at para. 71.
131 See Grade B Order, supra note 6, at para. 66.
132 See id.
133 See id.
134 See id.
would not be advisable.\footnote{See id. at para. 31.} Furthermore, while the FCC recognized that consumer standards of an "acceptable" picture had changed since the 1950s, when it determined that a Grade B signal provided consumers with an acceptable picture, the FCC determined that no current studies were available that correlated viewer judgements of television picture quality with specific signal levels.\footnote{See id. at para. 95.}

After concluding that only Congress has the power to adopt legislative changes that would allow satellite companies to deliver network signals to all of their consumers, the Commission made several legislative recommendations. In light of higher viewer expectations and environmental changes since the 1950s, the FCC found that the Grade B standard may be inadequate to determine picture quality at individual households.\footnote{See Grade B Order, supra note 6, at para. 32.} The FCC noted that the Grade B signal intensity standard may not address all the factors that determine the quality of a consumer's television picture, but the Commission concluded that it was prevented from exploring an alternative standard by the language of the SHVA.\footnote{See id. at para. 96-97.} The FCC also asked Congress to consider changes to the copyright law to allow satellite companies to provide local television stations to local markets, to eliminate the 90-day waiting period for consumers to receive satellite network service after subscribing to cable, and to adopt a predictive model for creating rebuttable presumptions of service or lack of service along with a loser pays mechanism when the presumption is challenged.\footnote{See id. at paras. 96-97.} However, as a practical matter, The Grade B Order cannot change the terms of the PrimeTime 24 injunctions, which have resulted in the termination of satellite network service to satellite network subscribers nationwide.

VII. CONCLUSION

With the expiration on December 31, 1999 of the satellite compulsory copyright license and the massive termination during 1999 of satellite network service to millions of consumers, there is great pressure for Congress to meaningfully address the Grade B issue. Individual members of Congress have expressed opposition to the court-ordered termination of distant network service by satellite, but the broadcasting industry has been successful in delaying Congressional action to date. They have succeeded in doing so by voicing their concern that "localism" and the "network/affiliate relationship," which has provided Americans with free over-the-air television, will be irreparably harmed by satellite retransmission of distant network signals. In this session of Congress, the SHVA and, in particular, the SHVA's restriction on the retransmission of network signals, has received a significant amount of attention. However, a consensus between the satellite industry and broadcasters on the resolution of this issue has not been reached, and the substance of any new legislation affecting satellite retransmission of television signals to subscribers for home viewing is difficult to predict. One thing is certain, any changes to the SHVA will have a significant impact on consumers, the satellite and broadcast industries, and MVPDs.