

Notably, in the cable context, a broadcaster's must carry coverage area is restricted to the cable franchise area – an area that in most cases does not encompass an entire DMA. A rule limiting the compulsory carriage area to the service contour of the station seeking carriage would most closely approximate the relationship between television broadcast stations and cable operators under the cable compulsory carriage provisions. Moreover, it would be consistent with rules the Commission has adopted in the cable context where a cable system “straddles” a DMA. In such cases, the Commission allows the cable operator to segregate channels provided to each community when it has the technical ability to do so.⁴⁷ Tailoring the must carry right in this fashion will preserve precious satellite capacity so that satellite carriers can offer a broader range of programming in more markets. It would also curb the potential for abuse of the satellite must carry obligation by preventing broadcasters from receiving the windfall benefits of carriage throughout the DMA, which would force satellite carriers to limit service in other markets – an anti-consumer result that can and should be avoided.

C. The Commission Should Refrain From Altering The Obligations Congress Placed On Broadcasters To Deliver A Good Quality Signal To Local Receive Facilities

Section 338(b)(1) states: “A television broadcast station asserting its right to carriage under subsection (a) shall be required to bear the costs associated with delivering a good quality signal to the designated local receive facility of the satellite carrier or to another facility that is acceptable to at least one-half of the stations asserting the right to carriage in the local market.”⁴⁸ The statute expressly provides that the satellite carrier is free to designate the local receive

⁴⁷ Cable Must Carry Report and Order, 8 FCC Rcd at 2975-76.

⁴⁸ 47 U.S.C. § 338(b)(1).

facility of its choice. While the statute acknowledges that an alternative facility may be necessary to the extent that one-half the stations asserting compulsory carriage rights agree upon such facility, it specifically provides that broadcasters bear the costs of delivering a good quality signal to the local receive facility. As the Commission notes, Section 338(h)(2) defines “local receive facility” as “the reception point in each local market which a satellite carrier designates for the delivery of the signal of the station for purposes of retransmission.”⁴⁹

1. The Commission Must Take Into Account The Time Involved In The Planning And Construction Of Local Receive Facilities.

DIRECTV agrees with the Commission that “the most economically feasible means [of delivery of multiple local broadcast signals] is to aggregate signals in each local market at one point and deliver them over the facilities of an interstate telecommunications carrier to the uplink site(s).”⁵⁰ As the Commission notes, the local receive facility requires co-location at such a carrier’s switching center. The parameters for construction and designation of a local receive facility include:

- (a) access to multiple long distance common carriers for DS-3 or other high-speed digital fiber circuits;
- (b) access to at least one local common carrier that can provide TV1 quality digital fiber circuits to most, if not all, television broadcast stations [in the DMA], and/or local DS-3 circuits, microwave, and broadband analog service as local conditions may require;
- (c) access to multiple long distance carriers that can provide a wide area data network up to 256kb/s as well as dial up voice service must also be available;

⁴⁹ 47 U.S.C. § 338(h)(2).

⁵⁰ Notice at ¶ 18.

- (d) access to building rooftop with connecting conduits to support, where needed, good quality over-the-air television reception, microwave links, and satellite reception;
- (e) access to a suitable area with connecting conduits to support a satellite downlink antenna; and
- (f) access to a suitable area to install equipment to support all local collection, compression, monitoring, and transmission equipment. This area must be securable against unauthorized access and have stable power source and HVAC.

In its construction to date of over twenty-seven local receive facilities to support local broadcast channel service in markets across the nation, DIRECTV has found these to be essential criteria for the establishment of local receive facilities.

In accordance with Section 325(b)(2)(E) of the SHVIA, which provided a 180-day grace period during which satellite carriers were permitted to retransmit television broadcast signals into local markets without obtaining retransmission consent, DIRECTV initiated an aggressive roll out of local broadcast channel service in markets across the nation. At present, DIRECTV offers local broadcast channel service in 27 markets nationwide. DIRECTV has already designated local receive facilities in each of these markets. In the markets in which DIRECTV intends to offer local broadcast channel service in the future, local receive facilities must be planned (and indeed are being planned) at least twelve months in advance. While DIRECTV urged the Commission in previous proceedings to require stations to make their initial elections at least six months before the commencement of carriage to accommodate this planning

process,⁵¹ the possibility that television broadcast stations may request an alternate site not considered by DIRECTV will dramatically affect this process. By January 2002, the carriage obligation may increase the number of local channels DIRECTV offers to more than 400 stations, and in accordance with this schedule, local receive facilities to carry those stations must be selected in January 2001.

Twelve months is the minimum amount of time necessary to: (i) select a location for the facility and negotiate a lease; (ii) order and install encoding and other equipment; (iii) hire support, maintenance and monitoring staff; (iv) make arrangements with local television stations to obtain a signal of sufficient quality; (v) allow television stations to negotiate fiber agreements with telephone carriers and install local fiber links; (vi) install, as needed, over-the-air antennas and noise reduction equipment; (vii) negotiate a long-haul fiber agreement and install a long haul fiber link; (viii) order and install equipment for broadcast/uplink centers; and (ix) test each link in the system. The Commission must take the practical realities of this planning process into account in its implementation of Section 338(b)(1).

2. Section 338(b)(1) Requires Broadcasters To Bear The Burdens Associated With Delivering A Good Quality Signal To The Local Receive Facility.

As noted earlier, Congress has placed the burden on television stations to request carriage pursuant to Section 338. Accordingly, satellite carriers should not be required to inform local broadcast television stations of the location of the receive facility until after such stations have

⁵¹ DIRECTV Comments, In the Matter of the Satellite Home Viewer Improvement Act of 1999 – Retransmission Consent Issues, Notice of Proposed Rulemaking, CS Docket No. 99-363 (submitted Feb. 1, 2000).

notified the carrier, in writing, that they wish to be carried pursuant to Section 338, and it has been established that they are otherwise eligible for such carriage. There should be no requirement imposed on satellite carriers to provide television broadcast stations with the location of the appropriate local receive facility unless and until the television broadcast station has submitted such notice.

In Section 338(b)(1), Congress placed the burden on television broadcast stations to pay for the delivery of a good quality signal to the local receive facility. This encompasses both transmission of the signal, as well as testing to ensure that the signal meets the quality standards that are a prerequisite for mandatory carriage rights. The Commission should therefore require a television broadcast station to contract with a local telecommunications common carrier to lease a dedicated TV1-quality fiber circuit from the broadcast station to the satellite carrier's local receive facility. In many cities, a TV1-quality fiber circuit may be purchased at competitive tariffed rates (approximately \$800 to \$1500 per month). The Commission should expressly provide that the broadcaster must fulfill these prerequisites before the satellite carrier's carriage obligation takes effect.

3. Section 338(b)(1) Requires Broadcasters To Agree Upon An Acceptable Alternate Facility.

Congress also placed the burden on television broadcast stations to agree upon an "acceptable" alternative facility. Given the millions of dollars that satellite carriers must invest in local receive facilities, and given the fact that satellite carriers already have established many local receive facilities across the country to accommodate local broadcast stations, the Commission's rules must not permit the abuse of this congressional directive. The Commission must keep in mind the fact that this additional variable in the site selection process will require a

grace period of at least twelve months from the selection of a site to the commencement of operation using that site. Accordingly, any agreement by broadcast television stations to select a site other than the local receive facility designated by the satellite carrier will necessarily delay the carriage of those stations using that facility by at least twelve months from the date the site is “agreed upon.”

In addition, the Commission should expressly provide that any such agreement by television broadcast stations may only be made twelve months prior to the period during which television broadcast stations elect between must carry and retransmission consent. This will allow satellite carriers to plan effectively for their systems and local receive facilities, and will also curb abuse of the process by broadcasters, who otherwise could attempt to garner the votes necessary to request an alternate facility throughout the entire period. For the same reasons, the Commission should also adopt rules expressly providing that satellite carriers will not be required to relocate existing local receive facilities. Satellite carriers should not be subjected to the uncertainty that would result from such abuse.

Consistent with the express language of Section 338(b)(1), those broadcasters who do not agree to the location of the regional receive facility should have no remedy.⁵² The statute does not provide for a remedy for those stations objecting to the location of the regional receive facility, and the Commission should not invent one. In addition, in accordance with the text of Section 338(b)(1), if more than one-half of the stations agree to the facility designated by the satellite carrier, the Commission cannot require the satellite carrier to build an alternative facility, and the objecting stations must still bear the cost of transmission to the local receive

⁵² Notice at ¶ 19.

facility designated by the satellite carrier.⁵³ Likewise, Section 338 does not provide for a “minority complaint” procedure before the Commission.⁵⁴ The creation of such a procedure would be beyond the scope of the Commission’s authority.

DIRECTV urges the Commission to refrain from adopting remedies and procedures that have no basis in the statute. In the event that the Commission nonetheless adopts a procedure to resolve disputes concerning the location of local receive facilities, such procedure must be limited to cases in which at least one-half of the stations that: (1) are eligible for must carry, and (2) have asserted their must carry rights contest the satellite carrier’s designated facility. The procedure should require that a complaint be filed by the combined stations, and should allow the satellite carrier to file a motion for dismissal in the event that the stations’ complaint does not demonstrate, *prima facie*, that (1) the filing stations consist of at least one-half of the stations asserting the right to carriage in the DMA; and (2) that the filing stations are, in fact, eligible for must carry status. The rules should also provide for summary dismissal if the satellite carrier can demonstrate that more than one half of the eligible must carry stations in the DMA are willing to use the carrier’s designated receive facility.

Finally, DIRECTV urges the Commission to maintain the burdens Congress placed on broadcasters to “agree upon” an alternative facility *before* imposing upon satellite carriers the requirement to construct such a facility. First, the Commission should ensure that any alternate receive facilities “agreed upon” by qualified television broadcast stations meet the parameters listed in Section II.C.1 to the satisfaction of the satellite carrier. Second, the Commission should also allow satellite carriers sufficient time to complete the process for the siting of alternative

⁵³ 47 U.S.C. § 338(b)(1).

⁵⁴ Notice at ¶ 19.

facilities. This requires a grace period of at least twelve months from the time the site is “agreed upon” until the carriage obligation commences. Third, the Commission should limit requests for alternative receive facilities to twelve months prior to the election period between must carry and retransmission consent in order to allow satellite carriers more certainty in the planning process for their local receive facilities. Fourth, the Commission should not prescribe remedies for television broadcast stations in the minority. Finally, to the extent that the Commission adopts formal complaint procedures, such procedures must allow for summary dismissal of inadequate complaints.

4. The “Good Quality Signal” Standard Must Allow For Efficient Compression.

The requirement that stations provide a good quality signal in order to be eligible for cable carriage is derived from the Commission’s cable must carry order.⁵⁵ In contrast, in the satellite carriage context, the requirement is statutory and must be satisfied in order for a broadcast station to be eligible for must carry in the first instance. Thus, in accordance with the statutory mandate of Section 338(b), the Commission must find that broadcast stations that do not meet the good signal requirement of Section 338(b) are ineligible for compulsory carriage.

Because of technical differences between satellite and cable systems, satellite carriers require a higher quality signal than do cable operators. This is a consequence of satellite carriers’ use of compression systems that allow them to utilize allocated frequencies most efficiently. In particular, DBS operators use compression systems based on the Moving Pictures

⁵⁵ Cable Must Carry Report and Order, 8 FCC Rcd at 2991.

Experts Group (“MPEG-2”) standard.⁵⁶ While compression maximizes usable bandwidth by eliminating redundant picture information, the use of compression requires that any signals carried meet quality standards in excess of those used in the cable context. Because compression systems have difficulty differentiating between intended activity in a scene and background noise, excessive background noise consumes some portion of the transmission capacity and thereby causes picture degradation.⁵⁷ Moreover, satellite carriers use statistical multiplexing to gain the best compression efficiency for multiple channels.⁵⁸ This heightens the need for high quality signals. If one channel supplied to an MPEG encoder is noisier than the others, it will demand more capacity and cause deterioration to other channels. If, on the other hand, all channels supplied to an MPEG encoder are maintained with high signal integrity and low noise, then the system will be able to compress all channels efficiently.

For these reasons, the Commission should strictly define “good quality signal” as a signal with contribution quality that will facilitate efficient MPEG compression of all channels. DIRECTV proposes that the signal must meet the requirements of GR-338 CORE, TV1 for <20 route miles.⁵⁹ An essential elements of the “<20 route miles” specification is a weighted signal to noise ratio of –67dB,⁶⁰ which is necessary for the digital video compression equipment used in DBS systems. This is a widely recognized and accepted quality standard for transmission links

⁵⁶ See generally Donald C. Mead and Leonardo Chiariglione, *Direct Broadcast Satellite Communications – An MPEG Enabled Service* (2000).

⁵⁷ *Id.* at 139-170.

⁵⁸ *Id.*

⁵⁹ An equally acceptable standard is ANSI/EIA/TIA-250-C, “Short Haul.”

⁶⁰ The ANSI/EIA/TIA-250-C, Short Haul standard also states that the weighted signal to noise ratio must meet –67dB.

and is applicable both to fiber and microwave delivery systems. Thus, to fulfill the prerequisite for compulsory carriage, the requesting station must install and maintain a link from its master control to the local receive facility which meets this signal quality standard. The use of high quality transmission links which conform to or exceed the “<20 route miles” requirement,⁶¹ will ensure the reception of a high quality picture on all channels. Accordingly, the Commission’s “good quality signal” standard should incorporate the “<20 route miles” portion of the specification, regardless of the actual distance from the TV station to the local receive facility. Virtually all fiber optic transmission equipment is digital and therefore insensitive to distance.

D. The Commission Must Limit Satellite Carriers’ Obligation To Carry Duplicative And Non-commercial Educational Stations

For purposes of satellite compulsory carriage, the definition of “substantial duplication” and the limitations on carriage of non-commercial educational (“NCE”) stations are extremely important. Because satellite carriers operate using a fixed amount of capacity, carriage of duplicative television broadcast stations wastes a valuable resource and deprives subscribers of diversity in the local programming that is available to them. Regardless of the Commission’s actions, Section 338’s mandate of carriage of every local television broadcast station in the DMA will result in substantial duplication of programming. However, if the term is not defined broadly enough, the number of markets in which satellite carriers are able to offer local services will be further constricted. The same problem will occur if the Commission does not place strict limitations on the requirement to carry NCE stations in local markets. Consistent with Congress’

⁶¹ The Commission should not preclude the use of higher quality transmission standards such as 270 Mb/s digital links conforming to ANSI/SMPTE 259 M-1997.

mandate in Section 338(c)(2), the Commission should regulate satellite carriage of NCE stations in a manner that takes into account the carrier's capacity limitations, as well as the public interest programming provided by the satellite carrier on a national basis.

1. The Definition of Substantial Duplication Should Address And Incorporate The Unique Characteristics Of Satellite Carriage.

As the Commission notes, the rules governing cable carriage provide a useful starting point for its implementation of Section 338(c)(1). Pursuant to Section 614(b)(5), cable operators are not required to carry the signal of a local commercial television station that substantially duplicates the signal of another local station that the cable operator carries, or the signals of more than one local commercial television station affiliated with a particular broadcast network. In the cable context, the Commission has adopted a definition of "substantial duplication" that covers "simultaneous broadcast of identical programming for more than 50 percent of the broadcast week."⁶² The Commission defines "identical programming" as the identical episode of the same program series.⁶³

Practical differences between cable and satellite delivery systems provide compelling reasons to apply a broader definition of "substantial duplication" in the satellite context. First, satellite carriers provide service on a national basis, whereas cable operators' coverage is limited geographically. A second and related factor is that satellite carriers plan to cover larger geographic "spots," through the use of spot beam technologies. The delivery of local services to

⁶² Cable Must Carry Report and Order, 8 FCC Rcd at 2980-81.

⁶³ *Id.*

larger geographic areas increases the likelihood that the service area will overlap time zones. It also increases the likelihood that television broadcast stations will have more than one affiliate in the same local market that transmits identical programming. For these reasons, the term “substantial duplication” must be more broadly defined than it is in the context of cable regulation.

Accordingly, DIRECTV proposes that the definition of “substantial duplication,” as employed in Section 338(c), should include identical programming, whether broadcast simultaneously or not, of either 50 percent or more of a television broadcast station’s total weekly programming, or 50 percent or more of its prime-time programming. This two-prong test is designed to prevent broadcasters from evading the must carry prerequisite by scheduling diverse programming during low viewership hours, or by scheduling all of their unduplicated programming during prime-time. Moreover, because of the greater geographic coverage provided by satellite carriers and the greater likelihood that time-shifting will alter a programming schedule within a local market, this 50 percent threshold should apply regardless of whether the duplicated programming is aired simultaneously.

DIRECTV rejects the Commission’s proposal to use the definition of “television network” contained in Section 339(d), which includes any television network in the United States that offers an interconnected program service on a regular basis for 15 or more hours per week to at least 25 affiliated broadcast stations in 10 or more states.⁶⁴ The concept of substantial duplication can only be incorporated into Section 338(c)(1) effectively if the Commission construes this term broadly so that it encompasses both the traditional television networks as well as nationally carried satellite stations. For example, a shopping channel that is provided on a

⁶⁴ Notice at ¶ 25.

national basis on a satellite carrier's system may have local affiliates in several markets. It would make no sense for the Commission to mandate carriage of local affiliates if they substantially duplicate the programming provided by the same channel which is carried nationally. This definition allows the Commission to place a useful limitation on substantially duplicative programming carried either on a local or national basis and to maintain the diversity of programming options available to subscribers. DIRECTV therefore urges the Commission to adopt an alternative definition of "television network" that incorporates this concern.

Finally, DIRECTV urges the Commission to apply the definition of "substantial duplication" standards proposed above both to local commercial television broadcast stations and to NCE stations. The test for substantial duplication should also expressly apply to "satellite television stations" to the extent that the Commission determines that such stations are included in the definition of "television broadcast stations." The definition of "substantial duplication" is particularly important for DBS operators in these contexts because of the geographic scope of coverage. In many cases, a state or regional NCE station may have several affiliates – all of which provide substantially duplicative programming but could request carriage by satellite carriers offering local channels in their markets. In these cases, it would be inconsistent with the express purpose of the SHVIA for the Commission to require that the satellite carrier use valuable spectrum to provide each of these signals in all areas of the market, rather than just one. The Commission acknowledged this problem in the context of carriage of local NCE stations by cable systems.⁶⁵ In that context, the Commission appropriately limited compulsory carriage of such stations.⁶⁶ The Commission should impose the same limitation to ensure that satellite

⁶⁵ See *Cable Must Carry Memorandum Opinion and Order*, 9 FCC Rcd 6723, 6724.

⁶⁶ See 47 C.F.R. § 76.56(a)(1)(iii) and accompanying note.

carriers may use their limited capacity to offer diverse programming options rather than duplicative NCE or satellite station signals.

The Commission should also adopt rules allowing satellite carriers to enforce the substantial duplication prerequisite, both with respect to commercial and NCE stations. In addition to its ability to deny carriage of duplicative stations in the first instance, a satellite carrier should be permitted to remove a television broadcast station from its line-up if it begins to substantially duplicate its programming after carriage of the station has commenced. Otherwise, a station could evade the prerequisite by providing diverse programming before the commencement of carriage, then revert to duplicating another television broadcast station after it has secured carriage on the satellite system.

2. The Exception To Section 338(c)(1) Must Be Interpreted Narrowly.

The Commission seeks comment on the phrase contained in Section 338(c)(1): “unless such stations are licensed to communities in different states.” The legislative history provides some guidance as to the purpose of this provision. The Conference Report states:

Section 338(c) contains a limited exception to the general must carry requirements, stating that a satellite carrier need not carry two local affiliates of the same network that substantially duplicate each other’s programming, unless the duplicating stations are licensed to communities in different states. The latter provisions address unique and limited cases, including WMUR (Manchester, New Hampshire)/WCVB (Boston, Massachusetts) and WPTZ (Plattsburg, New York)/WNNE (White River Junction, Vermont), in which mandatory carriage of both duplicating local stations upon request assures that satellite subscribers will not be precluded from receiving the network affiliate that is licensed to the state in which they reside.”⁶⁷

⁶⁷ Conference Report at 102.

It is clear from this legislative history that Congress sought to create only a very narrow exception to the general rule that satellite carriers shall not be required to carry duplicative signals – one that applies in “unique and limited cases.”⁶⁸ The Commission must implement this provision in the limited manner that Congress intended. In no case should the Commission infer additional authority to address “similar situations,”⁶⁹ whatever they may be, under the umbrella of this provision. Indeed, Congress listed only four stations in two markets as deriving a benefit from this provision. Accordingly, the Commission should limit the application of this rule to those four stations, until a Nielsen DMA shift changes market boundaries such that additional network affiliates are affected in this manner.

3. The Commission Should Place Express Limitations On The Channel Capacity Satellite Carriers Must Devote To The Carriage Of Non-Commercial Educational Stations.

Section 338(c)(2) mandates that the Commission “prescribe regulations limiting the carriage requirements [] of satellite carriers with respect to the carriage of multiple local noncommercial television stations.”⁷⁰ It provides further, that “[t]o the extent possible, such regulation shall provide the same degree of carriage by satellite carriers of such multiple stations as is provided by cable systems under Section 615.”⁷¹ Pursuant to this mandate, the Commission

⁶⁸ *Id.*

⁶⁹ Notice at ¶ 26.

⁷⁰ 47 U.S.C. § 338(c)(2).

⁷¹ *Id.*

should place strict limitations on carriage of NCE stations in a manner that makes it comparable to the NCE carriage obligations imposed on cable operators.⁷²

Unlike cable operators, DBS providers are required to provide noncommercial programming of an educational or informational nature on a national basis.⁷³ Pursuant to Section 335, DBS providers already make at least four percent of their channel capacity available, on a nationwide basis, to national educational programming suppliers upon reasonable prices, terms and conditions.⁷⁴ Because this programming is available on a nationwide basis, most subscribers in local markets will receive this programming in addition to local NCE programming carried pursuant to Section 338. DIRECTV therefore urges the Commission to define the threshold for NCE programming from the viewpoint of the subscriber.

DIRECTV submits that the threshold for must carry NCE stations should require DBS carriers only to carry a number of NCE stations that would bring the total number of noncommercial educational channels (defined to include national educational channels) available in a local market to a maximum of four percent of the local must carry channels offered by the satellite carrier in the market. In accordance with the rules DIRECTV urges the Commission to adopt pursuant to Section 338(c)(1), none of these channels should substantially duplicate programming that is offered on another channel already carried in the market.⁷⁵ This approach would satisfy Congress' objective of limiting the burden posed by carriage of multiple NCE

⁷² 47 U.S.C. § 338(g).

⁷³ 47 U.S.C. § 335.

⁷⁴ In the Matter of Implementation of Section 25 of the Cable Television Consumer Protection and Competition Act of 1992, Direct Broadcast Satellite Public Interest Obligations, 13 FCC Rcd 23254 (1998).

⁷⁵ See *supra* discussion of “substantial duplication” in Section II.D.2.

stations and will allow satellite carriers to provide service in as many local markets as possible without depriving subscribers of diverse noncommercial educational programming.

E. The Commission Should Provide Satellite Carriers Some Flexibility In Implementing Channel Positioning Requirements

In accordance with the intent of Congress, DIRECTV positions its local channels in a manner that is both “convenient and practically accessible for consumers.”⁷⁶ There are technical limits on DIRECTV’s ability to ensure that channels are “contiguous.” For most of DIRECTV’s original receivers currently deployed, DIRECTV has had to designate a local territory “channel neighborhood” (*e.g.*, channel numbers 960-970). Broadcasters have not objected to this channel positioning system. New DIRECTV receivers, however, are capable of displaying local channel numbers in the range 0-99. For these receivers, DIRECTV usually assigns each station its over-the-air channel number. In some cases, DIRECTV has been able to accommodate requests by broadcasters requesting to use their cable channel number rather than their over-the-air channel number, so long as it did not interfere with another station’s over-the-air channel number in the same market.

For the technical reasons described above, DIRECTV urges the Commission to interpret the term “contiguous” as allowing satellite carriers to form channel “neighborhoods” of local television broadcast stations which consist of contiguous channels, but are not necessarily fully employed. DIRECTV’s experience to date has proven this approach is “convenient and practically accessible for consumers,” consistent with the congressional objective.

⁷⁶ Conference Report at 100.

F. The Commission Must Limit Compulsory Carriage To Broadcasters' Primary Video, Audio and Closed Captioning

There are several differences between the systems used by cable operators and satellite carriers that warrant different treatment in the case of carriage of certain portions of a broadcaster's signal. In Section 338(g), Congress employed the term "comparable" specifically to direct the Commission to take such differences into account. As a practical matter, DIRECTV's system does not support, and was not designed to support, any portion of a broadcast signal other than the primary video, audio, and line 21 of the Vertical Blanking Interval ("VBI"). DIRECTV's DBS system is digital: All of the programming that originates as an analog signal must be converted and reconstructed to meet the parameters necessary for digital transmission, compression and multiplexing.

Billions of dollars of additional investment would be required to retrofit DIRECTV's system so that it could carry additional material on the VBI and allow consumers to view the additional material. The encoding and processing equipment used to transmit DIRECTV programming from the uplink facility to the appropriate transponder would have to be modified, and the receivers used by customers who subscribe to DIRECTV programming would have to be replaced in order to support the additional functions. The replacement of more than 10 million⁷⁷ DIRECTV receivers in use today, were it possible, would cost approximately \$3 billion. Modification of the encoding and processing equipment would cost an additional \$50 million. In contrast, the cost of a cable plant upgrade to support additional VBI material is minimal.

⁷⁷ DIRECTV estimates that approximately 2 million receivers are in use as a second receiver in a subscriber household.

Congress recognized this and adopted express requirements that a cable operator carry, “to the extent technically feasible, program-related material carried in the vertical blanking interval.”⁷⁸

Satellite carriers should not be required to spend billions of dollars in order to reconfigure their systems to accommodate additional signal elements that their systems were not designed to support. Congress did not instruct the Commission to require major modifications to existing satellite systems – it mandated the creation of a standard for content to be carried that was “comparable” with that governing cable.⁷⁹ Given these circumstances, the Commission could implement a “comparable” framework for satellite carriers by importing its definition of “technical feasibility” as applied in the cable context. The Commission has found with respect to cable that carriage of program-related material in the VBI or on subcarriers is “technically feasible” if it does not require the cable operator to incur additional expenses and to change or add equipment in order to carry such material, except where such costs or additions are nominal.⁸⁰ Accordingly, given the expense that a DBS operator would incur in order to support additional material in the VBI, such implementation is not technically feasible.

In contrast, DIRECTV’s system supports and will continue to support closed captioning information in accordance with the Commission’s rules.⁸¹ As DIRECTV explained in its comments in the closed captioning proceeding, the facilities at DIRECTV’s Castle Rock and Los Angeles Broadcast Centers have been designed specifically to accommodate the seamless pass-

⁷⁸ 47 U.S.C. § 534(b)(3)(A).

⁷⁹ 47 U.S.C. § 338(g).

⁸⁰ Cable Must Carry Report and Order, 8 FCC Rcd at 2986.

⁸¹ 47 C.F.R. § 79.1(a)(2).

through of closed captioning included in line 21 of the VBI.⁸² DIRECTV was able to incorporate this element into its DBS system because, as early as 1976, the Commission had already adopted rules providing that line 21 of the VBI is to be used primarily for the transmission of closed captioning.⁸³ Thus, service providers and potential service providers were on notice that their systems would be subject to a closed captioning requirement and could design their systems to accommodate it.

Finally, the Commission should strictly define “primary video” for purposes of the satellite compulsory carriage requirement. A satellite carrier should not be required to carry any form of analog or digital information other than the primary video program and associated audio signals. There are numerous methods being used or tested by broadcasters to deliver ancillary data, such as watermarking, inaudible sounds, or even visible markers. The MPEG encoding process was not designed to accommodate such ancillary information and, as a result, may inadvertently distort or delete the signals entirely.

G. Satellite Carriers Should Be Allowed Maximum Flexibility In Their Use Of Compression And Other Technologies

Recognizing that satellite carriers’ provision of service to local markets across the nation directly relates to the efficient use of limited capacity, Congress directed the Commission to allow satellite carriers flexibility in the use of compression, reformatting and similar

⁸² DIRECTV Comments, In the Matter of Closed Captioning and Video Description of Video Programming – Implementation of Section 305 of the Telecommunications Act of 1996, Video Programming Accessibility, MM Docket No. 99-176 (submitted Feb. 28, 1997).

⁸³ See In the Matter of Captioning for the Deaf, Report and Order, 63 FCC 2d 378 (1976).

technologies in order to meet their carriage obligations.⁸⁴ In no event should the Commission violate this directive by prohibiting any encoding techniques, compression ratios or the use of similar technologies. To do so would impede technical innovation and experimentation that Congress specifically sought to foster, and would also penalize efficient use of the allocated spectrum. Furthermore, any restriction on the use of spot beam technologies would frustrate attempts to make more efficient use of the spectrum through frequency re-use. Without frequency re-use technologies, satellite carriers would have to use national spectrum to deliver local channels to a vastly reduced number of markets and consumers.

DIRECTV rejects categorically the Commission's suggestion that satellite carriers will sacrifice picture quality in order to increase the number of channels they may offer. This concern is misplaced, as such a practice would be detrimental to the satellite carrier's business in the face of direct competition from cable operators, particularly in the absence of any evidence that DBS providers have or would unacceptably diminish the picture quality of their program offerings.

DIRECTV submits that it is premature for the Commission to adopt specific standards to measure or define "material degradation" for purposes of satellite carriage at this time. While the cable rules provide useful guidance in terms of defining testing methods to include reasonable efforts, good engineering practices, and technical feasibility, the analog standards

⁸⁴ Conference Report at 102 ("Because of unique technical challenges on satellite technology and constraints on the use of satellite spectrum, satellite carriers may initially be limited in their ability to deliver must carry signals into multiple markets. New compression technologies, such as video streaming may help them overcome these boundaries, however, and, if deployed, could enable satellite carriers to deliver must-carry signals into many more markets than they could otherwise.").

employed in the cable context are of little value in assessing “material degradation” in signals carried on a digital satellite system. Two industry committees, IEEE G-2.1.6 and ITU VQEG, have been working on the problem of objectively measuring video impairment through compression systems for the past seven years. Although the groups have made substantial progress, an industry-standardized method of measurement and standards for performance has not yet been achieved. While methods for measuring analog degradation are well defined, they cannot be imported to the digital context. DIRECTV notes that in the cable context, the Commission employs technical standards that were adopted and refined over the course of many decades.⁸⁵ For these reasons, DIRECTV urges the Commission to defer consideration of this issue until the industry committees have made further progress.

H. Satellite Carriers Should Not Be Required To Carry Broadcasters’ Digital Signals Before The Transition To Digital Television Is Complete

While the Commission acknowledges that satellite carriers were not subject to a compulsory carriage requirement at the time it commenced the cable digital must carry proceeding, it now seeks comment on fundamental issues relating to satellite digital must carry.⁸⁶ DIRECTV notes at the outset that a host of complex technical and definitional issues are raised by the implication that satellite carriers may be subject to a digital must carry requirement, and to the extent that the Commission considers imposing such a requirement, DIRECTV urges the agency to commence a proceeding that will allow for more meaningful comment on these issues. DIRECTV nonetheless offers a few brief comments to address the Commission’s broad

⁸⁵ Notice at ¶ 42.

⁸⁶ *Id.* at ¶ 48.

questions concerning its authority to impose a DTV must carry requirement on satellite carriers during the transition period and the potential effects of such a requirement.

First, there is no statutory basis for a requirement that satellite carriers carry digital broadcast television signals in addition to analog broadcast signals during the DTV transition period. As the Commission itself notes, the SHVIA mandates “comparable” regulation to that imposed on cable operators pursuant to Section 614(b)(4).⁸⁷ Section 614(b)(4)(B) on its face directs the Commission to examine the issue of DTV must carry after the transition to the new signal format has occurred for “broadcast signals . . . which have been changed” to the new digital standards.⁸⁸ The Commission may not construe this language as granting broadcasters dual carriage rights. Moreover, the Commission’s rules actually require that broadcasters simulcast the same programming on their digital channel as their analog channel until the analog channel is returned to the government.⁸⁹ Requiring carriage of both signals would run contrary to the exemption of “substantially duplicative” programming from compulsory carriage.⁹⁰

Second, the costs of imposing a DTV must carry requirement on satellite carriers far exceed any possible benefit. During the transition period, most subscribers will not be viewing DIRECTV from an expensive digital television set.⁹¹ Yet all subscribers would lose access to the diverse array of programming currently offered if the Commission were to impose the dual carriage obligation. Capacity constraints would require satellite carriers such as DIRECTV to

⁸⁷ 47 U.S.C. § 338(g).

⁸⁸ 47 U.S.C. § 534(b)(4)(B).

⁸⁹ 47 C.F.R. § 73.624(f).

⁹⁰ *See supra* Section II.D.

⁹¹ Paul Farhi, "Four Area TV Stations to Offer Digital Broadcasts," Wash. Post, Oct. 7, 1998 at C11 (noting that most digital television sets cost between \$7,000 and \$10,000).

reduce dramatically their non-broadcast program offerings. The requirement would result in truly absurd consequences if the unique programming currently offered must be replaced by broadcast signals that subscribers receive through their satellite carriers in high-quality digital format already, or over-the-air in either analog or digital format. In addition, a dual carriage requirement would severely impact the number of markets in which satellite carriers would provide local service, invariably discouraging roll out of local service in all but a few of the largest markets. In the worst case, such a requirement would cause satellite carriers to abandon carriage of local signals in markets in which they have already rolled out local channel service. These consequences cannot be justified by the Commission's goal of facilitating the introduction of digital television service.

Third, under the Commission's broad DTV implementation policies, broadcasters are essentially free to use their digital spectrum in the manner they see fit: they may broadcast in either high definition or standard definition format, they may provide free or pay services, and they may transmit video, audio, data, or any mix thereof. While most broadcasters have begun planning for the transition, it is unclear as to what scope of services they will offer and what choices they will make.⁹² The Commission recognized this problem in its Notice of Proposed Rulemaking concerning cable carriage of digital television signals.⁹³ This makes it extremely difficult to articulate any coherent plan for compulsory carriage of digital signals, particularly for

⁹² *See generally* Chartering the Digital Broadcasting Future, Final Report of the Advisory Committee on Public Interest Obligations of Digital Television Broadcasters (Dec. 18, 1998).

⁹³ In the Matter of Carriage of the Transmissions of Digital Television Broadcast Stations, Notice of Proposed Rulemaking, 13 FCC Rcd 15092, 15103 (1998) ("How multiple technical systems will function in a digital environment remains to be seen. We note that the various technical elements involved in digital broadcast signal carriage are constantly in flux as technology advances.").

satellite systems, which will require years of advance planning to accommodate such a fundamental alteration. Until the broadcasters have made more progress in defining and implementing their uses of digital spectrum, and until consumers have endorsed these uses, it is entirely premature for the Commission to adopt any digital carriage requirement that will require substantial investments by satellite carriers.

Finally, DIRECTV urges the Commission to take into account the fundamental differences between satellite and cable delivery technologies should it implement DTV must carry, even after the transition period. While cable operators may add capacity on a virtually unlimited basis, a satellite carrier's capacity is limited by virtue of its spectrum allotment, and can only be used more efficiently through evolutionary technological improvements such as the development of new compression technologies. Moreover, the geographic area of satellite coverage vastly exceeds the local market in which a cable system operates, dramatically increasing the number of channels a satellite carrier must accommodate using its limited capacity.

Cable systems currently carry local channels in NTSC analog format. This format uses the standard 6 MHz spectrum allocated to each broadcaster. When the broadcasters commence service using their digital channel, they will still use 6 MHz of spectrum to broadcast their digital signal, regardless of whether the signal is an HDTV or a multiplexed SDTV signal. Cable systems will be able to replace the analog NTSC signal with the DTV signal with relative ease, as both use the same amount of spectrum (6 MHz).

Satellite carriers have a much more difficult time with digital broadcast signal carriage. Because satellite systems are already digital, using digital compression to "squeeze" the analog NTSC signal into a small portion of the allocated spectrum, they are unable to further compress

an HDTV signal into this same spectrum. An HDTV signal represents about five times more spectrum than the digitally compressed NTSC signal. As a consequence, for every HDTV signal carried, four other digitally compressed NTSC signals would have to be dropped. Thus, the technical differences between satellite carriers and cable operators and their ability to carry digital television signals are immense. In the event that the Commission seeks to impose a DTV carriage requirement at any time following the transition period, the Commission must accommodate these differences.

I. The Commission Must Adhere To Remedies Provided In The SHVIA

The provisions of the SHVIA concerning remedies are unambiguous. Section 338(a)(2) expressly provides that “the remedies for any failure to meet the obligations under this subsection shall be available exclusively under Section 501(f).”⁹⁴ Accordingly, the only remedy available to a broadcaster in the event of a compulsory carriage dispute is to file a civil action against the satellite carrier that has refused carriage. DIRECTV agrees with the Commission’s interpretation that the Commission does not have jurisdiction to “remedy non-carriage of broadcast station signals by satellite carriers.”⁹⁵ Indeed, that is the only interpretation that can be supported by the express text of the statute.

More specific procedures concerning complaints before the Commission are set forth in Section 338(f)(1). This Section provides a detailed notification and complaint process by which a station may resolve disputes concerning: (i) signal quality required; (ii) substantial duplication;

⁹⁴ 47 U.S.C. § 338(a)(2).

⁹⁵ Notice at ¶ 50.

(iii) channel positioning; (iv) and compensation for carriage.⁹⁶ The statute specifies that the station must notify the satellite carrier, in writing, of the alleged failure and allows 30 days for the carrier to respond. The statute further specifies the process by which the station may file a complaint with the Commission, including the basic contents of such a complaint, the response by the satellite carrier, and finally sets a deadline for the Commission's decision on the merits. The establishment of this complaint scheme for the types of disputes referenced in Section 338(f)(1) implies that the Commission is the proper forum for such disputes in the first instance.

The Commission seeks comment on the issue of what process would govern a dispute in which a satellite carrier refuses to carry a broadcaster based on a signal quality dispute or, for that matter, any other dispute encompassed within the complaint process of Section 338(f). So long as the Commission maintains its authority to hear disputes concerning the specific matters included in Section 338(f), this situation does not appear to raise any novel problems. The broadcaster, in the first instance, must bring a signal quality complaint before the Commission under Section 338(f). The Commission must first conduct a proceeding on the merits. If the satellite carrier continues to refuse carriage after the Commission has issued an order finding for the broadcaster, then the broadcaster may utilize its remedy under Section 338(a)(2) and file a civil action.

III. CONCLUSION

Recognizing that the ability to offer local broadcast channels to subscribers is of critical importance to providers of DBS services, Congress has enacted procompetitive legislation that

⁹⁶ It is clear that Section 338(f) does not provide for broadcaster complaints against a satellite carrier for non-compliance with provisions concerning content to be carried or material degradation.

allows consumers nationwide to receive local broadcast channels from their chosen DBS provider. This legislation finally takes an important step forward in placing satellite carriers and cable operators on a more equal footing with respect to statutory copyright licensing for works contained in local television broadcasts. Unfortunately, at the same time, the SHVIA contains an onerous forced-carriage requirement that substantially burdens the ability of satellite carriers to exercise their editorial discretion. DIRECTV has already stated its belief that the SHVIA must carry obligations exceed Congress' constitutional authority and violate the First and Fifth Amendments. That issue must be resolved in another forum. DIRECTV would be able to provide substantially more subscribers nationwide with the programming of their choice – including local television broadcast programming – in the absence of Section 338. While many aspects of the forced-carriage regime of Section 338 are dictated by the statute, the manner in which the Commission implements the must carry obligation will impact the delivery of local broadcast channel services in markets across the country.

In constructing a framework for implementation of the compulsory carriage requirement, the Commission must follow three fundamental principles. First, the rules should allow the satellite carriers maximum choice and flexibility in compliance, as the rules will affect the programming offerings satellite carriers are able to offer their subscribers. Second, the rules must take into account the unique characteristics of satellite carriers and the systems they use to deliver programming. Third, the rules must maximize administrative ease and efficiency in order to minimize the burden on the Commission and on the satellite carriers.

The Commission can best incorporate these principles in its policies by *adhering strictly* to the text of the SHVIA and the intent of Congress. Both suggest that the Commission should create an environment for compulsory carriage that allows satellite carriers to serve as many

markets as possible, but respects the limits on satellite technology and the expense required to make extraordinary adjustments in satellite systems. Both suggest that the Commission should ensure that satellite carriers are not further discouraged from entering new markets because of the burdens of carrying duplicative signals, or additional non-commercial educational channels, or because of the threat that they will be subject to a dual carriage requirement for digital broadcast signals. Finally, both suggest that the Commission should only incorporate a concept or approach used in the cable context to the extent that it makes technical and practical sense for purposes of satellite carriage, and abides by the differences in the statutory provisions governing satellite and cable compulsory carriage.

Consistent with these principles and the text and intent of the SHVIA, DIRECTV urges the Commission to adopt rules to implement the must carry requirement in a manner that incorporates the comments and proposals set forth above.

Respectfully submitted,
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