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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Amendment of Parts 2 and 25 of the)
Commission's Rules to Permit Operation)
of NGSO FSS Systems Co-Frequency with)
GSO and Terrestrial Systems in the Ku-)
Band Frequency Range;)
)
Amendment of the Commission's Rules)
to Authorize Subsidiary Terrestrial Use)
of the 12.2-12.7 GHz Band by Direct)
Broadcast Satellite Licensees)
and Their Affiliates; and)
)
Applications of BroadWave USA, PDC)
Broadband Corporation, and Satellite)
Receivers, Ltd. to Provide a Fixed Service)
in the 12.2-12.7 GHz Band)

ET Docket No. 98-206
RM-9147
RM-9245

REPLY COMMENTS OF DIRECTV, INC.

DIRECTV, INC.

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REPLY COMMENTS OF DIRECTV, INC.

DIRECTV, Inc. ("DIRECTV") hereby offers the following reply comments in connection with the Commission's Further Notice of Proposed Rulemaking ("Further Notice") in the above-captioned proceeding.

I. INTRODUCTION & SUMMARY

In recent weeks, Chairman Powell has called for a comprehensive re-examination of the Commission's spectrum management policies.¹ As a part of this initiative, DIRECTV respectfully

¹ See Dan Meyer, "Industry Wants Action on Spectrum Policy," RCR Wireless News Vol. 20, No. 13 (March 26, 2001) (reporting upon Chairman Powell's call at the recent CTIA convention for the United States to develop "a coherent, nationally-harmonized spectrum

urges the Commission to reconsider the wisdom of introducing a broadband terrestrial wireless point-to-multipoint service in the 12.2-12.7 GHz frequency band (the "12 GHz Band") under the label "MVDDS." DBS operators in this band already confront the formidable task of co-existing with unproven and yet-be-deployed NGSO FSS systems, and of minimizing the degrading effects of these ubiquitously deployed systems on the link availability to DBS subscribers. The proposals thus far with respect to the systems in the proposed secondary MVDDS suggest that DBS subscribers would be subjected to significantly more serious performance degradation from ubiquitously-deployed terrestrial systems, as well, with virtually no protection. Indeed, as expected, the Commission's actions to date have opened the floodgates to even more opportunism, to the point where the nation's largest cable operator, AT&T, not only proposes MVDDS operations in the "mission critical" frequency band of its most promising competitor technology, DBS, but also proposes two-way operations there. Pegasus Broadband Corporation ("Pegasus") likewise "views MVDDS as an important new opportunity to provide service through another platform."²

There is truly a need to step back and take stock. The sound spectrum management principles for which Chairman Powell has appealed argue strongly for finding other alternatives to the unnecessary jeopardization and degradation of the DBS service. Indeed, the Commission has already defined these alternatives by providing primary allocations and defining service rules for MVDDS-type services in several other frequency bands (MDS/MMDS/ITFS, DEMS, LMDS, 39

policy," and observing that "Government has a duty and obligation to re-evaluate and re-examine the situation").

² Comments of Pegasus Broadband Corporation (Mar. 12, 2001) ("Pegasus Comments"), at i.

GHz). These allocations were set aside for exactly the types of wireless point-to-multipoint video and data distribution systems that Northpoint Technology, Ltd. ("Northpoint") and other proposed MVDDS system applicants would seek to establish, and for precisely the same reason cited by the Commission in the Further Notice: additional competition for cable television systems. These established, but as yet little-used, bands offer more than five times the bandwidth available at 12 GHz. Without ubiquitous DBS and NGSO-FSS receivers to protect from interference, and without the need for further rulemaking and auctions, these bands should be substantially more accommodating for MVDDS system implementation. In the case of Northpoint, for example, omnidirectional transmitting antennas could be used in these other bands in place of the sector-coverage antennas proposed for the 12 GHz Band, thus substantially reducing the number of transmitting sites required to cover a given metropolitan service area. Likewise, allocations such as the LMDS band are already deliberately channelized for the type of two-way broadband service contemplated by AT&T.

Meanwhile, there has been no evidence presented that consumers will benefit from secondary terrestrial operations at 12 GHz. The primary proponent of these operations, Northpoint, provides no valid evidence that its system will avoid causing unacceptable performance degradation for DBS subscribers. Instead, it offers up unsupported or flatly erroneous assertions, and self-congratulatory platitudes to support its attempts to obtain free "squatter's rights" in the 12 GHz Band, regardless of the consequences to millions of DBS consumers.

While Northpoint downplays the interference consequences to DBS consumers, the Commission must not. In this regard, DIRECTV and EchoStar recently commissioned a

consumer survey from the highly respected Zogby polling organization. The survey, now complete, proves conclusively the devastating consequences of a reliability decrease in DBS reception for the DBS industry, consumers and competition alike.³ According to the survey, a vast majority (78%) of DBS subscribers regard service reliability as the most important consideration in purchasing satellite service, and reliability is similarly ranked as the most important factor by a majority (59%) of non-subscribers. Equally important, a significant portion of DBS subscribers would take drastic steps not only in response to increased occurrences of total picture loss, but also of freeze framing and "tiling" -- for example, 19% of subscribers would cancel their DBS service if they experienced increased picture loss, and most of those subscribers would switch to cable.

The Zogby consumer survey demonstrates that this proceeding is not about an incremental reduction in reliability that may or may not be noticed by DBS customers, as Northpoint suggests. The decrease in DBS reliability brought about by a Northpoint service would strike at the core of what most consumers care most about, and would cause many of them to cancel their DBS service, and in most cases switch back to their cable provider. That is an intolerable result from a public interest standpoint.

In its initial Comments to the Further Notice, DIRECTV outlined a process that the Commission should follow in pursuing the goal of adopting meaningful procedures, parameters and criteria for the protection of primary DBS operations in the 12 GHz Band. Northpoint continues to offer proposals that fall far short of this goal. In the following Reply Comments,

³ The results of this survey are discussed further in the Reply Comments of EchoStar, also being filed today.

DIRECTV reviews the important elements of its proposals, and points out the significant failings of the Northpoint approach.

Furthermore, given the concerns that the entire satellite service sector (NGSO FSS and GSO BSS alike) has expressed regarding the Northpoint spectrum-reuse approach at 12 GHz, it is not wise for the Commission to tailor service rules around it. Indeed, the comments of AT&T and other parties in this proceeding indicate that other frequency-sharing approaches may be available that are different from the re-use techniques proposed by Northpoint, that would meet the "2.86%" sharing criterion, and that would not require the so-called mitigation zones that attend Northpoint's proposal.

That is why proper and protective sharing criteria must be developed as the first step before considering further the establishment of any MVDDS service at 12 GHz. Then and only then should various frequency sharing techniques be tested against the criteria. And only after a proposed MVDDS system has proven that it can meet the criteria can that system be licensed. This would be done in accordance with a demonstration phase (much like the one to which NGSO FSS services are currently subject) whereby the Commission would limit initial MVDDS system deployment at 12 GHz to a single city for further evaluation of performance degradation potential to primary DBS and NGSO FSS services.

Given the tremendous capital investment that DBS operators have made to provide the first truly effective competition to cable television by bringing an extraordinary high level of service to consumers on a nationwide basis, the stakes are far too high for the Commission to permit any MVDDS system deployment in the 12 GHz Band until the implications for millions of DBS consumers are fully understood. Moreover, the Commission should not introduce MVDDS

systems into the 12 GHz Band without understanding the combined interactions of DBS, proposed MVDDS, and NGSO FSS systems.

DIRECTV also addresses the series of outrageous claims by Northpoint that it is somehow entitled to preferential treatment in the licensing of proposed MVDDS services. Northpoint's arguments on this point are not only frivolous, but in some instances, based on absolute falsehood. For example, Northpoint accuses the Commission of engaging in an "administrative bait-and-switch,"⁴ claiming:

The Commission agreed that Northpoint's technology had to be evaluated and processed on the 'traditional' licensing track for *satellite spectrum*. The proceedings to date have been conducted under the auspices of the IB pursuant to the procedures of that Bureau. . . The Commission does not honor its own 'tradition' in suddenly diverting these proceedings, at the very last moment, to the very different Wireless Telecommunications Bureau ("WTB") auction track.⁵

Northpoint even asserts that it was affirmatively "[e]nticed" by the International Bureau "sales force" into a particular licensing process, and then unfairly "steer[ed]" at the last moment -- when the delicate and drawn-out negotiations are all but complete -- to a different department, different product and different price."⁶

This recitation is completely inaccurate and the Commission will easily recognize it as pure fabrication and revisionism. Northpoint is well aware that the Office of Engineering and

⁴ Northpoint Comments at 13.

⁵ *Id.* at 6 (emphasis in original).

⁶ *Id.* at 13.

Technology, not the International Bureau, all along has taken the "point" to date on frequency-sharing issues between BSS and the proposed MVDDS. There have been no "negotiations" between Northpoint and DBS operators over sharing criteria as there were in the case of BSS sharing with the NGSO FSS. And to the extent there has been an FCC Bureau involved in the processing of Northpoint applications, Northpoint's claim is especially astounding, since *Northpoint itself* filed its pending applications and waiver requests before the Wireless Telecommunications Bureau.⁷ How Northpoint can spin out a tale of "bait-and-switch" under such circumstances is unfathomable.

Finally, DIRECTV offers certain technical revisions to previously-submitted tables, which make clear once again that there has been no technical basis proffered to date that meaningfully supports BSS-proposed MVDDS sharing.

II. NORTHPOINT'S PROPOSALS FAIL TO PROTECT PRIMARY DBS SERVICES AND WILL CAUSE UNACCEPTABLE INTERFERENCE TO MILLIONS OF DBS CONSUMERS

A. The Aggregation Of All Interference From NGSO FSS And Proposed MVDDS Services Must In All Events Be Limited To 10%

In DIRECTV's initial Comments, DIRECTV outlined the reasons why "acceptable degradation" of the DBS service should be calibrated to the standard officially recommended by

⁷ Specifically, Northpoint's BroadWave affiliates filed service applications requests for waiver of 47 C.F.R. §§ 101.105, 101.107, 101.109, 101.111, 101.115, 101.139 and 101.603, as well as any other fixed microwave radio service rules necessary to permit the processing of its applications pertaining to deployment of service in the 12.2-12.7 GHz band. *Corrected Public Notice*, DA 99-494 (rel. Mar. 11, 1999) ("Public Notice"). BroadWave seeks authority to provide multichannel video programming, including the retransmission of local television broadcast signals, and Internet service to 212 markets throughout the United States. *Id.* As DIRECTV and others have explained, the BroadWave filings should be dismissed.

the ITU: a *total* of 10% increase in unavailability from all sources of interference, satellite or terrestrial, based on the expected reliability values approximating 99.998%. Recent ITU actions regarding interference from NGSO systems were explicitly premised on a decision by the ITU about the level of performance and availability of service needed by DBS systems, and the corresponding amount of decrease in this availability that DBS operators can be asked to accept. If the interference into DBS from all sources, including Northpoint-like technologies, were to exceed that 10% unavailability increase, the DBS performance and reliability goals that are explicitly set forth in the recent ITU decisions could not be achieved. U.S. DBS operators have consistently observed that the protection of the BSS requires that (i) the combination of NGSO FSS interference and terrestrial (here, MVDDS) interference in the aggregate degrade the operational outage time of the BSS by no more than 10%, and (ii) neither service cause outages during clear sky propagation conditions. It is therefore fundamentally important that each network, either NGSO-FSS or MVDDS, meet these criteria -- both individually and in the aggregate -- so that the overall impact on DBS service is limited to 10%.

The DBS operators also agree with the Commission's availability-based proposal that "[i]n the interest of providing DBS subscribers with a high degree of protection," the percentage of DBS unavailability that a proposed MVDDS system would be permitted to cause any DBS provider should be "the same as a single NGSO system, *i.e.*, 2.86%."⁸ From the perspective of a DBS operator or subscriber, it does not matter whether the loss in DBS signal availability is generated by interference from an NGSO FSS system or a proposed MVDDS system -- it is the same, and it is cumulative. Again, ITU actions regarding interference into the DBS downlink

band were explicitly premised on a determination of the level of performance and quality of service to be achieved by DBS operators, and a corresponding determination of the decrease in performance and service quality that can be tolerated. Those efforts culminated in a 10% cap on the increase in DBS signal unavailability resulting from the aggregate interference to which DBS providers and subscribers can be subject.⁹

In the context of assuming that NGSO FSS operators would be the interference source, the amount of degradation attributable to a single system was determined at the ITU to be 2.86%.¹⁰ This same threshold is and should be applicable to an MVDDS operator at 12 GHz to ensure that there is no additional interference with DBS operations, as the Commission acknowledges. Northpoint, however, rejects the Commission's proposed availability-based sharing criterion, and instead proposes the use of a C/I ratio as a sharing criterion. Northpoint's proposed value for this C/I ratio is 20 dB.¹¹ Northpoint's proposal is unacceptable and will result in excessive increases in the unavailability of DBS service.

Northpoint spends many pages of text attacking the use of an availability-based criterion as "immeasurable" and "unenforceable."¹² Northpoint cites a "lack of a database of baselines at

⁸ *Id.* at ¶ 268.

⁹ *Id.*; see DIRECTV, Inc., Conclusions to Date Regarding Harmful Interference from a Proposed Northpoint Technology Terrestrial System Operating in the DBS Downlink Band, 12.2-12.7 GHz (Jan. 27, 2000) ("DIRECTV January 2000 Ex Parte"), at 31-33.

¹⁰ See DIRECTV January 2000 Ex Parte at 33.

¹¹ Comments of Northpoint Technology, Ltd. and BroadWave USA Inc. ("Northpoint Comments"), Technical Appendix at 6-7 & Table 1, n.15.

¹² *Id.* at 2.

each customer location"¹³ and states that "[these] [e]stimates... cannot replace the missing baseline, due to the extreme level of precision that would be required."¹⁴ Northpoint also protests that "with each 'update' of the rain model, a different mitigation area would be defined."¹⁵

All of these comments are misplaced, and wrongfully ignore the powerful record on the use of an availability-based protection criterion that was developed in the long series of studies and the final agreement reached in the NGSO FSS / GSO BSS sharing context -- a criterion that is explicitly recognized in the Commission's NGSO FSS rules adopted in this very proceeding. Satellite engineering and regulatory experts from around the world examined and ultimately embraced this concept as both a valid and appropriate criterion for ensuring that NGSO FSS operations do not interfere with the DBS service. Indeed, Northpoint itself ultimately falls back on this useful metric as a justification for its proposed C/I value of 20 dB.¹⁶ By contrast, Northpoint's proposed C/I criterion means nothing in the abstract, and must ultimately be translated into a criterion that reflects the impact of C/I on DBS link performance.

In the NGSO FSS context, the international satellite engineering community recognized that a limit on degradation of satellite link availability should be used as a protection criterion. Then, a practical engineering parameter (here, equivalent power flux density or epfd) was chosen as an interference limit, which provides a practical measure of conformance to the criterion. This

¹³ *Id.*

¹⁴ *Id.* at 3.

¹⁵ *Id.*

¹⁶ *See id.* at 8, Table 2.

epfd interference limit is measurable and enforceable. And contrary to Northpoint's assertions, the use of the epfd interference limit does not require a database of field availability measurements, does not require extreme precision, and in fact is not unduly sensitive to changes in rain models and the like.¹⁷ However, the epfd interference limit must certainly be firmly grounded in a more fundamental protection criterion that protects an important link performance metric -- availability.

On this score, the Northpoint proposed C/I value of 20 dB is clearly insufficient to protect BSS operations. For example, an interfering Northpoint signal with a C/I value of 20 dB will affect the sample DBS link for Seattle, found in Column D of Table C of Appendix I of DIRECTV's initial Comments, by a 16.6% increase in unavailability. Even worse, a C/I of 20 dB will affect the sample DBS link for Washington DC, found in Column D of Table B of that same Appendix, by 37%.¹⁸ Such unavailability degradation values are much higher than the unavailability degradation allowed from *all* NGSO FSS systems combined (limited to 10%), and much higher than the 2.86% individual system limit proposed in the Further Notice, which is viewed as essential by the BSS satellite operators to protect their subscribers.

The Commission has recognized that it is necessary to limit impact on DBS unavailability to low levels. Thus, the Further Notice states: "[O]ur objective in this further proceeding is to avoid unreasonable outages.... In this further proceeding, our objective is to identify an

¹⁷ See *infra* Appendix C.

¹⁸ See *infra* Appendix B for corrected tables and details of the links with a proposed MVDDS C/I value of 20 dB.

unavailability criterion for MVDDS operations that will achieve this result."¹⁹ Similarly, the Commission acknowledges that an approach of adopting a 2.86% increase in unavailability criterion would effectively treat a proposed MVDDS system similarly to how the ITU-R assumed an individual NGSO FSS system would be treated, and therefore "should not result in increases in unavailability from MVDDS that are perceptible to any DBS subscriber."²⁰ It should be recognized that this is an extremely generous allowance for MVDDS insofar as it would allow a system in a secondary service to cause as much degradation in DBS system performance as a system in the co-primary NGSO FSS service. The Commission correctly perceives that degradation of unavailability performance significantly above 2.86%, especially when coupled with a maximum aggregate 10% impact by NGSO FSS systems (and all other interfering sources), is both unreasonable and unacceptable as an approach to managing and limiting harmful interference into the DBS service.

Apart from the critical failure to acknowledge the proper sharing criterion, Northpoint's proposed epfd limits are inaccurate and inefficient. Northpoint proposes epfd limits that it claims, without supporting calculations, reflect a C/I value of 20 dB.²¹ It is first important to note that Northpoint's values are being proposed as region-wide epfd limits. Northpoint then estimates the impact of its proposed epfd limits on DBS links.²² Northpoint bases these estimates on the calculations shown in Table 1 of Annex C to Northpoint's Technical Appendix. However, all of

¹⁹ Further Notice at ¶ 287.

²⁰ *Id.* at ¶ 268.

²¹ Northpoint Comments, Technical Appendix at 6, Table 1.

²² *Id.*, at 8, Table 2.

the entries in the row labeled "C/N+I required at the outage condition" in Annex C are incorrect -- and therefore fatally flawed -- because they use technically incorrect values for the digital DBS link threshold.²³

In contrast, DIRECTV has proposed site-specific and link-specific epfd limits that will allow such limits to be tailored to each MVDDS site -- a critical step to ensuring that interference at a DBS subscriber's premises is mitigated to the greatest extent possible, and that the limits themselves are set as efficiently as possible.²⁴ MVDDS site-specific limits are also very generous to Northpoint, since otherwise Northpoint would have to protect to the worst site in each region in order to protect all DBS receivers. Northpoint's epfd limits, based on an insufficient C/I ratio criterion over a limited set of DBS links, lack the thoroughness and granularity to be sufficiently protective of present and future DBS operations. These points are discussed in further detail in Section II.E below.

In Section 2.3.2 of the Technical Appendix to Northpoint's Comments, Northpoint attempts to take an even larger piece out of the DBS link budget by proposing to reallocate portions of the "unavailability budget" from NGSO FSS systems to proposed Northpoint system operations. Figure 1 on Page 14 shows the calculated aggregate impact on unavailability from all NGSO FSS systems to selected U.S. BSS carriers. Northpoint proposes that any difference between the calculated impact and the 10% value be re-allocated to proposed MVDDS operations.

²³ For a more detailed discussion of the proper (and internationally agreed) use of digital DBS link thresholds, *see infra* Appendix D.

²⁴ *See* DIRECTV Comments at 18.

Northpoint's reasoning and proposal are simply preposterous. Putting aside the issue of equitable treatment of NGSO FSS systems, who would still be held to the 2.86% individual system allocation, Northpoint advocates a reckless approach to spectrum management. While the DBS links provided in the NGSO FSS proceeding were based on the best engineering information available at the time of the studies, current and future DBS systems could well require additional protection. And NGSO FSS technology is still in its infancy -- not a single system has been built, tested or launched. Given that NGSO FSS technology has not been fully proven or field tested, and given that BSS satellites will continue to evolve (and probably in ways not yet envisioned), it would be very foolish for the Commission to allocate anything to a proposed secondary terrestrial service beyond a 2.86% allocation of unavailability impact, given the presence of NGSO FSS systems, and the need to keep *all* interference sources below the 10% aggregate cap on unavailability degradation.

Pegasus proposes in its Comments that the aggregate effect from all MVDDS transmitters be allowed to impact the unavailability of DBS systems by 10%, and that this 10% be *in addition* to that allocated to the aggregate of all NGSO FSS systems.²⁵ This proposal, as indicated, is totally unacceptable and will dramatically degrade DBS service quality and competitiveness. It would be disastrous for the Commission to accept any additional degradation to the DBS service beyond a total 10% increase in unavailability from all sources of interference, satellite or terrestrial. Indeed, the SBCA has clearly pointed out the contradictions and inadequacies of

²⁵ Pegasus Comments at page 4.

allowing any degradation to DBS link outages in excess of the 10% already allocated to the NGSO FSS:

The Commission also proposes that the MVDDS-contributed interference could be added to NGSO FSS-contributed interference rather than considered in the aggregate with such interference, thus exceeding the agreed-upon maximum 10 percent increase to DBS service unavailability. The Commission justifies this proposal on the basis that to do otherwise would "undermine the single-entry EPFD values for NGSO FSS systems" and because of the conclusory and speculative contention that the interference caused by MVDDS "would be de minimis and would not have a significant impact on the BSS." It is irrational, however, to point to the NGSO FSS/BSS interference model to justify the feasibility of developing MVDDS/BSS interference requirements while at the same time dismissing the very essence of that model for MVDDS. Moreover, if any ITU administration were permitted to ignore the 10 percent aggregate limit and authorize new secondary services that increased service unavailability with respect to the primary service, the negotiated compromise would be rendered meaningless.²⁶

B. Equal Protection Must Be Afforded To All Present And Future DBS Customers

It is not surprising that Northpoint supports the proposal that MVDDS operators only be required to mitigate interference for a period of 18 months after initial deployment in a service area.²⁷ In its Comments, DIRECTV explained why the FM blanketing interference rule underlying the 18-month proposal is a totally invalid precedent for such a requirement.²⁸ Moreover, limiting a proposed MVDDS operator's responsibility in this fashion completely eviscerates the notion that it is the proposed MVDDS operator's absolute obligation, as a

²⁶ SBCA, Petition for Reconsideration, ET Docket No. 98-206 (Mar. 19, 2001), at 8-9.

²⁷ Northpoint Comments at 33.

²⁸ DIRECTV Comments at 12-14.

secondary user in the 12 GHz Band, to take all necessary measures to avoid causing harmful interference into DBS service. This obligation does not vanish in a year and a half -- it is a *continuing* and permanent one. Indeed, as DBS operators strive to expand their services and erode further the cable television industry's dominant share of the MVPD market, it will become more -- not less -- important for the Commission to aggressively ensure that proposed MVDDS systems at 12 GHz are taking every possible measure to limit the impact of their secondary operations on primary DBS services.

It would be unwise as a policy matter, and arbitrary and capricious, for the Commission to limit proposed MVDDS operator responsibilities to an 18-month window. Current and future DBS subscribers pay for a high quality, reliable multichannel video experience, and DBS operators have spent hundreds of millions of dollars to provide such an experience. DBS subscribers and operators are entitled to be protected from MVDDS interference *in perpetuity* -- that is unquestionably what a primary service allocation means. And the Commission must not dismiss the consequences of primary service protection being eroded by the introduction of Northpoint or other MVDDS systems.

DIRECTV and EchoStar recently commissioned a consumer survey from the highly respected Zogby polling organization. The survey, now complete, proves conclusively the devastating consequences of a reliability decrease in DBS reception for the DBS industry, consumers and competition alike. According to the survey, a vast majority (78%) of DBS subscribers regard service reliability as the most important consideration in purchasing satellite service, and reliability is similarly ranked as the most important factor by a majority (59%) of non-subscribers. Equally important, a significant portion of DBS subscribers would take drastic steps

not only in response to increased occurrences of total picture loss, but also of freeze framing and "tiling" -- for example, 19% of subscribers would cancel their DBS service if they experienced increased picture loss, and most of those subscribers would switch to cable.

The Zogby consumer survey demonstrates that this proceeding is not about an incremental reduction in reliability that may or may not be noticed by DBS customers, as Northpoint suggests. The decrease in DBS reliability brought about by a Northpoint service would strike at the core of what most consumers care most about, and would cause many of them to cancel their DBS service, and in most cases switch back to their cable provider. That is an intolerable result from a public interest standpoint.

C. MVDDS Mitigation Actions Must Be Transparent to All DBS Customers

As DIRECTV pointed out in its initial Comments, the suggestion that interference from proposed MVDDS systems can or should be mitigated at the DBS customer's premises is an unreasonable and unworkable proposition. Apart from seeking to limit any meaningful MVDDS mitigation responsibility to 18 months, Northpoint also advocates a "consumer complaint" standard whereby mitigation at a DBS customer's premises would be required only when a customer complains.²⁹ Yet, such a standard is clearly unacceptable because customers will be unable to trace the source of degraded DBS system performance. They will likely blame the DBS operator for the increased outages and rain sensitivity of their DBS receivers rather than consider that the interference might be coming from a Northpoint microwave transmit horn located on a building or a tower a mile away. Most of these complaints likely will go unresolved, with the potential that customers will desert DBS for competing video distribution services. In fact, as an

avowed competitor of DBS providers (at least according to the Northpoint business plan *du jour*), Northpoint has every incentive to encourage this result.

Clearly, proposed MVDDS operators, as secondary licensees, must be responsible for bearing all mitigation costs associated with MVDDS system interference. In addition, however, it is important that these costs be borne by proposed MVDDS operators in the phase of designing and locating their MVDDS system transmitters, and through compliance with Commission-imposed operational limits rather than in mitigation efforts following transmitter installation. Interference simply must not be permitted to reach the point where it requires mitigation at the DBS subscriber's premises. The suggestion, for example, that a DBS operator must swap out a customer's 18-inch DBS antenna for a "larger" one,³⁰ simply to mitigate MVDDS interference, is a nonstarter. It vitiates the very consumer and competitive benefits that the Commission has attempted to promote with respect to DBS service, and indeed, reveals the fallacy of proceeding down this path. The success of DBS in the United States has been directly related to the consumer-friendly nature of the service, and the small, unobtrusive size of its 18-dish antennas. DBS subscribers cannot and should not be expected to have their service interfered with in any respect simply to accommodate secondary uses of the 12 GHz Band. Even if co-existence at 12 GHz requires significant redesign of proposed MVDDS systems, that is the nature of being a secondary service. And given the plethora of other frequencies available for MVDDS operators to exploit, there should not even be a question raised in this proceeding of a policy tradeoff. DBS

²⁹ Northpoint Comments, Technical Appendix at 1.

³⁰ *Id.* at 13.

subscribers must be fully protected without any changes whatsoever being performed on their premises.

D. Protection Must Be Extended To Present And Future DBS Systems And Protection Must Be Extended To All Potential BSS Orbital Locations Capable Of U.S. Coverage

In Section 2.3 of the Technical Appendix to Northpoint's Comments, Northpoint proposes a set of four epfd limits for the protection of DBS systems. These epfd limits are inadequate for many reasons. First, they use as their basis a minimum C/I ratio of 20 dB, which results in an unavailability degradation significantly higher than the Commission-proposed 2.86% criterion. Second, they are based on a very incomplete database of operational DBS links. Third, they do not adequately take into account the variation in satellite EIRP from location to location on the earth within the nationwide service area of any given DBS satellite -- the geographic resolution is insufficient, and there is no proposal to use an existing electronic database of satellite EIRP contours. Fourth, they do not take into account any future DBS links or DBS operating modes. Finally, they do not take into account and protect various different DBS customer antenna models.

DIRECTV proposed, in Sections II.B, C and D of its initial Comments (1) the derivation of an epfd interference limit from proposed sharing criteria and sharing principles, (2) the establishment of a complete and updated database of links to be protected, and (3) the establishment of a set of reference parameters and analytic methods. This sequence is nearly identical with the process used to define epfd limits for NGSO FSS sharing with the BSS. When executed, the process defined by DIRECTV should result in MVDDS site-specific epfd limit contours that, will adequately protect the DBS service.

It is important to note that DIRECTV has proposed that the Commission adopt the general "2.86%" criterion for protection from MVDDS interference into its Rules rather than specific epfd limits. That is because these latter values can and should be derived on an MVDDS site-by-site basis using the rules-defined process, reference parameters and complete set of the DBS links to be protected. The reason that epfd limits with respect to proposed MVDDS systems can be site-specific is that, in contrast to the NGSO FSS situation, the interfering MVDDS transmitter is not moving. Therefore, site-specific calculations can be performed, rather than worst case calculations for a region.

This concept is in sharp contrast with the Northpoint proposal that would place regional non-site specific epfd limits in the Rules. For regional epfd limits to be fully protective of DBS links, they would need to be set to protect that part of the region that has the weakest DBS links, or the worst case. This will penalize MVDDS operations in other parts of the region where, typically due to higher satellite EIRP levels, the DBS links are "stronger" and the epfd limits can be somewhat relaxed. Site-specific epfd limits are therefore more advantageous to proposed MVDDS operation and are more efficient than regional limits because they do not suffer from this constraint and yet are fully protective of DBS links.

III. SHARING CRITERIA MUST FIRST BE DEVELOPED THAT PROVIDE ADEQUATE PROTECTION FOR DBS, INSTEAD OF FASHIONING RULES AND SHARING CRITERIA AROUND THE NORTHPOINT-SPECIFIC FREQUENCY-SHARING APPROACH

A. MVDDS Is Potentially Much Broader Than The Northpoint System Example

Northpoint is correct in highlighting the extent to which its technical proposals have spawned the Commission's proposed creation of an MVDDS service,³¹ but draws the wrong conclusion. Given the concerns that the entire 12 GHz satellite service sector (NGSO FSS and GSO BSS alike) has expressed regarding the Northpoint frequency-sharing approach, it is not wise to tailor service rules around it. Indeed, the comments of AT&T and other parties in this proceeding indicate that other frequency reuse approaches may be available that are different from that proposed by Northpoint -- approaches that would meet the "2.86%" sharing criterion and the 10% aggregate cap on service unavailability, and not require the so-called mitigation zones that attend Northpoint's proposal.

AT&T has not offered any specifics about such a proposed system design, nor has it provided any test data or demonstration that such a system is indeed possible. Nevertheless, AT&T's comments highlight the fact that designing service rules around one particular frequency-reuse approach that remains unproven is an activity fraught with danger. To date, no party to this proceeding -- including Northpoint -- has demonstrated an MVDDS system capable of adequately protecting the DBS service.

That is why proper and protective sharing criteria must be developed as the first step in creating any secondary MVDDS service at 12 GHz. Then and only then should various sharing

³¹ See, e.g., Northpoint Comments at 2.

approaches be tested against the criteria. And only after it has proven that an MVDDS system using one or more of these approaches can fully meet the criteria, should that system be considered for licensing, in accordance with the demonstration phase discussed below.

B. It Is Critical That the Commission Limit Initial MVDDS System Deployment at 12 GHz to a Single City for Further Evaluation of The Interference Potential to Primary DBS and NGSO FSS Services

The DBS operators and the SBCA have urged the Commission to proceed with extreme caution in proceeding to license MVDDS systems. Significantly, this is how the Commission is proceeding with NGSO FSS operators, and it is a critical protection that the Commission should also implement with respect to proposed MVDDS operations at 12 GHz if they are ever introduced. The Commission states:

We will require each NGSO licensee to demonstrate that it meets the operational and additional operational limits *prior* to the NGSO FSS system being placed into service. . . . We find this demonstration is necessary prior to the NGSO FSS becoming operational because it: (1) provides the FCC assurance that the NGSO FSS system will be built in accordance with FCC rules; (2) provides incumbent operators assurance that they will not receive unacceptable interference; (3) in the case of the additional operational limits, enables the Commission to make the required commitment to the ITU-BR; and (4) reduces the likelihood that the Commission would need to apply remedial measures to bring an operational system into compliance. Moreover, we believe a comprehensive demonstration of compliance with both the operational and additional operational limits is warranted due to the infancy of NGSO FSS systems. Once the Commission and industry gain experience through actual operation of these new systems, the Commission may choose to revisit the requirement for such a detailed demonstration prior to an NGSO FSS system becoming operational.³²

³² Further Notice at ¶ 96 (emphasis in original).

It would be arbitrary and capricious for the Commission not to proceed with at least the same level of caution in introducing a third ubiquitously deployed service into the 12 GHz Band, especially since that service would be secondary to DBS. The Commission has proposed and Congress has required³³ that no MVDDS facility licensed or authorized by the Commission can cause harmful interference to the DBS service. Given the tremendous capital investment that DBS operators have made to provide effective competition to cable TV by bringing an extraordinary level of service to consumers on a nationwide basis, the stakes are far too high for the Commission to permit widescale MVDDS system deployment until the implications for millions of DBS consumers are fully understood. Furthermore, the Commission cannot introduce MVDDS systems into the 12 GHz Band without understanding the combined interactions of DBS, proposed MVDDS and NGSO FSS systems.

Given the ill-defined state of MVDDS technology, DIRECTV reiterates its call for the Commission to proceed with MVDDS licensing if, and only if, demonstrably effective sharing criteria are developed, and licensing is limited to a single city initially. As with NGSO FSS systems, the interference effects of MVDDS technology and operations on DBS subscribers' receipt of service must be fully understood in the context of a "real-world" system deployment before MVDDS systems are deployed on a mass-market basis.

³³ The Commission has described the proposed MVDDS service as satisfying the goal of the recently-enacted Rural Local Broadcast Signal Act ("RLBSA"), which was enacted as Title II of the Intellectual Property and Communications Omnibus Reform Act of 1999, Pub.L. 106-113 Stat. 1501. However, the RLBSA requires the FCC to "ensure that no facility licensed or authorized" under the statute "causes harmful interference to the primary users of that spectrum," in this case, the DBS service. *See* RLBSA, § 2002(b)(2).

C. A Two-Way Terrestrial Service In The 12 GHz Band Would Further Compound An Already Over-Subscribed Band

AT&T discusses the possibility of offering two-way service in the 12 GHz Band. This simply cannot be allowed to occur. In a massive understatement, the Commission itself has already acknowledged that adding allocations of both NGSO FSS and (one-way) MVDDS to the 12 GHz Band will make the use of this band "intensive."³⁴ Adding an MVDDS return link on top of the existing NGSO FSS allocation and the proposed MVDDS service would add extraordinary complications to a situation that is an already untenable sharing scenario.

In particular, AT&T proposes that a return link at 12 GHz could either be a spread spectrum link or possibly a narrow carrier placed between DBS carriers.³⁵ Both approaches are extremely problematic. A spread spectrum link will add noise-like interference across the band from a multitude of ubiquitously-deployed transmitters in the neighborhood of a victim DBS antenna. Again, such interference sources contribute to a reduction in clear sky margin and a loss of DBS link availability. Every new source of interference does nothing but degrade the quality of the primary service in the band.

Narrow band carriers placed between transponders are just as alarming. Perhaps AT&T is not aware that the 12 GHz channeling plan embodied in the Region 2 BSS frequency assignment Plan features 24 MHz-wide, cross-polarized channels whose center frequencies are separated by only 14.58 MHz. There is thus no separation at all between carriers in which to insert a return

³⁴ Further Notice at ¶ 228.

³⁵ Comments of AT&T Corp. (Mar. 12, 2001), at 12-15.

channel. Any attempt to do so would only add interference into the two overlapping adjacent DBS carriers. Polarization discrimination is poor to non-existent in the so-called back lobes of the victim DBS receive antenna, and so polarization isolation from this carrier cannot be assumed. Additionally, placement of a carrier in this location will preclude the DBS service from utilizing this same spectrum in the future -- something that is clearly allowed as a modification to the BSS Plan. This is a limitation on DBS service growth that cannot and should not be imposed by a secondary service.³⁶

IV. NORTHPOINT IS NOT ENTITLED TO ANY PREFERENTIAL TREATMENT IN THE ULTIMATE LICENSING OF PROPOSED MVDDS SERVICES

A. Northpoint's Technology Is Not Innovative -- And The Point Is Irrelevant For Licensing Purposes In Any Event

Northpoint continues to make colorful, sweeping assertions regarding its allegedly "innovative technology" that creates "bandwidth out of thin air."³⁷ Northpoint employs this rhetorical flourish to create some suggestion of entitlement in the licensing process for proposed MVDDS services. For example, if the Commission moves forward to create an MVDDS service, Northpoint asserts that the typical solicitation of applications for MVDDS licenses that the Commission would otherwise undertake should here be abandoned because it "would sharply discourage not only future innovation by future Northpoints but also the process of negotiation that has been critical to establishing the sharing criteria that make possible the use of Northpoint's

³⁶ The DBS frequency plan typically used by U.S. DBS operators today is the same as that described in the reference parameters for the Region 2 Plan. *See* ITU-R Radio Regulations, Appendix S30 Annex 5. Modification, however, is allowed along with other more common modifications to a Plan assignment.

³⁷ Northpoint Comments at 2.

technology in the same bands used by DBS and NGSO FSS services."³⁸ However, such statements are without basis.

First, as the DBS operators have steadfastly observed, there is nothing innovative about Northpoint's service or technology proposals. Like LMDS, the proposed MVDDS is not unique for broadband or video service provision: it "is neither a 'specific' service nor a specific technology," and instead is merely another name for the use of spectrum that, "in theory, can be used to provide, or assist in the provision of consumer services such as video, voice, data, and broadband telecommunications services generally."³⁹ Thus considered, the "new" proposed MVDDS service, and the frequency reuse approach that Northpoint proposes to deploy, are nothing more than additional "flavors" of garden variety, fixed wireless point-to-multipoint service offering video and broadband capabilities. In particular, and contrary to the assertion of Northpoint's economic consultant,⁴⁰ the concept of using antenna pointing to reduce interference between terrestrial transmitters and satellite earth station receivers is a time-honored frequency sharing approach that did not "require a considerable investment in research and development" for Northpoint to propose.⁴¹ Northpoint's investment has primarily been in lobbying efforts to convince government officials that this approach would permit a terrestrial wireless distribution

³⁸ *Id.*

³⁹ Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, *Third Report and Order and Memorandum Opinion and Order*, 15 FCC Rcd 11857 (2000), at ¶ 26.

⁴⁰ See Northpoint Comments, Declaration of Thomas W. Hazlett (Mar. 12, 2001).

⁴¹ *Id.* at 3.

system (*i.e.*, one providing high signal availability to a high percentage of homes despite signal attenuation due to rain and foliage) without unacceptably degrading the performance of already-licensed satellite systems. Such efforts should not convey special privileges to Northpoint.

Unfortunately for Northpoint, the analyses and experiments to date have not been convincing. Northpoint has not demonstrated that its proposed system can operate without causing unacceptable performance degradation to DBS subscribers' receipt of service. Northpoint also has not explained why frequency bands that have been expressly allocated for functionally identical terrestrial wireless video and data distribution services, such as LMDS, MDS/MMDS/ITFS, DEMS or 39 GHz, cannot provide a home for Northpoint's proposed service. Northpoint itself touts its technology as suitable for these bands,⁴² and contrary to terse and unsupported statements in the Further Notice,⁴³ there are no "economies of scale" in the 12 GHz Band relative to these other frequency bands that argue for a proposed secondary MVDDS service being created there.⁴⁴ At any rate, however, a proposal to seek squatter's rights at 12 GHz is not "innovation" -- it is opportunism.

Second, even assuming *arguendo* that there were some unique aspect to Northpoint's frequency reuse approach, the Commission has considered and rejected *the precise argument* that

⁴² See www.northpointtechnology.com/html/spectrum_planning.html (advocating that Northpoint technology be used in a number of different frequency bands). See also Northpoint Comments, Declaration of Thomas W. Hazlett at 18 (asserting that Northpoint technology "accommodates additional providers in this – and other – bands").

⁴³ See, *e.g.*, Further Notice at ¶ 168.

⁴⁴ The majority of equipment used by DBS operators is neither band-specific nor unique to DBS. Nor does the 12 GHz Band offer general advantages over the bands already allocated for point-to-multipoint video and data distribution in terms of overall bandwidth, encumbrance by existing services, or propagation difficulties.

Northpoint makes here, *i.e.*, that insulating Northpoint from standard licensing procedures is required to encourage future innovation, in the "pioneer's preference" context. As summarized by the United States Court of Appeals for the District of Columbia Circuit:

The pioneers...argued that the public interest would be best served by granting them 'free licenses as a reward for investments and disclosure of information they have made in reliance on their expectation of a preference.' The Commission rejected this argument, saying that there was no evidence that the pioneers would not have made the investment and information disclosure if they had known they would have to pay for their licenses.⁴⁵

There is absolutely no evidence that Northpoint is entitled to any type of special license preference in this case. Moreover, after the disastrous experience the Commission has had in engaging in the type of slippery (and politically infused) determinations of relative "innovation" that Northpoint advocates, Congress expressly prohibited them.⁴⁶ The Commission by law cannot grant Northpoint the spectrum preference that Northpoint seeks.

B. Northpoint's Claimed Cut-Off Protection Is Frivolous, And There Has Been No Inconsistency Among Different Bureaus As To How MVDDS Should Be Licensed

Northpoint continues its attempt to insulate itself from mutual exclusivity with other applicants, and from the use of auctions to assign MVDDS licenses, by claiming that the public notice that the Commission used to open the filing window for NGSO FSS systems⁴⁷ also placed

⁴⁵ *Mobile Communications Corporation v. FCC*, 77 F.3d 1399, 1407 (D.C. Cir. 1996) (citing 9 FCC Rcd 4055, 4059 (1994)).

⁴⁶ 47 U.S.C. § 309(j)(13)(F).

⁴⁷ *Cut-Off Established for Additional Applications and Letter of Intent in the 12.75-13.25 GHz, 13.75-14.5 GHz and 10.7-12.7 GHz Frequency Bands*, Report No. SPB-141 (Nov. 2, 1998) ("Ku Band Cut-Off Notice").

the public on adequate notice that the Commission was seeking applicants for terrestrial operations of the type Northpoint proposes in the 12 GHz Band.⁴⁸ This claim is without merit.

The *Ku Band Cut-Off Notice*, by its terms, invited "entities wishing to implement NGSO FSS systems . . . to do so by filing such requests."⁴⁹ It cannot credibly be read to also be soliciting the filing of terrestrial MVDDS applications at 12 GHz.

The courts have been very clear that, in a cut-off context, the Commission "may not . . . give public notice of a cut-off date which does not fairly advise prospective applicants of what is being cut off by the public notice."⁵⁰ The *Ku Band Cut-Off Notice* refers to the filing of competing NGSO FSS satellite applications, and interested parties seeking to use the 12.2-12.7 GHz band for other uses simply were not placed "on notice that [their] rights were at stake."⁵¹ Thus, to the extent that the Commission ever proceeds with MVDDS licensing in any frequency band, it will need to solicit the filing of applications by opening a filing window, and, if many applications are filed, follow the law by awarding licenses by auction.

Northpoint also makes the absurd argument that it has been the subject of some kind of bureaucratic "bait and switch"⁵² by the Commission:

⁴⁸ Northpoint Comments at 17.

⁴⁹ *Ku Band Cut-Off Notice*. The public notice further noted that such requests could take "one of three forms," none of which relate to terrestrial operations: "(1) application for a space station license; (2) application for an earth station license that will communicate with a non-U.S. licensed satellite; (3) letter of intent to use a non-U.S. licensed satellite to provide service in the United States." *Id.*

⁵⁰ *Ridge Radio Corp. v. FCC*, 292 F.2d 770, 773 (D.C. Cir. 1961); see *McElroy Electronics Corporation v. FCC*, 886 F.3d 248 (D.C. Cir. 1996).

⁵¹ *McElroy Electronics*, 886 F.3d at 257.

⁵² Northpoint Comments at 13.

The Commission “agreed that Northpoint’s technology had to be evaluated and processed on the ‘traditional licensing track for satellite spectrum. The proceedings to date have been conducted under the auspices of the IB pursuant to the procedures of that Bureau. . . The Commission does not honor its own ‘tradition’ in suddenly diverting these proceedings, at the very last moment, to the very different Wireless Telecommunications Bureau (“WTB” auction track.”⁵³

This is pure fabrication. Northpoint is well aware that the Office of Engineering and Technology, not the International Bureau, has taken the “point” to date on frequency-sharing issues between BSS and the proposed MVDDS. Moreover, to the extent there has been a Bureau involved in the processing of Northpoint applications, Northpoint’s claim is astounding, since *Northpoint itself* filed its pending applications and waiver requests before the Wireless Telecommunications Bureau.⁵⁴

At any rate, there has never been an “agreement” by the Commission to process Northpoint’s applications in any particular segment of the Commission, and no reason why a proposed terrestrial fixed wireless service should not be processed by the Bureau that administers, and in accordance with the procedures that normally attend, such services. The appropriate course at this juncture is to dismiss the pending applications of Northpoint’s affiliates until an appropriate filing window is opened.

⁵³ Northpoint Comments at 6.

⁵⁴ Specifically, Northpoint’s BroadWave affiliates filed requests for waiver of 47 C.F.R. §§ 101.105, 101.107, 101.109, 101.111, 101.115, 101.139 and 101.603, as well as any other fixed microwave radio service rules necessary to permit the processing of its applications pertaining to deployment of service in the 12.2-12.7 GHz band. *Corrected Public Notice*, DA 99-494 (rel. Mar. 11, 1999) (“Public Notice”). BroadWave seeks authority to provide multichannel video programming, including the retransmission of local television broadcast signals, and Internet service to 212 markets throughout the United States. *Id.*

C. Northpoint's "Orbit Act" Argument Is Frivolous

Northpoint also continues to argue that the Open-Market Reorganization for the Betterment of International Telecommunications Act ("Orbit Act"), which expressly prohibits the Commission from auctioning any spectrum used for global satellite services, should be stretched beyond its plain meaning to prevent any other service, such as Northpoint's proposed secondary domestic terrestrial offering, from being auctioned if there is another overlapping use of such frequencies.⁵⁵ Citing several recent counter-examples, the Commission has rightly rejected this position, concluding that the Orbit Act "is not a bar to auctioning licenses to provide [a terrestrial] service merely because the terrestrial service operates on the same frequencies as a satellite service."⁵⁶

Northpoint's comments offer nothing to refute this indisputably correct conclusion. Northpoint argues that "[b]y giving NGSO FSS a primary allocation in the 12 GHz Band in these very proceedings, the Commission removed any doubt that the 12 GHz Band is one in which the Orbit Act prohibits auctions."⁵⁷ But this claim is nonsense. The fact that the Commission has moved forward to authorize another *satellite* service at 12 GHz is of no relevance to what should be done with regard to *terrestrial* uses of 12 GHz frequencies. The Orbit Act has no impact on the Commission applying normal auction processing procedures to MVDDS applications, and the Commission's conclusion on this point is correct.

⁵⁵ Northpoint Comments at 16.

⁵⁶ See Further Notice at ¶ 326.

⁵⁷ Northpoint Comments at 16.

D. DBS Providers Should Be Eligible For MVDDS License Assignment If MVDDS Services Are Authorized At 12 GHz

If the Commission does proceed to create secondary terrestrial licenses at 12 GHz, DIRECTV again submits that there is no legal or policy reason to exclude DBS providers from the opportunity to acquire this spectrum to develop terrestrial operations that may be complementary to and non-interfering with the DBS service, in a fashion which could enhance further DBS competition to cable. In this regard, the Further Notice acknowledges that the relevant market for considering this issue is the MVPD market,⁵⁸ which includes cable operators, DBS providers, home satellite dishes, wireless cable systems, satellite master antenna television ("SMATV") systems,⁵⁹ and presumably, would-be MVDDS service providers.⁶⁰ The Commission also has concluded recently that cable firms continue to "dominate" the MVPD market,⁶¹ and has found repeatedly that DBS providers such as DIRECTV do not possess MVPD market power.⁶²

In light of these conclusions, there is no reason to exclude DBS providers from continuing to develop innovative services at 12 GHz. DBS providers have been the primary drivers of innovation in this spectrum to date. It makes no sense to exclude them from offering proposed MVDDS services if authorized.

⁵⁸ Further Notice at ¶ 298.

⁵⁹ See, e.g., 2000 Competition Report at ¶¶ 3, 135.

⁶⁰ As DIRECTV has pointed out on many occasions, Northpoint has changed the characterization of its service from a complementary technology that it hoped would be embraced by DBS providers to offer local service, see, e.g., Further Notice at ¶ 208, to a standalone MVPD competitor to cable and DBS.

⁶¹ Further Notice at ¶ 298; see also 2000 Competition Report at ¶ 5.

⁶² See, e.g., MCI Telecommunications Corp. and EchoStar 110 Corp., *Order and Authorization*, 15 Comm. Reg. (P&F) 1038 (1999), at ¶ 14 (finding that "DBS operators

V. TECHNICAL CLARIFICATIONS TO THE APPENDIX 1 OF DIRECTV'S INITIAL COMMENTS

Finally, DIRECTV offers clarification to certain entries in Tables A, B and C of Appendix 1 of its initial Comments to the Further Notice. These are detailed below in Appendix A.

VI. CONCLUSION

If the Commission decides to proceed along the ill-considered course of introducing a secondary point-to-multipoint service into the 12 GHz Band, it must afford the maximum protection possible to primary BSS operations. DBS subscribers must not be required to accept greater performance degradation from any proposed system in a secondary MVDDS than they already must accept from a primary NGSO FSS system.

Furthermore, Northpoint should not be accorded favorable treatment in any secondary spectrum licensing at 12 GHz. Its arguments for a spectrum windfall are frivolous. All qualified applicants should be permitted to access the assignment process for MVDDS licenses, including DBS operators if they choose to do so. In accordance with the Commission's traditional Fixed Service licensing approach, the pending applications of Northpoint's BroadWave affiliates should be dismissed. If and when the Commission opens a filing window for MVDDS applications, Northpoint or its affiliates may file at that time.

... do not have enough subscribers to give them market power in the acquisition of video programming, nor are they dominant distributors of such programming").