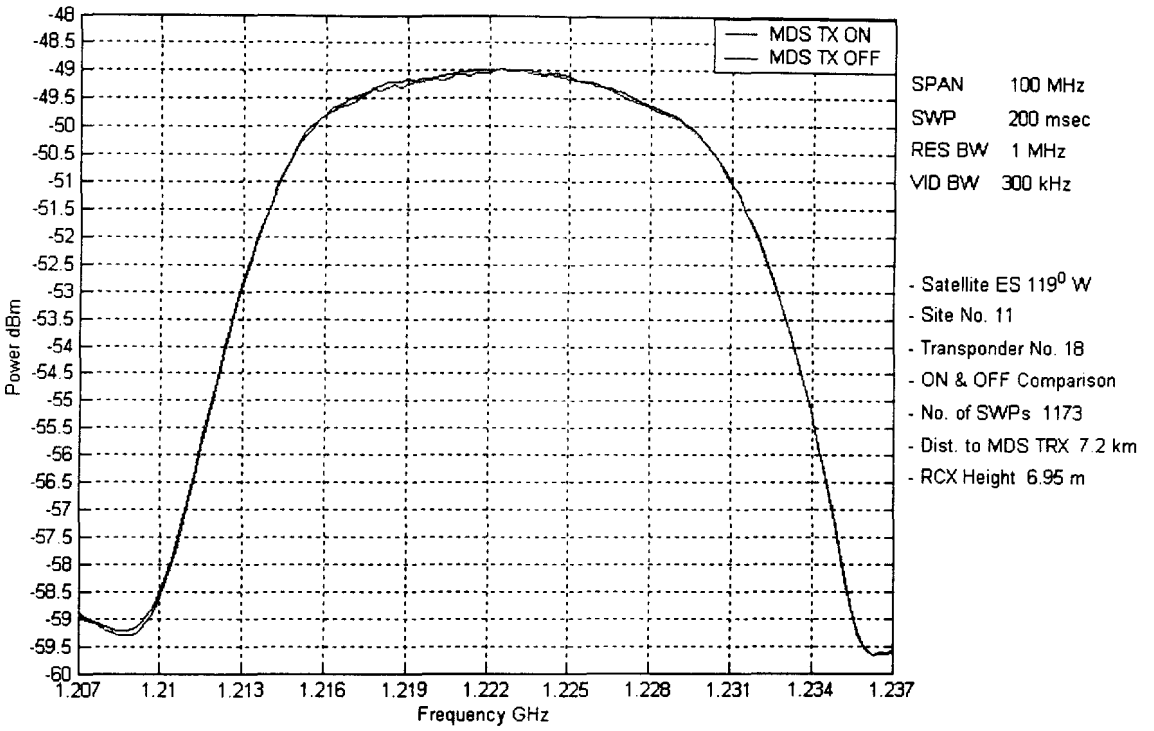

Figure 97 Site 11 ES119 TP18 ON & OFF 30 MHz Comparison plot

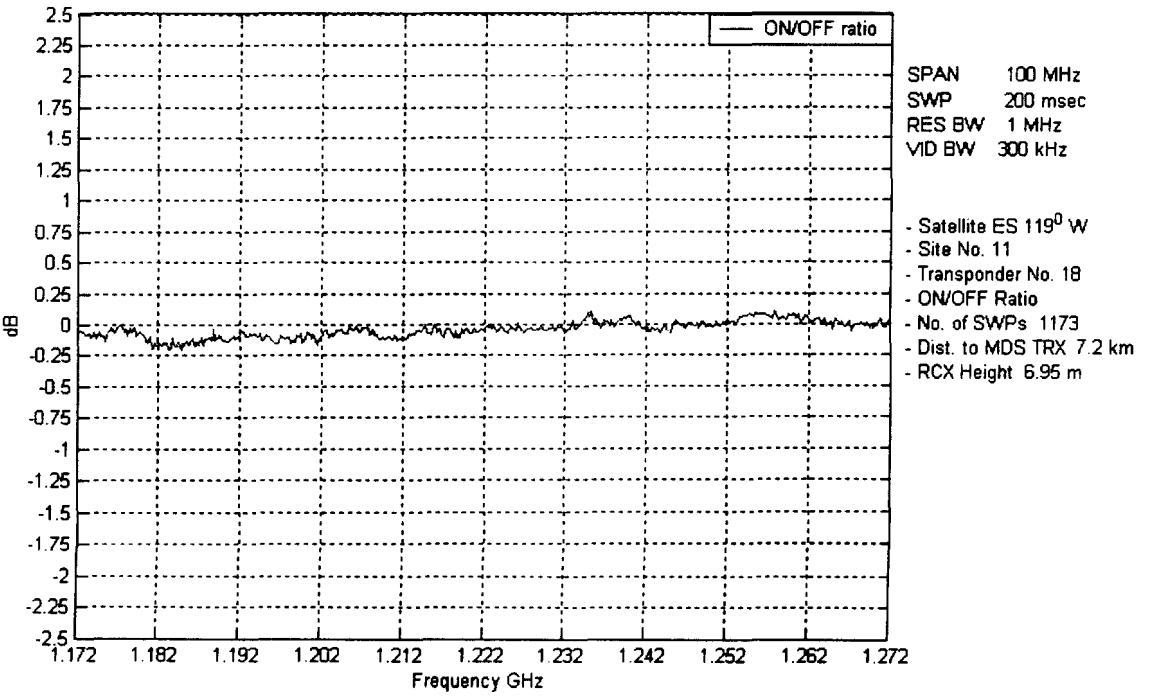

Figure 98 Site 11 ES119 TP18 ON / OFF 30 MHz Ratio plot

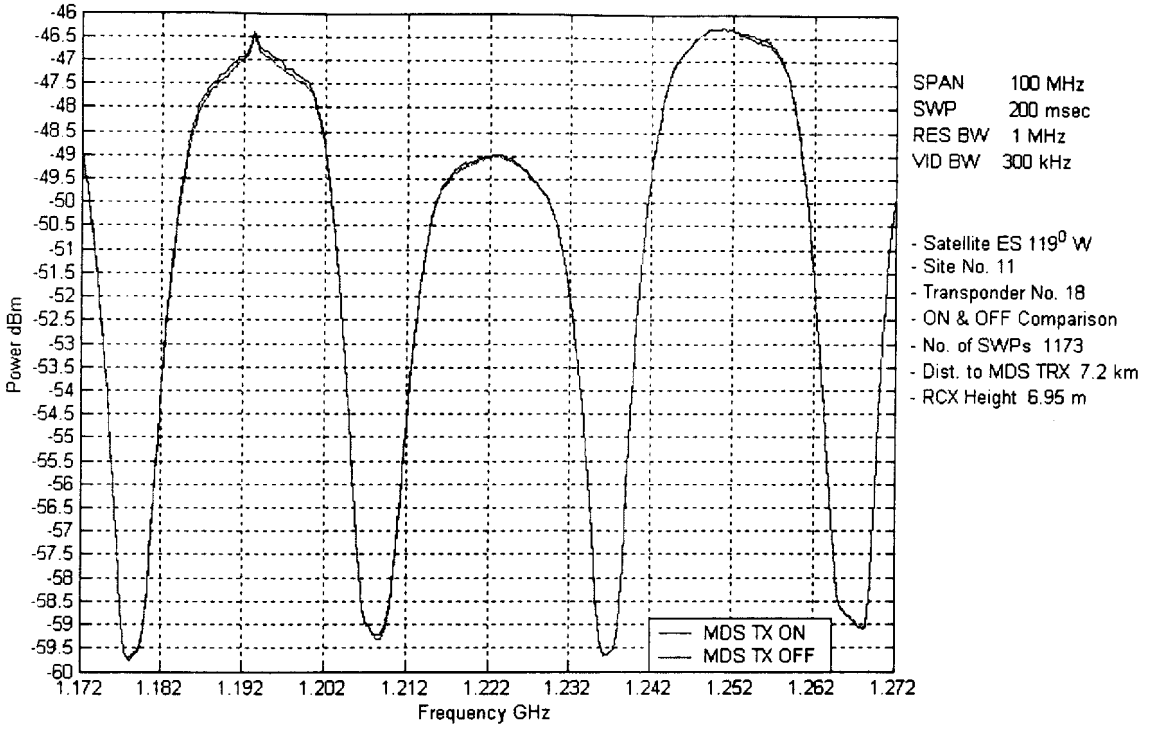

Figure 99 Site 11 ES119 LC ON & OFF Comparison plot

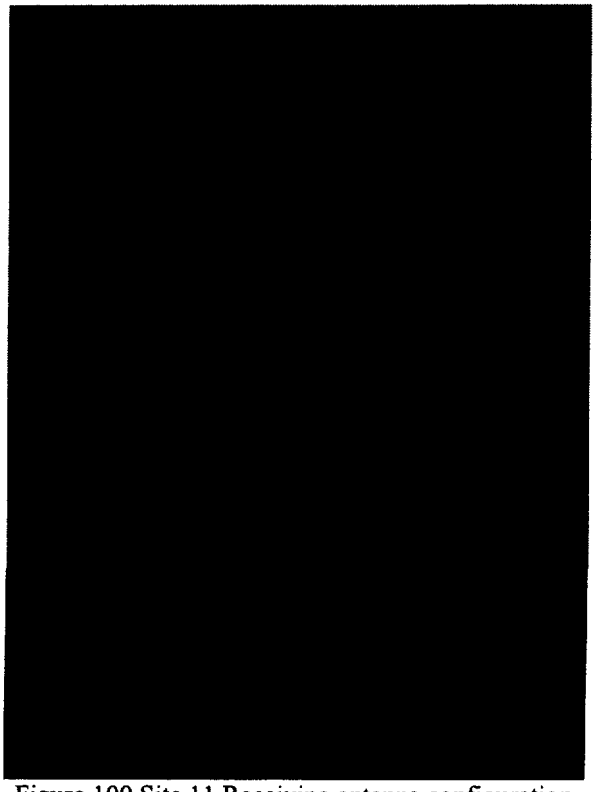

Figure 100 Site 11 Receiving antenna configuration

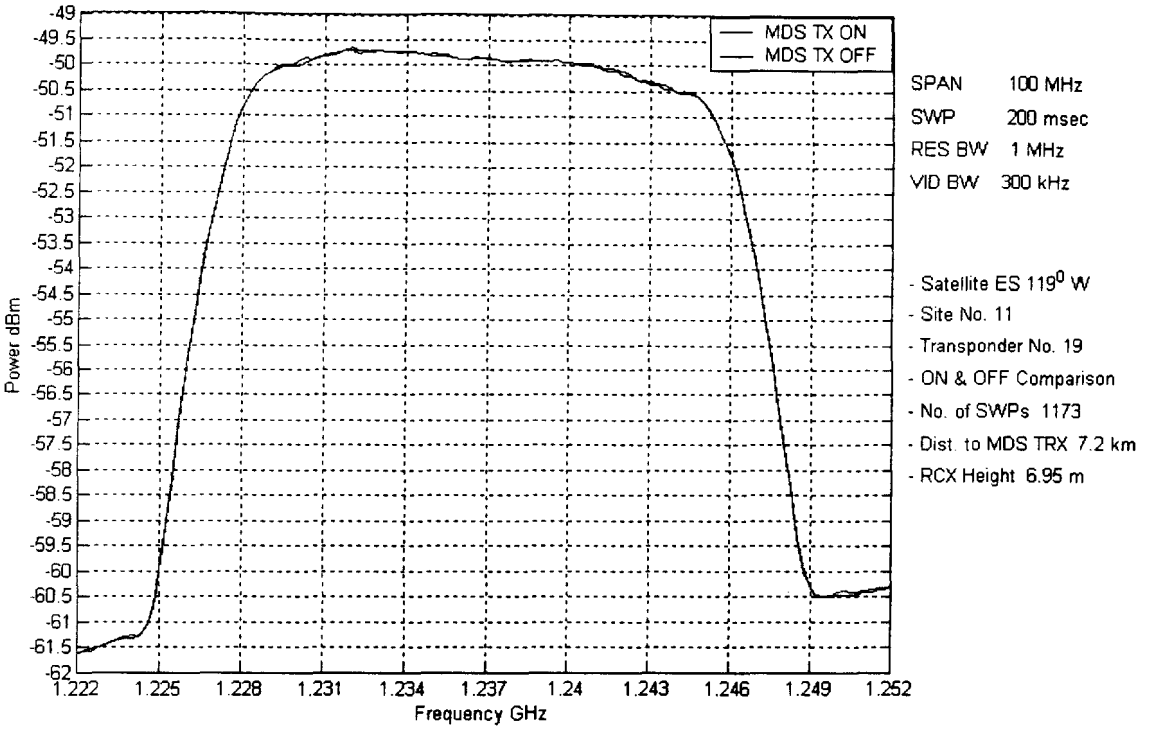

Figure 101 Site 11 ES119 TP19 ON & OFF 30 MHz Comparison plot

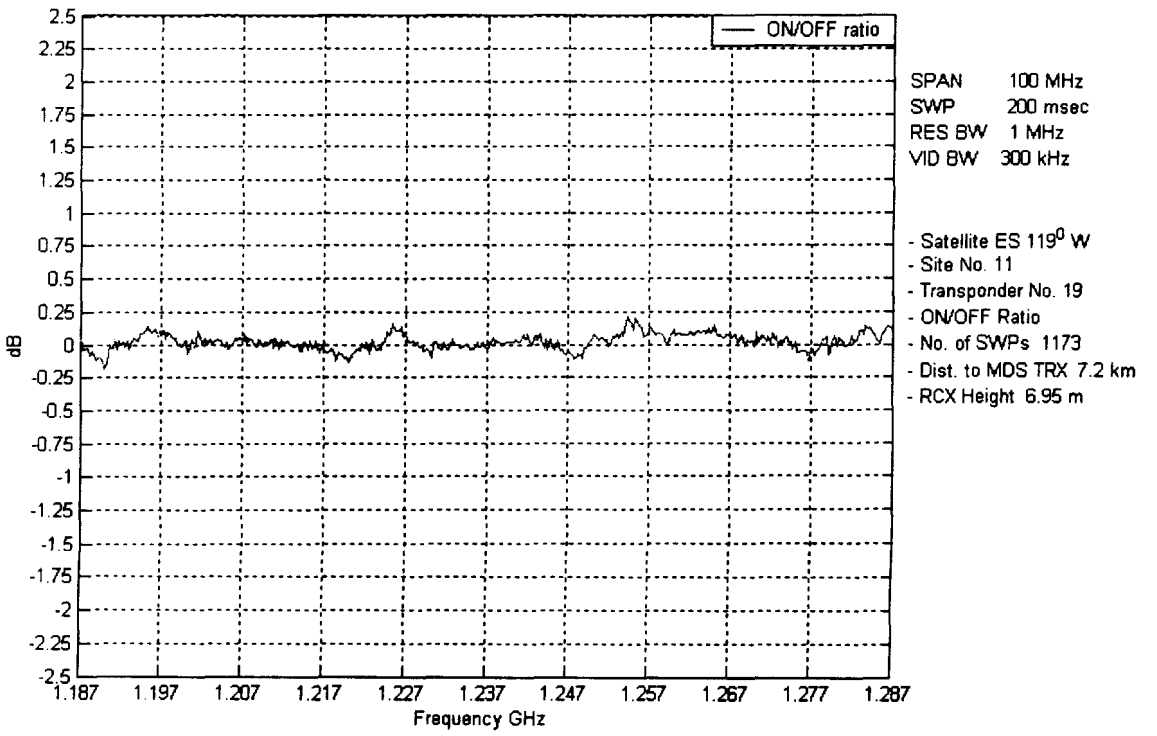

Figure 102 Site 11 ES119 TP19 ON / OFF 30 MHz Ratio plot

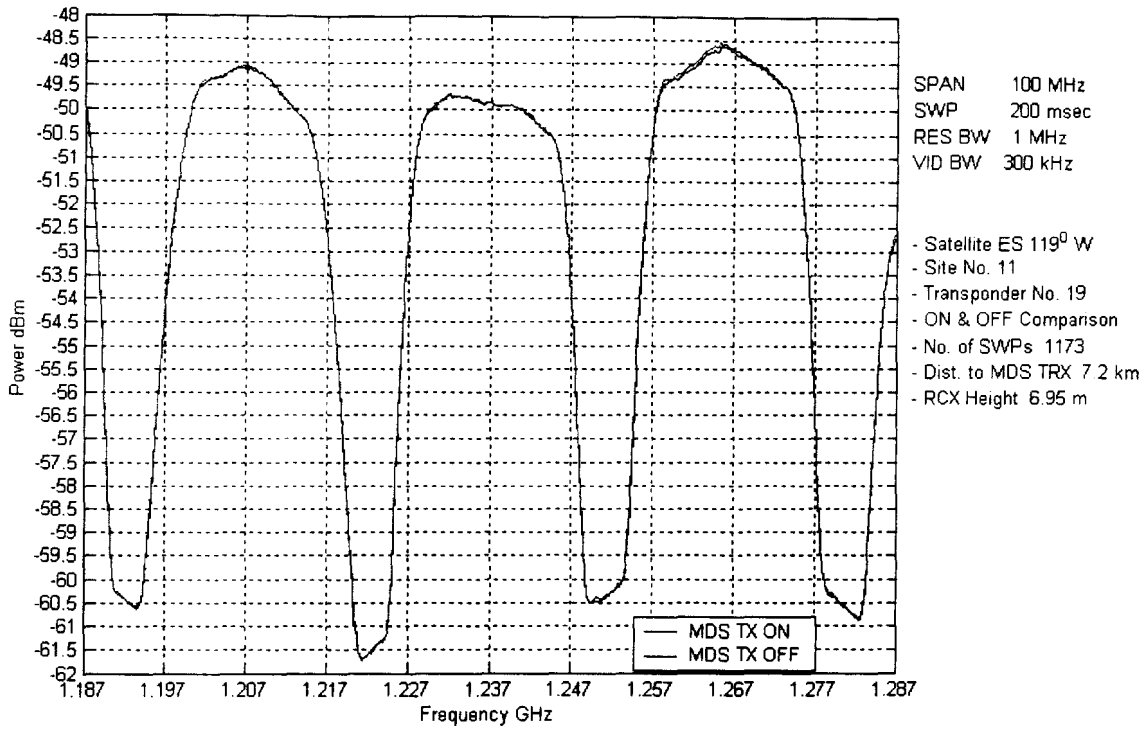

Figure 103 Site 11 ES119 TP19 ON & OFF Comparison plot

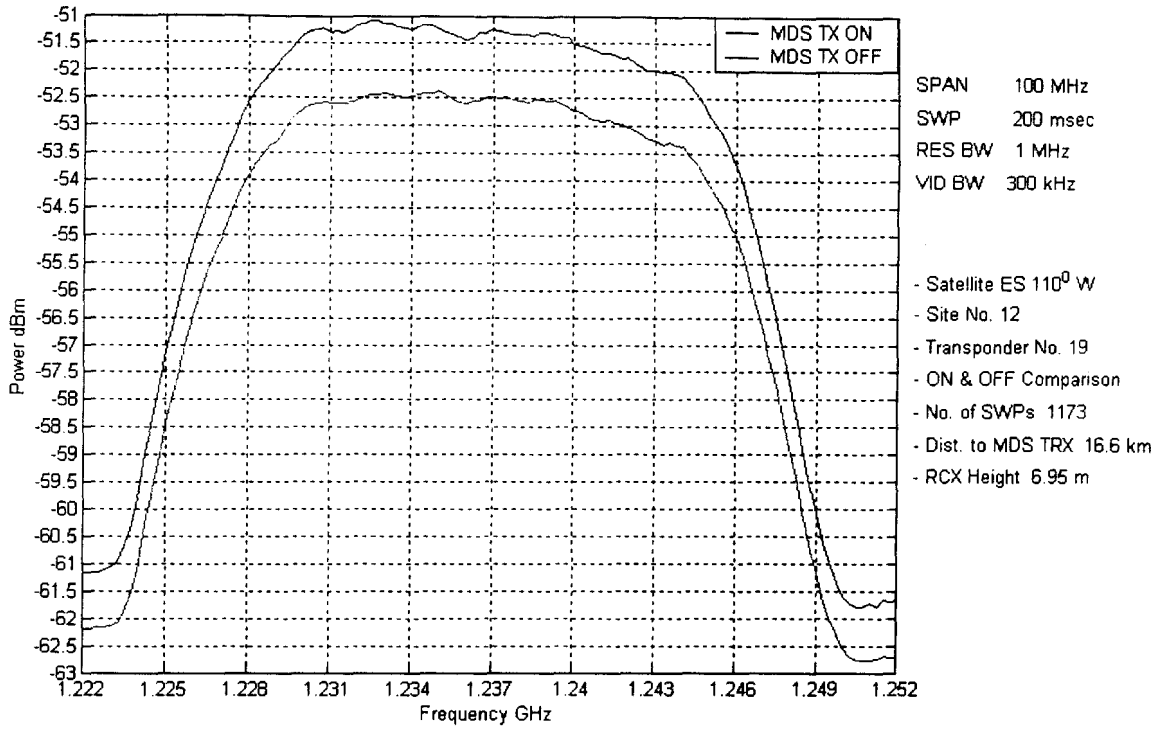

Figure 104 Site 12 DTV101 TP19 ON & OFF 30 MHz Comparison plot

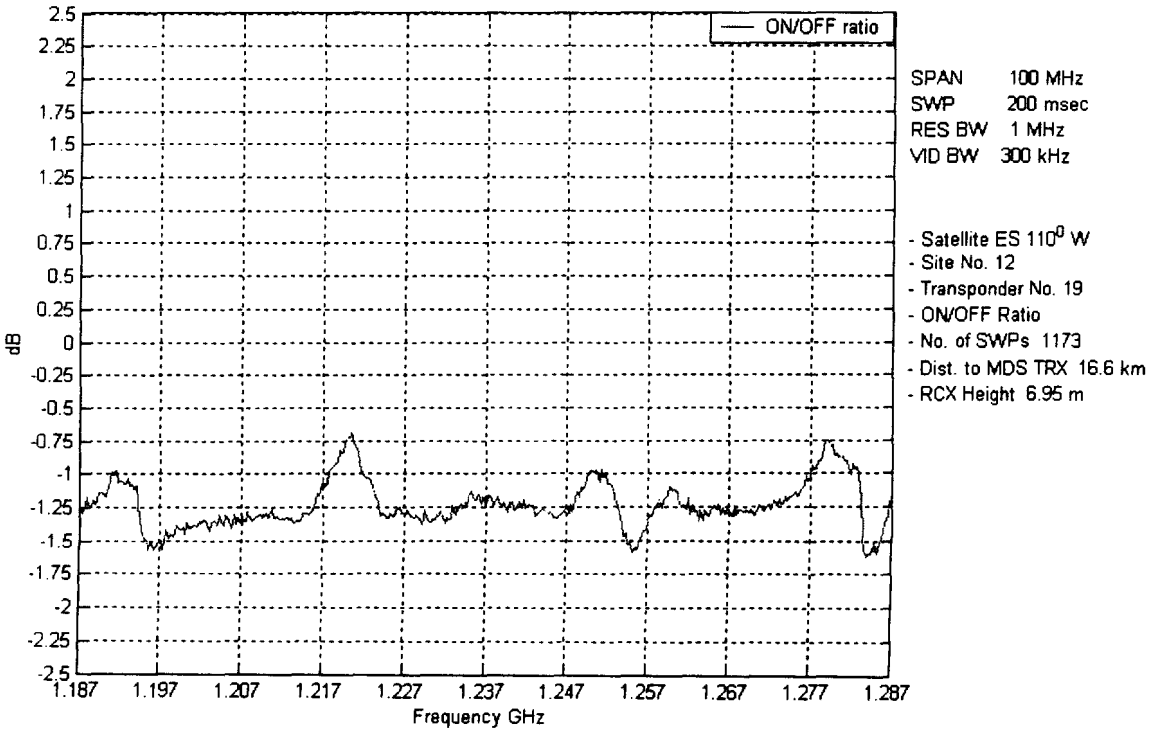

Figure 105 Site 12 DTV101 TP19 ON / OFF 30 MHz Ratio plot

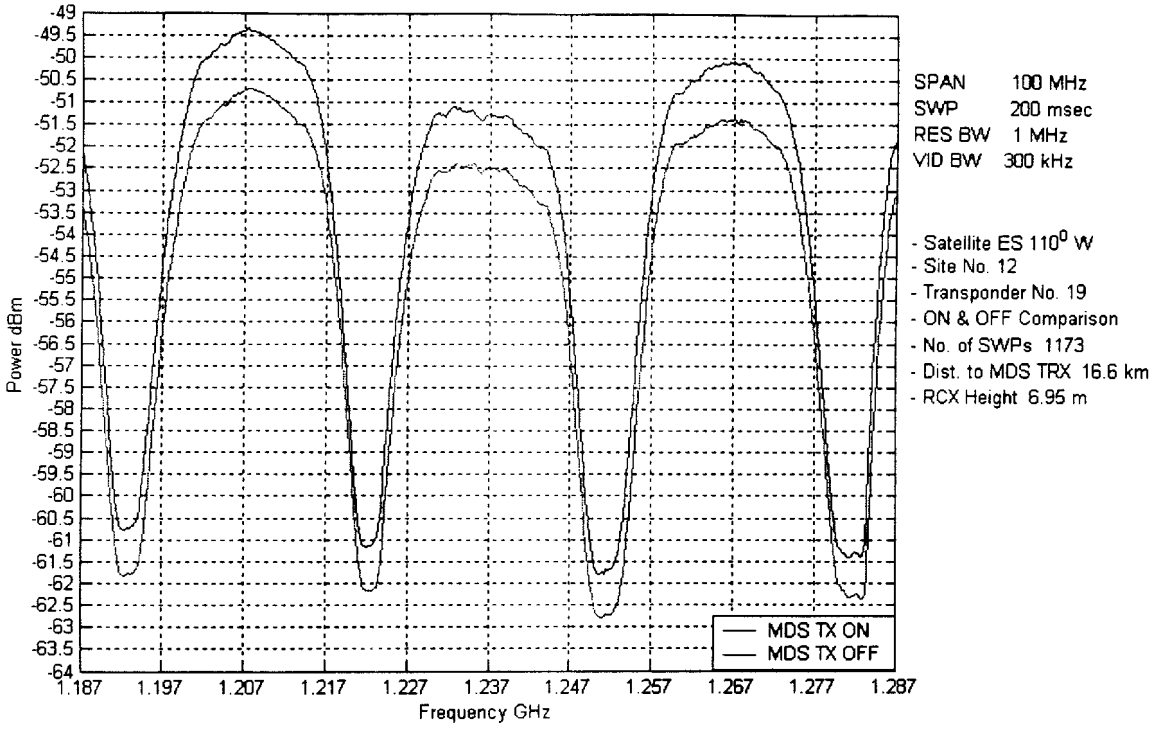

Figure 106 Site 12 DTV101 LC ON & OFF Comparison plot

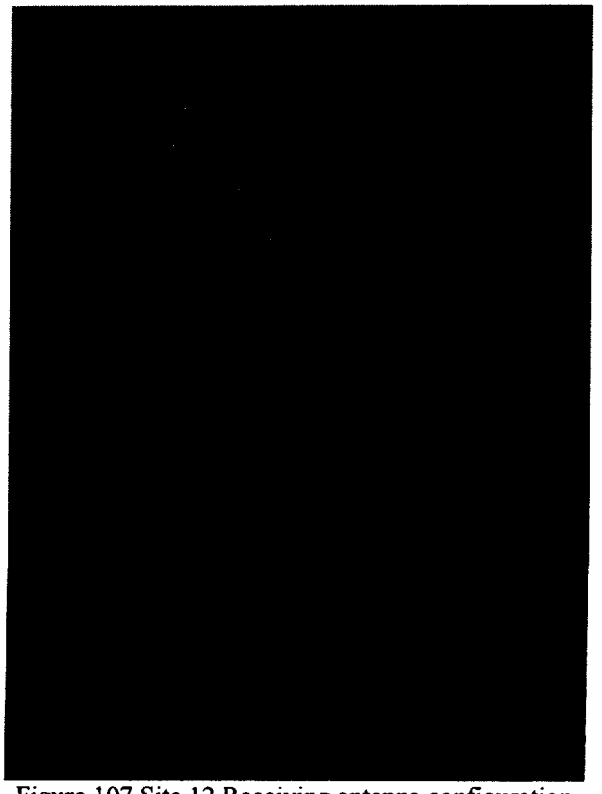

Figure 107 Site 12 Receiving antenna configuration

Exhibit B

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TEL. (212) 973-0111
FAX (212) 891-9598

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OCT 23 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

October 18, 2001

Ms. Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *Ex Parte* Submission of MDS America, Incorporated
ET Docket No. 98-206; RM-9147; RM-9245

Dear Ms. Salas:

On behalf of MDS America, Incorporated ("MDS America"), we hereby submit this *ex parte* letter in response to statements made by Northpoint Technology, Ltd. ("Northpoint") in its *ex parte* submission to the Commission of September 19, 2001.[1] Northpoint has taken the position that the ORBIT Act[2] prohibits auctions of spectrum that may be used for the provision of international or global satellite communications services, regardless of whether such spectrum is actually used to provide international or global satellite services. Northpoint also claims that an open auction for Multichannel Video Distribution and Data Service ("MVDDS") is not authorized because Northpoint's application is not mutually exclusive with any other applications. MDS America also responds to Northpoint's implicit threat to the Commission that the Commission's proposed MVDDS licensing rules might promote infringement upon Northpoint's patented technologies.

MDS America submits that Northpoint's repeated characterization of the ORBIT Act as prohibiting auctions of the 12 GHz band is based upon a fundamental misinterpretation of the statute. As both a plain reading of the statute and its legislative history demonstrate, the statute

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[1] *See, Ex Parte Filing of Northpoint Technology, Ltd.*, ET Docket No. 98-206, filed Sept. 19, 2001.

[2] Open-Market Reorganization for the Betterment of International Telecommunications Act, Pub. L. No. 106-180, 114 Stat. 48 ("ORBIT Act").

prohibits only spectrum auctions involving international or global satellite services. Further, contrary to Northpoint's position, Northpoint's application cannot be deemed to be mutually exclusive because there has been no call for MVDDS applications by the FCC. However, MDS America believes that there will be mutually exclusive applications that will require an auction in compliance with the Communications Act once the MVDDS application filing window is announced.

With respect to the patent issues that Northpoint raises, the law is clear that the Commission is free to adopt its MVDDS rules without concern for infringing Northpoint's patents. As Northpoint advises the Commission, the alleged validity and scope of its patents are the subject of a suit in federal court. MDS America was pleased that this suit was filed, as it provided an appropriate forum to bring to light MDS America's pre-existing technology. However, that litigation need not preoccupy the Commission, nor interfere with the Commission reaching the appropriate decision before it, which is to proceed expeditiously with the auction and licensing of MVDDS. Attached please find a letter from MDS America's patent counsel explaining the authority of the Commission to proceed under these circumstances.

The ORBIT Act Does Not Preclude Auction of Terrestrial Services in the 12 GHz Band

In arguing that the Commission does not have authority to auction spectrum in the 12.2-12.7 GHz band, Northpoint relies on Section 647 of the ORBIT Act. That section states, in relevant part, that:

> Notwithstanding any other provision of law, the Commission shall not have the authority to assign by competitive bidding orbital locations or spectrum used for the provision of international or global satellite communications services. [3]

There are glaring problems with Northpoint's citation of the ORBIT Act. No assignment of orbital locations are required to license Northpoint's proposed terrestrial stations. Further, Northpoint has no intention of providing (and technically, cannot provide) any satellite communications services with its terrestrial stations—let alone international or global satellite services, as specified by the law. Northpoint would have the Commission believe that the prohibition on auctions in the ORBIT Act is not just limited to authorizations to operate an international or global satellite communications system. Rather, Northpoint argues that such prohibition extends to all other services that *use* spectrum designated for global satellite use. Such an interpretation is not supported by a plain reading of the statute or its legislative history.

As the Commission astutely noted in its *First Report and Order and Further Notice of Proposed Rule Making* in this proceeding,[4] the plain language of the statute does not prohibit the

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[3] ORBIT Act, Section 647, codified at 47 U.S.C. § 765f.

[4] *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*, ET Docket No. 98-206, FCC 00-418, First Report and Order and Further Notice of Proposed

Commission from auctioning licenses for non-satellite services.[5] The statute merely addresses the assignment by competitive bidding of spectrum used for the provision of international or global satellite communications services. There is no mention whatsoever of terrestrial-based services, or even satellite services that are purely domestic in nature. The Commission further noted that in signing the ORBIT Act into law, President Clinton stated that it was his understanding that Section 647 did not limit the FCC from assigning via auction domestic satellite service licenses intended to cover only the United States.[6] Indeed, the legislative history of H.R. 1872,[7] the precursor to the ORBIT Act, although not signed into law, offers additional insight into the Congressional intent behind the language of Section 647 of the ORBIT Act.

Section 649 of H.R. 1872, as proposed, states as follows:

> Notwithstanding any other provision of law, the Commission shall not have the authority to assign by competitive bidding *orbital locations* or spectrum *used for the provision of international or global satellite communications services*. The President shall oppose in the International Telecommunications Union and in other bilateral and multilateral fora any assignment by competitive bidding of orbital locations or spectrum used for the provision of such services.[8]

The language contained in Section 649 is identical to that in Section 647 of the ORBIT Act. The House Committee Report states that in drafting Section 649, Congress believed that:

> [A]uctions of spectrum or orbital locations could threaten the viability or availability of *global and international satellite services*, particularly because concurrent or successive spectrum auctions in the numerous countries in which U.S.-owned *global satellite service* providers seek downlink or service provision license could place significant financial burdens on providers of such services. This problem would be compounded by the fact that the multi-year period required for design, construction and launch *of global and international satellite systems* usually requires service providers to invest substantial resources well before they obtain all needed worldwide licenses and spectrum assignments. The uncertainty created by spectrum auctions could disrupt the availability of capital for such projects, and significantly reduce the available benefits offered *by global and international satellite systems*.[9]

Rule Making, 16 FCC Rcd 4096 (2000) (hereafter, *First Report and Order and Further Notice of Proposed Rule Making*").

[5] *Id.* at ¶ 326.

[6] *Id.* at n.660.

[7] Communications Satellite Competition and Privatization Act of 1998, H.R. 1872, 105th Cong. (1998).

[8] H.R. Rep. No. 105-494, at 78 (1998) (emphasis added).

[9] *Id.* at 64-65 (emphasis added).

Congress drafted Section 647 of the ORBIT Act to guard against the danger that the FCC would auction licenses to provide global or international satellite services, thereby prompting other countries to hold similar auctions to provide the same services. Such an outcome would obviously present a significant barrier to the provision of satellite services to the international community. However, Northpoint is proposing to utilize terrestrial technology for terrestrial services, albeit in a band shared with satellite service providers. The auction of spectrum for MVDDS would not raise the specter of competing auctions in other countries that would impact the provision of MVDDS in the United States. In fact, other nations around the world are significantly ahead of the United States in deploying MVDDS systems in the Ku band. Congress did not intend for the ORBIT Act to prohibit the Commission from auctioning licenses for any service that merely uses spectrum available for global satellite operations. Rather, Section 647 was intended to address only situations that involved the award of global or international satellite licenses.

Northpoint also argues that the decision of the United States Court of Appeals for the D.C. Circuit in *National Public Radio v. FCC*[10] supports its reading of the ORBIT Act. In *National Public Radio*, the court held that the FCC could not hold auctions for non-commercial educational broadcasters ("NCE") pursuant to Section 309(j)(2) of the Communications Act of 1934, as amended.[11] The court stated that Section 309(j)(2)'s denial of auction authority to the FCC is based on the nature of the station that ultimately receives the license, and not the part of the spectrum in which the station operates. This is contrary to Northpoint's position concerning the ORBIT Act, and thus, Northpoint's reliance on this decision is misplaced. Of course, the court's holding in *National Public Radio* only applies to the auction of NCE licenses, and has no direct bearing on the ORBIT Act at all. However, *National Public Radio*'s interpretation of Section 309(j)(2) is actually similar to the ORBIT Act in that both statutes preclude the Commission from auctioning licenses based on the nature of the station involved. In the case of *National Public Radio*, it is whether the station is for an NCE; in the case of the ORBIT Act, it is whether the station is for global or international satellite use.

Finally, Northpoint states that the LOCAL TV Act of 2000[12] requires the Commission to ensure that all applicants to provide terrestrial service in the direct broadcast satellite frequency band are technologically qualified to share the spectrum with other users, and that no other "applicant" has participated in DBS interference studies.[13] As Northpoint itself pointed out, the LOCAL TV Act is only applicable to entities that have filed applications (*i.e.*, applicants). It does not serve to establish a filing window or cut-off date for MVDDS. Because no applications

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[10] *National Public Radio v. FCC*, 354 F.3d 226 (D.C. Cir. 2001).

[11] 47 U.S.C. § 309(j)(2).

[12] Launching Our Communities' Access to Local Television Act of 2000, Pub. L. No. 106-553, App. B, Tit. X, § 1012, 114 Stat. 2762, 2762A-128, 2762A-141 ("LOCAL TV Act").

[13] *Comments of Northpoint Technology, Ltd., and Broadwave USA, Inc.* at 19, filed March 12, 2001.

have been filed for the MVDDS, no entity need demonstrate its technical capabilities at this time, and the LOCAL TV Act has no immediate effect on the current proceeding.

MDS America has arranged for independent testing of its own technology, and the results demonstrate its equipment's ability to co-exist with Direct Broadcast Satellite operations without causing harmful interference. MDS America will soon be submitting the test report as part of this docket for Commission review. Unlike the Northpoint testing conducted by MITRE, MDS America's testing was not intended to confirm its equipment's theoretical lack of harmful interference. Because MDS America's equipment is fully operational in overseas, MDS America's tests were intended as a showcase in the United States of its fully developed technology.

MVDDS Mutual Exclusivity Will Compel Commission Auctions; Such Exclusivity Does Not Yet Exist Because the Filing Window Has Not Yet Been Opened

Northpoint also asserts that auctions are possible only in the presence of mutually exclusive, *bona fide* applications. Northpoint is correct in one facet of this argument: mutually exclusive applications generally do compel the Commission to hold auctions pursuant to the Communications Act. However, in the case of terrestrial services in the 12.2-12.7 GHz band, Northpoint argues that there can be no mutual exclusivity because, among other things, only Northpoint and its affiliates filed applications before the cut-off date established by the Commission's call for satellite station applications, and it is too late to accept competing applications for terrestrial operations. Northpoint's arguments are posited on the assumption that FCC's *Ku Band Cut-Off Notice*[14] should be construed as inviting applications for any new service in that band, whether terrestrial or satellite.[15] Such an assumption is patently absurd.

Pursuant to established precedent, it is only required that, based on a fair reading of the FCC's notice, parties knew or should have reasonably known what was expected of them.[16] Notice of the Commission's cut-off date must have been reasonably comprehensible to people of good faith.[17] However, the FCC's *Ku Band Cut-Off Notice* could not possibly have placed the public on notice that the Commission was seeking applications for all possible operations in the Ku Band. The Commission's notice only referred to the filing of applications for non-geostationary satellite orbit fixed satellite service applications. Nowhere in the text of the *Ku Band Cut-Off Notice* does the FCC ask for applications for any other service. As former Commissioner Harold Furchgott-Roth remarked in his statement to the *First Report and Order and Further Notice of Proposed Rule Making*, "Northpoint's approach ultimately suggests that the FCC should license all uses for a given band at once. Thus we would have a single integrated 12.2-12.7 GHz band proceeding . . . . In this regime . . . [t]he Commission's role

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[14] *Public Notice*, Report No. SPB-141 (rel. Nov. 2, 1998).

[15] *See, Ex Parte Filing of Northpoint Technology, Ltd.*, filed August 29, 2000.

[16] *See McElroy v. FCC*, 990 F.2d 1351, 1358 (D.C. Cir 1993) (citations omitted).

[17] *Id.*

would be limited largely to referee."[18] While the Commission is certainly entitled to hold such an integrated proceeding, it must first actually intend to conduct such a proceeding, *and* provide the public with appropriate notice, before doing so.

As Northpoint maintains, under the Communications Act, the FCC is required to hold auctions for mutually exclusive applications. Although there are a small handful of exceptions (including for the NCE stations mentioned in *National Public Radio*), none of those exceptions apply to MVDDS. When the Commission requests applications for MVDDS, mutual exclusivity of those applications will require the Commission to auction that spectrum in compliance with Section 309(j) of the Communications Act.

* * * * * *

Northpoint's statements in its September 19, 2001 *ex parte* presentation and letter are insupportable and without merit, and MDS America urges the Commission to move forward with auctions to award licenses in the MVDDS service. Should you have any questions with respect to this matter, please do not hesitate to contact the undersigned.

Respectfully submitted,

Nancy K. Spooner

Nancy K. Spooner
Tony S. Lee

Counsel for MDS America, Incorporated

cc: Kirk Kirkpatrick
Andrew Ray
Helen Disenhaus

[18] *First Report and Order and Further Notice of Proposed Rule Making* at 189.

APPENDIX A

Letter from MDS America Patent Counsel

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October 18, 2001

Ms. Jane Mago
General Counsel
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: ***Ex Parte* Communication in ET Docket No. 98-206; RM-9147; RM-9245; Applications of Broadwave USA et al., PDC Broadband Corporation, and Satellite Receivers, Ltd., to provide a fixed service in the 12.2-12.7 GHz Band; Requests of Broadwave USA et al. (DA 99-494), PDC Broadband Corporation (DA 00-1841), and Satellite Receivers, Ltd. (DA 00-2134) for Waiver of Part 101 Rules.**

Dear Ms. Mago:

We are counsel to MDS America in connection with matters relating to intellectual property. As discussed in detail below, we write to you to clarify patent issues associated with the above identified proceedings, raised by Northpoint Technologies, Inc. ("Northpoint") in its September 17, 2001 letter to you.[1]

First, the scope and validity of Northpoint's patents is presently being reviewed in litigation pending between MDS America and Northpoint in the United States District Court for the Southern District of Florida. In that case, MDS America has asked the court to declare that its proven terrestrial transmitter technology, which has been implemented in Europe for years and validated in the U.S. in recent testing pursuant to an experimental license, does not infringe the alleged invention claimed in Northpoint's patents. MDS America has also asked the court to declare Northpoint's patents invalid. MDS America expects to introduce its transmitters into the U.S. market as part of the deployment of MVDDS.

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[1] *See, Ex Parte Filing of Northpoint Technology, Ltd.*, ET Docket No. 98-206, filed Sept. 19, 2001.

Second, MDS America writes to demonstrate that:

(i) The law is clear that adopting MVDDS rules proposed in the Commission's December 8, 2000 Further Notice of Proposed Rulemaking[2] does not place the Commission in "irreconcilable conflict" with the U.S. Patent and Trademark Office; and

(ii) The alleged inventions claimed in Northpoint's patents are not an impediment to the commercial development of MVDDS.

In Northpoint's letter to you of September 17, 2001, Northpoint asserted that it has patents, including U.S. Patent No. 6,169,878, that broadly cover terrestrial broadcasts at satellite frequencies. Northpoint further asserted that "if the license to provide MVDDS were granted to anyone other than Broadwave, the Commission's requirement would be tantamount to a mandate that the licensee infringe Northpoint's '878 patent." Northpoint then argues that for these reasons, "[a]dopting rules such as those already suggested in the Notice would place the Commission in irreconcilable conflict with the U.S. Patent and Trademark Office."

By stating that the Commission would have an irreconcilable conflict with the U.S. Patent and Trademark Office, Northpoint's letter implies that the Commission lacks the authority to adopt the MVDDS rules. This is simply erroneous as a matter of law, even if the proposed rules would require infringement of a valid and enforceable claim within Northpoint's patents.

The law is clear that the U.S. Government cannot be sued for collateral acts of patent infringement which include inducement of infringement and contributory infringement, even though the U.S. Government can be sued for direct acts of infringement. See Gargoyles, Inc., and Pro-Tec, Inc. v. The United States 113 F.3d 1572, 1581 (Fed. Cir. 1997) (stating "... we agree with the government that ... the government has not waived sovereign immunity for collateral acts like inducement and contributory infringement."); see also Motorola, Inc. v. The United States, 729 F.2d 765 (Fed. Cir. 1984) ("the Government can only be sued for any direct infringement of a patent (35 U.S.C. §271(a)), and not for inducing infringement by another (section 271(b)) or for contributory infringement (section 271(c))") In general, inducement of infringement occurs when an individual intentionally encourages others to infringe a patent. Contributory infringement occurs when an individual intentionally provides a part of an infringing article or process when the part provided has no substantial, non-infringing use.

By adopting rules relating to the use of spectrum for the MVDDS, the Commission does not commit any direct act of infringement of Northpoint's patents. This is because the Commission does not itself make, use, sell or offer for sale the alleged inventions patented by Northpoint, which are the transmitters themselves and the methods for operating the transmitters.

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[2] *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*, ET Docket No. 98-206, FCC 00-418, First Report and Order and Further Notice of Proposed Rule Making, 16 FCC Rcd 4096 (2000).

Moreover, the Commission cannot commit any actionable inducement of infringement or contributory infringement by merely adopting rules governing the use of spectrum for MVDDS as the Gargoyles and Motorola cases make clear. For these reasons, there is no infringement by the Commission of the Northpoint patents and no conflict between the Commission and the U.S. Patent and Trademark Office respecting the Commission's rules for MVDDS.

Northpoint has also suggested that it is concerned that adoption of the MVDDS rules would "necessitate infringement" of Northpoint's patents. Northpoint never elaborates on why it is concerned, but it is clear that there is no cause for concern. Taking Northpoint's suggestion as correct, the market for MVDDS would not be hindered in its development in any way because Northpoint can license its technology to service providers and manufacturers of transmitter equipment. Moreover, Northpoint has already announced its plans to widely license its technology for this purpose[3] and accordingly any mandate of the FCC is a boon to Northpoint and will likely speed Northpoint's efforts.

Northpoint is not correct, however, as to the scope of the alleged invention in its patents as set forth in its letter. Northpoint greatly overstates the scope of its patents, stating that it has patented "any terrestrial transmitter broadcasting signals at a frequency used by a satellite but along a route different than the satellite transmissions."[4]

Northpoint's unreasonably broad interpretation would include within the scope of Northpoint's patents existing microwave service which operates in the DBS frequency range and has been in existence in the U.S. for many years prior to the filing date of Northpoint's patents. It is axiomatic in patent law that any act which would infringe a patent if performed after issuance of the patent necessarily invalidates the patent if done sufficiently prior to filing for the patent. The pre-existing microwave service in the DBS spectrum, which significantly predates Northpoint's patent filing dates, therefore invalidates claim 18 of Northpoint's '878 patent as interpreted by Northpoint. This illustrates that the scope of the alleged invention claimed in Northpoint's patents is either much more narrow than suggested by Northpoint or that the claims are invalid.

Again, the scope and validity of Northpoint's patents is presently at issue in litigation pending between MDS America and Northpoint in the United States District Court for the Southern District of Florida. MDS America is confident it will prevail in that litigation and expects to introduce its transmitters into the U.S. market as part of the deployment of MVDDS.

---

[3] See Exhibit A attaching a page from Northpoint's website in which Northpoint states, "In 1999 we formed Broadwave USA, Inc. and, together with 68 local affiliates from all over the country, file applicants (sic.) at the Federal Communications Commission to create a new nationwide video and data distribution system using Northpoint technology. The Broadwave system will operate in head to head competition with direct broadcast satellite providers and local cable companies."

[4] See the claim chart for claim 18 of U.S. Patent No. 6,169,878 annexed to Northpoint's September 17, 2001 letter.

For the foregoing reasons, Northpoint's patents should not be viewed as an impediment to the adoption of rules to implement MVDDS or to the flourishing of MVDDS after adoption.

Respectfully Submitted,

Robert C. Bertin

Counsel for MDS America, Incorporated

cc: Kirk Kirkpatrick
Andrew Ray

EXHIBIT A

NORTHPOINT

Join the Bandwidth Revolution

Our company was founded in 1996 to commercialize an important new technology developed in the early 90s by the Austin based husband and wife engineering team, Carmen and Saleem Tawil.

Our system is called Northpoint and it is a digital wireless system that allows terrestrial and satellite broadcasts to occur simultaneously on the same frequencies. This technology has revolutionary implications for the telecommunications industry because Northpoint enables spectrum capacity to double in the bands where it is employed.

We first tested Northpoint in 1997 on the King Ranch, owned by the family of one of our other founders, Katherine Reynolds. Shortly afterwards, our current president, Sophia Collier opened our office in Washington to mount a full time effort to gain the regulatory approval sought by the Tawils since 1994.

In 1999, we formed Broadwave USA, Inc. and, together with 68 local affiliates from all over the country, filed applicants at the Federal Communications Commission to create a new nationwide video and data distribution system using Northpoint technology. The Broadwave system will operate in head to head competition with direct broadcast satellite providers and local cable companies.

Using Northpoint technology, our new service will have much more capacity than DBS providers and provide significantly lower cost services to consumers than both DBS and cable.

Lower cost consumer services are just the beginning of what Northpoint can do. Beyond the current application for consumer services on the 12 GHz band, Northpoint can also be used in other frequencies bands for a wide variety of other purposes.

This is an exciting time for Northpoint. We ask you to join us in the bandwidth revolution.

NOTE:

We have no relationship with the defunct DSL provider Northpoint Communications!