

Before the
Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)

Experimental License of)
MDS America, Incorporated)

File No. 0095-EX-PL-2001
Call Sign WC2XPU

**OPPOSITION OF MDS AMERICA, INCORPORATED TO EMERGENCY
PETITION FOR A CEASE AND DESIST ORDER AND FOR A FREEZE ORDER**

MDS America, Incorporated ("MDS America") hereby files its opposition to EchoStar Satellite Corporation ("EchoStar") and DIRECTV, Inc.'s ("DIRECTV's") joint Emergency Petition for a Cease and Desist Order and for a Freeze Order¹ to prevent MDS America from conducting experiments duly authorized in accordance with the Commission's rules by Experimental License 0095-EX-PL-2001. The DBS Operators' Petition represents yet another attempt by them to prevent experimentation that would demonstrate the viability of terrestrial wireless broadband technologies in the 12.2 to 12.7 GHz frequency band. The Commission will recall that in 1999, the DBS Operators attempted to stop Northpoint Technology Ltd.'s ("Northpoint's") testing, raising the same types of claims that there would be great harm to DBS

¹ Emergency Petition for a Cease and Desist Order and for a Freeze Order of EchoStar Satellite Corporation and DIRECTV, Inc., File No. 0095-EX-PL-2001, (filed June 15, 2001 ("DBS Operators' Petition").

customers.² Those claims proved baseless. Now the DBS operators are crying wolf once again, reflexively. Their position today is even more lacking in merit than their earlier filings because now we have the benefit of the record of the prior terrestrial tests. Those tests showed no loss of DBS service despite the dire warnings of the DBS operators. The Commission should recognize the DBS Operators' Petition for what it is: merely a thin retread of already discredited arguments, raised by companies who desperately wish to preserve their incumbent status without facing the specter of greatly expanded competition. Accordingly, the DBS Operators' Petition should be denied.

I. BACKGROUND

MDS America is the U.S. licensee for MDS International, a company that has sold Multichannel Video and Data Distribution Service ("MVDDS") systems to provide video and high-speed Internet access services in various locations around the world. On April 20, 2001, MDS America applied for an Experimental License to demonstrate the capabilities of the MDS technology and to show that it poses no interference threat to the operation of DBS in the United States. After careful consideration of the application, an Experimental License was appropriately granted by the Commission on May 2, 2001.³

² Application of DIRECTV, INC. for Expedited Review and Request for Immediate Suspension of Testing. File No. 0094-EX-ST-1999 (filed June 25, 1999), and Emergency Petition for Cease and Desist Order of EchoStar Satellite Corporation and EchoStar 110 Corporation. File No. 0094-EX-ST-1999 (filed July 26, 1999).

³ File No. 0095-EX-PL-2001. The DBS operators seem to be operating under the misapprehension that the Commission's grant was for a Special Temporary Authorization ("STA"), as their pleading is captioned in that fashion and refers to the Experimental License as an STA throughout. Perhaps the reason is that the Northpoint testing in 1999, the arguments against which they regurgitate here, was pursuant to an STA. In any event, MDS America was granted an Experimental License, as the file number indicates, not an STA.

The test site is near Clewiston, Florida, on land owned by the United States Sugar Corporation, which given the rural nature of the area, should minimize others' potential concerns regarding interference. In addition, the Experimental License requires newspaper notices of the testing, with a telephone number for DBS subscribers to call in case of interference; requires that testing be stopped if there is an interference complaint, while it is investigated and resolved; and requires that MDS America work jointly with DIRECTV and EchoStar to investigate interference complaints. Similar conditions were placed earlier on Northpoint's testing by the Experimental Licensing Branch of the Office of Engineering and Technology.

II. MDS AMERICA'S TESTS WILL PROVIDE VALUABLE INFORMATION REGARDING CREATIVE USE OF RADIO SPECTRUM

One of the major challenges facing the Commission is the scarcity of available radio spectrum in the face of increasing demands for spectrum usage. One solution to this ever-increasing problem is the creative use of spectrum by multiple services. That is what the Commission has attempted to do with the 12.2 to 12.7 GHz spectrum band by proposing to have it utilized by three services: DBS and NGSO satellites and the MVDDS terrestrial service. The response to this effort must be somewhat dispiriting to the Commission because the interested parties seem to have focused their energies to date largely on turf-protective squabbling, rather than on efforts to engineer solutions.

MDS America's tests can provide the Commission with valuable information as to how terrestrial and satellite services can share the same spectrum in the most efficient fashion, based on the real-world experience of MDS International. The public interest value of these tests is quite high because MVDDS is potentially a very significant service. MVDDS may provide competition to both cable and DBS, as well as provide a new means to deliver Internet services, and may prove to be a particularly cost-effective service for currently vastly underserved rural

areas. Thus, the experiments proposed by MDS America fit squarely within the Commission's mandate under Section 303(g) of the Communications Act to: "Study new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest."⁴

The DBS operators seem to be making two arguments against any further testing: that the Commission acted too quickly in granting MDS America its Experimental License, and that the MITRE Report should be the last word in testing: "[t]his is not a time for more private experiments. It is a time for digesting and evaluating the results of the independent tests mandated by Congress."⁵ As to the first argument, it is quite strange to hear the private sector criticize the Commission for doing its job expeditiously; one would think the Commission instead should be congratulated for moving forward at a brisk pace in accomplishing its job, while at the same time carefully observing established agency procedures on the subject. Indeed, it is strong Commission policy, consistent with its statutory mandate, to promote access to advanced services⁶ and to "ensure that we do not create regulatory barriers to the deployment of advanced services."⁷

The DBS Operators' second argument is, if anything even more odd. Congress most emphatically did not mandate, as the DBS Operators suggest, that the process that led to the MITRE Report was to be the end of all experimentation in the 12.2 to 12.7 GHz band. In fact, the view that nothing additional could be obtained through additional experimentation because of some alleged completeness underlying MITRE's conclusion, totally misunderstands the nature of

⁴ 47 U.S.C. §303(g).

⁵ DBS Operators' Petition at 3.

⁶ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable And Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, 15 FCC Rcd 20913 (2000).

⁷ *Federal-State Joint Board on Universal Service; Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, 2001 FCC LEXIS 2861, ¶ 201.

the scientific method, along with its principles demanding the objective verification and replication of particular conditions.

Nor has the MITRE Report ended the controversy as to whether DBS and MVDDS service can coexist in the 12.2 to 12.7 GHz band, at least in the eyes of the participants. The DBS Operators' Petition states flatly that MVDDS would "pose a risk of 'significant interference' into DBS."⁸ Northpoint, of course, argues directly to the contrary. While MDS America believes that the MITRE testing supports the view that DBS and MVDDS can co-exist, testing of the more mature, commercially-tested MDS technology will demonstrate that point in a more convincing manner than has been done previously.

The DBS operators also put forth a contradictory position regarding MDS America. First, they list MDS America's reasons to test: to demonstrate (1) that the MDS technology can reliably deliver full-bandwidth signals; (2) that MDS systems pose no threat of interference to DBS; and (3) to do so in both a uni- and omni-directional configuration. They then complain that "[i]t is not surprising that MDS America would feel compelled to make such demonstrations . . . [because] it has provided the Commission and the public with little information. . . ."⁹ One would anticipate that the next logical step in the argument would be that MDS America should be required to test to prove its points. Instead, the DBS operators veer back to arguing that MDS America's testing is "unnecessary given the information already known about the harmful interference created by MVDDS systems."¹⁰ They then discuss mitigation, opining that "[m]itigatory changes suggested by MITRE to MVDDS system operation or design are unworkable or impractical."¹¹

⁸ DBS Operators' Petition at 2.

⁹ *Id.* at 4-5.

¹⁰ *Id.* at 5.

¹¹ *Id.* at 6.

This chain of argument lacks any logical sequence. First, MDS America proposes to test in part to provide the Commission and public with additional information about the MDS technology and its contributions to the development of radio art. The DBS operators' criticism that little is known about MDS technology¹² is a reason to support testing, not prevent it. Second, the DBS operators' opinions regarding acceptable mitigation techniques are far from writ. To the extent that MDS America may utilize mitigation techniques of its own, or in using techniques proposed by Mitre, may elicit substantially different results than those resulting from use of the Northpoint technology, significant data may be compiled. Among the techniques and design elements utilized by MDS technology for instance, are: (1) the use of proprietary radio frequency field prediction software; (2) changing the signal convolution of the terrestrial QPSK signal; and (3) use of specially designed transmit antennas.

Thus, even to the extent the MDS America testing protocols replicate those utilized previously, the use of a different technology, that of MDS International, is likely to yield different (and in our view, superior) results. Such data will serve to advance the field of radio art. In short, the DBS Operators present no sound reason why MDS America should be prevented from demonstrating the viability of its technology.

¹² In reality, much information about MDS technology is available in MDS America's earlier filings at the Commission. MDS America Application for New or Modified Radio Station Under Part 5 of FCC Rules - Experimental Radio Service (Other Than Broadcast), File No. 0095-EX-PL-2001 (filed April 20, 2001); *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 Licenses and Their Affiliates; and Application of Broadwave USA, PDC Broadband Corporation, and Satellite Receivers, Ltd. to Provide A Fixed Service in the 12.2-12.7 GHz Band*, ET Dkt. No. 98-206 ("98-206 Rulemaking"), MDS America Initial Comments (filed March 12, 2001); and 98-206 Rulemaking, MDS America Reply Comments (filed April 5, 2001). In addition, DBS operators can learn quite a lot about MDS technology by clicking on www.mdsamerica.com. Or the DBS operators could have taken MDS America up on its offer to arrange a visit to the MDS International test facility in Lyon, France.

III. MDS AMERICA'S TESTS WILL NOT CAUSE HARMFUL INTERFERENCE TO DBS OPERATORS OR THEIR SUBSCRIBERS

The DBS operators also take a strangely schizophrenic position regarding interference. On the one hand, they allege that MDS America's testing "threatens to cause untold and irreparable damage to the DBS operators' relationship and goodwill with their customers in Central Florida".¹³ On the other hand, they complain that MDS America's test site is not "representative" because of its location and thus will not generate subscriber complaints.¹⁴ But then, they worry: "[h]ow can there be any certainty that MDS will scrupulously direct all of its transmissions at the large body of water generally adjoining its site?" With all due respect, this is plain silly. MDS America chose the site near Clewiston, a rural area, out of an abundance of caution, to minimize interference concerns, although it fully anticipates that no harmful interference will result from its tests. It will conduct the tests carefully to ensure that no interference inadvertently occurs. The Commission's grant of an Experimental License contains numerous safeguards. MDS America also chose the southerly to southeastern orientation for its unidirectional tests because those are directions with very little, if any, population.¹⁵

The DBS operators also complain that using "bit error rates as a criterion is fundamentally flawed. This parameter is not indicative of degradation to the link until it is so severe that picture artifacts will be present."¹⁶ This complaint makes no sense. Changes in the

¹³ DBS Operators' Petition at 8-9.

¹⁴ *Id.* at 7, 10.

¹⁵ MDS America most emphatically did not choose the southerly transmission because it subscribes to some Northpoint epiplany, as the DBS operators claim. DBS Operators' Petition at 5 n.7. MDS America has made it clear from its first filing addressing this subject that it did not use this configuration. *98-206 Rulemaking*, MDS America Initial Comments at 12. The only reason to use such a configuration here was to head off possible complaints from the DBS operators about any theoretical interference threat. MDS America also notes that captions for two of the coverage survey maps submitted with its Experimental License Application contained typos. The 20 meter AGL unidirectional map is oriented at 160° SE, not SW as can be seen from the map, and the omnidirectional antenna at 30 meters AGL, like that at 20 meters AGL, obviously has no orientation.

¹⁶ DBS Operators' Petition at 7.

bit error rate will show up well before any picture degradation is noticed. Notably, the DBS operators put forth no suggestion as to a superior criterion to measure interference.

In addition, the DBS operators worry needlessly because MDS America's Test Plan refers to testing during rainy conditions. But the Test Plan makes it clear that such tests will only be conducted with prior permission from the Experimental Licensing Branch, and the Experimental License itself contains protections relating to rain tests, requiring that they be conducted under controlled conditions and that technical details be submitted a week prior to beginning such tests.¹⁷

Based solely on their forvid imagination, and resolutely ignoring the careful conditions placed on MDS America's Experimental License by the Commission and the experience of prior MVDDS testing, the DBS operators foretell "untold and irreparable damage ..."¹⁸ This hysterical charge, made with no factual basis whatsoever, is unbecoming. Indeed, MDS America's Experimental License contains Special Conditions that are even more stringent than those imposed in the Northpoint Experimental License; as tests conducted pursuant to the Northpoint License showed no loss of DBS service, there is no reasonable basis to conclude that tests conducted pursuant to MDS America's Experimental License will pose any greater risk of interference with DBS.¹⁹

The reality of the situation is that DBS operators are seeking to convert what should be a scientific experiment that can shed light on important issues facing the Commission, as well as on MDS America's capabilities, into a political war. We suggest that they reconsider this course

¹⁷ Experimental License 0095-EX-PL-2001, Special Condition 10.

¹⁸ DBS Operators' Petition at 8.

¹⁹ Compare the Special Conditions of MDS America's Experimental License, File No. 0095-EX-PL-2001 (effective May 21, 2001) with those of Northpoint's, File No. 0094-EX-ST-1999 (Sept. 14, 1999). All of the conditions required in the latter license are reflected also in MDS America's--almost jot-for-jot--with the exception of only minor differences in the detailed test plan requirements of the two. Additionally, MDS America's Experimental License requires: the filing of a Progress Report (Special Condition 3), coordination with all microwave licensees in the area (Special Condition 7); a maximum antenna height limitation (Special Condition 8); and restrictions on testing during rain conditions (Special Condition 10).

and cooperate with MDS America's testing; if they do so, perhaps they might learn something about the capability of MVDDS and DBS services to co-exist in the Ku-band.²⁰

IV. THERE IS ABSOLUTELY NO REASON TO ISSUE A FREEZE

The DBS operators' final demand is for a freeze on any further experimental authorization in the 12.2 to 12.7 GHz band. While not pertinent to MDS America, which already has its Experimental License, it would certainly be untoward for the Commission to prevent other companies from conducting well-grounded experiments in this area (or any other). The DBS operators seem to have the attitude of the medieval authorities toward Copernicus and Galileo; further thought or experimentation might lead to unpalatable scientific advances and thus must be prohibited.

Most remarkable is their fear of "an ever-increasing group of opportunistic would-be-experimenters" In America, we generally call "opportunistic would-be experimenters" entrepreneurs and encourage their efforts. At one time, similar invective no doubt was hurled at DBS pioneers, such as Stanley Hubbard and Charles Ergen. Fortunately, the Commission evaluated the claims of those "opportunistic would-be experimenters" in the spirit of the Communications Act and the result is the DBS industry, a spectacular benefit for the American public.

It appears that now that DBS has become established as a multi-billion dollar industry, it has forgotten its origins as a once innovative service; it is time it remember its roots, at least to

²⁰ The DBS operators also ask that if testing proceeds, MDS America should be ordered to reimburse them for expenses incurred by DBS personnel in monitoring the tests. DBS Operators' Petition at 9, n.19. This ridiculous request is indicative of the total lack of cooperation by the DBS operators during the entire MVDDS proceeding. EchoStar made the same unreasonable demand in regard to the Northpoint testing in 1999. *See*, EchoStar Emergency Petition for Cease and Desist Order, File No. 0094-EX-ST-1999 (filed July 26, 1999) at 8. The Commission gave short shift to this argument in relation to the Northpoint testing, stating: "[C]ontrary to the argument of the DBS licensees, they are not entitled to any reimbursement from the experimenting station for their monitoring costs. Monitoring is simply a voluntary choice for the DBS licensees; they are not required to engage in monitoring if they do not wish to do so." *Diversified Communications Engineering, Inc.; Experimental Radio Station WA2XMY; Modification of License Austin, TX and King Ranch, TX; Special Temporary Authority Washington, D.C.*, Memorandum Opinion and Order, File No. 6001-EX-MR-1998, File No. 0094-EX-ST-1999, (rel. Feb. 4, 2000), ¶ 12. This shameless repeat of a previously rejected demand should be summarily denied.

the extent of not attempting to thwart the development of newer, more innovative services, even if these developments are made by potential competitors.

V. CONCLUSION

For the foregoing reasons, the Commission should deny the DBS Operators' Petition in its entirety.

Respectfully submitted,

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