

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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Policy Branch
International Bureau Federal Communications Commission
Office of Secretary

In the Matter of)

EchoStar Satellite LLC)

Application for Authority to Construct,
Launch, and Operate a Geostationary
Satellite Using the Extended Ku-band
Frequencies in the Fixed-Satellite Service
at the 101° W.L. Orbital Location)

File No. SAT-LOA-20040210-00015

File No. SAT-AMD-20040428-00085

Call Sign: S2615

To: International Bureau

REPLY

EchoStar Satellite L.L.C. ("EchoStar") hereby files this Reply to the Opposition of Mobile Satellite Ventures Subsidiary LLC ("MSV") to EchoStar's Petition for Reconsideration of the International Bureau's ("Bureau's") order that denied the above-captioned application ("the EchoStar Refiled Application") to construct, launch, and operate a satellite at the 101° W.L. orbital location.¹

The Bureau denied the EchoStar Refiled Application solely based upon a finding that the proposed EchoStar satellite would cause "harmful interference" to the "previously licensed operations" of MSV.² The Bureau's decision, however, was not well-grounded in fact and law and should be reconsidered. Indeed, the technical sharing analysis presented by

¹ See *In the Matter of EchoStar Satellite LLC*, DA 05-1955 (rel. July 6, 2005) ("*EchoStar Order*"); see also EchoStar Petition for Reconsideration of *EchoStar Order* (Aug. 5, 2005) ("*EchoStar Petition*"); MSV Opposition to EchoStar Petition for Reconsideration of *EchoStar Order* (Aug. 18, 2005) ("*MSV Opposition*").

² *EchoStar Order* at ¶4. See *In the Matter of Mobile Satellite Ventures Subsidiary LLC*, DA 05-1492 (rel. May 23, 2005) ("*MSV Order*").

EchoStar in support of its Petition, which shows how both the MSV and EchoStar satellites can operate co-frequency from the same orbital location, goes virtually unchallenged by MSV. Accordingly, the EchoStar Refiled Application should be reinstated and promptly granted.

I. THE PROPOSED ECHOSTAR SATELLITE AT 101° W.L. WOULD NOT CAUSE HARMFUL INTERFERENCE TO MSV'S LICENSED OPERATIONS

In denying the EchoStar Refiled Application, the Bureau concludes that operation of EchoStar's proposed satellite "would cause harmful interference to MSV's previously licensed operations."³ Significantly, the Bureau did not cite to any record evidence to support such a finding, and the MSV Opposition does nothing to bolster the Bureau's erroneous conclusion.

MSV's Opposition suggests that dismissal of the EchoStar Refiled Application was appropriate because the "only information in the record as to the possibility of sharing was EchoStar's bare assertion that it was possible."⁴ To the contrary, the record reflected that MSV, had supported EchoStar's view that co-frequency sharing by both satellites was possible, and even indicated that it was prepared to work with EchoStar to reach a sharing agreement.⁵ Only after it became clear to MSV that it no longer needed to support EchoStar's sharing proposals,

³ *EchoStar Order* at ¶ 4 (citing 47 C.F.R. § 25.158(b)(3)(ii)).

⁴ MSV Opposition at 5.

⁵ See EchoStar Petition at 10-11; see, e.g., Comments of MSV at 6 ("MSV agrees with EchoStar that sharing may be possible and is prepared to work with EchoStar to attempt to reach an agreement on sharing"), filed in SAT-LOA-20040210-00015 (April 26, 2004). In a letter just prior to the release of the *MSV Order*, although MSV argued that its application should be granted and EchoStar's application dismissed, MSV still did not dismiss the possibility of sharing and indicated its "willing[ness] to discuss the potential to share frequencies with EchoStar" even if the EchoStar Refiled Application was dismissed. Letter from Jennifer A. Manner (MSV Vice President of Regulatory Affairs) to Marlene H. Dortch (Secretary, FCC), filed in File Nos. SAT-LOA-19980702-00066 et al. (April 4, 2005).

did it reverse course and harden its position.⁶ Equally important, the record reflects another dispositive fact. The only use of the extended Ku-band frequencies at the orbital slot that MSV is authorized to make is for feeder link communications with a limited number of sites in the United States. The idea that sharing is impossible in these circumstances runs against the Commission's most fundamental spectrum policies. This points up the crux of the matter. If the Bureau does not reconsider its decision, MSV will have gotten away with monopolizing hundreds of MHz of nationwide spectrum at a key orbital slot, even though it only needs this spectrum at a handful of isolated sites. Thus, the record prior to the Bureau's decision could only be characterized as supporting the possibility of sharing.

In the *EchoStar Order*, the Bureau noted the parties' positions with regard to sharing.⁷ Further, in the *MSV Order*, the Bureau acknowledged that EchoStar "may be able to coordinate shared use of" the extended Ku-band frequency bands with MSV.⁸ The Bureau further stated that "[i]f the parties reach agreement, we will entertain a request that involves co-frequency operations."⁹ Thus, while the Bureau appears to accept the possibility of sharing, and even appeared to encourage the parties to reach a private sharing agreement, it never took this

⁶ See Letter from Jennifer A. Manner, MSV Vice President of Regulatory Affairs to Donald Abelson, Chief of the International Bureau at 1 (June 15, 2005) (claiming that the EchoStar Refiled Application is "mutually exclusive" with the recently granted MSV application); Letter from Bruce D. Jacobs (Counsel to MSV) to Pantelis Michalopoulos and Philip L. Malet (Counsel to EchoStar) at 2 (June 15, 2005) ("Moreover, your proposal for two satellites to share the same frequencies at the same orbital location is novel. Any discussions regarding the feasibility of this untested concept will be highly technical in nature involving considerable engineering and legal resources. MSV finds it highly unlikely that the parties will reach any agreement in just two weeks.").

⁷ See *EchoStar Order* at ¶ 2 n.7.

⁸ *MSV Order* at ¶16 n. 45. See also *EchoStar Order* at ¶ 2 n.7.

⁹ *Id.*

possibility into account when it found just over a month later in the *EchoStar Order* that the proposed EchoStar satellite will cause "harmful interference" to MSV's limited feeder link operations.

MSV now suggests that EchoStar has conceded that its proposed satellite would cause "harmful interference" to MSV's feeder link operations by the very fact that it is seeking a coordination agreement with MSV.¹⁰ However, to accept this argument would require the Bureau to deny all of the satellite applications that it routinely grants on the condition that the licensee enter into a coordination agreement with a previously licensed party. Coordination and sharing of spectrum between licensed parties is the reality in today's crowded marketplace for spectrum, especially in the satellite industry.¹¹

In light of MSV's fluid and self-serving positions on this critical issue, EchoStar submitted a technical analysis explaining how the two operators could share the same orbital location without causing harmful interference to each other. The MSV Opposition fails to challenge the fundamental premise of the EchoStar Petition and its sharing analysis which concludes that, with EchoStar's and MSV's particular requirements for use of the extended Ku-band, sharing is possible using co-frequency collocated satellites, without placing undue constraints on either party. Unable to challenge this conclusion, MSV suggests that the sharing

¹⁰ MSV Opposition at 6.

¹¹ MSV is well-aware that coordination is a reality in order to maximize the use of spectrum. See, e.g., *Mobile Satellite Ventures Subsidiary LLC Application for Authority to Launch and Operate an L-band Mobile Satellite Service Satellite at 63.5° W.L.*, DA 05-50 at ¶ 49 (2005) ("MSV shall coordinate with co-primary Space Operations Service stations in the 1525-1559 MHz band and will not be entitled to protection from interference until it has completed coordination."). This includes co-frequency coordination between satellite systems. See, e.g., *In the Matter of Hughes Communications Galaxy, Inc. Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, 13 FCC Rcd. 1351, 1359 (1997) (requiring Hughes to coordinate with the U.S. Government space systems operating in the 17.7-18.8 and 19.7-20.2 GHz bands).

analysis offered by EchoStar is "too late" and that EchoStar's operations would unfairly "restrict MSV's flexibility to operate feeder link earth stations now and in the future."¹²

The Bureau should reject any suggestion by MSV that new information cannot be presented through a petition for reconsideration. The Commission's Rules specifically contemplate that such a petition may rely on facts not previously presented when it would be in the public interest to do so.¹³ MSV also mischaracterizes the purpose behind EchoStar's sharing analysis. It is not being presented by EchoStar to correct a deficiency (which does not exist) in its original application, as in the precedent cited by MSV, or to somehow restrict the design and implementation of MSV's system; rather, this sharing analysis simply illustrates to the Bureau what both parties have previously stated on the record -- *i.e.*, that sharing is possible. EchoStar is not suggesting that its analysis sets forth the definitive means by which the parties can operate successfully. EchoStar understands that without MSV's cooperation it will not be able to complete coordination of the two proposed satellites. It is precisely for this reason, that the Bureau require both parties, as a condition of their authorizations, to coordinate the operation of their respective satellites with one another.¹⁴

MSV finds it significant that EchoStar waited some eighteen months after filing its application before approaching MSV about coordination, and did not do so until MSV's application was granted.¹⁵ This delay, however, is nothing unusual. Such coordination rarely begins in advance of an application being granted by the Commission. After MSV's application

¹² MSV Opposition at 6.

¹³ See 47 C.F.R. §1.106(c).

¹⁴ See EchoStar Petition for Clarification and/or Reconsideration, File No. SAT-LOA-19980702-00066 *et al.* at 7-8 (filed June 22, 2005); EchoStar Petition at 15.

¹⁵ MSV Opposition at 6 n.15.

was granted, EchoStar promptly approached MSV about establishing a process for coordinating satellite operations consistent with what the parties had previously indicated on the record. It was only then, emboldened with its authorization, that MSV conveniently began to back away from its prior statements concerning sharing and its willingness to discuss coordination. The Bureau should see MSV's actions for what they are -- a transparent attempt to turn its limited authorization in the extended Ku-band for two domestic feeder link earth stations into the ability to preclude any other use of the spectrum from the 101° W.L. orbital location anywhere in the country.

MSV only substantive criticism, if one could call it that, of EchoStar's sharing analysis is predicated on the mistaken view that MSV's authorization allows it to operate more than two feeder link earth stations in the United States. It asserts that EchoStar has incorrectly assumed "no more than four feeder link earth stations and [MSV] would not be permitted to relocate those earth stations."¹⁶ In fact, EchoStar demonstrated that at least twice as many MSV feeder links as it is currently authorized to operate could be accommodated under EchoStar's sharing proposal. MSV simply cannot rely on the "possibility" of being allowed to operate additional feeder link earth stations in the United States. As currently authorized, MSV is limited to two feeder link earth stations, and the Bureau has not indicated that MSV is entitled to any additional feeder link sites.¹⁷ While MSV may believe that it has a "nationwide and exclusive license," the reality is that it has a license to operate a nationwide beam in conjunction

¹⁶ MSV Opposition at 6.

¹⁷ See *MSV Order* at ¶ 66.

with only two feeder-link earth stations located in the United States.¹⁸ It does not have a license to deploy as many feeder link earth stations as it would like.¹⁹

In any event, EchoStar's sharing analysis is not predicated on restricting or limiting MSV's system design.²⁰ Rather, the sharing analysis examined several different scenarios including both two feeder link earth stations, as MSV is currently authorized and limited to use, as well as a total of four feeder link earth stations, in an effort to demonstrate the flexibility that MSV would have in designing and deploying its system. The analysis was not meant as a way to somehow limit MSV's intended operations.²¹ Indeed, as the attached supplement to EchoStar's technical analysis demonstrates (see Attachment A), sharing is possible between EchoStar and MSV even with an MSV system incorporating up to six feeder link earth stations.²² Consistent with the prior statements of EchoStar and MSV, the sharing analysis set

¹⁸ MSV Opposition at 7.

¹⁹ MSV suggests that it would be unprecedented to require a licensee to accommodate a later applicant by modifying or restricting its system design in any way. *See* MSV Opposition at 7. However, the Commission has done so routinely in an effort to facilitate sharing and maximize use of scarce spectral resources. For example, with respect to feeder links operated by the Big LEO MSS systems, licensees are limited in the number of feeder link earth stations they are permitted to deploy in an effort to accommodate sharing with LMDS and other GSO systems. *See* 47 C.F.R. § 25.257; *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*, 11 FCC Rcd. 19005, 19033-34 (1996).

²⁰ *See* MSV Opposition at 6.

²¹ *See* Attachment A of EchoStar Petition at 11. In fact, EchoStar also assumed that MSV would ultimately utilize spot beams for its feeder link operations, which it has confirmed in its Opposition. *See* MSV Opposition at 7-8.

²² EchoStar does not concede that MSV should be allowed to operate any additional feeder link earth stations in light of potential interference with the Fixed Service and the added constraints that such a system would place on EchoStar's proposed satellite system.

is possible using co-frequency collocated satellites, without placing undue constraints on either party.²³

MSV asserts that EchoStar does not need to have its application reinstated or granted "in order to discuss coordination with MSV or any other satellite operator."²⁴ Instead, it suggests that EchoStar first try to reach a "private agreement" with MSV and then seek Commission approval. While EchoStar agrees that private coordination agreements are the norm, it is difficult to take MSV's comments at face value when it was MSV that abruptly cancelled the scheduled coordination meeting shortly after it received its license and just prior to the release of the *EchoStar Order*.²⁵

EchoStar welcomes the opportunity to enter into meaningful coordination discussions with MSV. However, the reality is that by dismissing the EchoStar Refiled Application and granting the MSV Authorization, the Bureau has removed any incentive for MSV to engage in such discussions. Further, MSV's support of a private coordination agreement in the absence of reinstating EchoStar's application ignores the prejudice to EchoStar that may result by subjecting it to intervening applications for use of the same extended Ku-band frequencies. Without a reversal of the *EchoStar Order*, coordination discussions are unlikely to

²³ The Bureau should dismiss MSV's ridiculous claims that its use of the Ku-band "represents a far more efficient use than EchoStar's proposal." MSV Opposition at 8. EchoStar's proposal is very similar to the extended Ku-band authorizations already approved by the Bureau at other orbital locations. In granting those authorizations, the Bureau was not persuaded by any claims of inefficiency and interference, and the Bureau should similarly reject them here. See, e.g. *In the Matter of EchoStar KuX Corporation Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-band Frequencies in the Fixed-Satellite Service at the 121° W.L. Orbital Location*, DA 04-3164 at ¶ 14 (rel. Sept. 30, 2004).

²⁴ MSV Opposition at 8.

²⁵ See EchoStar Petition at 9 n.25.

go anywhere, thereby squandering an opportunity to maximize use of the extended Ku-band frequencies at the 101° W.L. orbital location.

MSV finally suggests that co-frequency operations is not appropriate in the absence of sharing rules adopted by the Commission.²⁶ However, with both parties on the record stating that sharing is possible, sharing rules are not necessary -- instead, private coordination discussions mandated by the Bureau should be sufficient. The key to success is not the development of sharing rules, but requiring MSV to follow through with earlier statements supporting such discussions. As set forth in the Petition, EchoStar believes that to do so, the EchoStar Refiled Application should be reinstated and granted, and both parties be required to enter into coordination discussions as a condition of their licenses.

II. MSV SHOULD NOT HAVE FIRST-IN-LINE STATUS FOR THE EXTENDED KU-BAND FREQUENCIES AT THE 101° W.L. ORBITAL LOCATION

In the *EchoStar Order*, the Bureau found that denial of the EchoStar Refiled Application is appropriate because "MSV ha[s] first-in-line status with respect to the additional Ku-band spectrum requested by MSV at the 101° W.L. orbital location."²⁷ As set forth in the EchoStar Petition, EchoStar has two pending Applications for Review which, if either one is granted, would undermine this finding by the Bureau.²⁸ MSV argues that since the Bureau explained in the *EchoStar Order* that its decision to dismiss the EchoStar Refiled Application

²⁶ See MSV Opposition at 9.

²⁷ *Id.*

²⁸ See EchoStar Petition at 8.

was "without prejudice," there is no merit to EchoStar's claim that these Applications for Review should have been decided prior to the *EchoStar Order* and the *MSV Order*.²⁹

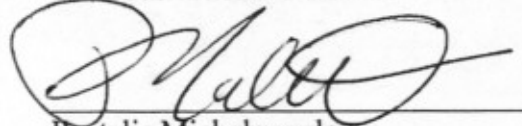
While the Bureau may believe that its decision in the *EchoStar Order* and the *MSV Order* is without prejudice to the pending Applications for Review, in practice, these decisions have unfairly prejudiced EchoStar by subjecting it to intervening applications for use of the same extended Ku-band frequencies. The better course of action would have been for the Bureau to have delayed its decisions in both the *EchoStar Order* and the *MSV Order* pending the outcome of the Applications for Review before the Commission.

III. CONCLUSION

For the reasons stated above and in EchoStar's Petition, the *EchoStar Order* should be reversed and the EchoStar Refiled Application reinstated and promptly granted.

Respectfully submitted,

EchoStar Satellite L.L.C.



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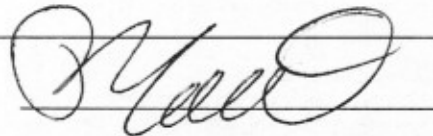
August 30, 2005

²⁹ MSV Opposition at 10-11.

CERTIFICATE OF SERVICE

I, PHILIP MAUTZ with the law firm of Steptoe & Johnson LLP, hereby certify that on this 30th day of August, 2005, served a true copy of the foregoing "Reply" by first class mail, postage pre-paid (or as otherwise indicated) upon the following:

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ATTACHMENT A

Supplement to MSV-EchoStar Sharing Analysis

A.1 Introduction

This analysis supplements the MSV-EchoStar Sharing Analysis that was included as an attachment to EchoStar's Petition for Reconsideration in this proceeding dated August 5, 2005. It has been generated to respond to the information recently provided by MSV in its Opposition dated August 18, 2005, in which MSV states its requirement to deploy spot beams "... and as many as three or four additional earth stations," in addition to the maximum of two feeder link earth stations that were a condition of its license.¹ In the MSV-EchoStar Sharing Analysis we demonstrated how EchoStar could share the same frequency band with up to four MSV feeder link earth stations. This Supplement extends that analysis to include up to six MSV feeder link earth stations and associated spot beams.²

A.2 Possible Use of Six MSV Feeder Link Earth Stations

Figure 2-1 below shows a scenario where MSV is operating six geographically isolated spot beams and associated feeder link earth stations (MSV beams shown in red). Because MSV has not given any indication as to the location of these feeder link earth stations we have

¹ It should be noted, however, that the two existing licensed earth stations are geographically too close together to permit spatial frequency re-use of the feeder link spectrum. Therefore the assumption of six geographically separated MSV feeder link earth stations is an over-estimate of what MSV may eventually use.

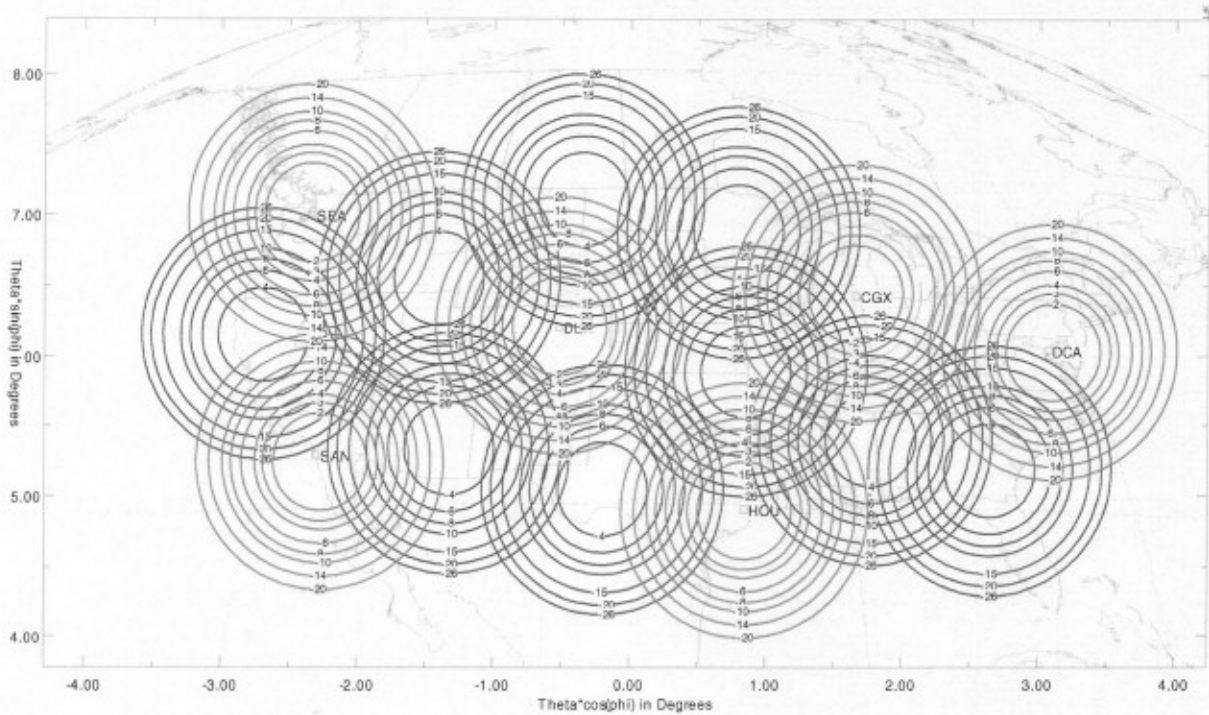
² EchoStar does not concede that MSV should be allowed to increase the number of feeder link locations from the currently authorized two earth stations. This analysis is intended to demonstrate how the two parties could coordinate the use of the extended Ku-band even if MSV were authorized to operate additional feeder link earth stations.

arbitrarily assumed they are located somewhere in the vicinity of the following metropolitan areas: Washington DC, Houston, Chicago, San Diego, Seattle and Denver. The first four of these are the same as used in the previous analysis. The two additional feeder link sites are assumed to be in Seattle and Denver. Note that the assumed MSV feeder link beams all achieve well in excess of 20 dB beam isolation from the other MSV spot beams, at the feeder link earth station locations.

The example EchoStar beams are shown in blue in Figure 2-1. These beams do not represent the limit on EchoStar's beam coverage possibilities, but rather just a representative example of beams that could easily be operated by EchoStar without causing harmful interference to MSV's assumed feeder link operations. Note that all of the assumed MSV feeder link earth stations are located outside of the -26 dB gain contour of the EchoStar downlink beams, which is consistent with the interference analysis provided in the original MSV-EchoStar Sharing Analysis.³ Note also that additional EchoStar beams could be added, or these beams could be moved, without exceeding this assumed condition.

³ See Section A.5 of the original MSV-EchoStar Sharing Analysis.

Figure 2-1 – Downlink Example with Six MSV Feeder Link Earth Stations



Blue = EchoStar beams; Red = MSV beams

A.3 Conclusions

Even with six MSV feeder link spot beams operating with six geographically separated MSV feeder link earth stations, there are still vast areas of the United States that could be provided service by EchoStar using the same frequencies and same orbital location as MSV. With constructive coordination between the parties, EchoStar and MSV would be able to share the extended Ku-band at the 101° W.L. orbital position.

CERTIFICATION OF PERSON RESPONSIBLE
FOR PREPARING ENGINEERING INFORMATION

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this pleading, that I am familiar with Part 25 of the Commission's Rules, that I have either prepared or reviewed the engineering information submitted in this pleading, and that it is complete and accurate to the best of my knowledge and belief.

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