

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

In the Matter of	)	
	)	
Mobile Satellite Ventures	)	
Subsidiary LLC	)	
	)	File No. SAT-AMD-20040209-00014
Amendment to Application for	)	Call Sign S2358
Authority to Launch and Operate a	)	
Replacement L-band Mobile	)	
Satellite Service Satellite at	)	
101° W.L.	)	

**ORDER**

Adopted: September 15, 2004

Released: September 15, 2004

By the Chief Satellite Division, International Bureau

**I. INTRODUCTION**

1. By this Order, we reinstate Mobile Satellite Venture's ("MSV") February 9, 2004 Amendment, File No. SAT-AMD-20040209-00014,<sup>1</sup> seeking to add 50 megahertz of spectrum to its pending application<sup>2</sup> for its next generation Mobile-Satellite Service ("MSS") system.

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<sup>1</sup> Mobile Satellite Ventures Subsidiary LLC, Amendment to Application for Authority to Launch and Operate a Replacement L-band Mobile Satellite Service Satellite at 101° W.L., File No. SAT-AMD-20040209-00014 (February 9, 2004) ("MSV February 2004 Amendment").

<sup>2</sup> The original application for a replacement satellite was filed by AMSC Subsidiary Corporation in July 1998. Application of AMSC Subsidiary Corporation, File No. SAT-LOA-19980702-00066 (July 02, 1998). In November 2001, the Commission approved the application of Motient and TMI Communications and Company, Limited Partnership to consolidate their U.S. L-band MSS operations into a new company called Mobile Satellite Ventures LP. See Motient Services Inc., TMI Communications and Company LP, and Mobile Satellite Ventures LLC, *Order and Authorization*, File No. SAT-ASG-20010302-00017 *et al.*, DA 01-2732 (rel. Nov. 21, 2001). Because of this consolidation of United States MSS operations, MSV, a wholly owned subsidiary of MSV LP, is now the Commission licensee of AMSC-1 satellite. MSV amended the 1998 application in 2000 and again in 2001. Amendment of Motient Services, Inc., File No. SAT-AMD-20001214-00171; Amendment of Motient Services, Inc., File No. SAT-AMD-20010302-00019 (March 2, 2001). The Commission placed this replacement application, as amended, on Public Notice in March 2001. *Public Notice*, Report No. SAT-00066 (March 19, 2001). In November 2003, MSV filed a minor amendment to this application. Application of Mobile Satellite Ventures Subsidiary LLC, SAT-AMD-20031118-00335 (November 18, 2003).

Accordingly, we grant MSV's Petition for Reconsideration<sup>3</sup> to the extent provided herein, reverse our April 23, 2004 *MSV Dismissal Letter*,<sup>4</sup> and clarify the information that MSV must submit in support of its amendment. The February 9, 2004 Amendment will be placed on public notice as acceptable for filing if all of the required information is properly submitted by September 28, 2004. We also deny the Opposition to the Petition for Reconsideration<sup>5</sup> filed by EchoStar Satellite Corporation ("EchoStar").

## II. BACKGROUND

2. In August 2003, EchoStar filed an application to construct, launch, and operate a satellite at the 101° W.L. orbital location that would provide Fixed-Satellite Service ("FSS") in the extended Ku-band.<sup>6</sup> In November 2003, EchoStar filed an amendment to its application outlining two system upgrades that subsumed its original application.<sup>7</sup> EchoStar's amended application requested authority to operate in, among other bands, the 10.70-10.75 GHz and 13.15-13.20 GHz bands.<sup>8</sup> On February 9, 2004, the Satellite Division dismissed without prejudice to refiling, EchoStar's amendment, and the underlying application as both incomplete and internally inconsistent.<sup>9</sup>

3. On February 9, 2004, after EchoStar's underlying application and amendment were dismissed, MSV filed an amendment<sup>10</sup> to its pending application for its next generation MSS

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<sup>3</sup> Mobile Satellite Ventures Subsidiary LLC, Amendment to Application for Authority to Launch and Operate a Replacement MSS Satellite at 101° W.L., Petition for Reconsideration, filed May 24, 2004 ("MSV Petition for Reconsideration").

<sup>4</sup> Letter to Lon C. Levin, Vice President, Mobile Satellite Ventures Subsidiary LLC, from Thomas S. Tycz, Chief, Satellite Division, International Bureau, Federal Communications Commission, dated April 23, 2004 (DA 04-1095) ("*MSV Dismissal Letter*").

<sup>5</sup> Mobile Satellite Ventures Subsidiary LLC, Amendment to Application for Authority to Launch and Operate a Replacement MSS Satellite at 101 W.L., Opposition to Petition for Reconsideration, filed Jun 7, 2004 by Echostar Satellite LLC (Echostar Opposition).

<sup>6</sup> Application of EchoStar Satellite Corporation for Authority to Construct, Launch and Operate a Geo-Stationary Satellite in the Fixed Satellite Service Using the Allotted Extended Ku-band Frequencies at the 101° W.L. Orbital Location, File No. SAT-LOA-20030827-00179, Call Sign S2492 ("EchoStar Application") (August 27, 2003). The extended Ku-band encompasses frequencies in the portions of the 10-14 GHz band.

<sup>7</sup> Amendment to Application of EchoStar Satellite Corporation for Authority to Construct, Launch and Operate a Geo-Stationary Satellite in the Fixed Satellite Service Using the Allotted Extended Ku-band Frequencies at the 101° W.L. Orbital Location, File No. SAT-AMD-200311126-00343, Call Sign S2492 (November 26, 2003) ("EchoStar Amendment").

<sup>8</sup> *Id.*

<sup>9</sup> Letter to David K. Moskowitz, Senior Vice President and General Counsel, EchoStar Satellite Corporation from Thomas Tycz, Chief, Satellite Division, Federal Communications Commission, DA 04-323, (rel. February 09, 2004) ("*EchoStar Dismissal Letter*") (finding the inconsistencies between requested Ku frequency bands and the Channel Frequency Plan).

<sup>10</sup> Application of Mobile Satellite Ventures Subsidiary LLC, SAT-AMD-20040209-00014 (February 9, 2004).

system requesting an additional 50 megahertz of spectrum in each direction for FSS feeder links<sup>11</sup> to operate in the 10.70-10.75 GHz and 13.15-13.20 GHz bands – which are allocated to the FSS. As amended, MSV would be requesting a total of 500 megahertz of spectrum in each transmission direction for feeder links (10.7-10.95 GHz (downlink) and 11.2-11.45 GHz (downlink) and 12.75-13.25 GHz (uplink)).

4. On February 10, 2004, one day after MSV filed its amendment, EchoStar refiled an application for 300 megahertz of Ku-band frequencies in each transmission direction at 101° W.L. (10.70-10.75 GHz and 11.2- 11.45 GHz (downlink) and 12.75-13.0 GHz and 13.15-13.2 GHz (uplink)).<sup>12</sup> On March 10, 2004, EchoStar filed a petition for reconsideration of the *EchoStar Dismissal Letter*.<sup>13</sup>

5. On April 23, 2004, the Satellite Division dismissed MSV's February 2004 Amendment because it did not contain an interference analysis as required by Section 25.140(b) (2) of the Commission's rules. Section 25.140(b) (2) requires an interference analysis demonstrating that a proposed FSS satellite system operating in geostationary-satellite orbit (GSO) and providing FSS service, such as the feeder link portion of MSV's system, will be compatible with the Commission's two-degree orbital spacing environment.<sup>14</sup> Pursuant to a December 13, 2003 Public Notice, applicants were provided guidance on the submission of the two-degree interference analysis and notified that failure to submit a two-degree analysis would render the application incomplete.<sup>15</sup> MSV failed to include an interference analysis, thus we concluded that MSV's application was defective.

6. On May 24, 2004, MSV filed a Petition for Reconsideration. On June 7, 2004, EchoStar filed an Opposition to MSV's Petition for Reconsideration and on June 17, 2004, MSV filed a Reply to the Opposition of EchoStar.

### III. DISCUSSION

7. In this Order, we reinstate MSV's February 2004 Amendment due to uncertainty regarding the need to file a two-degree spacing interference analysis in those instances where

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<sup>11</sup> A feeder link is the transmission path comprising transmissions from the satellite to a hub earth station and transmissions from the hub earth station to the satellite.

<sup>12</sup> Application of EchoStar Satellite Corporation for Authority to Construct, Launch and Operate a Geo-Stationary Satellite in the Fixed Satellite Service Using the Allotted Extended Ku-band Frequencies at the 101° W.L. Orbital Location, File No. SAT-LOA-20040210-00015, Call Sign S2492 (February 10, 2004). The Bureau placed EchoStar's refiled application on Public Notice. Policy Branch Information, Satellite Space Applications Accepted for Filing, *Public Notice*, Report Number: SAT-00203 (March 26, 2004).

<sup>13</sup> EchoStar Satellite, L.L.C., Petition for Reconsideration, filed March 10, 2004 (asserting that the Division improperly applied a letter-perfect standard instead of the "substantially complete" standard and that the errors noted merely amounted to typographical errors).

<sup>14</sup> 47 C.F.R. § 25.140(b)(2).

<sup>15</sup> *Public Notice*, International Bureau Satellite Division Information: Clarification of 47 C.F.R. § 25.140(b)(2), Space Station Application Interference Analysis, No. SPB-195, 18 FCC Rcd 25099 (2003) ("*Interference Analysis Public Notice*").

there is no currently authorized space station within two degrees of the applicant's proposed space station. Our action here is without prejudice to EchoStar's petition for reconsideration of the *EchoStar Dismissal Letter*.

8. *Interference Analysis Requirement.* We dismissed MSV's amendment because it failed to provide the interference analysis required by Section 25.140(b) (2) of the Commission's rules which requires applicants for space station authorizations in the fixed-satellite service to demonstrate the compatibility of their proposed systems two-degrees from "any authorized space station."<sup>16</sup> In instances where there are no authorized space stations within two degrees of the proposed space station, the Commission has interpreted this rule to require applicants to submit an interference analysis involving other proposed systems, or using technical data from the applicants' own systems. Indeed, applicants proposing systems in spectrum where there are no currently authorized space stations have historically submitted such analyses.<sup>17</sup>

9. MSV argues that it did not submit the two-degree analysis because it did not believe the rule applied to MSS satellites and, in any event, there were no authorized space stations within two degrees of its proposed satellite at 101° W.L.<sup>18</sup> Thus, MSV states that its amendment was substantially complete as filed. MSV also argues that the *Interference Analysis Public Notice* does not suggest that the requirement would apply to MSS satellites or to feeder links for MSS satellites.<sup>19</sup> Finally, MSV argues that the portion of the Ku-band in which it seeks to operate is a planned band. This means that the ITU has already developed technical parameters and required orbital spacing that allow satellites to operate without causing harmful interference to, or receiving harmful interference from, adjacent planned Ku-band satellites. Modifying this plan requires further international agreement.<sup>20</sup> Thus, MSV concludes that submitting an interference analysis to the Commission would amount to extraneous information that would not be needed by a future applicant.<sup>21</sup> In its opposition, EchoStar argues that MSV's application was properly dismissed because the feeder link frequencies at issue are assigned by the International Telecommunications Union ("ITU") Table of Frequency Allocations to the FSS and, therefore, an interference analysis was required.<sup>22</sup>

10. We agree with MSV that MSS systems are not specifically referenced in Section 25.140(b)(2) or the *Interference Analysis Public Notice*, but find that an interference analysis is nonetheless required. In determining whether an interference analysis is required, we look at the technical characteristics of the satellite's entire operations and not just the type of service classification (*i.e.* MSS) of the satellite. Section 25.140(b)(2) of the Commission's rules requires an interference analysis for feeder links in the FSS bands regardless of the classification of the

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<sup>16</sup> 47 C.F.R. § 25.140(b)(2).

<sup>17</sup> See *e.g.*, TRW, Inc., Application to Launch and Operate Geostationary and Non-Geostationary satellites in the Fixed Satellite Service, File No. 112-SAT-P/LA-97.

<sup>18</sup> MSV Petition for Reconsideration at 7.

<sup>19</sup> MSV Petition for Reconsideration at 6.

<sup>20</sup> MSV Petition for Reconsideration at 8.

<sup>21</sup> *Id.*

<sup>22</sup> EchoStar Opposition at 2.

service provided to end users. Consequently, MSV must submit an interference analysis with respect to its GSO FSS operations at 10.7 - 10.75 and 13.15 - 13.2 GHz. Further, we disagree with MSV's contention regarding the relevance of an interference analysis in light of the ITU planning process. While it is true that modification of the FSS allotment plan is an international ITU process, individual administrations are not precluded from imposing their own domestic rules provided the international obligations are met. International rules do not preclude the United States from implementing a two-degree orbital spacing policy in this portion of the Ku-band in which MSV seeks to operate. Thus, there is no inconsistency between the international FSS plan, including modification procedures, and our domestic two-degree orbital spacing rules. Consistent with the *First Space Station Reform Order*, in the absence of specific service rules for any particular FSS band, the two-degree spacing rules apply to GSO FSS bands.<sup>23</sup>

11. Although we conclude that an interference analysis is required by Section 24.140(b)(2) of the Commission's rules, we acknowledge that one reasonable interpretation of the rule, albeit contrary to historical practice, is that if there are no authorized space stations within two-degrees of the proposed space station, then no interference analysis is required. Thus, we reverse our dismissal of MSV's amendment for failure to provide an interference analysis. Our action here is consistent with the reinstatement of two similar applications.<sup>24</sup>

12. To eliminate any uncertainty regarding the applicability of the two-degree interference analysis required by Section 25.140(b)(2) in such circumstances, we issued a Public Notice on June 20, 2004 specifying that an applicant must submit such an analysis even if there are no currently authorized space stations within two degrees of its proposed space station.<sup>25</sup> We stated that in such a case, the applicant must submit an interference analysis, with an assumed two-degree separation, using either: (1) the technical characteristics of authorized or proposed satellites located more than two degrees away that meet U.S. two-degree compliance rules; or (2) the technical characteristics of the applicant's own satellite.<sup>26</sup> Thus, if any applicant for a space station authorization in the fixed-satellite service, including FSS feeder links, fails to submit an interference analysis, its application will be considered incomplete and dismissed. Consequently, MSV must submit an interference analysis as set forth in the June 16, 2004 Public Notice in the form of an amendment to its application in order for us to continue to process its application. We recognize that MSV filed an interference analysis by letter on May 2, 2004 for other frequencies, but did not provide one for the frequencies at issue here.<sup>27</sup> Accordingly, we direct MSV to submit

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<sup>23</sup> Amendment of the Commission's Space Station Licensing Rules and Policies, *First Report and Order and Further Notice of Proposed Rulemaking*, IB Docket No. 02-34, 18 FCC Rcd 10760 (2003) ("*First Space Station Reform Order*").

<sup>24</sup> See Letter to David M. Drucker, Manager, contactMEO Communications, L.L.C., from Thomas S. Tycz, Chief, Satellite Division, International Bureau, Federal Communications Commission, DA 04-1722 (rel. June 16, 2004); Letter to Mr. Peter Hadinger, Northrop Grumman Space & Mission Systems Corporation, from Thomas S. Tycz, Chief, Satellite Division, International Bureau, Federal Communications Commission, DA 04-1725 (rel. June 16, 2004).

<sup>25</sup> International Bureau Satellite Division Information: Clarification of 47 C.F.R. 25.140(b)(2), Space Station Interference Analysis, *Public Notice*, SPB-207, DA 04-1708 (rel. June 16, 2004).

<sup>26</sup> *Id.*

<sup>27</sup> Letter from David S. Konczal, Shaw Pittman, L.P. to Ms. Marlene H. Dortch, Secretary, Federal Communications Commission, dated May 24, 2004.

an interference analysis as an amendment to its application by September 28, 2004. The interference analysis need only address the additional 50 megahertz of spectrum for feeder links in the extended Ku-band frequencies (10.70-10.75 GHz (downlink) and 13.15-13.20 GHz (uplink)) requested in MSV's February 9, 2004 Amendment. If the information is not provided by September 28, 2004 the application will be dismissed pursuant to Sections 25.112(c) and 25.152(b) of the Commission's rules.

13. As a result of our action here, under the Commission's first-come-first served licensing policy, MSV is now first-in-line with respect to the entire 300 megahertz of frequency it has requested for its operations at the 101° W.L. orbital location. We note that EchoStar has filed a petition for reconsideration of the *EchoStar Dismissal Letter*, which, if granted, would affect MSV's first-in-line status for the 10.70-10.75 GHz and 13.15-13.20 GHz frequencies. Because EchoStar's petition for reconsideration is pending, MSV's status with respect to the 10.70-10.75 GHz and 13.15-13.20 GHz frequencies is subject to our decision on EchoStar's petition for reconsideration of the *EchoStar Dismissal Letter*.

14. *Station Keeping*. In MSV's February 2004 Amendment, MSV requests an East-West station keeping tolerance of  $\pm 0.1^\circ$ .<sup>28</sup> To facilitate our assessment of MSV's proposal, MSV is directed to provide the following information in an amendment by September 28, 2004: (1) further information regarding the cost benefits or other support for its request to maintain East-West station keeping within  $\pm 0.1^\circ$  as oppose to  $\pm 0.05^\circ$ ; (2) a graphic depiction of the projected ground trace of the satellite that shows the maximum longitudinal variation about its proposed nominal location as it crosses the equatorial plane; and (3) the satellite's planned orbital characteristics including, inclination, eccentricity, apogee altitude, perigee altitude, right ascension of the ascending node (RAAN), and argument of perigee.<sup>29</sup> If the information is not provided by September 28, 2004 the application will be dismissed pursuant to Sections 25.112(c) and 25.152(b) of the Commission's rules.

#### IV. ORDERING CLAUSES

15. Mobile Satellite Ventures Subsidiary LLC's Petition for Reconsideration IS GRANTED. Accordingly, the February 9, 2004 Amendment, File No. SAT-AMD-20040209-00014, Call Sign S2358, IS REINSTATED *nunc pro tunc*. Further, MSV must submit the information requested in this Order to the Commission in an amendment on or before September 28, 2004. If the information requested in this Order is not provided by September 28, 2004, the February 9, 2004 Amendment will be dismissed pursuant to Sections 25.112(c) and 25.152(b) of the Commission's rules.

16. Accordingly, EchoStar Satellite Corporation's Opposition to the Petition for Reconsideration dated June 7, 2004 IS DENIED.

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<sup>28</sup> MSV also requests a waiver of Section 25.210(j) to the extent necessary to operate with a greater North-South station keeping tolerance. Specifically, MSV requests authority to operate its replacement satellite with an initial North/South inclination of as much as six degrees before decreasing to about one degree over time. MSV also requests authority to permit the satellite inclination to fluctuate naturally between about one and six degrees due to celestial forces during the life of the satellite.

<sup>29</sup> For an example of the information requested, see documents filed by Boeing in File Nos. SAT-MOD-20030711-00128 and SAT-AMD-20030827-00241.

17. This Order is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon adoption.

FEDERAL COMMUNICATIONS COMMISSION

Fern J. Jarmulnek  
Deputy Chief  
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