

DA 03-3893

December 8, 2003

David K. Moskowitz  
Senior Vice President and General Counsel  
EchoStar Satellite Corporation  
5701 South Sante Fe  
Littleton, CO 80120

Re: Application of EchoStar Satellite Corporation for Authority to Construct, Launch and Operate a Geostationary Satellite in the Fixed Satellite Service Using extended Ku-band at the 109° W.L. Orbital Location, File No. SAT-LOA-20030827-00170, Call Sign S2483

Dear Mr. Moskowitz:

On August 27, 2003, EchoStar Satellite Corporation (EchoStar) filed an application listed in the caption above to construct, launch and operate a geostationary satellite orbit (GSO) satellite in the non-allotted extended Ku-band frequencies at the 109° W.L. orbital location (the Application).<sup>1</sup> For the reasons discussed below, we return this application as defective, without prejudice to re-filing.<sup>2</sup>

Most significantly, Section 25.114(c) of the Commission's rules<sup>3</sup> clearly and explicitly requires all space station applicants to submit all applicable items of information listed in its subsections. Recently, the Commission conducted a comprehensive review of its space station rules and underlying policies, including the policies and practices related to Section 25.114(c). In the *First Space Station Reform Order*,<sup>4</sup> the Commission revised the space station licensing process to adapt it to today's satellite

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<sup>1</sup> See *In the Matter of EchoStar Satellite Corporation Applications for Authority to Construct, Launch, and Operate Nine Geostationary Satellites in the Fixed-Satellite Service Using the Ka-and/or extended Ku-bands at the 81°, 83°, 101°, 105°, 109°, 113°, 119°, 121°, and 123° W.L. Orbital Locations, (The Application)*. Specifically, EchoStar seeks authority for an extended Ku-band satellite at 109° W.L. in Application File No. SAT-LOA-20030827-00170. In the Application EchoStar requests the 10.95-11.2 GHz and 11.45-11.70 GHz frequency bands for its downlinks, and 13.75-14.00 GHz frequency bands for its uplinks.

<sup>2</sup> We note that EchoStar Corporation would not be charged an application fee if the referenced application were re-filed with the required information. See 47 C.F.R. § 1.1109(d).

<sup>3</sup> 47 C.F.R. § 25.114(c).

<sup>4</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, 10852 (para. 244) (2003) (*First Space Station Reform Order*).

environment. As part of the measures adopted in the *First Space Station Reform Order*, the Commission determined to continue to require applications to be substantially complete when filed.<sup>5</sup> As the Commission noted, the procedures and rules it adopted will enable the Commission to establish satellite licensees' operating rights clearly and quickly, and as a result, allow licensees to provide service to the public much sooner than might be possible under our previous licensing procedures.<sup>6</sup>

In its application, EchoStar requests authority to construct, launch and operate a GSO satellite in the fixed-satellite service (FSS) at the 109° W.L. orbital location that would operate in the non-allotted extended Ku-band frequencies, including the 10.95-11.2 GHz and 11.45-11.7 GHz frequency bands (downlinks), and the 13.75-14.00 GHz frequency band (uplinks). We note that the 10.95-11.2 GHz and the 11.45 –11.7 GHz frequency bands in which EchoStar proposes to operate are allocated to terrestrial services and to the FSS on a co-primary basis.<sup>7</sup> However, under footnote NG104 of Section 2.106<sup>8</sup> and footnote 2 of Section 25.202(a)(1)<sup>9</sup> of our rules, FSS operations in these bands, are limited to international service. In the United States, use of these frequency bands is also allocated to the terrestrial wireless service, and the fixed-satellite service is prohibited from using these frequencies domestically in order to limit the number of FSS earth stations with which the terrestrial wireless fixed-service would be required to coordinate.<sup>10</sup> Consequently, although the International Telecommunication Union (ITU) has allocated the 10.7-11.7 GHz “extended” Ku-band frequencies to the fixed-satellite service, the Commission limits FSS use of this band to international satellite service and prohibits domestic use. Accordingly, a U.S.-licensed satellite may provide downlink service into the United States and its Possessions in the 10.95-11.2 GHz and 11.45 -11.7 GHz frequency bands only if the uplink originates outside of the United States and its Possessions. Therefore, any use of these frequencies by an FSS system to provide domestic service, whether or not also used to provide international service, would require waivers of NG104 and footnote 2 of Section 25.202(a)(1).

Upon review of the application, we find that EchoStar seeks to use these frequencies to provide domestic as well as international service, but fails to request waivers of NG104 of Section 2.106 and footnote 2 of Section 25.202(a)(1) of our rules. Moreover, EchoStar contends in its application that it does not need to file for a waiver of NG104 since all of its proposed satellites should qualify as

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<sup>5</sup> *First Space Station Reform Order*, 18 FCC Rcd at 10852 (para. 244), citing *Space Station Reform NPRM*, 17 FCC Rcd at 3875 (para. 84).

<sup>6</sup> *First Space Station Reform Order*, 18 FCC Rcd at 10765-66 (para. 4).

<sup>7</sup> 47 C.F.R. § 2.106 and 25.202(a)(1). Allocation of a given frequency band to a particular service on a primary basis entitles operators to protection against harmful interference from stations of “secondary” services. Further, secondary services cannot claim protection from harmful interference caused by stations of a primary service. See 47 C.F.R. §§ 2.104(d) and 2.105(c).

<sup>8</sup> 47 C.F.R. § 2.106 footnote NG104 states “[t]he use of the bands 10.7-11.7 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) by the fixed-satellite service in the geostationary-satellite orbit shall be limited to international systems, *i.e.* other than domestic systems.”

<sup>9</sup> 47 C.F.R. § 25.202(a)(1) footnote 2 states “[u]se of this band by geostationary satellite orbit satellite systems in the fixed-satellite service is limited to international systems, *i.e.* other than domestic systems.”

<sup>10</sup> Assignment of Orbital Locations to Space Stations in the Domestic Fixed Satellite Service and the Applications of GE American Communications, Inc., *Order and Authorization*, 15 FCC Rcd 3385 (Int’l Bur. 1999).

“international services.”<sup>11</sup> We find that EchoStar is incorrect in its understanding of the definition of “international services.” In limiting the use of these bands to international satellite services, the Commission specifically prohibits the use of these bands for domestic service. Therefore, if EchoStar uses uplinks from the United States then it cannot use downlinks into the United States and its Possessions, without obtaining the requisite waivers. The extended Ku-band link budget EchoStar provides in its application demonstrates its intent to provide domestic service, where both the uplink transmission originates in the United States, and the downlink transmission terminates in the United States.<sup>12</sup> According to the link budget, the satellite uplink operations will originate in Cheyenne, Wyoming and the downlink transmission will terminate in New York City or Los Angeles.<sup>13</sup> We conclude that this falls under the category of domestic service. The tracking, telemetry and control (TT&C) arrangements described in the application provide further evidence of EchoStar’s intent to provide domestic services. EchoStar contends that it plans to use its existing Spacecraft Operation Center and existing TT&C earth station facilities<sup>14</sup> to control the satellite.<sup>15</sup> Without obtaining waivers of NG104 to Section 2.106 and footnote 2 to Section 25.202(a)(1) of our rules, EchoStar is prohibited from providing such domestic service.

We note that the Satellite Division has previously addressed this issue in an earlier order, where GE Americom, in seeking to provide domestic service in the 11.45-11.7 GHz band, correctly requested a waiver of NG104.<sup>16</sup> In dismissing, GE Americom’s request for a waiver of footnote NG104, we found that GE Americom’s proposed FSS domestic services use of this band would not only undermine the policy objective of limiting use to international systems, but could also “potentially undermine the purpose of the rule, namely to minimize the overall number of earth stations in order to limit the areas in which future terrestrial fixed service would be precluded.”<sup>17</sup> If EchoStar intends to provide domestic service in this band, it must request the appropriate waivers and provide justification that adherence to the Commission policy is unnecessary or counter to the public interest.<sup>18</sup>

Additionally, under Section 25.140(b)(2)<sup>19</sup> of the Commission’s rules all new applications for launch and operational authority for space stations in the FSS are required to provide an interference

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<sup>11</sup> See Application at p. 16 footnote 32.

<sup>12</sup> See Attachment A of Application at p. 11.

<sup>13</sup> *Id.*

<sup>14</sup> We note that these facilities are located in Cheyenne, Wyoming.

<sup>15</sup> See Attachment A of Application at p. 14

<sup>16</sup> See *Application of GE Americom, Inc. Applications for Modification of Authorizations to Construct, Launch, and Operate Space Stations in the Fixed Satellite Service And for Special Temporary Authority To Test Space Station at 72° W.L.*, Order and Authorization, DA 99-2519, 15 FCC Rcd. 3385 (Satellite Div. rel. November 12, 1999).

<sup>17</sup> *Id.* at 3386.

<sup>18</sup> *Id.*

<sup>19</sup> See 47 C.F.R. § 25.140(b)(2).

analysis to the Commission for review. In a public notice released on December 3, 2003, we clarified our requirement for the submission of the space station application interference analysis.<sup>20</sup> To allow us to complete our review of The Application, we remind EchoStar that it is required to submit a complete interference analysis as required under Section 25.140(b)(2). This interference analysis must include the minimal data requirements listed in §25.140(b) (2). This data includes: (1) link noise budget, (2) modulation parameters, and (3) overall link performance analysis for each type of r.f. carrier. In addition, EchoStar must provide an analysis showing the potential of interference into and from carriers of adjacent satellites with a spacing of 2°. <sup>21</sup> This analysis must include the r.f. characteristics of both interfering and interfered-with carriers, as well as the resulting interference potential, such that the Commission or other applicants in the future course of consideration of these applications can complete the analysis.

Thus, for the above mentioned reasons we find that EchoStar's proposed satellite does not comply with the Commission's rules. Moreover, EchoStar has not requested waivers of footnote NG104 to Section 2.106 and footnote 2 to Section 25.202(a)(1) of our rules.

Accordingly, pursuant to the Commission's rules on delegated authority, 47 C.F.R. § 0.261(a)(4), we find that Application File No. SAT-LOA-20030827-00170 Call Sign S2483 is defective. We therefore return this application, without prejudice to re-filing.

Sincerely,

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Chief,  
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<sup>20</sup> See, Clarification of 47 C.F.R. § 25.140(b)(2), Space Station Application Interference Analysis, Public Notice No: SPB-195, DA 03-3863, December 3, 2003

<sup>21</sup> See, *Licensing of Space Stations in the Domestic Fixed-Satellite Service and Related Revisions of Part 25 of the Rules and Regulations, Report and Order*, CC Docket No. 81-704, FCC 83-184, 54 Rad. Reg. 2d 577 (released Aug. 16, 1983); *summary printed* in *Licensing Space Stations in the Domestic Fixed-Satellite Service*, 48 F.R. 40233 (Sept. 6, 1983) (*Two Degree Spacing Order*).