



Federal Communications Commission  
Washington, DC 20554

International Bureau

DA 03-3894

December 8, 2003

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

Re: Application of EchoStar KuX Corporation for Authority to Construct, Launch and Operate Two Extended Ku-Band Communication Satellites and One Ground Spare Satellite in the Fixed-Satellite Service at the 85° W.L. Orbital Location, File No. SAT-LOA-19960229-00037, Call Sign S2233;

Amendment Application of EchoStar KuX Corporation for Authority to Construct, Launch and Operate Two Extended Ku-Band Communication Satellites and One Ground Spare Satellite in the Fixed-Satellite Service at the 83° W.L. Orbital Location, File No. SAT-AMD-20030402-00062, Call Sign S2233;

Application of EchoStar KuX Corporation for Authority to Construct, Launch and Operate Two Extended Ku-Band Communication Satellites and One Ground Spare Satellite in the Fixed-Satellite Service at the 91° W.L. Orbital Location, File No. SAT-LOA-19960229-00038, Call Sign S2234;

Amendment Application of EchoStar KuX Corporation for Authority to Construct, Launch and Operate Two Extended Ku-Band Communication Satellites and One Ground Spare Satellite in the Fixed-Satellite Service at the 121° W.L. Orbital Location, File No. SAT-AMD-20030411-00065, Call Sign S2234.

Dear Mr. Moskowitz:

In February 1996, EchoStar KuX Corporation (EchoStar KuX) filed applications listed in the caption above to construct, launch and operate two extended Ku-band communication satellites and one ground spare satellite in the fixed-satellite service (FSS).<sup>1</sup> In April 2003, EchoStar KuX subsequently

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<sup>1</sup> Application of EchoStar KuX Corporation for Authority to Construct, Launch and Operate Two Extended Ku-Band Communication Satellites and One Ground Spare Satellite in the Fixed-Satellite Service at the 85° W.L. Orbital Location, File No. SAT-LOA-19960229-00037, Call Sign S2233. (The 85° W.L. Application). Application of EchoStar KuX Corporation for Authority to Construct, Launch and Operate Two Extended Ku-Band Communication Satellites and One Ground Spare Satellite in the Fixed-Satellite Service at the 91° W.L. Orbital Location, File No. SAT-LOA-19960229-00038, Call Sign S2234. (The 91° W.L. Application). (Collectively called

filed two separate amendment applications requesting two alternative orbital locations for the original applications filed.<sup>2</sup> For the reasons discussed below, we return these applications as defective, without prejudice to re-filing.<sup>3</sup>

Most significantly, Section 25.114(c) of the Commission's rules<sup>4</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>5</sup> the Commission revised the space station licensing process to adapt it to today's satellite 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>6</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>7</sup>

In its original applications and amendment applications, EchoStar KuX requests authority to construct, launch and operate two geostationary satellite orbit (GSO) satellites in the FSS at the 83° W.L. and 91° W.L. orbital locations that would operate in the non-allotted extended Ku-band frequencies, *i.e.*, the 11.45-11.7 GHz frequency bands (downlinks), and 13.75-14.00 GHz (uplinks) frequency bands. We note that the 11.45 –11.7 GHz in which EchoStar KuX proposes to operate is allocated to terrestrial services and to the fixed-satellite service on a co-primary basis.<sup>8</sup> However, under footnote NG104 of

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Original KuX Applications). The term extended Ku-band refers to the 11.45-11.7 GHz frequency band (downlinks), and 13.75-14.00 GHz frequency band (uplinks)

<sup>2</sup> Amendment Application of EchoStar KuX Corporation for Authority to Construct, Launch and Operate Two Extended Ku-Band Communication Satellites and One Ground Spare Satellite in the Fixed-Satellite Service at the 83° W.L. Orbital Location, File No. SAT-AMD-20030402-00062, Call Sign S2233. (Amends the original application filed in 1996, File No. SAT-LOA-19960229-00037, requesting the 83° W.L. orbital location rather than the 85° W.L. orbital location). Amendment Application of EchoStar KuX Corporation for Authority to Construct, Launch and Operate Two Extended Ku-Band Communication Satellites and One Ground Spare Satellite in the Fixed-Satellite Service at the 121° W.L. Orbital Location, File No. SAT-AMD-20030411-00065, Call Sign S2234. (Amends the original application filed in 1996, File No. SAT-LOA-19960229-00038, requesting the 121° orbital location, rather than the 91° W.L. orbital location).

<sup>3</sup> We note that EchoStar KuX Corporation would not be charged an application fee if the referenced application were re-filed with the required information. See 47 C.F.R. § 1.109(d).

<sup>4</sup> 47 C.F.R. § 25.114(c).

<sup>5</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*).

<sup>6</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>7</sup> *First Space Station Reform Order*, 18 FCC Rcd at 10765-66 (para. 4).

<sup>8</sup> 47 C.F.R. § 2.106 and 25.202(a)(1). Allocation on a given frequency band for a particular service on a primary basis entitles operators to protection against harmful interference from stations of "secondary"

Section 2.106<sup>9</sup> and footnote 2 of Section 25.202(a)(1)<sup>10</sup> of our rules, FSS operations in this band, 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 fixed-service would be required to coordinate.<sup>11</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 these bands to international satellite service and prohibits domestic use. Accordingly, a U.S.-licensed satellite may provide downlink services into the United States and its Possessions in the 11.45 -11.7 GHz frequency band only if the uplinks originate 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 applications, we find that EchoStar KuX 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. In the applications EchoStar KuX clearly states that the feeder link transmissions to each of the extended-Ku band satellites will originate inside the United States, from its uplink center in Cheyenne, Wyoming.<sup>12</sup> EchoStar KuX states further that this uplink center will act as a primary transmit and receive earth station to provide communication services.<sup>13</sup> Additionally, the tracking, telemetry and control (TT&C) functions for the satellite systems will also be performed in the extended-Ku band and will be controlled from EchoStar KuX’s Spacecraft Operating Center also located in Cheyenne, Wyoming.<sup>14</sup>

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>15</sup> In dismissing, GE Americom’s request for a waiver of footnote NG104,

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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>9</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>10</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>11</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).

<sup>12</sup> *See* Original KuX Applications at p. iii.

<sup>13</sup> *See Id.* at p. iv.

<sup>14</sup> *See Id.* at p. iv.

<sup>15</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).

we found that GE Americom's proposed use of this band to provide domestic services 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>16</sup> If EchoStar KuX 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>17</sup>

Additionally, under Section 25.140(b)(2)<sup>18</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 analysis to the Commission for review. In a public notice released on December 3, 2003,<sup>19</sup> we clarified our requirement for the submission of the space station application interference analysis. To allow us to complete our review of the application, we remind EchoStar KuX 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 KuX must provide an analysis showing the potential of interference into and from carriers of adjacent satellites with a spacing of 2°. <sup>20</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 KuX's proposed satellites do not comply with the Commission's rules. Moreover, EchoStar KuX has not requested waivers of footnote NG 104 to Section 2.106 and footnote 2 to Section 25.202(a)(1) of our rules.

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<sup>16</sup> *Id* at 3386.

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

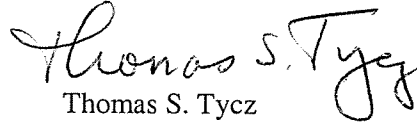
<sup>18</sup> See 47 C.F.R. § 25.140(b)(2).

<sup>19</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>20</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*).

Accordingly, pursuant to the Commission's rules on delegated authority, 47 C.F.R. § 0.261(a)(4), we find that Application File Nos. SAT-LOA-19960229-00037, Call Sign S2233, SAT-AMD-20030402-00062, Call Sign S2233, SAT-LOA-19960229-00038, Call Sign S2234, and SAT-AMD-20030411-00065, Call Sign S2234, are defective. We therefore return these applications, without prejudice to re-filing.

Sincerely,



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