

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

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In the Matter of	)	
	)	
<b>SPECTRUM FIVE LLC</b>	)	
	)	
Petition for Declaratory Ruling to Modify Its	)	File No. SAT-MOD-20101126-00245
Authorization to Serve the U.S. Market	)	File No. SAT-MOD-20101126-00269
Using BSS Spectrum from the 114.5° W.L.	)	
Orbital Location	)	
	)	

**COMMENTS OF ECHOSTAR CORPORATION**

EchoStar Corporation (“EchoStar”) submits these comments in response to the Petition for Declaratory Ruling that Spectrum Five LLC (“Spectrum Five”) filed on November 26, 2010. Spectrum Five requests that the Commission extend or waive the November 29, 2010 construction completion milestone associated with its authorization to provide Direct Broadcast Satellite (“DBS”) service in the United States from a Netherlands-authorized satellite network at 114.5° W.L.<sup>1</sup> EchoStar was subject to the same construction completion milestone for its DBS authorization at 86.5° W.L.<sup>2</sup> EchoStar has filed a modification application to allow full use of

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<sup>1</sup> Spectrum Five LLC, Petition for Declaratory Ruling to Modify Its Authorization to Serve the U.S. Market Using BSS Spectrum from the 114.5° W.L. Orbital Location, File Nos. SAT-MOD-20101126-00245, SAT-MOD-20101126-00269 (filed Nov. 26, 2010) (“*Spectrum Five Petition*”).

<sup>2</sup> See *EchoStar Satellite L.L.C., Application to Construct, Launch, and Operate a Direct Broadcast Satellite at the 86.5° W.L. Orbital Location*, Order and Authorization, 21 FCC Rcd. 14,045, ¶30 (2006) (“*86.5° W.L. Grant*”), confirmed in Memorandum, Order and Opinion, 23 FCC Rcd. 3252 (2008).

that slot by an already operational satellite, EchoStar 8, currently located at 77° W.L. EchoStar has also requested Commission confirmation that it has met the construction completion milestone by means of its plan to deploy the already constructed satellite. Alternatively, EchoStar has requested a waiver of that milestone.<sup>3</sup>

EchoStar does not necessarily oppose Spectrum Five's petition, but rather submits these comments to point out that EchoStar's plan for 86.5° W.L. and EchoStar's diligence towards making use of that slot are superior in all respects to the showing that Spectrum Five has made. Among other things, EchoStar's plan leads to full operational use of the slot later this year, ahead of EchoStar's operation milestone of November 29, 2012. Spectrum Five's extension request, on the other hand, creates significant doubt as to whether it will ever operate a satellite at the 114.5° W.L. slot.

As a general matter, the inability of Spectrum Five both to complete construction of a satellite by its milestone, and to make arrangements for the use of the slot by an existing satellite, might be understandable in the recent dire financial climate. Standing alone, such a delay might not be damning. But other flaws in Spectrum Five's diligence are more serious. Spectrum Five has not even seriously commenced the process of coordinating with EchoStar and its affiliate, DISH Network L.L.C. ("DISH"). The Commission should consider this failure in evaluating Spectrum Five's diligence.

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<sup>3</sup> See EchoStar Corporation, Application for Modification of Authority to Provide DBS Service at 86.5° W.L. Using the EchoStar 8 Satellite, File No. SAT-MOD-20101124-00244 (filed Nov. 24, 2010) ("*86.5° W.L. Modification Application*"), amended by File No. SAT-AMD-20110330-00065 (filed Mar. 30, 2011).

## I. Background

On November 29, 2006, Spectrum Five and EchoStar were each authorized to provide DBS satellite service from an orbital location that was less than nine degrees from a planned DBS orbital location identified in the International Telecommunication Union's ("ITU") Region 2 BSS Plan, specifically 114.5° W.L.<sup>4</sup> and 86.5° W.L. respectively.<sup>5</sup> Spectrum Five's authorization was based on two Netherlands-licensed satellites to be located at 114.5° W.L.

In conformance with its authorization, EchoStar diligently met each of the milestones imposed on the license. Specifically, EchoStar entered into a contract with Space Systems/Loral ("SS/L") on November 29, 2007, to construct the EchoStar-86.5W DBS satellite. Subsequently, on December 1, 2008, EchoStar submitted materials to the Commission demonstrating that the critical design review ("CDR") for the satellite had been completed.

In the year following CDR completion, EchoStar revised its in-orbit fleet management plan to make its EchoStar 8 satellite, which is currently operating under Mexican authority at 77° W.L., available for relocation to 86.5° W.L. EchoStar then filed an application to modify its 86.5° W.L. license to allow EchoStar 8 to relocate to that orbital location and to operate it there once the QuetzSat 1 satellite becomes operational at 77° W.L., which is expected to occur in the fourth quarter of 2011.<sup>6</sup> EchoStar also requested confirmation from the Commission that bringing EchoStar 8 into use at 86.5° W.L. would satisfy the construction completion milestone,

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<sup>4</sup> *Spectrum Five LLC, Petition for Declaratory Ruling to Serve the U.S. Market Using Broadcast Satellite Service (BSS) Spectrum from the 114.5° W.L. Orbital Location, Order and Authorization*, 21 FCC Rcd. 14,023 (2006) ("*114.5° W.L. Grant*"), *confirmed in Memorandum Opinion and Order*, 23 FCC Rcd. 3252 (2008).

<sup>5</sup> *See generally, 86.5° W.L. Grant.*

<sup>6</sup> *See generally, 86.5° W.L. Modification Application.*

set for November 29, 2010, and the bringing into use milestone, set for November 29, 2012, imposed on the original 86.5° W.L. authorization.<sup>7</sup> Alternatively, EchoStar requested that the construction milestone be waived because the relocation of EchoStar 8 to the 86.5° W.L. orbital location advances the milestone policy's objective to "ensure that licensees provide service to the public in a timely manner, to prevent warehousing of scarce orbit and spectrum resources."<sup>8</sup>

Although this satellite recently experienced a single event upset ("SEU"), the SEU did not have a major effect on the health or longevity of the satellite, and it has not impaired the functionality of the payload.<sup>9</sup> As a result, the satellite will be able to provide a similar level of service as it could prior to the event, and more importantly, it will be able to begin providing service to consumers over the DBS spectrum available at 86.5° W.L. as soon as QuetzSat 1 becomes operational at 77° W.L.<sup>10</sup>

Two days after EchoStar filed its *86.5° W.L. Modification Application* and three days before the construction milestone deadline to which both licensees were subject,<sup>11</sup> Spectrum Five filed the instant petition. There, Spectrum Five asserted several reasons for why it has been unable to complete construction of its system. First, it cited to uncertainty supposedly created by a disagreement between the U.S. and Netherlands Administrations. The Netherlands (Spectrum

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<sup>7</sup> *86.5° W.L. Grant* at ¶30.

<sup>8</sup> *86.5° W.L. Modification Application* at 11 (citing *Amendment of the Commission's Space Station Licensing Rules*, 18 FCC Rcd. 10,760, ¶173 (2000)).

<sup>9</sup> See File No. SAT-AMD-20110330-00065, at 2 (filed Mar. 30, 2011) ("*86.5° W.L. Amendment*").

<sup>10</sup> See Letter from Pantelis Michalopoulos, Counsel for EchoStar, to Marlene H. Dortch, Secretary, FCC (Mar. 30, 2011), *filed in* File Nos. SAT-MOD-20101124-00244, SAT-T/C-20090217-00026.

<sup>11</sup> See *114.5° W.L. Grant* at ¶45; *86.5° W.L. Grant* at ¶30.

Five's licensing administration) has asserted that the U.S. violated its international treaty obligations when the Commission authorized the EchoStar 11 and EchoStar 14 satellites to begin operations prior to completing coordination. This has assertedly led to uncertainty, which in turn has prejudiced Spectrum Five. Second, Spectrum Five claimed that its "ongoing fight" to protect its spectrum rights following the Commission's decision to authorize the EchoStar 11 and EchoStar 14 satellites, in addition to the dispute between the administrations, has "frustrated [its] ability to complete construction of its satellite."<sup>12</sup> Third, Spectrum Five claimed that the petitions for review filed by EchoStar and DIRECTV in response to its initial authorization imposed a "cloud of doubt" over Spectrum Five's authorization for several months, doubt that was only resolved three months before the global financial crisis began – the fourth justification for Spectrum Five's request.<sup>13</sup> Finally, Spectrum Five claims that its proposed satellite system faces unique engineering and coordination challenges that warrant increased time to construct a satellite.<sup>14</sup>

## **II. Spectrum Five Has Been Delinquent in Coordinating its System**

Spectrum Five claims that it plans to provide DBS service to the continental United States, Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands.<sup>15</sup> This geographic service area substantially overlaps the service area of the DBS satellites operated by DISH and DIRECTV at 110° W.L. and 119° W.L., meaning that Spectrum Five's operations at 114.5° W.L. threaten significant interference into DISH and DIRECTV's operations. The potential interference issues

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<sup>12</sup> *Spectrum Five Petition* at 9.

<sup>13</sup> *Id.* at 10.

<sup>14</sup> *Id.* at 11.

<sup>15</sup> *Spectrum Five Authorization* at n.1.

were fully discussed in Spectrum Five’s application proceeding and led the Commission to conclude that Spectrum Five’s operations may not exceed “the limits in Annex 1 to Appendices 30 and 30A of the ITU Radio Regulations that trigger the agreement-seeking process under No. 4.2 of Appendices 30 and 30A at any location within the service areas of any affected operators that lie within the territory of the United States, until Spectrum Five has obtained the agreement of those operators.”<sup>16</sup>

Despite this requirement, Spectrum Five has not made a serious effort to engage in coordination discussions with either DISH or DIRECTV. The Commission is aware of this, as noted in its letter to the Radiocommunications Agency Netherlands on June 21, 2010.<sup>17</sup> In that letter, the Commission stated: “we are aware of only one attempt by the operator of the SF\_BSS5 and BSSNET114.5W networks to contact one of our operators. The letter from your operator to our operator was sent to the wrong person at the wrong address in a very large organization. . . . Further, there is another US BSS operator whose networks are affected by your SF\_BSS5 and BSSNET114.5W Region 2 BSS plan modification filings. There seems to have been no contact or discussion with this operator, either.”<sup>18</sup> Following the Commission’s letter, Spectrum Five did contact EchoStar to request coordination in July 2010. DISH and EchoStar responded in August of that year, offering to meet with Spectrum Five representatives. To make this meeting useful, DISH and EchoStar also provided a draft non-disclosure agreement (“NDA”) for Spectrum Five’s review and signature. But neither DISH nor EchoStar received a

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<sup>16</sup> *Id.* at ¶30.

<sup>17</sup> Letter from Kathryn Medley, Chief, Satellite Engineering Branch, Satellite Division, FCC, to Mr. J.G. Kroon, Radiocommunications Agency Netherlands (Jun. 21, 2010), *filed in Spectrum Five Petition*, Exhibit A.

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

response from Spectrum Five regarding the NDA or the proposed dates for the meeting, or indeed any further communications from Spectrum Five regarding coordination. Until such coordination is commenced and completed, it is unlikely that Spectrum Five will be able to finalize its satellite design and begin construction.

EchoStar also notes that Spectrum Five claims that its plans to construct a satellite for the 114.5° W.L. orbital location have been hampered, in part, because it “has [had to expend] necessary time and resources to safeguard its rights in light of the Commission’s decision to authorize EchoStar to bring into operation co-frequency, high powered satellites adjacent to 114.5° W.L., which will increase interference to the Spectrum Five network notwithstanding the higher-priority ITU filings made by the Netherlands.”<sup>19</sup> The asserted “need” to file objections to other parties’ applications, and the resources devoted to the filing of these objections, are not a cognizable factor in excusing the failure to construct a satellite. Among other reasons, these objections were apparently prepared by Spectrum Five’s outside counsel and therefore should not constitute a major toll on the time of the technical experts whose input is most essential to coordination.

Spectrum Five’s reliance on what it characterizes as the “ongoing dispute” between the Netherlands and U.S. Administrations is similarly misplaced.<sup>20</sup> Administrations look to their licensed operators to reach coordination agreements, once delegated authority for coordination has been granted to the operators, as is the case here. Agreements between administrations swiftly follow those reached by the licensees. Thus what Spectrum Five casts as a dispute of the Administrations is not some extrinsic instance of *force majeure* over which Spectrum Five has

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<sup>19</sup> *Spectrum Five Petition* at 9.

<sup>20</sup> *Id.*

no control. It is simply a reflection of the fact that Spectrum Five has not reached coordination agreements with the two U.S. operators, and has indeed barely started the negotiation process.

Spectrum Five's failure to begin serious negotiations is all the more troubling because of its apparently unchanged plans to serve substantially overlapping territory as that served from DISH's operational satellites at 110° W.L. and 119° W.L. Geographic separation and the power roll-off that is made possible were essential to the coordination agreement that EchoStar and Telesat Canada were able to reach for 86.5° W.L.

### **III. Many of Spectrum Five's Assertions Are Inaccurate**

Pervading Spectrum Five's petition is its claim that spectrum efficiency can be maximized by reducing the orbital spacing in the DBS band from 9 degrees to 4.5 degrees. Seemingly to suggest that EchoStar's actions demonstrate a kind of agreement with this point, Spectrum Five states that EchoStar has applied and received a license from the Commission for a twener location at 86.5° W.L.<sup>21</sup> But this confuses two totally separate issues. A true twener location is conceptually an orbital location that is located between two orbital locations serving the same geographic area in the BSS frequencies. By contrast, there are multiple orbital locations in the ITU Region 2 BSS Plan that lie less than nine degrees from one another; these reduced BSS orbital locations, however, are serving administrations and regions with separate geographic areas with large separation.

The 86.5° W.L. slot licensed by the Commission is a U.S. orbital location situated between two orbital locations in the ITU Region 2 BSS Plan assigned to Canada, and thus is not a full-fledged twener location, as the U.S. and Canada are two separate geographic regions.

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<sup>21</sup> *Id.* at 2.

Even so, the geographic separation is not, standing alone, sufficient to comply with acceptable interference levels, necessitating the agreement that EchoStar has reached with the Canadian operator. Spectrum Five's 114.5° W.L. license, by contrast, reflects a plan to install a satellite at a true, full-fledged tweener location, which will be serving the same geographical area as that served by two adjacent operational BSS orbital locations. Nevertheless, as discussed, Spectrum Five has not provided any indications how it will coordinate with the existing operators licensed to operate under the ITU Region 2 BSS Plan.

Spectrum Five also claims that the unique technical and coordination challenges it faces warrant a milestone extension. To support this claim, Spectrum Five refers to the Commission's pending rulemaking reviewing the operating requirements that may be imposed on DBS operations at less than nine degree spacing.<sup>22</sup> EchoStar notes, however, that the applicable technical operational requirements are already detailed today in the ITU Region 2 BSS Plan, AP 30/30A. If Spectrum Five believes that the BSS spectrum can be utilized more efficiently and that the operational parameters can be modified to accomplish this, it should consider preparing and presenting these proposals at the appropriate ITU Working Groups for consideration at the next ITU World Radio Conference ("WRC"). There is a well-established procedure within the ITU process to propose changes to the ITU rules and regulations at the ITU WRC.

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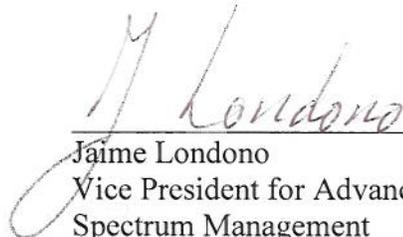
<sup>22</sup> *Id.* at 12 (citing *Amendment of the Commission's Policies and Rules for Processing Applications in the Direct Broadcast Satellite Service; Feasibility of Reduced Orbital Spacing for Provision of Direct Broadcast Satellite Service in the United States*, Notice of Proposed Rulemaking, IB Docket No. 06-160, 21 FCC Rcd. 9443 (2006)).



**DECLARATION OF JAIME LONDONO**

I, Jaime Londono, hereby declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.

Executed on April 4, 2011.

  
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**Certificate of Service**

I, Petra A. Vorwig, hereby certify that on this 4th day of April, 2011, I served a true copy of the foregoing by first class mail and electronic mail upon the following:

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Petra A. Vorwig