

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

DIRECTV Enterprises, LLC)	IBFS File Nos.
)	SAT-LOA-20060908-00100
Application for 17/24 GHz BSS)	SAT-AMD-20080321-00077
Satellite at 102.825° W.L.)	SAT-AMD-20080114-00014
)	
)	Call Sign: S2712
)	
Spectrum Five LLC)	SAT-LOI-20081119-00217
Petition for Declaratory Ruling)	
)	Call Sign: S2778

DECLARATORY RULING

Adopted: January 16, 2009

Released: January 16, 2009

By the Chief, International Bureau:

I. INTRODUCTION

1. In this Order, we grant Spectrum Five LLC's (Spectrum Five's) petition for declaratory ruling, in part, to the extent that Spectrum Five seeks a declaration that a satellite proposed by DIRECTV Enterprises, LLC (DIRECTV) in the 17/24 GHz Broadcast Satellite Service (BSS) at the 102.825° W.L. orbital location would not comply with the Commission's rules for such satellites.¹ As a result, we find that DIRECTV's application for a 17/24 GHz BSS satellite at the 102.825° W.L. orbital location must be dismissed as defective.²

II. BACKGROUND

2. The 17/24 GHz BSS service will introduce a new generation of broadband services to the public, providing a mix of local and domestic video, audio, data, video-on-demand, and multi-

¹ The Establishment of Policies and Service Rules for the Broadcasting-Satellite Service at the 17.3-17.7 GHz Frequency Band and at the 17.7-17.8 GHz Frequency Band Internationally, and at the 24.75-25.25 GHz Frequency Band for Fixed Satellite Services Providing Feeder Links to the Broadcasting-Satellite Service and for the Satellite Services Operating Bi-directionally in the 17.3-17.8 GHz Frequency Band, *Report and Order and Further Notice of Proposed Rulemaking*, IB Docket No. 06-123, FCC 07-76 (released May 4, 2007) (*May 4 Order*). In this item, the term "17/24 GHz BSS" generally refers to the broadcasting-satellite service operating on space-to-Earth (downlink) frequencies in the 17.3-17.8 GHz band and the corresponding Earth-to-space (uplink) frequencies in the 24.75-25.25 GHz band.

² Spectrum Five's petition for declaratory ruling also requests a finding that allowing it to enter the U.S. market with a non-U.S.-licensed satellite at the 103.15° W.L. would further the public interest. We will consider this request in a further Order.

media services to U.S. consumers. In some cases, these services will complement existing Direct Broadcast Satellite (DBS) services.³

3. In May 2007, the Commission adopted an Order establishing service rules for the 17/24 GHz BSS.⁴ In that Order, the Commission also determined how to address the pending 17/24 GHz BSS applications filed by four applicants, including DIRECTV.⁵ Specifically, the Commission decided to treat all the pending applications as filed simultaneously.⁶ To implement its decision, the Commission directed the International Bureau (Bureau) to release a Public Notice shortly after the 17/24 GHz BSS rules become effective, inviting applicants to amend the then pending applications to be consistent with those rules.⁷ The Commission stated that applicants could amend their choice of orbital locations, consistent with the 17/24 GHz BSS spacing rules set forth in Appendix F of the *May 4 Order*, to reduce the likelihood of mutual exclusivity.⁸

4. In a *Reconsideration Order* released on September 28, 2007, the Commission provided space station operators additional flexibility.⁹ In that Order, the Commission recognized that, until all conforming amendments were filed, an applicant requesting authority to operate a full-power satellite at an offset location would not know whether another applicant has requested authority to operate a satellite at an adjacent Appendix F location.¹⁰ The Commission decided to provide applicants facing such a situation a second opportunity to amend its application. An applicant seeking to operate a full-power space station with full interference protection at a location offset from an Appendix F location by up to one degree may file a second amendment, if another entity has filed a conflicting application for the adjacent Appendix F location or its associated offsets.¹¹ No other applicants were permitted to file second amendments.¹² In addition, second amendments were limited to: (1) requests to change the proposed orbital location from the offset location or its associated offsets to the Appendix F orbital location from which it was offset, or (2) requests to reduce power and to operate with reduced interference protection at

³ *May 4 Order* at para. 1.

⁴ *May 4 Order* at para. 1.

⁵ *May 4 Order* at paras. 140-146. The other three applicants were Pegasus Development DBS Corp. (Pegasus), EchoStar Satellite LLC (EchoStar), and Intelsat North America LLC (Intelsat).

⁶ *May 4 Order* at para. 143.

⁷ *May 4 Order* at para. 145.

⁸ *May 4 Order* at para. 145. *See also May 4 Order* at App. F.

⁹ The Establishment of Policies and Service Rules for the Broadcasting-Satellite Service at the 17.3-17.7 GHz Frequency Band and at the 17.7-17.8 GHz Frequency Band Internationally, and at the 24.75-25.25 GHz Frequency Band for Fixed Satellite Services Providing Feeder Links to the Broadcasting-Satellite Service and for the Satellite Services Operating Bi-directionally in the 17.3-17.8 GHz Frequency Band, *Order on Reconsideration*, IB Docket No. 06-123, FCC 07-174 (released Sept. 28, 2007) (*September 28 Reconsideration Order*).

¹⁰ *September 28 Reconsideration Order* at para. 34.

¹¹ *September 28 Reconsideration Order* at para. 34.

¹² *September 28 Reconsideration Order* at para. 37.

the offset location.¹³ Again, the Commission noted that the Bureau will dismiss as defective any amended applications that are not substantially complete.¹⁴

5. The Bureau released the Public Notice establishing deadlines for amendments to the pending 17/24 GHz applications in December 2007.¹⁵ The deadline for the first amendments was January 14, 2008, and the deadline for the second amendments was February 13, 2008. Consistent with the Commission's Orders, the Bureau stated that any amended application that was defective would be dismissed.¹⁶

6. DIRECTV filed its first amendment to its application for a satellite at the 102.825° W.L. location within the January 14, 2008 deadline. Specifically, because it planned to operate at an offset orbit location, DIRECTV amended its application to reduce the power flux density (PFD) of its proposed satellite as required by the Commission's 17/24 GHz BSS rules.¹⁷ DIRECTV did not file any second amendment, as was permitted by the *December 5 Public Notice*.¹⁸

7. On November 19, 2008, Spectrum Five filed a petition for declaratory ruling seeking a finding that DIRECTV's application for a 17/24 GHz BSS satellite at the 102.825° W.L. location is defective. DIRECTV responded to Spectrum Five's petition on December 8, 2008. Spectrum Five filed a reply on December 19, 2008. For the reasons set forth below, we grant Spectrum Five's petition in part.¹⁹

III. DISCUSSION

8. Spectrum Five objects to the methodology DIRECTV used to calculate the reduction in power required for it to operate its satellite at its proposed offset location.²⁰ Spectrum Five argues that DIRECTV's supporting technical analysis improperly took into account atmospheric loss when calculating the power levels under "clear sky conditions" pursuant to Section 25.202(w) of the Commission's rules.²¹ Spectrum Five argues that, when calculating power under

¹³ *September 28 Reconsideration Order* at paras. 34-35.

¹⁴ *September 28 Reconsideration Order* at para. 37.

¹⁵ International Bureau Establishes Deadline for Amendments to Pending 17/24 GHz BSS Applications, *Public Notice*, DA 07-4895 (released Dec. 5, 2007) (*December 5 Public Notice*).

¹⁶ *December 5 Public Notice* at 2.

¹⁷ DIRECTV Amendment Application at 12-13.

¹⁸ Ciel Satellite Limited Partnership (Ciel) filed pleadings on August 1 and August 26, 2008, requesting that DIRECTV's license be conditioned on its compliance with international coordination requirements. Because we dismiss DIRECTV's application in this Order, Ciel's concerns with respect to DIRECTV's application are moot.

¹⁹ Spectrum Five filed a supplement to its petition on January 12, 2009. Because we do not rely on any of the arguments in that supplement, we do not discuss it further in this Order.

²⁰ Spectrum Five Petition at 6-11.

²¹ 47 C.F.R. § 25.202(w).

"clear sky conditions," atmospheric loss should not be included. This is because, according to Spectrum Five, including atmospheric loss assumes that clouds and other moisture effects in the atmosphere will limit interference in all places and at all times.²²

9. In contrast, DIRECTV argues that Section 25.208 uses two unique terms regarding the methodology for calculating PFD, "free space conditions" and "clear sky conditions." Based on the use of these two different terms, DIRECTV asserts that they have two separate meanings. Specifically, DIRECTV contends that "clear sky conditions" include atmospheric loss factors, while "free space conditions" exclude those factors.²³ Although DIRECTV concedes that it should have excluded "cloud cover" from its analysis, it also asserts that removing this factor from its analysis yields a result that is still below the maximum power limit specified in the rule.²⁴ Therefore, DIRECTV asserts that its application is not deficient.²⁵

10. In its reply, Spectrum Five disagrees with DIRECTV's assertion that the power level of its proposed satellite complies with the Commission's rules for such satellites.²⁶ Spectrum Five claims that, because DIRECTV improperly relies on atmospheric loss factors in its analysis to mitigate some interference, DIRECTV understates the interference effect of its proposed satellite.²⁷ As a result, according to Spectrum Five, DIRECTV's technical showing is not adequate, and DIRECTV has not shown that its satellite will comply with the Commission's power rules.²⁸

11. We find Spectrum Five to be persuasive here. The use of atmospheric loss assumes that clouds and other moisture effects in the atmosphere will limit interference in all places and at all times. However, as Spectrum Five observes, these atmospheric effects vary over time and location.²⁹ Spectrum Five states that DIRECTV's reliance on atmospheric loss obscures the fact that DIRECTV's satellite will be operated at a PFD level 13 percent greater than that permitted by the Commission's rules.³⁰ It follows that DIRECTV's 17/24 GHz BSS satellite proposed for the 102.825° W.L. Orbit Location exceeds the reduced power level required by the Commission's rules for a satellite to be operated at an offset location.³¹ Therefore, DIRECTV's application is defective, and must be dismissed.³²

²² Spectrum Five Petition at 9.

²³ DIRECTV Opposition at 2.

²⁴ DIRECTV Opposition at 2.

²⁵ DIRECTV Opposition at 1-3.

²⁶ Spectrum Five Reply at 5.

²⁷ Spectrum Five Reply at 5.

²⁸ Spectrum Five Reply at 5.

²⁹ Spectrum Five Petition at 9.

³⁰ Spectrum Five Petition at 11.

³¹ See 47 C.F.R. § 25.262.

³² See 47 C.F.R. § 25.112(a)(2).

12. Spectrum Five points out that its application is next-in-line for the nominal 103° W.L. orbit location, after DIRECTV's application is dismissed as defective.³³ Spectrum Five proposes to operate a Netherlands-licensed satellite at the 103.15° W.L. orbit location.³⁴ Spectrum Five further proposes to operate at a reduced power level so that a 17/24 GHz BSS satellite at 107° W.L. would not experience any more interference than it would from a full-power satellite at the 103° W.L. orbit location.³⁵ We will place this request on public notice, and consider it in a future Order.

IV. ORDERING CLAUSES

13. Accordingly, IT IS ORDERED, that the DIRECTV application for a 17/24 GHz BSS satellite to be operated at the 102.825° W.L. Orbit Location IS DEFECTIVE and must be returned to the applicant.

14. IT IS FURTHER ORDERED that the petition for declaratory ruling filed by Spectrum Five LLC is GRANTED IN PART, to the extent indicated above.

FEDERAL COMMUNICATIONS COMMISSION

Helen Domenici
Chief, International Bureau

³³ Spectrum Five Petition at 3-4.

³⁴ Spectrum Five Petition at 2.

³⁵ Spectrum Five Petition at 2 and Technical Appendix.