



1200 EIGHTEENTH STREET, NW
WASHINGTON, DC 20036

TEL 202.730.1300 FAX 202.730.1301
WWW.HARRISWILTSHIRE.COM

ATTORNEYS AT LAW

February 19, 2009

BY ELECTRONIC FILING

Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *DIRECTV Enterprises, LLC*
IBFS File Nos. SAT-AMD-20080114-00013 and -00014

Dear Ms. Dortch:

DIRECTV Enterprises, LLC (“DIRECTV”) hereby responds to the informal objection submitted in the above referenced proceeding by Spectrum Five LLC (“Spectrum Five”) dated January 12, 2009.¹ As demonstrated below, Spectrum Five’s objection runs directly contrary to controlling Commission precedent – which Spectrum Five does not even mention. Moreover, to the extent Spectrum Five’s objection has any kernel of merit, it would best be addressed through issuance of a clarification rather than dismissal of DIRECTV’s application, consistent with past practice.

In this proceeding, DIRECTV seeks authority to launch and operate a 17/24 GHz BSS satellite system near the 103° W.L. orbital location. In its application, DIRECTV included calculations demonstrating that its proposed system would comply with the applicable power flux-density (“PFD”) limitations at the Earth’s surface imposed in Section 25.208(w) of the Commission’s rules, as adjusted for its proposed 0.175° offset from the 103.0° W.L. “on-grid” location established by the Commission. In a December 2008 *ex parte*, Spectrum Five criticized DIRECTV’s methodology for calculating PFD levels, asserting that, because Section 25.208(w) specifies that PFD limits are to be calculated under “clear sky” conditions, such a calculation must not include atmospheric effects. Spectrum Five cited no rule or precedent to support its preferred interpretation of the term “clear sky” as synonymous with “free space,” but confidently

¹ See Letter from Howard W. Waltzman to Marlene H. Dortch, File Nos. SAT-AMD-20080321-00077, *et al.* (Jan. 12, 2009) (“S5 Informal Objection”). Pursuant to the International Bureau’s Order reinstating DIRECTV’s applications, DIRECTV was given ten days from the release of the Order to file a response. See *DIRECTV Enterprises, LLC*, DA 09-204 (Int’l Bur., rel. Feb. 9, 2009).

Marlene H. Dortch
February 19, 2009
Page 2 of 5

asserted that “[t]he very purpose of the clear-sky requirement is to exclude variable effects.”² Because DIRECTV included not only free space path losses but also certain atmospheric effects in its PFD calculation, Spectrum Five argued that DIRECTV’s satellite could exceed the PFD limit by up to 0.5 dB some fraction of the time, and therefore its application is defective and subject to dismissal.³

In defense of its calculations, DIRECTV pointed out that the structure of Section 25.208 itself demonstrates that whatever “clear sky” means, it must be something different from “free space.” Section 25.208 establishes PFD limits for satellite systems operating in a number of frequency bands. Of the rule’s 22 subsections, 19 specifically state that the limits relate to the PFD that would be obtained under free space propagation conditions – while subsection (w) is the only one that calls for a demonstration under “clear sky” conditions. DIRECTV cited the well established principle that “[w]hen Congress uses explicit language in one part of a statute to cover a particular situation and then uses different language in another part of the same statute, a strong inference arises that the two provisions do not mean the same thing,” which is especially true where the disparate terms “are only lines away from each other.”⁴ Applying the same principle of construction to Section 25.208, DIRECTV argued that one can only conclude that the Commission intended that “clear sky” should mean something other than “free space.”⁵ This is not surprising, given that free space conditions assume a vacuum, while the Earth is at all times surrounded by hundreds of miles of atmosphere even when there is not a cloud in the sky. (Not surprisingly, this is exactly the interpretation the Commission itself specified, as discussed below.) Nonetheless, DIRECTV demonstrated that even if its analysis were adjusted by removing any attenuation due to clouds, its system would still comply with the PFD limitation.⁶

In its Informal Objection, Spectrum Five continues to argue that Section 25.208(w) is “unambiguous” and “clear on its face,” so much so that Spectrum Five’s construction is “compelled by the regulation’s plain language.”⁷ It is ironic, then, to note that Spectrum Five appears to have abandoned the absolutist position that *no* atmospheric effects could legitimately be taken into account in a “clear sky” calculation in favor of a somewhat more nuanced argument. Specifically, it now argues that in order to capture “clear sky” conditions, the PFD calculation “must include the lowest-temperature, lowest-humidity conditions which could be

² See Letter from Howard W. Waltzman to Marlene H. Dortch, File Nos. SAT-AMD-20080321-00077, *et al.*, at 5 (Dec. 19, 2008).

³ *Id.*

⁴ Letter from William M. Wiltshire to Marlene H. Dortch, FCC File No. SAT-AMD-20080114-00014, Att. at 2 and nn. 7 and 8 (Dec. 8, 2008).

⁵ *Id.*

⁶ *Id.*, Att. at 3.

⁷ S5 Informal Objection at 4.

Marlene H. Dortch
February 19, 2009
Page 3 of 5

experienced,” since those are the conditions under which atmospheric attenuation is at its lowest.⁸ Taking this approach, Spectrum Five concluded that that “the actual [atmospheric loss] value can be less than 0.25 dB, which would cause the PFD to exceed -115.13 dBW/m²/MHz and produce excessive interference of 0.37 dB (~7.5%).” In other words, Spectrum Five’s latest submission criticizes DIRECTV’s PFD calculation not for taking atmospheric factors into consideration, but for failing to do so in the manner Spectrum Five deems appropriate – a subject on which the rule is completely silent, on which neither the Commission nor the Bureau has offered guidance, and which differs from the position Spectrum Five took just a month earlier in this proceeding.

Fortunately, on the seminal issue of whether atmospheric attenuation may be considered in a “clear sky” PFD calculation, the Commission has spoken authoritatively – and directly contrary to Spectrum Five’s initial, absolutist position. Section E of the Notice of Proposed Rulemaking in the 17/24 GHz BSS proceeding discussed proposed technical requirements for intra-service operations.⁹ Specifically, the Commission discussed approaches that would protect 17/24 GHz BSS satellite systems in adjacent orbital locations from harmful interference caused by uplink emissions and would protect 17/24 GHz BSS receive antennas on Earth from harmful interference caused by downlink emissions. In order to assess those effects, the Commission discussed clear sky operating levels, and in the process defined the term as follows:

The clear-sky value is taken to be *the condition when the intrinsic atmospheric attenuation due to gasses and water vapor are applicable*, without additional attenuation due to tropospheric precipitation, such as rain or snow. See Recommendation ITU-R PN.676-1.¹⁰

The Commission clearly recognized that “clear sky” conditions include atmospheric effects – gases, water vapor, even clouds (but not rain) – and intended to use the term in that manner in the very portion of the NPRM from which the PFD limitation in Section 25.208(w) arose. This explains the structure of Section 25.208, which (as DIRECTV has pointed out) obviously draws a distinction between “clear sky” conditions that include atmospheric effects and “free space” conditions that do not.

Thus, DIRECTV’s approach to calculating PFD in its application was fully consistent with the definition of “clear sky” conditions used by the Commission in the 17/24 GHz BSS

⁸ *Id.* at 3 n.7.

⁹ See *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*, 21 FCC Rcd. 7426, ¶¶ 48-55 (2006).

¹⁰ *Id.*, n.126 (emphasis added).

Marlene H. Dortch
February 19, 2009
Page 4 of 5

rulemaking proceeding. Spectrum Five's arguments that the rule unambiguously calls for a different result are clearly erroneous.

In these circumstances, although the Bureau *could not* conclude (as Spectrum Five has argued) that atmospheric effects may not be considered in the PFD calculation, it *could* conclude that additional guidance on taking those effects into account would be helpful to all 17/24 GHz BSS applicants. Indeed, Spectrum Five's changing positions on this issue – ranging from a recognition of atmospheric effects,¹¹ to arguing that such effects may never be considered, and back again – as well as DIRECTV's own question as to whether cloud cover may appropriately be considered, would support the latter conclusion.

In past cases in which the Bureau has determined that one of its satellite rules (especially those involving technical showings) was ambiguous, it has followed a consistent course. In such instances, the Bureau has issued a public notice clarifying the manner in which the rule should be interpreted and applied, and afforded all those with pending applications an opportunity to amend their applications in light of such guidance, if necessary.¹² The rationale behind this approach is obvious. It is not fair to hold any applicant to a standard that the Commission has not clearly announced. This is especially true in the case of a required technical showing where no methodology is prescribed and reasonable people could differ on its meaning. Issuing a clarification gives all parties fair notice of the Commission's expectations and the opportunity to come into compliance. It is the most equitable way to proceed where a rule is ambiguous.

If the Bureau were to find that Section 25.208(w) is ambiguous and that "clear sky" PFD showings should be made using a particular methodology, it should follow its own precedent and issue a clarifying public notice. And even if the PFD showing submitted by DIRECTV does not, in retrospect, meet the newly defined contours established by such clarification, DIRECTV must be given an opportunity to amend its application in light of any such clarification, if necessary.¹³

¹¹ See IBFS File No. SAT-LOI-20080910-00178, Technical Narrative at 15 (filed Sep. 10, 2008) (in Spectrum Five's own 17/24 GHz BSS application at 118.4° W.L., asserting that "atmospheric loss (*which is always present* as a link attenuation) provides an additional margin for this [PFD] calculation" (emphasis added)).

¹² See, e.g., Orbital Debris Mitigation: Clarification of 47 C.F.R. Sections 25.143(b), 25.145(c)(3), 25.146(i)(4) and 25.217(d) Regarding Casualty Risk Assessment for Satellite Atmospheric Re-entry, *Public Notice*, 19 FCC Rcd. 10714 (2004); Clarification of 47 C.F.R. § 25.140(b)(2) Space Station Application Interference Analysis, *Public Notice*, 19 FCC Rcd. 10652 (2004); International Bureau Clarifies Direct Broadcast Satellite Space Station Application Processing Rules, *Public Notice*, 19 FCC Rcd. 1346 (2004); Clarification of 47 C.F.R. § 25.140(b)(2) Space Station Application Interference Analysis, *Public Notice*, 18 FCC Rcd. 25099 (2003).

¹³ The Bureau could also address the issue with an appropriate condition. Indeed, that is the way it addressed Spectrum Five's own failure to submit a required technical analysis in its "tweener" application. As the Bureau may recall, DIRECTV argued that Spectrum Five's application should be dismissed as defective for failure to comply with the requirement in Section 25.114(d)(13)(i) for a technical showing sufficient to demonstrate that "the proposed system could operate satisfactorily if all assignments in the [Region 2 Plan] were implemented." See *Spectrum Five, LLC*, 21 FCC Rcd. 14023, ¶ 28 (Int'l Bur. 2006). The Bureau held that, in light of Spectrum Five's willingness to modify the technical characteristics of its system in order to achieve

HARRIS, WILTSHIRE & GRANNIS

Marlene H. Dortch
February 19, 2009
Page 5 of 5

As demonstrated above, the Commission has authoritatively foreclosed Spectrum Five's argument that atmospheric effects cannot be considered in demonstrating compliance with PFD limitations under "clear sky" conditions. To the extent Spectrum Five now argues for the use of a particular methodology to take account of atmospheric effects, it provides at most a basis for the Bureau to issue a clarification of the rule – but certainly no basis for dismissing DIRECTV's application.

Sincerely yours,

/s/

William M. Wiltshire
Counsel for DIRECTV Enterprises, LLC

cc: Robert Nelson
Andrea Kelly
Stephen Duall

CERTIFICATE OF SERVICE

I hereby certify that, on this 19th day of February, 2009, a copy of the foregoing was served by hand delivery upon:

Howard W. Waltzman
Mayer Brown LLP
1909 K Street, N.W.
Washington, DC 20006

/s/ _____
Alex Reynolds