

February 3, 2006

BY HAND DELIVERY

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

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Federal Communications Commission
Office of Secretary

Re: SAT-LOA-20051221-00267 (formerly SAT-MOD-20051221-00267)

Dear Ms. Dortch:

DIRECTV Enterprises, LLC ("DIRECTV") has raised significant concerns about the effects of cross-polar interference that will be caused to the DIRECTV 5 satellite by the proposed EchoStar 10 satellite that would operate at much higher power from the same orbital location. By letter dated February 2, 2006, EchoStar Satellite Operating Company ("EchoStar") submitted a technical analysis that purported to justify the interference that would be unilaterally imposed upon DIRECTV 5.¹ Although DIRECTV believes that the analysis is inapposite for a number of reasons, including those discussed in its recent Response,² three aspects in particular are worth highlighting here.

First, although EchoStar recognizes that DIRECTV currently operates the DIRECTV 5 satellite at 110° W.L. under the parameters requested in an application filed in May 2005.³ Nonetheless, its analysis chooses to focus on parameters requested for operation of the satellite five years earlier at a different orbital location.⁴ As such, it does not represent the most applicable parameters, which have evolved over time as DIRECTV has gained more experience with its satellite fleet. The reason for EchoStar's decision to use out-of-date information is simple: the parameters in the older filing are

¹ See Letter from Pantelis Michalopoulos to Marlene H. Dortch (dated Feb. 2, 2006) ("Feb. 2 Letter").

² See Response of DIRECTV Enterprises, LLC at 4-5 (dated Feb. 3, 2006) ("Response").

³ See Feb. 2 Letter, Technical Annex at 2, 9.

⁴ *Id.*

far more favorable to EchoStar's analysis.⁵ They are not, however, particularly relevant or helpful in addressing the current interference issue.

Second, EchoStar asserts that the 7 dB Eb/No requirement used in DIRECTV's link analysis is "very conservative and could be improved by between 1 and 2 dB for typical QPSK rate 6/7 transmission as currently used by DIRECTV."⁶ Even accepting this assertion – which DIRECTV does not – EchoStar has overlooked the impact of its interference on DIRECTV's ability to implement improved coding schemes to enhance spectral efficiency. For example, both DIRECTV and EchoStar have begun deploying advanced set-top boxes with MPEG-4/8PSK technology that operate with code rates up to 3/4. DIRECTV 5 would not be able to operate in this manner if EchoStar 10 at the levels of interference that would result from EchoStar 10's proposed operations. As discussed in DIRECTV's Response, such interference could also preclude the mobile DBS service proposed in the recent DIRECTV 13 application. EchoStar's analysis essentially assumes no further improvements or innovations in DIRECTV's service from 110° W.L. because EchoStar 10's proposed operations would essentially ensure that result.

Third, EchoStar confirms the distinction between intra-system and inter-system interference discussed in DIRECTV's Response.⁷ As EchoStar's filing explains with respect to intra-system interference, both EchoStar and DIRECTV "readily accept the overall interference situation because it constitutes the best overall optimized way of operating a complex and evolving DBS system."⁸ By contrast, for the inter-system interference involved in this proceeding, "the normal trade-off between the performance of the spot beam satellite and the interference into the CONUS downlinks does not come under the control of a single entity."⁹ In other words, intra-system interference involves both benefits and burdens to the same system, while inter-system interference involves one system benefiting while another one suffers. EchoStar should not be allowed to dictate unilaterally the extent to which DIRECTV's operations will be compromised to serve EchoStar's best interests.

⁵ For example, the May 2000 application assumed cross-polar interference of 18.2 dB and 99.75% availability, while the May 2005 application assumed 22.9 dB and 99.9%, respectively. Compare FCC File Nos. Sat-LOA-20000505-00086 with SAT-A/O-20050504-00093. As demonstrated in DIRECTV's Response, current cross-polar levels for DIRECTV 5 are more consistent with the figure used in 2005. See Response at Exhibit 1 (showing existing cross-polar levels ranging from 19.4 dB to 29.5 dB).

⁶ Feb. 2. Letter at 16.

⁷ See Response at 4-5.

⁸ Feb. 2 Letter, Technical Annex at 16.

⁹ *Id.* at 1.

Marlene H. Dortch
February 3, 2006
Page 3 of 3

Accordingly, the Commission should look skeptically at EchoStar's technical analysis and its attempt to compare apples and oranges.

Sincerely yours,

A handwritten signature in black ink, appearing to read "William M. Wiltshire". The signature is fluid and cursive, with a large initial "W".

William M. Wiltshire
Michael D. Nilsson
Counsel for DIRECTV Enterprises, LLC

cc: Robert Nelson
Andrea Kelly
Chip Fleming
Rockie Patterson
Pantelis Michalopoulos