

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
DIRECTV Enterprises, LLC)	File Nos. SAT-LOA-20130205-00016
)	SAT-AMD-20130716-00094
Application for Authority to Launch and Operate)	
DIRECTV KU-45W, a Ku-band Space Station,)	Call Sign S2893
at 45° W.L.)	

REPLY

EchoStar Satellite Operating Corporation (“EchoStar”) submits this reply to DIRECTV Enterprises, LLC’s (together with its affiliates, “DIRECTV”) consolidated response regarding the above-captioned application, as amended (“Application”).

Significantly, DIRECTV admits that it bears the blame for providing inaccurate data regarding the elliptical (49 cm x 89 cm) dish antenna that will be used with its proposed new services, but offers no revised calculations to correct its error.¹ Instead, it vaguely claims that the antenna has a receive gain that is “very close” to that of a 65 cm round dish antenna and an off-axis gain performance that is “very close” to that specified in Section 25.209 of the Commission’s rules.² In a two-degree spacing environment, the off-axis gain performance of the elliptical receive antenna is actually more than 4 dB worse than that specified in Section 25.209 and certainly is not as trivial as DIRECTV suggests. This difference alone warrants a revised analysis from DIRECTV at the very least.

¹ See Consolidated Response of DIRECTV, IBFS File Nos. SAT-LOA-20130205-00016 & SAT-AMD-20130716-00094, at 3 (June 23, 2014).

² *Id.*

Additionally, as EchoStar noted, DIRECTV's downlink interference calculations show a noise temperature increase, or $\Delta T/T$, level ranging from 74 to 452 percent.³ DIRECTV has insisted that a $\Delta T/T$ level of 73 percent resulting from EchoStar's proposed Appendix 30B Ku-band fixed satellite service ("FSS") operations is unacceptable,⁴ but inconsistently claims here that a higher $\Delta T/T$ level resulting from its proposed Ku-band FSS operations is acceptable.

EchoStar's point is simple. As a physics matter, in a two-degree spacing environment, if multiple FSS systems can co-exist at a specified $\Delta T/T$ level in a part of the Ku-band, then they also can co-exist at the same (or lower) $\Delta T/T$ level in another part of the Ku-band. Conversely, if a given $\Delta T/T$ level results in unacceptable interference in a part of the Ku-band, then the same (or higher) $\Delta T/T$ level should be similarly unacceptable in another part of the Ku-band as a technical interference matter, regardless of the regulatory regime. Thus, DIRECTV should be required either to: (i) withdraw its claim (in the ECHO-45W FSS proceeding) that a $\Delta T/T$ level of 73 percent is unacceptable; or (ii) explain how a higher $\Delta T/T$ level of 74 to 452 percent is acceptable in one part of the Ku-band (but not in another part of the Ku-band) as a technical interference matter.

³ See EchoStar Petition to Deny or Defer, IBFS File Nos. SAT-LOA-20130205-00016 & SAT-AMD-20130716-00094, at 2 (June 9, 2014).

⁴ See Letter from William M. Wiltshire, Counsel for DIRECTV Latin American Holdings, Inc., to Marlene H. Dortch, Secretary, FCC, IBFS File Nos. SAT-LOA-20120921-00152 & SAT-AMD-20130614-00085, at 4 (May 2, 2014).

Based upon the foregoing, EchoStar urges the Commission to deny DIRECTV's Application or alternatively defer action until DIRECTV addresses the deficiencies in its revised interference analysis.

Respectfully submitted,

ECHOSTAR SATELLITE OPERATING
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July 3, 2014

CERTIFICATE OF SERVICE

I, Theresa Rollins, hereby certify under penalty of perjury that the foregoing Reply was served this 3rd day of July 2014 by depositing a true copy thereof with the United States Postal Service, first class postage pre-paid, addressed to:

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