



September 29, 2014

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

Re: IBFS File Nos. SAT-MOD-20130227-00026, SAT-AMD-20130429-00063,
SAT-AMD-20130613-00083, SAT-MOD-20140623-00074,
SAT-STA-20130510-00067, SAT-STA-20130716-00093,
SAT-STA-20130912-00115, SAT-STA-20131113-00131,
SAT-STA-20140113-00004, SAT-STA-20140314-00031,
SAT-STA-20140513-00050 & SAT-STA-20140711-00085
Call Sign S2232

Dear Ms. Dortch:

Pursuant to Section 1.65 of the Commission's rules,¹ EchoStar Satellite Operating Corporation ("EchoStar") submits the attached declaration of Derek de Bastos regarding recent test measurements conducted and actions taken to ensure compliance with the EchoStar 6 satellite's authorized power limits.

Please direct any questions regarding this matter to the undersigned.

Sincerely,

/s/ Jennifer A. Manner
Jennifer A. Manner
Vice President of Regulatory Affairs

Attachment

cc: Troy Tanner (FCC)
Jennifer Gilsenan (FCC)
Jose Albuquerque (FCC)
Karl Kensinger (FCC)
Stephen Duall (FCC)
Scott Angstreich (Counsel for Spectrum Five)

¹ 47 C.F.R. § 1.65.

DECLARATION

I, Derek de Bastos, declare under penalty of perjury that the following facts are true and correct to the best of my knowledge, information, and belief:

1. I am employed as Chief Technology Officer of EchoStar Satellite Operating Corporation (“EchoStar”).
2. I have personal knowledge of the operation of the EchoStar 6 satellite at 96.2° W.L.
3. From December 3, 2013 through September 10, 2014, EchoStar 6 has been transmitting on Channel 17 in medium power mode with an antenna pointing biased east and south. EchoStar 6 has never transmitted in high power mode from the 96.2° W.L. orbital location.
4. Consistent with satellite industry practice and following Spectrum Five’s July 15, 2014 filing of a “Supplemental Opposition” raising for the first time claims regarding EchoStar 6’s power levels, EchoStar reviewed its power calculations and method of operations. Based upon the manufacturer’s measured payload data, antenna range data, and in-orbit test data, and after accounting for the commanded payload configuration and biased antenna pointing as verified in telemetry, we calculated a peak equivalent isotropically radiated power (“EIRP”) level of 49.91 dBW, consistent with EchoStar’s FCC applications and with all limits as permitted under applicable coordination agreements.
5. Satellite industry practice in determining EIRP typically relies on test data combined with telemetry and does not normally require test measurements from the ground. Nonetheless, after meetings with the International Bureau staff in August 2014 and to fully resolve Spectrum Five’s claims, EchoStar conducted test measurements of EchoStar 6’s power levels as received from the following three locations: Cheyenne, Wyoming; Mt. Jackson, Virginia; and Allen Park, Canada.
6. The measured EIRP did not match the predicted EIRP. After a thorough investigation, we determined that our initial analysis contained the following two error sources: (i) the expected output back-off appears to not have been achieved; and (ii) the antenna appears to be pointed more north and west than expected.
7. When these errors are applied against the original EIRP prediction, the resulting EIRP causes coordination non-compliance at certain geographical points. The average non-compliance is a negative margin of approximately 1.8 dB, and the worst-case negative margin is approximately 4 dB.

8. On September 10, 2014, we reduced EchoStar 6's EIRP level by commanding additional ALC steps in order to bring the power levels in compliance with coordination agreements. In addition, the antenna will be repointed to match EchoStar 6's coverage pattern as filed with the FCC. These operations provide a minimum margin of 1 dB, as permitted under applicable coordination agreements. This will be confirmed by test measurements to be conducted once antenna repointing operations are completed in the near term.

Executed on September 29, 2014:

/s/ Derek de Bastos
Derek de Bastos