



November 18, 2014

BY ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: *Request for Special Temporary Authority for In-Orbit Testing of
DIRECTV 14 and DIRECTV RB-1 at 76° W.L.*

Dear Ms. Dortch:

DIRECTV Enterprises, LLC (“DIRECTV”) hereby requests Special Temporary Authority (“STA”) to locate the DIRECTV 14 satellite (call sign S2869) along with the DIRECTV RB-1 payload (call sign S2711) at the 76° W.L. orbital location for in-orbit testing (“IOT”) after launch of the satellite, which is currently scheduled for December 4, 2014. This STA will cover a period of approximately 30 days within a 60 day window, which DIRECTV requests be keyed to become effective upon the satellite’s arrival at 76° W.L.

DIRECTV 14 is currently at the launch site being readied for launch. DIRECTV desires to conduct IOT for approximately four weeks before moving the satellite to its licensed position to begin commercial operations. Specifically, DIRECTV contemplates the following schedule [with approximate dates indicated in brackets]:

- After launch and orbit raising maneuvers, DIRECTV 14 will be located at 76° W.L. [no earlier than about December 14, 2014].
- After DIRECTV 14 reaches 76° W.L., DIRECTV will then commence IOT of the satellite for approximately 4 weeks.¹
- After IOT is completed, DIRECTV 14 will then be drifted to its assigned location at 99° W.L. (nominal) over the course of approximately 23 days [reaching that orbital position on or about February 5, 2015].

¹ During the period covered by this STA, DIRECTV will use 28351.0 and 28353.0 MHz for its command uplinks and 18799.0 and 18799.5 MHz for its telemetry downlinks.

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In order to address the timing uncertainties normally associated with positioning a spacecraft after launch, DIRECTV requests that the STA become effective upon the arrival of DIRECTV 14 at 76° W.L.

Operation and testing of DIRECTV 14 and DIRECTV RB-1 during IOT will consist of performance verification testing of all transponders and antenna pattern verification testing of all antenna beams. During this testing, unmodulated CW carriers will be used to generate swept frequency response and gain transfer characteristics of each transponder. The maximum value of transmit power used during this testing will be consistent with the DIRECTV 14 and DIRECTV RB-1 applications,² except for short periods of time during gain transfer when the maximum transmit power for DIRECTV 14 could exceed that value by up to 10 dB during some tests.³ This testing will not result in harmful interference to other Ka-band satellite systems as the closest co-frequency operational satellite is located 9° away. Nor will this testing result in harmful interference to any DBS satellite system as the closest co-frequency operational DBS satellite is located 1° away and, as demonstrated in the measured transmit antenna gain submission for DIRECTV RB-1, the 17/24 GHz BSS payload on DIRECTV 14 will not exceed the -117 dBW/m²/100kHz PFD coordination trigger beyond 0.12°.⁴ DIRECTV will also coordinate its TT&C operations with all other potentially affected operators to ensure that no harmful interference results. Furthermore, DIRECTV is prepared to terminate all testing operations immediately upon notification from the Commission that its operations cause harmful interference to any authorized user of the spectrum.

Grant of this STA request will serve the public interest by allowing DIRECTV to test the DIRECTV 14/RB-1 satellite to ensure that it is fully operational and ready to begin providing service to millions of DIRECTV subscribers from the satellite's licensed orbital location. Allowing DIRECTV to test the satellite at 76° W.L. will serve the public interest by minimizing the risk of interference.

² See IBFS File Nos. SAT-LOA-20120518-00085 (DIRECTV 14) and SAT-LOA-20060908-00099, SAT-MOD-20110727-00135, SAT-MOD-20111128-00230 (DIRECTV RB-1).

³ Note that, as with IOT testing of DIRECTV 10, 11 and 12, all DIRECTV 14 IOT testing will be closely coordinated with U.S. government systems under FN US334.

⁴ See IBFS File No. SAT-MOD-20141103-00119.

HARRIS, WILTSHIRE & GRANNIS LLP

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Accordingly, and in light of the impending launch date, DIRECTV requests the expeditious grant of special temporary authority.

Respectfully submitted,



William M. Wiltshire
Counsel to DIRECTV Enterprises, LLC