

April 15, 2015

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 KU-79W at 77.5° W.L.*

Dear Ms. Dortch:

DIRECTV Enterprises, LLC (“DIRECTV”) hereby requests Special Temporary Authority (“STA”) to locate the DIRECTV KU-79W satellite (call sign S2861) at the 77.5° W.L. orbital location for in-orbit testing (“IOT”) after launch of the satellite, which is currently scheduled for May 20, 2015. 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 77.5° W.L.

DIRECTV KU-79W is currently at the launch site being readied for launch. DIRECTV desires to conduct IOT for approximately two 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 KU-79W will be located at 77.5° W.L. [no earlier than about May 30, 2015].
- After DIRECTV KU-79W reaches 77.5° W.L., DIRECTV will then commence IOT of the satellite for approximately 2 weeks.¹
- After IOT is completed, DIRECTV KU-79W will then be drifted to its assigned location at 78.8° W.L. (nominal) over the course of approximately 3 to 5 days [reaching that orbital position on or about June 17, 2015].

¹ During the period covered by this STA, DIRECTV will use 14001 and 14496.5MHz for its command uplinks and 11700.75 and 11702.25 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 KU-79W at 77.5° W.L.

Operation and testing of DIRECTV KU-79W 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 KU-79W application,² except for short periods of time during gain transfer when the maximum transmit power could exceed that value by up to 2 dB during some tests. This testing will not result in harmful interference to other Ku-band satellite systems as the closest co-frequency co-coverage operational satellite is located 5.5° away.³ 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 KU-79W 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 77.5° W.L. will serve the public interest by minimizing the risk of interference.

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

Respectfully submitted,

/s/

William M. Wiltshire
Counsel to DIRECTV Enterprises, LLC

² See IBFS File Nos. SAT-LOA-20120316-00051 and SAT-AMD-20120420-00071.

³ Note that Star One C3 is located at 75° W.L. but the co-frequency operations of this satellite are restricted to Brazil. Also note that Intelsat 16 is located at 79° W.L., but DIRECTV is the sole leasee of this satellite and will self-coordinate any IOT interference. Finally, note that AMC-2 is located at 81° W.L., but co-frequency coverage of that satellite is limited to South America.