

REQUEST FOR SPECIAL TEMPORARY AUTHORITY
Call Sign E120110

DIRECTV Enterprises, LLC (“DIRECTV”) hereby requests Special Temporary Authority (“STA”) for 60 days beginning July 25, 2012 to conduct on-site testing solely in the frequency bands 29.5-30.0 GHz (uplink) and 19.7-20.2 (downlink) of the 9.1-meter Ka-band earth station antenna recently installed at DIRECTV’s uplink facility in Englewood, Colorado while its license application is being processed (*see* IBFS File No. SES-LIC-20120621-00605).

This earth station antenna is designed to communicate with DIRECTV’s growing Ka-band satellite fleet across the entirety of the Ka-band blanket licensing bands (*i.e.*, 28.35-28.6 GHz and 29.25-30.0 GHz Earth-to-space and 18.3-18.8 GHz and 19.7-20.2 GHz space-to-Earth). However, DIRECTV is requesting in this STA to limit transmit testing to the 29.5-30.0 GHz band for the following reasons.

DIRECTV understands that, although the 29.25-29.5 GHz band is not available for terrestrial use,¹ a limited number of terrestrial authorizations issued prior to July 1996 for temporary fixed operations in several bands, including 27.5-29.5 GHz, remain outstanding.² Under the Commission’s rules, such temporary operations may be conducted at a given location for a period of no more than six months, and are subject to prior coordination with existing licensees, permittees, and applicants in the area whose facilities could affect or be affected by such temporary operations.³ Moreover, the operator is required to notify the Commission at least five days prior to installation of such temporary facilities, providing the location and operational parameters for its system and confirmation that required coordination with earth station facilities has been completed.⁴ Although DIRECTV has been operating other antennas in this band at this location for several years, at no time has it experienced interference from a terrestrial wireless system, been informed that it has caused interference to a terrestrial wireless system, or been approached for coordination with a terrestrial wireless system. Nor has DIRECTV been able to find any evidence in the Commission’s records of a notification of temporary authorizations in the relevant band in the area near DIRECTV’s earth station site.

¹ *See* 47 C.F.R. §§ 101.101, 101.147(a) (2007) (listing frequencies available for fixed wireless use in this band as 27.5-28.35 GHz and 29.1-29.25 GHz).

² *See id.*, § 101.4. Such systems are subject to the requirements under Part 21 as in effect in July 1996.

³ *See* 47 C.F.R. §§ 21.706(d), 21.707(a) (1995). *See also* 47 C.F.R. §§ 101.31(a)(i), 101.103(d) (2007) (apply same requirements today).

⁴ *See* 47 C.F.R. § 21.708 (1995).

Nonetheless, in order to avoid even the potential for interference into terrestrial systems, DIRECTV requests an STA to operate this earth station on the frequencies that are not used by any such systems.⁵ During these tests, the earth stations will communicate with the SPACEWAY 2 satellite within the parameters set forth in the above referenced application. In addition, DIRECTV will test the antenna's ability to sustain full-power operations over an extended period (approximately 24 hours), as well as its de-icing capabilities. For this part of the testing, DIRECTV will point the antenna to the highest elevation compatible with the de-icing test, which directs the beam generally toward 70° W.L., but to a location at least 8° away from the geostationary arc. DIRECTV notes that the nearest operational Ka-band satellite is located 15° away (AMC-16 at 85° W.L.), which further mitigates any remote potential for interference. DIRECTV will, of course, operate on a non-interference basis and immediately discontinue transmissions if alerted to any problems.

The requested STA would serve the public interest by allowing DIRECTV to perform the testing necessary to establish the performance of its earth station antenna and resolve any issues in preparation to operate it on a commercial basis. DIRECTV therefore respectfully requests that the Commission grant this STA request as expeditiously as possible.

⁵ DIRECTV demonstrated in Exhibit C of its underlying application that operation of this earth station in the 29.25-29.5 GHz band would not cause harmful interference to co-primary, co-frequency MSS feeder link operations. Limiting this STA to operations outside of that band will also address any potential issue with respect to MSS systems as well.