

## REQUEST FOR SPECIAL TEMPORARY AUTHORITY

*Call Sign: S2369 (DIRECTV 1R)*

DIRECTV Enterprises, LLC (“DIRECTV”) hereby requests an extension of its Special Temporary Authority (“STA”) for up to sixty (60) days to continue to (1) continue to stationkeep the DIRECTV 1R spacecraft at the Broadcasting Satellite Service (“BSS”) slot allocated to the United States at 109.8° W.L. for a brief period, and then (2) de-orbit the spacecraft, and to perform telemetry, tracking and command (“TT&C”) operations with DIRECTV 1R during these maneuvers.

On March 9, 2012, the Commission granted DIRECTV a 60-day STA for stationkeeping and TT&C operations with this spacecraft.<sup>1</sup> That STA expires on May 8. DIRECTV had been pursuing an application to re-license DIRECTV 1R as a U.S. space station operating at 109.8° W.L., but recently withdrew that application when it decided to de-orbit the satellite instead.<sup>2</sup> The requested STA will enable DIRECTV to stationkeep the satellite at its orbital location while it is prepared for deorbiting, and to communicate with the satellite throughout the deorbiting process.

As with the existing STA, the communications payload on DIRECTV 1R will remain inactive and only the TT&C payload will operate, using the following frequencies:

Uplink: 17305 and 17799 MHz  
Downlink: 12698.25 and 12699.25 MHz.

DIRECTV will coordinate with potentially affected satellite operators in accordance with industry practice, and will operate on a non-interference basis.

Although not subject to the requirements of Section 25.283 of the Commission’s rules,<sup>3</sup> DIRECTV intends to maneuver DIRECTV 1R into a disposal orbit with an altitude no less than that calculated using the IADC formula:  $36,021 \text{ km} + (1000 \cdot C_R \cdot A/m)$ . The calculated value of  $C_R A/m$  in this instance is based on the following parameters:

$C_R = \text{Solar Pressure Radiation Coefficient} = 1.2$

$A = \text{Total Solar Pressure Area} = 89 \text{ m}^2$

$m = \text{Dry Mass of Satellite} = 1741 \text{ kg}$

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<sup>1</sup> See Grant Stamp, FCC File No. SAT-STA-20120223-00022 (granted Mar. 9, 2012).

<sup>2</sup> See IBFS File No. SAT-A/O-20111205-00233.

<sup>3</sup> See 47 C.F.R. § 25.283(d) (disposal rules not applicable to space stations launched prior to March 18, 2002).

Using these values in the IADC formula results in a minimum de-orbit altitude of 36,082 km, or approximately 296 km above geosynchronous altitude. To provide adequate margin, DIRECTV intends to achieve a disposal orbit of at least 300 km above geosynchronous altitude.

Grant of this STA request will serve the public interest by allowing DIRECTV to complete end-of-life preparation with this satellite and place it in a safe disposal orbit. In addition, grant of this STA request will not result in increased risk of harmful interference to any other system.

Accordingly, DIRECTV respectfully requests that the Commission grant this STA extension request as expeditiously as possible.