

### **Request for Special Temporary Authorization**

Astro Digital US, Inc. (“Astro Digital”) hereby requests special temporary authority (“STA”) for 30 days,<sup>1</sup> beginning November 28, 2017 and ending December 28, 2017, to allow the earth station identified below to communicate with the Astro Digital Landmapper satellite constellation<sup>2</sup> for in-orbit testing and transmission of telemetry and command signals, consistent with the technical parameters specified in the associated pending application for regular authority.<sup>3</sup> This STA application is necessary because Astro Digital is relocating its earth station facility<sup>4</sup> and the new location, which is associated with its earth station application for regular authority, is not expected to be operational until the end of December 2017, which is after the launch of the first Landmapper satellite.

The Commission has previously found that grant of earth station STA’s to communicate with satellites, pending the processing of permanent applications, serves the public interest, convenience, and necessity by allowing for the deployment of new and additional satellite services in a timely manner.<sup>5</sup> Grant of this STA is necessary to allow for communications with Astro Digital’s first Landmapper satellite, which is scheduled to launch December 20, 2017. Also, in the event that the FCC grants Astro Digital’s Landmapper satellite application (IBFS File No. SAT-LOA-20170508-00071) prior to November 28, 2017, Astro Digital requests authority to commence STA operations with its satellite scheduled for launch on November 28, 2017.<sup>6</sup>

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<sup>1</sup> See 47 C.F.R. 25.120(b)(4).

<sup>2</sup> See Astro Digital Application, IBFS File No. SAT-LOA-20170508-00071 (filed May 8, 2017).

<sup>3</sup> See IBFS File No. SES-LIC-INTR2017-02972 (filed Oct. 17, 2017).

<sup>4</sup> Astro Digital currently operates this existing earth station facility for telemetry and command of the company’s Perseus-M1 and Perseus-M2 under Part 5 experimental licenses. See ELS File No. 0317-EX-CR-2017; see also ELS File No. 0021-EX-CM-2016 (seeking authority to operate an additional experimental satellite).

<sup>5</sup> See, e.g., Stamp Grant, Spire, SES-STA-20160324-00286 (granted Apr. 28, 2016); Stamp Grant, DG Consents Sub, Inc., SES-STA-20140717-00605 (granted Aug. 12, 2014); Stamp Grant, EchoStar Broadcasting Corporation, SES-STA-20130108-00019 (granted Jan. 10, 2013); Stamp Grant, Inmarsat Hawaii Inc., SES-STA-20080311-00275 (granted Apr. 4, 2008).

<sup>6</sup> Astro Digital has sought experimental authorization to operate that satellite. See ELS No. 0021-EX-CM-2016.

**Earth Station Frequencies:**

Astro Digital requests authority to use the frequencies requested in the pending earth station application for regular authority (IBFS File No. SES-LIC-INTR2017-02972) and incorporates by reference the associated waiver requests. For the International Bureau's convenience, following is a table listing the requested frequencies, bandwidth and maximum data rates. Output power is 41 dBw EIRP. Astro Digital understands that its authorized operations will be on an unprotected, non-harmful interference basis.

Link Direction:*	Frequency Band:	Bandwidth Occupied:	Max. Data Rate:
Uplink (Command)	399.90 – 400.05 MHz	40 kHz	38.4 kbps
Uplink (Command)	400.05 – 400.15 MHz	40 kHz	38.4 kbps
Uplink (Command)	400.15-401.00 MHz	40 kHz	38.4 kbps
Uplink (Command)	401.00-402.00 MHz	40 kHz	38.4 kbps
Uplink (Command)	402.00-403.00 MHz	40 kHz	38.4 kbps
Downlink (Telemetry)	399.90 – 400.05 MHz	40 kHz	38.4 kbps
Downlink (Telemetry)	400.05 – 400.15 MHz	40 kHz	38.4 kbps
Downlink (Telemetry)	400.15-401.00 MHz	40 kHz	38.4 kbps
Downlink (Telemetry)	401.00-402.00 MHz	40 kHz	38.4 kbps
Downlink (Telemetry)	402.00-403.00 MHz	40 kHz	38.4 kbps

**Site Address:**

NASA Ames Research Park  
340 Cody Road, Building 503  
Moffett Field CA, 94035

**Earth Station coordinates:**

**Latitude:** 37° 24' 34" N  
**Longitude:** 122° 03' 12" W