

## Emergency Request For Special Temporary Authority

Harris Corporation (“Harris”) hereby seeks emergency special temporary authority for the HSAT-1 satellite to downlink to KSAT earth stations in the following locations, for a two week period commencing as soon as possible:

- Punta Arenas, Chile, located at -52.935114 (Lat) and -70.870667 (Long)
- Arawua, New Zealand, located at -46.529014 (Lat) and 168.380333 (Long)
- Hartebeesthoek, South Africa, located at -25.885614 (Lat) and 27.705678 (Long)
- Svalbard, Norway, located at 77° 52' 30" North (Lat) and 20° 58' 31" East (Long).<sup>1</sup>

The proposed frequency bands are:

- 2247.0 MHz downlink
- 2096.0 MHz uplink

A full narrative of the mission experiment of the HSAT-1 cubesat is described in ELS File No. 0016-EX-CN-2016. HSAT-1 was launched on November 28, 2018 and was injected into a 505 km sun-synchronous orbit approximately 109 minutes after launch.<sup>2</sup> The HSAT-1 recently suffered an anomaly and Harris has been unable to receive transmissions from the satellite at its Palm Bay earth station, authorized under call sign WI2XSR. Harris thus seeks emergency special temporary authority for the HSAT-1 to transmit with the above-referenced non-U.S. KSATs so that it may attempt to recover the HSAT-1 vehicle. The first transmission, if it occurs, would take place after Harris commands a signal from one of the KSAT earth stations to the HSAT (subject to foreign approval of the uplink transmission).

As Harris has previously explained, HSAT-1 cubesat’s mission is an experiment related to demonstrating state-of-the-art radio technology.<sup>3</sup> Importantly, operation of the HSAT-1 cubesat is also a risk-reduction activity for demonstrating space-ground communications related to Harris’ USAV project.

Harris submits that grant of the requested special temporary authority is in the public interest, convenience, and necessity as it will allow Harris to attempt to recover HSAT-1.

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<sup>1</sup> Harris has already filed an STA application seeking authority to downlink to the Svalbard earth station. See ELS File No. 1119-EX-ST-2019. Because Harris requires emergency authority to downlink to the Svalbard earth station and the application remains pending, Harris is including the Svalbard KSAT herein. To the extent that ELS File No. 1119-EX-ST-2019 may be granted concurrently, the Svalbard KSAT need not be included as part of the instant request.

<sup>2</sup> See ELS File No. 2051-EX-ST-2018.

<sup>3</sup> See ELS File No. 0016-EX-CN-2016.