

EXHIBIT 1

REQUEST FOR SPECIAL TEMPORARY AUTHORIZATION (Response to Question 12, FCC Form)

Pursuant to Section 25.120(b)(4) of the Commission's rules,¹ HNS License Sub, LLC (together with its affiliates, "Hughes") requests a 30-day special temporary authorization ("STA"), commencing on December 12, 2022 or as soon as possible, to conduct testing and demonstration of four earth station terminals in Germantown, MD, for communications with the EchoStar XIX satellite ("EchoStar XIX" or "Jupiter 2") on the following Ka-band frequencies: 29.25-30.0 GHz (uplink) and 19.7-20.2 GHz (downlink).² Expedient grant of the requested STA will serve the public interest by allowing immediate testing and demonstration of the latest technology in user terminals for potential commercial deployment of new broadband applications to consumers across the United States and abroad.³

The technical parameters of these earth station terminals are specified in Attachment A and have been authorized under the Commission's Part 2 equipment authorization procedures for compliance with applicable Part 25 technical requirements. Accordingly, the proposed STA operations raise no interference concerns.

¹ See 47 C.F.R. § 25.120(b)(4).

² Hughes is licensed to operate EchoStar XIX at 97.1°W in the fixed satellite service, as well as numerous earth station terminals for communications with EchoStar XIX on the same Ka-band frequencies proposed herein. See Hughes, *Stamp Grant*, Call Sign S2834, IBFS File No. SAT-MOD-20171204-00163 (Jan. 18, 2018); Hughes, *Radio Station Authorization*, Call Sign E060445, IBFS File No. SES-RWL-20220128-00103 (granted March 9, 2022).

³ Following successful completion of the proposed testing and demonstration, Hughes may seek authorization to operate the proposed earth station terminals on a long-term basis.

ATTACHMENT A

TECHNICAL PARAMETERS OF PROPOSED EARTH STATION TERMINALS

Manufacturer	ThinKom	ThinKom
Model	Ka2517	Ka1717
Quantity	2	2
Frequency Bands (GHz)	29.25 – 30.0 (uplink) 19.7 – 20.2 (downlink)	29.25 – 30.0 (uplink) 19.7 – 20.2 (downlink)
Transmitting Antenna Size/Diameter	17 in.	17 in.
Area of Operation	Within 10 km (radius) of 39° 10' 45.4794" N, 77° 14' 48.8394" W (NAD83) (Germantown, MD)	Within 10 km (radius) of 39° 10' 45.4794" N, 77° 14' 48.8394" W (NAD83) (Germantown, MD)
Antenna Polarization	Left and Right Circular	Left and Right Circular
Emission Designator	17M8FDXT	17M8FDXT
Transmitting Antenna Gain (dBi at GHz)	38 dBi at 29.5 GHz	38 dBi at 29.5 GHz
Receiving Antenna Gain (dBi at GHz)	39 dBi at 19.7 GHz	36 dBi at 19.7 GHz
Total Input Power at Antenna Flange (watts)	15.8	15.8
Total EIRP for all carriers (dBW)	50	50
Maximum EIRP per Carrier (dBW)	51.5	51.5
Maximum EIRP Density per Carrier (dBW/4 kHz)	17.5	17.5
Modulation and Services	OQPSK	OQPSK
Maximum EIRP Density toward Horizon (dBW/4 kHz)	-28	-28