

March 28, 2023

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Re: Request for 180 Days of Special Temporary Authority to Support BADR-8
Call Sign KA258; Castle Rock, Colorado

Dear Ms. Dortch:

Intelsat License LLC ("Intelsat") herein requests 180 days of Special Temporary Authority ("STA"),¹ commencing May 15, 2023, to use its Hagerstown, Maryland Ku-band earth station, Call Sign KA258, to provide telemetry, tracking, and command (TT&C) services to the BADR-8 satellite during its launch and early orbit phase ("LEOP"), in-orbit testing ("IOT"), and the satellite's drift to its final orbital location.² Intelsat expects the LEOP, IOT, and drift services to occur over a 150-day period immediately following the launch.³ BADR-8 is expected to launch on May 22, 2023.

The BADR-8 operations will be initially performed at the following frequencies:

- 13995.5 MHz, 13996.2 MHz, 14498.5 MHz and 14499.5 MHz (uplink); and
- 11197.0 MHz and 11202.5 MHz (downlink).

Notwithstanding the foregoing, Intelsat may perform TT&C at other frequencies in the full range of the following frequency bands as operational needs may require:

- 13750.0-14500.0 MHz (uplink).

The 24x7 contact information for the BADR-8 mission is as follows:

Ph.: (703) 559-7701 – East Coast Operations Center (primary)
(310) 525-5591 – West Coast Operations Center (back-up)
Request to speak with Glen Jones or Mike Ryan.

In support of this request, Intelsat herewith attaches additional operational information, a waiver request, and a 13 GHz report as Exhibits A-C.

¹ Intelsat has filed its STA request, FCC Form 159, a \$220.00 filing fee, and this supporting letter electronically via the International Bureau's Filing System.

² Intelsat understands that BADR-8 is licensed by Saudi Arabia. The satellite's in-orbit testing will occur at 44.5° E.L.

³ Intelsat is seeking 180 days of STA beginning one week prior to the currently scheduled launch date to accommodate any changes in the launch date.

The LEOP, IOT, and drift operations will be coordinated with all operators of satellites that use the same frequency bands and are potentially affected by the requested operations.⁴ All operators of potentially affected satellites will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs. In the extremely unlikely event that harmful interference should occur due to transmissions to or from its earth station, Intelsat will take all reasonable steps to eliminate the interference.

Finally, Intelsat clarifies that during the BADR-8 mission, Airbus will serve as the mission manager. Airbus will build and send the commands to the Intelsat antenna, which will process and execute the commands. Telemetry received by Intelsat will be forwarded to Airbus. Intelsat will perform the ranging sessions by sending a tone to the spacecraft periodically. Intelsat will remain in control of the baseband unit, RF equipment, and antenna.

Grant of this STA request will allow Intelsat to provide TT&C services during the launch, IOT, and drift of BADR-8 to its final orbital location. This will allow BADR-8 to provide additional capacity at the 26.0° E.L. location. This STA request thereby promotes the public interest.

Please direct any questions the undersigned at (703) 559-6949.

Respectfully submitted,

/s/ Cynthia J. Grady
Cynthia J. Grady
Assistant General Counsel
Intelsat US LLC

cc: Franco Hinojosa

⁴ Airbus Defense and Space ("Airbus"), the manager of the BADR-8 mission, will handle the coordination.

EXHIBIT A

Intelsat's Request for STA to provide LEOP for BADR-8

Earth Station	KL92
Antenna Size (m)	12.5
Transmit Frequencies (MHz)	13995.5, 13996.2, 14498.5, and 14499.5; 13750.0-14500.0
Receive Frequencies (MHz)	11197.0 and 11202.5
Emission Designator(s)	1000KF2D
Polarization	Circular
Bandwidth	1 MHz
Transmit Gain	63.7 dBi at 13.750 GHz
Maximum EIRP per Carrier (dBW)	85.0
Maximum EIRP Density per Carrier (dBW/4 kHz)	61.02
Site Location	Castle Rock, CO
Latitude/Longitude (NAD83)	39° 16' 35.215" N, 104° 48' 22.867" W
Satellite Point(s) of Communication	BADR-8
Satellite Call Sign	n/a, see Exhibit B
Satellite Type	Geostationary
Satellite Location	n/a