

**Exhibit A – Narrative Supplement**  
**STA Request**  
**Applicant: Kongsberg Satellite Services AS**

Kongsberg Satellite Services AS (“KSAT”) respectfully requests an additional 180-day special temporary authorization (“STA”) for its earth station in Fairbanks, Alaska (call sign E260377) (“Station”) to support launch and early orbit-phase operations (“LEOPs”) of USPWSA-T1TL satellites supplied by Northrop Grumman Corporation (“Satellites”) for the U.S. Space Development Agency (“SDA”). The first launch for the Satellites is now scheduled for mid-August 2026.

KSAT requests that the 180-day STA be granted for a term that starts on August 16, 2026 in order for KSAT to provide mission-critical LEOPs support for the Satellites in the interest of U.S. national security. KSAT’s current 180-day STA<sup>1</sup> expires on the day prior to the above-requested start date for the new STA.

The technical parameters requested for this STA, including frequencies, are the same as those authorized for the current STA.

Under the requested STA, KSAT will be providing TT&C for LEOPs under contract to Northrop Grumman Corporation (“NGC”), the prime contractor to SDA for the Satellites. The Satellites are part of SDA’s Tranche 1 Transport Layer program, which serve an important national security communications purpose. SDA will take delivery of the Satellites from NGC after commissioning.

On May 15, 2026, KSAT applied for a license to support both the commissioning (LEOPs) and operation of SDA’s satellites for the Tranche 1 Transport Layer and the Tranche 1 Tracking Layer programs, which would include supporting LEOPs and operation for NGC’s Satellites.<sup>2</sup>

Because the Satellites will be used and operated (after LEOPs) by the U.S. Government, the frequencies for their operation have been coordinated through NTIA.

KSAT is told that the U.S. Government’s Advance Publication information<sup>3</sup> submitted on November 15, 2023, as modified, covers the Station.

---

<sup>1</sup> Application of Kongsberg Satellite Services AS for Special Temporary Authority for a Fairbanks, AK Earth Station, ICFS File No. SES-STA-20251209-01010 (granted Feb. 12, 2026 for a term of Feb. 17, 2026 to Aug. 15, 2026). *See also* Application of Kongsberg Satellite Services AS for Special Temporary Authority for a Fairbanks, AK Earth Station, ICFS File No. SES-STA-20250523-00754 (granted Sept. 10, 2025).

<sup>2</sup> Application of Kongsberg Satellite Services AS for a License for a Fairbanks, AK Earth Station, ICFS File No. SES-LIC-20260505-01248 (filed May 15, 2026).

<sup>3</sup> Advance Publication Information for USPWSA-T1TL, ITU Submission Ref. No. USA2023-64624 (Nov. 15, 2023), <https://www.itu.int/ITU-R/space/asreceived/Publication/DisplayPublication/53644>; USPWSA-T1TL (MOD-1)-5, ITU Submission Ref. No. USA2025-75754 (Aug. 13, 2025),

**Exhibit A – Narrative Supplement**  
**STA Request**  
**Applicant: Kongsberg Satellite Services AS**

In the event that KSAT continues operations under Section 1.62 pending grant of this STA request, KSAT will operate under the terms of the current STA.

**Frequencies Requested**

The following table lists the frequencies requested for this STA:

| <b>Band</b> | <b>Use</b>            | <b>Ctr. Freq. (MHz)</b> | <b>Freq. Range (MHz)</b>                    | <b>Emission Designator</b> | <b>Polarization</b> |
|-------------|-----------------------|-------------------------|---------------------------------------------|----------------------------|---------------------|
| S-band      | TT&C (Earth-to-space) | 2048.7                  | 2048.6750-2048.7250;<br>2048.6000-2048.8000 | 50K0G1D;<br>200KG1D        | RHCP                |
| S-band      | TT&C (Earth-to-space) | 2049.0                  | 2048.9750-2049.0250;<br>2048.9000-2049.1000 | 50K0G1D;<br>200KG1D        | RHCP                |
| S-band      | TT&C (Earth-to-space) | 2049.5                  | 2049.4750-2049.5250;<br>2049.4000-2049.6000 | 50K0G1D;<br>200KG1D        | RHCP                |
| S-band      | TT&C (Earth-to-space) | 2050.2                  | 2050.1750-2050.2250;<br>2050.1000-2050.3000 | 50K0G1D;<br>200KG1D        | RHCP                |
| S-band      | TT&C (space-to-Earth) | 2224.95                 | 2224.8920-2225.0080;<br>2224.7210-2225.1790 | 116KG1D;<br>458KG1D        | RHCP                |
| S-band      | TT&C (space-to-Earth) | 2225.7                  | 2225.6420-2225.7580;<br>2225.4710-2225.9290 | 116KG1D;<br>458KG1D        | RHCP                |
| S-band      | TT&C (space-to-Earth) | 2226.2                  | 2226.1420-2226.2580;<br>2225.9710-2226.4290 | 116KG1D;<br>458KG1D        | RHCP                |
| S-band      | TT&C (space-to-Earth) | 2227.45                 | 2227.3920-2227.5080;<br>2227.2210-2227.6790 | 116KG1D;<br>458KG1D        | RHCP                |

KSAT requests authorization for the frequencies in the table above in accordance with the NTIA coordination. *These are the same center frequencies and bandwidths authorized for the current STA<sup>4</sup> and the same as those requested in the pending license application for supporting NGC during the commissioning (LEOPs) phase.<sup>5</sup>*

---

<https://www.itu.int/ITU-R/space/asreceived/Publication/DisplayPublication/63265>, API/A (IFIC 3014, Feb. 6, 2024), API/A MOD 2 (IFIC 3069, Apr. 14, 2026).

<sup>4</sup> See *supra* note 1.

<sup>5</sup> See *supra* note 2, at 3.

The point of contact for frequency coordination at SDA will be provided in a separate email to the Commission.

KSAT will operate the Station on a non-interference basis. KSAT is attaching the frequency coordination report for the Station that was submitted with the license application<sup>6</sup> as **Exhibit B**. The report addresses the 50 kHz and 200 kHz uplink channels listed in the table above.

### **Station Specifications**

The Station uses a 5.0 meter antenna from Orbital Systems.<sup>7</sup> The Station is hosted at the Vantor-RGTAK site in Fairbanks, Alaska. The specifications for the Station are as follows:

Site Address: 699 Wayne Williams Lane, Fairbanks, AK 99712

Site Coordinates: 64° 53' 26.53" N, 147° 31' 42.96" W (NAD-83)

Site Elevation (AMSL): 218 meters

#### **5.0m S-band Antenna:**

Name: FB4

Make/Model/Diameter of Antennas: Orbital Systems, 5.0AE3BP, 5.0 m diameter

Antenna Height Above Ground Level: 9.9 meters

Antenna Height Above Sea Level: 228.1 meters

Antenna Size: 5.0 meter diameter

Total Input Power at Antenna Flange: 25.12 watts (max.)

Antenna Gain Transmit and/or Receive: 37.6 dBi at 2075 MHz

Total EIRP for all carriers (dBW): 51.6 dBW (max.)

Antenna Azimuth Angle Western Limit / Eastern Limit: 0° / 360° (for all frequencies)

Antenna Elevation Angle Western Limit / Eastern Limit: 5° / 5° (for all frequencies)

Maximum EIRP Density (dBW/4kHz)<sup>8</sup>: 40.63 (at 50 kHz), 34.61 (at 200 kHz)

Maximum EIRP Density toward the Horizon (dBW/4kHz): 11.92 (at 50 kHz), 5.9 (at 200 kHz)

The Station will be remotely operated and controlled from KSAT's Tromsø Network Operations Center in Tromsø, Norway, which can be reached 24/7 at (+47) 77 60 02 68. KSAT Inc., a U.S.

---

<sup>6</sup> See *supra* note 2.

<sup>7</sup> Because KSAT is no longer requesting authority for Ka-band operations with the Satellites, the specifications for the Ka-band antenna are not included here.

<sup>8</sup> These values are the worst-case for operation of the Station with the NGC Satellites. The overall T1TL constellation's worst-case EIRP Density from the Comsearch report (Exhibit B) is 36.3 dBW/4 kHz. As stated in the Comsearch report, the Horizon Gain is 8.89 dBi for both 50 kHz and 200 kHz.

entity, can be reached 24/7 at +1 (720) 704-8456 (stop buzzer).<sup>9</sup> KSAT meets the conditions listed in Section 25.271 of the Commission's rules for operation of a transmitting earth station by remote control.

A radiation hazard report is attached as **Exhibit C** (for reference, this is the same Exhibit C that has been filed with the license application for the Station<sup>10</sup>).

The Station will operate with the Satellites on a bent-pipe basis. Commands for the Satellites will be created by NGC and sent encrypted to KSAT's earth station for transmission to the Satellites. Telemetry will be received at the Station from the Satellites in encrypted form and transmitted to NGC.

The Satellites will be launched in two planes, 21 satellites per launch. The second launch may occur within the term of this STA or will be covered in a subsequent STA request. LEOPs for the Satellites is expected to take approximately 6 months post-launch.

The Satellites will be placed in a 995.26 km circular non-geostationary orbit, inclined at 81.28 degrees.

### **Waiver Request**

KSAT requests a waiver for the planned S-band operations to the extent the planned use does not conform to the U.S. Table of Frequency Allocations.<sup>11</sup> The Commission may grant a waiver of its rules for good cause shown.<sup>12</sup>

The S-band frequency ranges in the table above, which fall within the 2025-2110 MHz and 2200-2290 MHz segments of the S-band, are allocated for the Space Operations Service (Earth-to-space and space-to-Earth, respectively) for Federal users only.<sup>13</sup>

---

<sup>9</sup> KSAT has appointed its U.S. subsidiary, KSAT Inc., to serve as a 24 hours per day, 7 days per week U.S. point of contact. KSAT Inc. is a Delaware corporation with offices in Colorado staffed by U.S. citizens. KSAT Inc. has been authorized by KSAT to cease operations at the Station in the event it is notified of harmful interference or is otherwise ordered to do so by the Commission. KSAT Inc. will cease operations at the Station by calling KSAT's 24/7 Tromsø Network Operation Center, which remotely operates the station.

<sup>10</sup> See *supra* note 2 (Exhibit C filed on June 22, 2026).

<sup>11</sup> 47 C.F.R. § 2.106.

<sup>12</sup> 47 C.F.R. § 1.3.

<sup>13</sup> See 47 C.F.R. § 2.106. KSAT notes that footnote US347 does not apply: the footnote allows for authorization of non-Federal Earth-to-space transmissions in the space research and Earth exploration-satellite services subject to such conditions as may be applied on a case-by-case basis.

**Exhibit A – Narrative Supplement**  
**STA Request**  
**Applicant: Kongsberg Satellite Services AS**

The use of the requested frequencies by KSAT to provide LEOPs for the Satellites is in the public interest, as demonstrated below. The risk of harmful interference is *de minimis* because the S-band transmit-frequencies have been coordinated through COMSEARCH and through NTIA by SDA. For these reasons, there is good cause for the Commission to grant a waiver for the requested operations to the extent needed.

**Public Interest**

Grant of this STA request will serve the public interest in accordance with Section 25.120(b)(1) of the Commission's rules. The Satellites are part of SDA's Tranche 1 Transport Layer program and will be delivered to SDA after commissioning. Without the Station to support LEOPs, the commissioning of the Satellites will be hampered to the detriment of U.S. national security interests. For these reasons, KSAT respectfully requests that the Commission grant this STA.

**Applicant Legal and Technical Qualifications**

KSAT, of Tromsø, Norway, operates a global network of ground stations for satellite TT&C and data acquisition and launch and early orbit phase services. KSAT is a commercial limited liability stock company, organized under the laws of Norway. KSAT is an existing Commission licensee.

**Antenna Notification Requirement**

KSAT affirms that prior FAA notification is not required for the earth station. KSAT's S-band antenna stands 9.9 meters (max.) above ground level. Fort Wainwright, which has an active airfield, is approximately 4 miles away (over 21,000 feet from the nearest point of the nearest runway). Prior FAA notification of the antenna is not required because the antenna is shielded from the nearest airfield by topographic features that are greater in height: a ridge that varies between 213 and 244 meters in elevation lies between the earth station site (218 meters AMSL) and the airfield at Fort Wainwright (137 meters). Furthermore, there is an existing antenna structure operated by Vantor at the site that is approximately 228.1 meters in height above sea level, the same as KSAT's antenna.