

ThinKom Solutions, Inc. Application for Experimental Special Temporary Authority
Narrative Statement

(1) Name, address, phone number (also e-mail address and facsimile number, if available) of the applicant.

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(2) Description of why an STA is needed.

ThinKom Solutions, Inc. (“ThinKom”) provides advanced satellite solutions to U.S. government customers to meet mission critical needs. ThinKom hereby requests an experimental special temporary authority (“STA”) in order to conduct a time-sensitive demonstration and evaluation of its Ka-band electronically steered antenna to support wideband satellite communications capability, the ThinKom Ka2517.

The proposed operations will utilize a ThinKom Ka2517 airborne electronically steered antenna terminal configured for temporary fixed-site ground testing to communicate with SES Americom, Inc. (“SES”) SES-17 geostationary satellite (Call Sign S3043)¹ operating in the Ka-band. Although the Ka2517 is designed for airborne satellite communications applications, all operations conducted under this STA will occur from a temporary fixed test location at Barksdale AFB and Hawthorne, California.²

Specifically, ThinKom requests this STA to demonstrate and evaluate performance and suitability of the ThinKom Ka2517 antenna to assess the antenna’s suitability to support satellite communications to U.S. Government customers deployed around the world.

All operations will be conducted in the 28.6-29.1 GHz and 29.5-30 GHz uplink bands consistent with SES-17 authorizations and applicable coordination agreements.

¹ SES-17 has been granted U.S. market access pursuant to FCC File No. SAT-PDR-20190305-00014 and subsequently modified under File No. SAT-MPL-20221018-00144 (granted March 9, 2023).

² SES currently holds separate Commission authority for operation of Ka2517-based ESAA terminals communicating with SES satellites. The authority requested herein is distinct and limited to the fixed-site experimental demonstrations described in this application.

All transmissions will be coordinated with SES as the authorized operator of SES-17. ThinKom will immediately cease transmissions upon notification of harmful interference and will cooperate fully with the Commission and SES to resolve any such issues.

In the 28.35-28.6 GHz and 29.5-30.0 GHz bands, where GSO FSS is primary, the ThinKom terminal will comply with the Off-Axis EIRP density envelopes specified in 47 C.F.R. § 25.218 and will operate in accordance with applicable coordination agreements for GSO satellites with which it communicates, ensuring compliance with regulatory requirements and minimizing interference with co-primary services.

ThinKom will comply with the out-of-band emissions limits specified in Section 25.202 of the Commission's rules regarding frequency tolerance and emission limits.

(3) Time and Date of Proposed Operation

ThinKom requests expedited processing to commence operations on or about June 18, 2026, for a period of up to six (6) months. The requested timing is driven by mission requirements to support time-sensitive U.S. Government demonstrations.

(4) Class(es) of station (fixed, mobile, fixed and mobile) and call sign of station (if applicable).

The transmitting antenna is an airborne electronically steered antenna terminal that will operate in a temporary fixed-site ground test configuration for the duration of the experimental operations.

(5) Description of the location(s) and geographical coordinates of the proposed operation.

ThinKom will operate the terminal at the locations identified below. During testing or demonstration, the antenna will be positioned within a 1-mile (1.6 km) radius of the coordinates indicated below.

- Barksdale AFB, Bossier City, LA
 - Latitude: 32° 30' 03.09" N
 - Longitude: 93° 39' 44.05" W
 - Antenna Elevation Range: 20° - 85°
 - Antenna Azimuth Range: 0° - 360°
 - Operating Range: 1.6 kilometers
- Hawthorne, CA
 - Latitude: 33° 54' 00.47" N
 - Longitude: 118° 21' 48.67" W
 - Antenna Elevation Range: 20° - 85°
 - Antenna Azimuth Range: 0° - 360°
 - Operating Range: 1.6 kilometers

(6) Transmit equipment to be used, including name of manufacturer, model, and number of units.

ThinKom Ka2517, 1 unit

(7) Maximum effective radiated power (ERP) or equivalent isotropically radiated power (EIRP).

The maximum transmitted EIRP will be 50 dBW, consistent with the antenna's operational characteristics and compliant with the off-axis EIRP density limits specified in Section 25.218.

The system will operate with a maximum transmit power of approximately 37 Watts. All operations will comply with applicable FCC power flux density, off-axis EIRP density, and out-of-band emissions requirements.

For all operations, ThinKom will comply with the radiofrequency radiation exposure limits in 47 C.F.R. § 1.1310 and apply the measures recommended in the Commission's OET Bulletin 65 to ensure compliance.

In addition to the showing provided, ThinKom affirms that it will have control over the fixed testing locations during all testing operations and will be able to ensure that no one from the general population enters the testing area while the ThinKom terminal is transmitting.

(8) Emission Designator

18M0G7W

(9) Overall height of antenna or antenna structure above the ground (if greater than 6 meters above the ground or an existing structure, see part 17 of this Chapter concerning notification to the FAA)

The antenna will operate in a fixed location during testing and may be mounted on a temporary platform or vehicle; total height will not exceed six meters.

(10) Directional Antenna Characteristics

Width of the antenna beam in degrees at the half-power point	1.8 degrees
Orientation of the antenna in the horizontal plane	0-360 degrees
Orientation of the antenna in the vertical plane	20-85 degrees