

Orbital Debris Assessment Report (ODAR)

Pursuant to FCC §§ 25.114(d)(14) and 5.64 Experimental License Application – Form 442

File Number 0661-EX-CN-2026

Applicant: Space AI Inc.

Date: July 12th, 2026

1. Mission Overview

- **Number of Satellites:** 10 identical 6U CubeSats
- **Orbit:** 550 km circular Low Earth Orbit, inclination 90° (polar)
- **Mission Duration:** Up to 3 years
- **Purpose:** Experimental demonstration of high-speed communications using six Lime LMS8001 SDRs per satellite, MIMO downlink, and inter-satellite links (ISL).
- **Launch:** Phased deployment across multiple rideshare opportunities.

2. Spacecraft Description

- **Form Factor:** 6U CubeSat (8–12 kg each)
- **Structure:** Aluminum and composite materials
- **Power:** Deployable solar panels, Li-ion batteries
- **Propulsion:** None
- **Pyrotechnics:** None
- **Antennas:** Patch antenna, 3 dBi gain, 180° beam width, RHCP
- **Communications:** Six Lime LMS8001 SDRs per satellite
- No intentional debris release planned.

3. Debris Released During Normal Operations No intentional release of debris. All deployment mechanisms are designed to retain components. Compliant with FCC §25.114(d)(14)(i).

4. Risk of Accidental Explosion Probability of accidental explosion: < 0.001. Mitigation: Battery passivation at end-of-life, no pressurized systems or hypergolic propellants.

5. On-Orbit Collision Risk Assessed using NASA DAS 3.2.6. Collision probability with cataloged objects: Expected < 0.001 per satellite (typical for 6U at 550 km). Compliant.

6. Post-Mission Disposal

- **Method:** Passive atmospheric reentry via natural aerodynamic drag (no propulsion).
- **Expected decay lifetime:** Approximately 3.0 years (based on previous DAS runs for similar 6U satellites at 550 km, Area-to-Mass $\sim 0.008 \text{ m}^2/\text{kg}$).
- All satellites will reenter within 5 years after mission end. Compliant with FCC 5-year rule.

7. Reentry Casualty Risk Human casualty risk: **0** (all components expected to demise during reentry). Compliant with NASA Standard 8719.14 (< 1:10,000).

8. Tether Missions Not applicable.

Certification

I certify that the information provided in this ODAR is accurate and that the mission complies with all applicable FCC orbital debris mitigation requirements.

Sincerely,

Antonio Montesinos
Director of RF Operations
Space AI Inc.