

Surtr Defense Systems, Experimental STA Narrative Statement, Echodyne EchoGuard 24.45-24.65 GHz

Applicant: Surtr Defense Systems, Inc.

Address: 1301 North Broadway STE 95952, Los Angeles, CA 90012

EIN: 41-4981527 | **FRN:** 0038792586

Contact / Stop Buzzer: Justin Sadeghian, Chief Growth Officer, (254) 383-4560, justin@surtrdefense.com

Requested dates of operation: 2026-09-21 to 2027-03-18 (fewer than 180 days)

This application requests Special Temporary Authority for radiolocation testing with one (1) commercially manufactured Echodyne EchoGuard radar (FCC ID: 2ANLB-MESASSR00053, 24.45-24.65 GHz) at the four locations described below. One unit will be operated; it will be relocated among the listed sites as testing requires. Identical equipment has previously been authorized by the Commission, see Echodyne File Nos. 0697-EX-ST-2024 and 0321-EX-ST-2025.

Site 1: Boiling Spring Flyers RC Field, Pelion, SC

Purpose of Operation

Surtr Defense Systems, Inc. respectfully requests Special Temporary Authority to operate one (1) commercially manufactured Echodyne EchoGuard radar (FCC ID: 2ANLB-MESASSR00053) for radiolocation testing in support of counter-unmanned aircraft system (C-UAS) research and development. Operations consist of detecting and tracking small unmanned aircraft flown cooperatively at an established Academy of Model Aeronautics (AMA) chartered model aircraft flying field. Testing supports development and evaluation of sensor data fusion software for air defense applications for the U.S. Department of Defense.

Equipment

- Manufacturer / Model: Echodyne Corp. / EchoGuard (COTS, non-experimental)
- FCC ID: 2ANLB-MESASSR00053
- Number of units: 1
- Frequency range: 24.45-24.65 GHz
- Transmitter output power: 3.2 W
- Peak ERP: 246 W
- Emission designator: 47M1F3N (linear FM)
- Prior Commission authorization of identical equipment: see Echodyne File Nos. 0697-EX-ST-2024 and 0321-EX-ST-2025

Location of Operation

Fixed/base operation at the Boiling Spring Flyers model aircraft field (AMA Charter Club #4764):
- Address: 3040 Calks Ferry Road, Pelion, SC 29123 - Coordinates (NAD83): 33° 50' 08" N, 81° 19' 10" W - Mobile radius of operation: 2 km centered on the above coordinates - Antenna: fixed/base mount, non-directional other than radar scanning, less than 6 meters above ground level. No antenna structure registration or FAA notification required (structure below notification thresholds).

Dates of Operation

- Start: 2026-09-21
- End: 2027-03-18 (fewer than 180 days)

Stop Buzzer

Justin Sadeghian, Chief Growth Officer, Surtr Defense Systems, Inc., is designated as the “stop buzzer” point of contact and can cause immediate cessation of all transmissions: (254) 383-4560, justin@surtrdefense.com.

Interference Mitigation

Operations are low duty-cycle, short-duration test events at a rural site. The applicant will coordinate to avoid harmful interference and will immediately cease operations upon notification of any interference. The radar antenna is ground-mounted with a scan volume oriented toward the model aircraft flight line.

Site 2: Kinard Technologies Facility, Westfield, IN

Purpose of Operation

Surtr Defense Systems, Inc. respectfully requests Special Temporary Authority to operate one (1) commercially manufactured Echodyne EchoGuard radar (FCC ID: 2ANLB-MESASSR00053) for radiolocation testing in support of counter-unmanned aircraft system (C-UAS) research and development. Operations consist of detecting and tracking small unmanned aircraft flown cooperatively at a partner industrial facility. Testing supports development and evaluation of sensor data fusion software for air defense applications for the U.S. Department of Defense.

Equipment

- Manufacturer / Model: Echodyne Corp. / EchoGuard (COTS, non-experimental)
- FCC ID: 2ANLB-MESASSR00053
- Number of units: 1
- Frequency range: 24.45-24.65 GHz
- Transmitter output power: 3.2 W
- Peak ERP: 246 W
- Emission designator: 47M1F3N (linear FM)
- Prior Commission authorization of identical equipment: see Echodyne File Nos. 0697-EX-ST-2024 and 0321-EX-ST-2025

Location of Operation

Fixed/base operation at the Kinard Technologies facility: - Address: 20418 Commerce Park Drive, Suite B, Westfield, IN 46074 - Coordinates (NAD83): 40° 05' 03" N, 86° 06' 30" W - Mobile radius of operation: 2 km centered on the above coordinates - Antenna: fixed/base mount, non-directional other than radar scanning, less than 6 meters above ground level. No antenna structure registration or FAA notification required (structure below notification thresholds).

Dates of Operation

- Start: 2026-09-21
- End: 2027-03-18 (fewer than 180 days)

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Interference Mitigation

Operations are low duty-cycle, short-duration test events at a suburban industrial site with the cooperation of the facility owner. The applicant will coordinate to avoid harmful interference and will immediately cease operations upon notification of any interference. The radar antenna is ground-mounted with a scan volume oriented toward the cooperative test airspace.

Site 3: Fort Knox Military Reservation, KY

Purpose of Operation

Surtr Defense Systems, Inc. respectfully requests Special Temporary Authority to operate one (1) commercially manufactured Echodyne EchoGuard radar (FCC ID: 2ANLB-MESASSR00053) for radiolocation testing in support of counter-unmanned aircraft system (C-UAS) research, development, and demonstration for the U.S. Department of Defense. Operations consist of detecting and tracking small unmanned aircraft flown cooperatively on the Fort Knox military reservation, coordinated with the installation spectrum manager and range control.

Equipment

- Manufacturer / Model: Echodyne Corp. / EchoGuard (COTS, non-experimental)
- FCC ID: 2ANLB-MESASSR00053
- Number of units: 1
- Frequency range: 24.45-24.65 GHz
- Transmitter output power: 3.2 W
- Peak ERP: 246 W
- Emission designator: 47M1F3N (linear FM)
- Prior Commission authorization of identical equipment: see Echodyne File Nos. 0697-EX-ST-2024 and 0321-EX-ST-2025

Location of Operation

Fixed/base operation on the Fort Knox military reservation, Hardin County, KY: - Coordinates (NAD83): 37° 53' 52" N, 85° 54' 14" W (reservation center point) - Mobile radius of operation: 5 km centered on the above coordinates (operations remain within the installation boundary) - Antenna: fixed/base mount, non-directional other than radar scanning, less than 6 meters above ground level. No antenna structure registration or FAA notification required (structure below notification thresholds). - All on-post operations will be scheduled and coordinated in advance with the Fort Knox installation spectrum manager and range control.

Dates of Operation

- Start: 2026-09-21
- End: 2027-03-18 (fewer than 180 days)

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Interference Mitigation

Operations are low duty-cycle, short-duration test events on a controlled military installation. The applicant will coordinate all operations with the installation spectrum manager, will operate only during scheduled windows, and will immediately cease operations upon notification of any interference.

Site 4: Surtr Defense Systems Facility, Anaheim, CA

Purpose of Operation

Surtr Defense Systems, Inc. respectfully requests Special Temporary Authority to operate one (1) commercially manufactured Echodyne EchoGuard radar (FCC ID: 2ANLB-MESASSR00053) for radiolocation testing in support of counter-unmanned aircraft system (C-UAS) research and development. Operations at this site consist of sensor integration, calibration, and detection/tracking evaluation at the applicant’s own facility. Testing supports development and evaluation of sensor data fusion software for air defense applications for the U.S. Department of Defense.

Equipment

- Manufacturer / Model: Echodyne Corp. / EchoGuard (COTS, non-experimental)
- FCC ID: 2ANLB-MESASSR00053
- Number of units: 1
- Frequency range: 24.45-24.65 GHz
- Transmitter output power: 3.2 W
- Peak ERP: 246 W
- Emission designator: 47M1F3N (linear FM)
- Prior Commission authorization of identical equipment: see Echodyne File Nos. 0697-EX-ST-2024 and 0321-EX-ST-2025

Location of Operation

Fixed/base operation at the applicant’s facility: - Address: 2816 East Virginia Avenue, Anaheim, CA 92806 - Coordinates (NAD83): 33° 50’ 05” N, 117° 52’ 15” W (building pin, 33.83467, -117.87088) - Mobile radius of operation: 1 km centered on the above coordinates - Antenna: fixed/base mount, non-directional other than radar scanning, less than 6 meters above ground level. No antenna structure registration or FAA notification required (structure below notification thresholds).

Dates of Operation

- Start: 2026-09-21
- End: 2027-03-18 (fewer than 180 days)

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Interference Mitigation

Operations are low duty-cycle, short-duration integration and calibration events at the applicant’s own facility. The radar antenna is ground-mounted with a constrained scan volume, and emissions at 24 GHz attenuate rapidly with distance. The applicant will coordinate to avoid harmful interference and will immediately cease operations upon notification of any interference.