Echodyne Corp.
Application for Experimental Special Temporary Authority
ELS File No. 2041-EX-ST-2024

NARRATIVE STATEMENT

Pursuant to 47 C.F.R. § 5.3 and 47 C.F.R § 5.61 Echodyne Corp. hereby respectfully requests a special temporary authority ("STA") from November 19, 2024 to December 19, 2024, to operate in the 15.95-16.50 GHz radiolocation band to conduct customer demonstrations of the EchoShield radar developed by Echodyne Corp

A.   Purpose of Operation and Need for Special Temporary Authority:

The EchoShield radar has received equipment authorization from the FCC (FCC ID: 2ANLB-MESA00054). However, Echodyne Corp. requests this STA to allow it to test the radar in specific scenarios in conjunction with customers. The STA is for testing purposes only and not for permanent installation of the radars. The testing under this STA is related to radiolocation applications.

B.   Location of Proposed Operation:

Echodyne proposes to test the radar at a fixed location within the area described below.

Location	Coordinates (NAD83)	Radius of Operation
Parrott, Virginia	37° 12' 9" N 80° 35' 21" W	5km

C.   Technical Specifications:

1.   Frequencies Desired

Echodyne requests authorization to operate in the 15.95 – 16.50 GHz band.

2.   Effective Radiated Power

The units to be deployed are configured to operate at a peak maximum transmitter power output of 200.0W, and a peak maximum effective radiated power of 77.00kW. Echodyne will reduce the actual powers to the minimum power needed for successful demonstration, based on set-up, and testing at the proposed locations. Operations will be conducted to comply with rules relating to human exposure to radiation.

3.   Modulation and Emissions

The EchoShield radar operates using pulsed linear frequency modulation. The primary emission designator is 50MQ3N. The emissions will not extend beyond the frequency bands requested

4. Antenna Information

No antennas will be mounted in a fashion that would require approval under FAA or FCC rules and regulations.

5. Equipment To Be Used

Echodyne proposes to demonstrate its EchoShield Radar. It expects that it will be able to conduct its demonstrations with a maximum of 1 unit.

D. Protection Against Causing Interference:

In the event that Echodyne receives a complaint of harmful interference from the proposed operation, Echodyne will take immediate action to address the interference. The company has designated Mr. Matthew Felsen (contact information below) to act as the "stop buzzer" for this purpose.

Furthermore, the length of the planned demonstration period is short, and during that period the proposed operations will be limited in scope. In summary, the analysis conducted by Echodyne indicates the proposed operation should not interfere with any licensed operation.

E. Restrictions on Operation:

Echodyne Corp. recognizes that the operation of any equipment under experimental authority must not cause harmful interference to authorized facilities. Should interference occur, Echodyne will take immediate steps to resolve the interference, including discontinuing operations if necessary.

In addition, Echodyne Corp. will advise entities using the equipment that permission to operate has been granted under experimental authority issued to Echodyne Corp., that such operation is strictly temporary, and that the equipment may not cause harmful interference.

F. Public Interest:

Echodyne submits that issuance of an STA as requested is in the public interest, convenience, and necessity. Grant of an STA will permit Echodyne to develop innovative equipment that will enable enhanced security and situation awareness at a more accessible commercial price point

G. Contact Information:

In the unlikely event interference concerns should arise during the period of authorization requested by this application, please contact the company's "Stop Buzzer" identified below:

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> Solutions Engineer
> Echodyne Corp.
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