

Echodyne Corp.
Application for Experimental Special Temporary Authority
ELS File No. 2311-EX-ST-2023

NARRATIVE STATEMENT

Pursuant to Section 5.3 and Section 5.61 of the FCC’s rules, Echodyne Corp. hereby respectfully requests a special temporary authority (“STA”) from Dec 12th, 2023 to June 12th, 2024 to operate in the 15.7-16.6 GHz and 24.45-24.65 GHz band to operate its radars.

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

Echodyne has received equipment authorization from the FCC for the EchoGuard radar (FCC ID 2ANLB-MESASSR00053) and the EchoShield radar (FCC ID 2ANLB-MESA00054). However, Echodyne 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
Mobile, AZ	33°05'34.9"N 112°19'56.2"W	10 km
Tonopah, AZ	33°31'55.8"N 113°06'31.3"W	5 km

C. Technical Specifications:

1. Frequencies Desired

Echodyne requests authorization to operate in the 15.7-16.6 GHz and 24.45-24.65 GHz bands.

2. Effective Radiated Power

The EchoGuard units to be deployed operate at a peak maximum transmitter power output of 3.2W, and a peak maximum effective radiated power of 246W. The EchoShield units to be deployed operate at a peak maximum transmitter power output of 180W, and a peak maximum effective radiated power of 55 KW. Operations will be conducted to comply with rules relating to human exposure to radiation.

3. Modulation and Emissions

The EchoGuard radar operates using linear FM modulation . The primary emission designator is 45M0FXN. The EchoShield radar operates using pulsed linear frequency

modulation. The primary emission designator is 50M0Q3N. 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 Corp. will conduct the testing with a maximum of 4 units.

D. Protection Against Causing Interference:

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

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:

Grant of an authorization will permit Echodyne Corp to demonstrate its innovative radar equipment and enhance public safety.

G. Contact Information:

For questions, or 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:

Matthew Ugarph
Director, Solutions Engineering
Echodyne Corp.
11212 115th Ave NE
Kirkland, WA, 98034
spectrum@echodyne.com
mugarph@echodyne.com