

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
**CERTIFICATE OF WAIVER**

ISSUED TO

**Exosonic, Inc**  
**Responsible Person: Alex Kroll**  
**Waiver Number: 107W-2023-01382**

ADDRESS

**2291 W 205th St Ste 101**  
**Torrance, CA 90501**

This certificate is issued for the operations specifically described hereinafter. No person shall conduct any operation pursuant to the authority of this certificate, except in accordance with the standard and special provisions contained in this certificate, and such other requirements of the Federal Aviation Regulations not specifically waived by this certificate.

OPERATIONS AUTHORIZED

Operating Limitations for Small Unmanned Aircraft System (sUAS) — Groundspeed; sUAS operations higher than 400 feet above ground level, when not within a 400 foot radius of a structure.

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

**14 CFR §§ 107.51(a)—Operating limitations for sUA - Groundspeed, and**  
**107.51(b)—Operating limitations for sUA - Altitude**

**STANDARD PROVISIONS**

1. A copy of the application, made for this certificate, shall be attached to and become a part hereof.
2. This certificate shall be presented for inspection upon the request of any authorized representative of the Administrator of the Federal Aviation Administration or of any State or municipal official charged with the duty of enforcing local laws or regulations.
3. The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein.
4. This certificate is nontransferable.

NOTE—This certificate constitutes a waiver of those Federal rules or regulations specifically referred to above.  
It does not constitute a waiver of any State law or local ordinance.

**SPECIAL PROVISIONS**

Special Provisions 1 to 22, inclusive, are set forth on the attached pages.

This Certificate of Waiver is effective from December 1, 2023, to December 31, 2024, and is subject to cancellation at any time upon notice by the Administrator or an authorized representative.

**BY DIRECTION OF THE ADMINISTRATOR**

**Adam Vetter**  
**Tactical Operations Manager**  
**FAA Western Service Center**

**SPECIAL PROVISIONS ISSUED TO**  
**Exosonic, Inc.**

**General.**

The FAA's Flight Standards Service has reviewed your application to ensure compliance with the requirements of 14 CFR § 107.200 and § 107.205. Pursuant to these authorities, the Administrator finds that the proposed sUA operation can be conducted safely under the provisions of this Certificate of Waiver (Waiver) as listed below because you have established adequate mitigations for risks involved with operating your sUA in the manner you described. Adherence to the provisions of this Waiver establishes the required level of safety within the national airspace system.

The Administrator may cancel this Waiver at any time. As a general rule, this Waiver may be canceled when it is no longer required, there is an abuse of its provisions, or when unforeseen safety factors develop. Failure to comply with any provision listed below is a violation of the terms of this Waiver and will serve as justification for cancellation.

List of Regulations Waived by Section and Title. The following regulations are waived:

**14 CFR § 107.51(a)**, Operating limitations for sUA - Groundspeed, is waived to allow sUA operations with a groundspeed in excess of 87 kts (100 mph)

**14 CFR § 107.51(b)**, Operating limitations for sUA - Altitude, is waived to allow sUAS operations higher than 400 feet above ground level (AGL), not to exceed 1500 feet AGL.

No part of this waiver will function as an airspace authorization under 14 CFR § 107.41. The FAA's Air Traffic Organization responds directly to requests for such authorizations.

**Common Special Provisions.** The Responsible Person is directly responsible for safety of operations conducted under this Waiver and will ensure the Remote Pilot in Command (remote PIC), manipulator of the controls, and visual observer(s) (VO)<sup>1</sup> comply with all provisions of this Waiver.

1. The Responsible Person listed on the Waiver is responsible to the FAA for the safe conduct of the operations. Prior to conducting operations that are the subject of this Waiver, the Responsible Person:
  - a. Must ensure the remote PIC, manipulators of the controls, and VO(s) are informed of the terms and provisions of this Waiver and strictly observe the terms and provisions herein.
  - b. Must ensure the remote PIC, manipulators of the controls, and VO(s) are informed and familiar with part 107 regulations.
  - c. Evidence of the above (a and b) must be documented and must be presented for inspection upon request from the Administrator or an authorized representative.
2. This Waiver may not be combined with any other waiver(s), authorization(s), or exemption(s) without specific authorization from the FAA.

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<sup>1</sup> Title 14 CFR § 107.3 defines the term "visual observer." Any VO participating in operations conducted under this Waiver must meet the requirements listed in § 107.33 throughout the duration of flight operations.

3. The FAA has the authority to cancel or delay any or all flight operations if the safety of persons or property on the ground or in the air are in jeopardy or there is a violation of the terms of this Waiver.
4. A copy of this Waiver must be accessible and available to the remote PIC at the ground control station during sUA operations that are the subject of this Waiver.
5. The Responsible Person listed on this Waiver must maintain a current list of pilots by name and remote pilot certificate number used in operations under this Waiver. This list must be presented for inspection upon request from the Administrator or an authorized representative.
6. The Responsible Person listed on this Waiver must maintain a current list of sUA by registration number(s) used in operations under this Waiver. This list must be presented for inspection upon request from the Administrator or an authorized representative.
7. For the purposes of this Waiver, direct participants are the remote PICs, persons manipulating the controls, VOs, and any persons whose involvement is necessary for safety of the sUA operation. All other persons are considered non-participants.

**Operating Limitations for Small Unmanned Aircraft Groundspeed and Operations higher than 400 feet AGL Special Provisions:** sUAS operations exceeding 87 knots (100 mph) and conducted above 400 feet AGL, not to exceed 1500 feet AGL, may be conducted provided:

8. All operations under this Waiver must use one or more VO(s).
9. Operations may not be conducted at night, as defined in 14 CFR § 1.1.
10. The sUAS ground control station must display in real-time the sUA altitude, position, direction of flight, and sUA flight mode, and be configured to audibly or visually alert the remote PIC of degraded system performance and loss of Control link with the sUA. This information must be available at all times to the remote PIC.
11. Prior to conducting operations under this Waiver, the operational area boundaries must be identified and the area restricted to access. During operations, the flight operations area must be monitored.
12. As described in the waiver application, flight operation of the sUA must be immediately terminated if non-participating persons, vehicles, or aircraft enter the area established for the purposes of operations that are the subject of this Waiver.
13. Prior to conducting operations under this Waiver, operational area obstacles and boundaries must be identified and located so as to avoid collision with non-participating persons or damage to property, as described in the waiver application.
14. During operations that are the subject of this waiver, the sUA must be configured and equipped as described in the waiver application.
15. During operations that are the subject of this Waiver, the sUA groundspeed must be in compliance with § 107.51(a) during any non-straight line flight, and when returning to the sUA landing location described in the waiver application.

16. Prior to operations that are the subject of this Waiver, a safety meeting of all persons participating in the flight operations must be performed. Meeting participants must include emergency, safety and security personnel and, at a minimum, shall cover the following subjects:
  - a. Roles and responsibilities
  - b. Perimeter of flight operation area
  - c. Radio communications
  - d. Aircraft launch & landing zones
  - e. Takeoff procedures
  - f. Approach and landing procedures
  - g. Flight Termination procedures
  - h. Risks to consenting personnel
  - i. Procedures for mitigating risk to consenting personnel
  - j. Security plan to secure the flight operations from all unauthorized persons and vehicles
  - k. Controlling nonparticipating persons
  - l. Potential hazards
  - m. Contingency procedures
  - n. Emergency procedures
  - o. Local governmental limitations or restrictions, if any
17. The sUA must be equipped with High visibility markings and/or lighting to increase conspicuity of the sUA in order to be seen by crewmembers in other aircraft from a distance of no less than 1 statute mile during the day.
18. The Responsible Person must file a Notice to Air Mission (NOTAM) no more than 72 hours and no less than 24 hours prior to operating under this waiver. A NOTAM can be filed by calling 1-877-487-6867 (1-877-4-US-NTMS) or online at <https://www.1800wxbrief.com/Website/login#!/>, and must include the location and/or operating area, altitude, and time and nature of the activity. The Responsible Person must verify the NOTAM has been issued prior to conducting waived operations.
19. Prior to conducting operations under this Waiver, the remote PIC must ensure that the geo-fence system, telemetry system, associated flight control systems, and sensors, as described in the Waiver application, operate properly.
20. ADS-B out (1090/978 MHz) may not be transmitted from the sUAS when operating pursuant to this Waiver.
21. All emitters used in sUAS must be in compliance with all applicable FCC regulations and all provisions of the FCC authorization granted for the emitter. An FCC experimental authorization may not be used for sUAS operations under this Waiver.

22. Operations conducted under this Waiver are limited to the area described in the waiver application (see description and images below).

Lucerne Valley, California: 34° 27' 53" N, 117° 02' 10" W; 34° 27' 56" N, 117° 01' 25" W  
34° 27' 09" N, 117° 00' 31" W; 34° 27' 09" N, 117° 01' 23" W  
(in Green)

At or Below: 1500 feet AGL



