## U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

# **CERTIFICATE OF WAIVER**

ISSUED TO

**Zipline International Inc.** 

Responsible Person: Eugene McGuinness Waiver Number: 107W-2025-00813

ADDRESS

## Zipline International 333 Corey Way South San Francisco, CA 94080

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

Small Unmanned Aircraft System (sUAS) operations beyond the visual line of sight of the remote pilot in command (PIC); Acting as a remote pilot in command (PIC) or visual observer (VO) in the operation of more than one small unmanned aircraft (sUA) at the same time; Small Unmanned Aircraft System (sUAS) operations higher than 400 feet above ground level (AGL), when not within a 400 foot radius of a structure; Operating Limitations for Small Unmanned Aircraft – Visibility; Operating Limitations for Small Unmanned Aircraft – Cloud Clearance.

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE
14 CFR §§ 107.31—Visual line of sight aircraft operation, 107.35—Operation of multiple small unmanned aircraft systems, 107.51(b)—Operating limitations for small unmanned aircraft - Altitude, 107.51(c)—Operating limitations for small unmanned aircraft - Visibility, and 107.51(d)—Operating limitations for small unmanned aircraft - Cloud Clearance

#### STANDARD PROVISIONS

- A copy of the application, made for this certificate, shall be attached to and become a part hereof.
- 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.
- The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein. 3.
- 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 31, inclusive, are set forth on the attached pages.

This Certificate of Waiver is effective from July 3, 2025, to July 2, 2027, 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

## Zipline International 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 sUAS 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 sUAS 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 § 107.31, Visual line of sight aircraft operation, is waived to allow operation of the Small Unmanned Aircraft (sUA) beyond the direct visual line of sight of the remote pilot in command (PIC);

14 CFR § 107.35, Operation of multiple small unmanned aircraft systems, is waived to allow a person to act as the remote Pilot in Command (PIC) or visual observer (VO) to operate multiple small UAS simultaneously;

14 CFR § 107.51(b), Operating limitations for small unmanned aircraft - Altitude, is waived to allow sUAS operations higher than 400 feet AGL, not to exceed 699 feet AGL at Nest 0, and not to exceed 2,600 feet AGL at Nest Z;

14 CFR § 107.51(c), Operating limitations for small unmanned aircraft - Visibility, is waived to allow operations when the flight visibility as observed from the location of the control station is less than 3 statute miles;

14 CFR § 107.51(d), Operating limitations for small unmanned aircraft - Cloud Clearance, is waived to allow sUA operations not meeting the cloud clearance requirements of § 107.51(d).

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 such requests. The FAA LAANC system cannot be used for airspace authorizations for waivered operations.

**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 (PIC), manipulator of the controls, and Visual Observers (VO)<sup>1</sup> comply with all provisions of this Waiver.

<sup>&</sup>lt;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.

- 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 PIC, manipulators of the controls, and VO(s) are informed of the terms and provisions of this Waiver and the strict observance of the terms and provisions herein;
  - b. Must ensure the PIC, manipulators of the controls, and VO(s) are informed of, and familiar with, Part 107 regulations; and
  - 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 must not be combined with any other waiver(s), authorizations(s), or exemption(s) without specific authorization from the FAA;
- 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 PIC at the ground control station during sUAS 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 PICs, persons manipulating the controls, VOs, and any persons whose involvement is necessary for safety of the sUAS operation. All other persons are considered non-participants;
- 8. If a discrepancy exists between the provisions in this Waiver and the waiver application, the Waiver takes precedence and must be followed;

Waiver Specific Provisions: The PIC and VO(s) may conduct sUAS operations up to 699 feet AGL at Nest 0 and up to 2,600 feet AGL at Nest Z, utilizing up to 10 sUA in weather conditions with reduced visibility and cloud clearance without the ability to see the unmanned aircraft(s) throughout the entire flight, provided:

- 9. Minimum Visibility Requirements: During operations conducted under this Waiver the PIC will not fly the sUA unless the minimum flight visibility, as observed from the control station or where the VO is positioned for flight, is no less than 1 statute mile. At no time will the sUA be operated in an area where minimum flight visibility is less than 1 statute mile;
- 10. Remote ID: The sUA must be a standard remote identification unmanned aircraft listed on the FAA-accepted declaration of compliance list (found here: <a href="https://uasdoc.faa.gov/">https://uasdoc.faa.gov/</a>), unless otherwise authorized by the Administrator in writing;
- 11. The combined weight of the sUA and its Droid must not exceed 54.9 lbs. with full payload capacity;

- 12. The PIC must be located within the Operational Area;
- 13. Visual Observers: All operations conducted under this Waiver must use one or more VO as described in the waiver application:
  - a. All VO(s) must receive documented training for their duties and responsibilities to include;
    - 1) Scanning of the Operational Volume for Air and Ground based intruders;
    - 2) Communications procedures and phraseology;
    - 3) Overall operations conducted under this Waiver;
  - b. Sufficient VO(s), defined as the minimum number of VO(s) required to continuously observe at least a 2 statute mile radius of airspace surrounding the sUA in flight, are;
    - 1) Used to identify any non-participating aircraft prior to their entry into the planned operational area;
    - 2) Physically located such that the PIC receives sufficient notice to ensure the sUA remains well clear of all other aircraft:
    - 3) Physically located to notify the PIC of any moving vehicle or human presence that may pose a hazard to the operation;
  - c. Communication between the PIC and VO must occur to facilitate, when necessary, for the PIC taking action to maneuver the sUA with sufficient time to:
    - 1) Give way to all other aircraft in accordance with § 107.37;
    - 2) React to any unforeseen operational or mechanical failure without creating a hazard to other people, other aircraft, or property in the event of a loss of control of the sUA; and
    - 3) Maintain compliance with this Waiver and un-waived provisions of Part 107;
  - d. If communication between the VO and the PIC will occur by electronic device:
    - 1) The device must be continuous full-duplex;
    - 2) The PIC must be able to use the device hands-free; and
    - 3) There must be a reliable back-up communication method;
- 14. Radio Communications: If conducted, the PIC must:
  - a. Hold an appropriate FCC Ground Station operators license;
  - b. Provide a copy of this Waiver to local ATC for towered airports;
  - c. Monitor the local aircraft frequency radio channels within a 3 SM radius of non-towered airport and announce the initiation and termination of operations, location, and operational altitude;
  - d. Communicate with ATC when within the control radius of a towered airport and monitor the local aircraft frequency; and
  - e. Use the phraseology and protocol as described in FAA Joint Order JO 7110.65BB, Chapter 2, Section 4;

## 15. Multiple UAS Operations:

a. The PIC may conduct operations of up to 10 sUA of the make/model defined in the waiver application controlled and monitored using an aggregated solution, equipped with redundant flight control and transmission systems, and must ensure adequate simultaneous control of the sUA so they remain inside the area of operation, as described in the waiver application;

- b. The PIC must ensure that an individual system failure must not interfere with the operation of any other sUA or cause incidents, accidents, or loss of control involving any other sUA that are subject to this Waiver;
- c. Each sUA must be equipped with an independent Flight Termination System that will allow a safe maneuver for recovery inside the defined operational area if the command and control system fails;
- d. The flight termination and Geo-fencing systems must be verified operational prior to each flight; and
- e. May only occur in areas in which access is restricted to people who are directly participating in the operation;

#### 16. The PIC must ensure:

- a. Prior to conducting operations under this Waiver, the PIC must perform a documented site survey to:
  - 1) Identify flight operational area obstacles and boundaries so as to avoid collision with, or damage to property;
  - 2) Validate C2 signal strength is sufficient for control through the entire route;
  - 3) Validate suitable launch/recovery site(s); and
  - 4) Complete and document a Flight Risk Assessment;
- b. Routes are preplanned (using waypoints) prior to flight and aircraft are programmed to automatically follow the route. Manual flights are allowed as necessary;
- c. Geofencing is used to confine the Operational Volume (defined as the property lines of the assets or perimeter boundaries of the controlled access area or right of way specified in the waiver application + maximum allowed altitude);
- d. Return to Home/Return to Land feature must not allow the sUA to deviate from the defined operational volume;
- e. Launch or recovery areas are pre-designated and monitored to keep any human being who are not directly participating in the operation out of the areas prior to, during, and immediately following flight operations;
- f. Non-participant persons inside the operational area are notified of sUA operations; and
- g. Individuals directly participating in the operation of the sUAS must be easily identifiable visually (e.g., apparel, safety vests);

## 17. The Responsible Person must ensure:

- a. A copy of the waiver application and this Waiver is available to the PIC and all other direct participants prior to and during sUAS operations that are the subject of this Waiver;
- b. A copy of the current operations manual required by this Waiver is available to the PIC and all other direct participants prior to and during sUAS operations that are the subject of this Waiver;
- c. All operations conducted under this Waiver follow the procedures outlined in the current operations manual. If a discrepancy exists between the provisions in this Waiver and the procedures outlined in the operations manual, the provisions of this Waiver take precedence and must be followed:

- d. A documented notification from the operator(s) of the sUAS to any airport, heliport, known agricultural aerial application operation, or aerial military installation within a 3-mile radius of the operating area; and
- e. Each PIC who will conduct operations under this Waiver is trained in a manner that addresses the items listed in 14 CFR § 107.49(a) and in a manner that is consistent with how the sUAS will be operated under this Waiver. All training and demonstration for all PICs and VOs must be documented and made available upon request by the Administrator or an authorized representative. Training operations may only be conducted under the standard requirements of Part 107 (without waiver).

The training must include:

- 1) sUA limitations;
- 2) sUA programming;
- 3) sUA operational procedures;
- 4) Abnormal procedures;
- 5) Air traffic avoidance procedures;
- 6) Crew Resource Management;
- 7) sUA flight training; and
- 8) Demonstration of sUA ground and flight skills;
- 18. Operations Manual: The Responsible Person must update or revise the operations manual (aka CONOPs) submitted with the waiver application for changes in the operation. The Responsible Person must track such revisions and present revised documents to the Administrator or an authorized representative upon request. The Responsible Person must also present revised documents when applying for extension of, or amendment to this Waiver. If any revision to the manual would be contrary to the information provided in the waiver application or obviate a condition or limitation of this Waiver, then the Responsible Person must apply for an amendment to this Waiver;
- 19. Operations subject to this Waiver must cease as soon as possible in a manner that does not jeopardize the safety of human beings, property or other aircraft, if, at any time:
  - a. Safety of human beings or property on the ground, or in the air is in jeopardy;
  - b. Any failure to comply with the provisions of this Waiver exists;
  - c. Full-duplex communications cannot be maintained between the PIC and any VO participating in the operation;
  - d. A non-participating aircraft enters the designated flight operations area;
  - e. GPS signal is lost; or
  - f. sUA GPS location information is degraded;
- 20. No sUA flight that occurs under this Waiver may carry the property of another for compensation or hire;
- 21. Lost Link Procedures: If the PIC loses command or control link with the sUA, the sUA must follow a pre-determined route to immediately re-establish command and control link. If command and control link is not immediately re-established and the PIC no longer has the ability to direct the sUAS to ensure compliance with applicable provisions of Part 107, the sUA must follow the loss of command and control procedure as described in the waiver application;

- 22. NOTAM: The Responsible Person must file a Notice to Airmen (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); and must include the location and/or operating area, altitude, time, nature of the activity, Waiver and/or COA number, PIC name and contact information. The Responsible Person must verify the NOTAM has been issued prior to conducting waivered operations;
- 23. **Nest Z**: For all operations within the Travis Air Force Base (KSUU) airspace, the operator must contact the KSUU Watch Supervisor at 707-424-7346, 15 minutes prior to the flight, and again when the operation is complete.
- 24. Safety Briefing: Prior to operations under this Waiver, all Direct Participants must attend a safety briefing that addresses, at minimum, the following items as applicable:
  - a. Designated positions, physical locations, responsibilities, and Crew Resource Management;
  - b. Planned flight operating area;
  - c. Designated launch and recovery areas;
  - d. Verification of geo-fence boundaries;
  - e. Verification of return to home and land flight profile, and course;
  - f. Procedures for avoidance of other aircraft and obstacles;
  - g. Procedures for operating under this Waiver;
  - h. Land vehicle speed;
  - i. Intended flight path;
  - i. Abnormal procedures; and
  - k. Emergency procedures;
- 25. Operations conducted under this Waiver may only occur with the make and model sUAS described in the waiver application. Proposed operations of any other manufacturer, make or model of sUAS will require a new waiver application or a request to amend this Waiver;
- 26. Anti-Collision Lighting: The sUA must be equipped and operated with high visibility markings and/or anti-collision lighting to increase the conspicuity of the sUA in order to be seen by crewmembers in other aircraft from a distance of no less than 1 statute mile for daytime operations and 3 statute miles for civil twilight and/or night operations;
- 27. ADS-B out (1090/978 MHz) may not be transmitted from the sUAS when operating pursuant to this Waiver. An ADS-B in Receiver must be operational and monitored during all operations pursuant to this Waiver;
- 28. Ground Control Station (GCS), Control and Communications (C2) System:
  - a. Telemetry: The sUAS ground control station must display in real-time the sUA altitude, position, direction of flight, ground speed, C2 signal strength, GPS or navigation system signal condition, battery condition, and sUA distance from the control station as described in the waiver application. This information must be available at all times to the PIC;

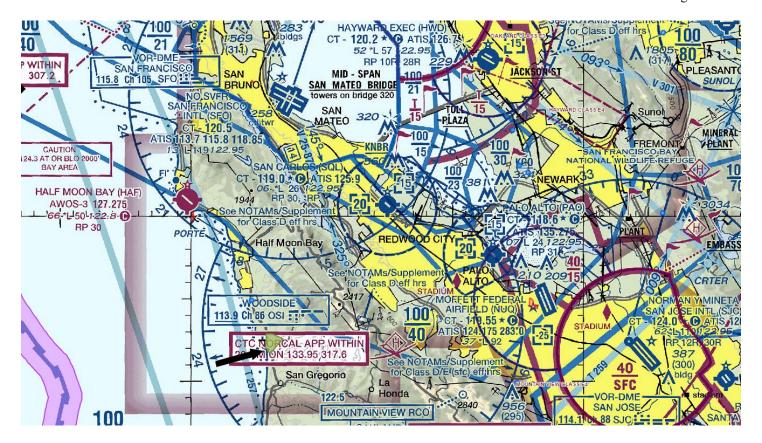
- b. Alerting: The PIC must ensure the GCS is configured to audibly and/or visually alert the PIC of degraded system performance, geofence loss of containment, loss of Control Link with the sUA, and intrusion alerts as described in the waiver application;
- c. Emergency Profiles: The PIC must ensure the GCS is configured for automated emergency actions (e.g. RTL/RTH, altitude descend, position hold, etc.) as described in the waiver application; and
- d. Sensors: The PIC must ensure any installed collision/obstacle avoidance sensors are operational;
- 29. UAS Maintenance: All sUAS operations conducted in accordance with this Waiver must comply with all manufacturer recommendations and limitations for the sUAS:
  - a. The Responsible Person must maintain each sUAS and its components in accordance with manufacturer's instructions and recommendations. sUAS maintenance includes scheduled and unscheduled overhaul, repair, inspection, modification, replacement, and system software upgrades of the sUAS and its components necessary for flight;
  - b. A log of all maintenance performed must be kept for each aircraft operated under this Waiver. This log must be available to the PIC for review prior to conducting operations that are the subject of this Waiver. Each sUAS maintenance log must be presented to the Administrator when requested. The log must contain the following information for each maintenance activity:
    - 1) A description (or reference data acceptable to the Administrator) of work performed;
    - 2) The date of completion of the work performed;
    - 3) The name of the person who performed the work; and
    - 4) The signature of the person who performed the work;
  - c. Any sUAS that has undergone maintenance must undergo a functional test flight prior to conducting operations under this Waiver. The functional test flight may only be conducted under the standard requirements of Part 107 (without waiver). A log entry must be made for each functional test flight. The log entry must contain at minimum the:
    - 1) Calendar date;
    - 2) sUA registration number;
    - 3) PIC who performed the functional test flight;
    - 4) Duration of the flight; and
    - 5) The result of the functional flight test;
- 30. All emitters used in the sUAS must be in compliance with all applicable FCC regulations and all provisions of the FCC authorization granted for the emitter. A FCC experimental authorization may not be used for sUAS operations under this Waiver; and

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

Nest 0 – Triple D Ranch Road, Half Moon Bay, California: 37° 22′ 52″ N, 122° 24′ 15″ W; 37° 22′ 52″ N, 122° 23′ 45″ W 37° 22′ 33″ N, 122° 22′ 56″ W; 37° 21′ 38″ N, 122° 23′ 57″ W 37° 22′ 01″ N, 122° 24′ 17″ W; 37° 22′ 18″ N, 122° 24′ 17″ W 37° 22′ 27″ N, 122° 24′ 13″ W (in Green)

At or Below: 699 feet AGL

Peninsula Estate Open Space (GGNRA) Trust Purisima Creek. Redwoods Open Space Preserve 242 m Ranch Beach ▲ 278 m Peninsula Channel Comm ardson Field; 700 ft CA 1 El Corte de Madera 238 m Creek Open Space Preserve 259 m 290 m 227 m 204 m 150 m 311 m 284 n Tunitas 257 m Creek Open Space Preserve (closed) 269 m 253 m 231 m 239 m



Nest Z – 24445 County Road 25, Esparto California: 38° 38' 38.9" N, 122° 03' 56.5" W (in Green)

Radius: 4.00 Nautical Miles At or Below: 2,600 feet AGL

