U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Safety

800 Independence Ave
Washington, DC 20591

Exemption No. 22475B
Regulatory Docket No. FAA-2024-1317

Mr. Benjamin Berlin
Aviation Regulatory Counsel
Zipline International Inc.
333 Corey Way
South San Francisco, CA 94080

Dear Mr. Berlin:

This letter is to inform you that the Federal Aviation Administration (FAA) has granted your petition to amend Exemption No. 22475A, regarding medical certification. This letter transmits the FAA's decision, explains the FAA's basis for that decision, and provides the conditions and limitations of the exemption, including the date the exemption ends, and lists the revised conditions and limitations.

**The Basis for the FAA's Decision**

By letters dated September 15, 2023, May 2, 2024, and September 6, 2024, you petitioned the FAA on behalf of Zipline International Inc. (Zipline) for relief from §§ 61.3 and 61.23 regarding medical certification, of Title 14, Code of Federal Regulations (14 CFR) to allow Zipline to operate the Zipline Platform 2 (P2), weighing more than 55 pounds, for the purpose of training and acquisition of aerial data. The requests would allow pilots to operate the P2 for those purposes without medical certification.

Zipline initially requested complete relief from medical certification in the petition dated September 15, 2023. At the time, the FAA was not prepared to grant this request in Exemption No. 22475, nor in the issuance of the amendment in Exemption No. 22475A. In an amendment request dated September 6, 2024, Zipline requested amendment to various conditions and limitations not related to medical certification, and urged the FAA to grant its pending request for relief from medical certification.

In your petitions for amendment, you indicate that there has been no change in the conditions and reasons relative to public interest and safety that were the basis for granting the original exemption.

**The FAA's Decision**

The FAA has completed evaluating the risks and benefits of UAS medical certification for certain UAS operations at this time. The FAA did a similar evaluation to modify the medical requirement for Part 135 operations in issuing Exemption No. 18601B to Amazon Prime Air, which was subsequently extended to other UAS operations. In Exemption No. 18601B, the FAA determined in that exemption that a third-class medical certificate would not adversely affect safety. The FAA further reviewed the issue in Exemption No. 20257A toVeteran Drone Services. As part of its analysis, the FAA convened a Safety Risk Management Panel to evaluate if the lack of FAA medical certification would adversely affect safety for certain UAS operations. The panel recommended that a medical certification is not needed for certain UAS operations, and the FAA adopted this policy shift in Exemption No. 20257A toVeteran Drone Services. The FAA has also determined that the same policy can be extended to broader UAS operations under Part 91, and in this case, for Zipline. Therefore, the FAA has revised Condition and Limitation No. 9 from Exemption No. 22475B, and added Condition and Limitation No. 25 to reflect this decision.

The FAA has determined that good cause exists for not publishing a summary of the petition in the *Federal Register*. The FAA made this determination because the requested amendment to the exemption would not set a precedent and any delay in acting on this petition would be detrimental to Zipline.

The FAA has determined that the justification for the issuance of Exemption No. 22475, as amended, remains valid with respect to this exemption and is in the public interest. Therefore, under the authority provided by 49 U.S.C. §§ 106(f), 40113, 44701, and 44807, which the Administrator has delegated to me, I hereby grant Zipline International Inc. (Zipline) an amended exemption from 14 CFR §§ 61.3(a)(1)(i), 61.3(c)(1), 61.23(a)(2), 91.7(a), 91.113(b), 91.119(c), 91.121, 91.151(b), 91.155, 91.403(b), 91.405(a), 91.407(a)(1), 91.409(a)(1), 91.409(a)(2), 91.417(a), and 91.417(b) to the extent necessary to permit Zipline to conduct research and development operations not for compensation or hire using the P2 unmanned aircraft systems intended for commercial package delivery, subject to the following conditions and limitations.

**Conditions and Limitations**

In this grant of exemption, Zipline International Inc. (Zipline) is hereafter referred to as the Operator.

1. Operations authorized by this exemption are limited to the P2 unmanned aircraft system (UAS) (hereafter referred to collectively as "the aircraft") by the Operator and are limited to the operations described in the petition for exemption and the operating documents. The maximum takeoff weight (MTOW) of the P2 must not exceed 83 pounds (lbs.). Proposed operations of any other UAS requires a new petition or a petition to amend this decision.

2. This exemption and all documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are

hereinafter referred to as the operating documents. The Operator must follow the procedures as outlined in its operating documents. The documents listed in this grant, the applicable Federal Communications Commission (FCC) license, and a copy of this exemption must be accessible to the PIC at the ground control station during all UAS operations that occur under this exemption. They must be made available to the Administrator upon request. Where a discrepancy exists between the conditions and limitations in this exemption and the procedures outlined in any of the aforementioned documents, the most restrictive provision must be followed.

3. The Operator may update or revise its operating documents. It is the Operator's responsibility to track such revisions and present updated and revised documents to the Administrator or any law enforcement official upon request. The Operator must also present the most current documents if petitioning for extension of or amendment to this grant of exemption. If the Operator determines that any update or revision would affect the Operator's ability to comply with any requirement of this exemption, then the Operator must petition for an amendment to its grant of exemption. If questions arise regarding updates or revisions to the operating documents, the Operator may contact the Flight Standards Service, Emerging Technologies Division, General Aviation & Commercial Branch (AFS-750), 800 Independence Ave. SW, Washington, DC 20591. Telephone: 202-267-9700, Email: 9-avs-fs-afs-700-correspondence@faa.gov.

4. All operations that occur pursuant to this exemption must be conducted in accordance with an Air Traffic Organization (ATO)-issued Certificate of Waiver or Authorization (COA). A copy of the blanket 49 U.S.C. §44807 COA is enclosed with this exemption. The Operator must apply for a new or amended COA if it intends to conduct operations that the terms of the COA do not permit. If a conflict between the COA and this condition exists, the more restrictive provision will apply. In the absence of any express altitude restrictions in a COA or any other document the FAA provides that applies to operations under this exemption, the maximum altitude shall be 400 feet (ft.) above ground level (AGL). Altitude must be reported in feet AGL.

**UAS Maintenance:**

5. The Operator must follow the original equipment manufacturers (OEM) operating limitations, maintenance, service bulletins, overhaul, replacement, inspection, and life limit requirements for the UAS and its components as well as operator supplemental manuals. Each UAS operated under this exemption must comply with all OEM service bulletins.

6. Maintenance must be performed by qualified individuals who have been trained by the manufacturer in proper techniques and procedures for these UAS and all maintenance must be recorded in the aircraft records including a brief description of the work performed, date of completion and the name of the person performing the work.

7. Any maintenance or alterations that affect the UAS operation or flight characteristics, such as replacement of a flight critical component, must undergo a functional operational check

test flight prior to conducting further operations under this exemption. Functional operational check flights must be conducted in visual line of sight (VLOS) by a pilot-in-command (PIC) and other personnel required to conduct the functional operational check test (such as a mechanic or technician) and must remain at least 500 feet from all other people. The functional operational check flight must be conducted in such a manner to not pose an undue hazard to persons and property. The Operator must permit the FAA Administrator and his representative to observe functional test flights upon the request.

**Crew Qualifications:**

8. The PIC must hold a valid remote pilot certificate with a small UAS rating issued under Part 107 and be in compliance with 14 CFR §107.65, *Aeronautical knowledge recency*.

9. Except as provided in paragraph (a) below, the PIC must hold at least a current FAA third-class airman medical certificate. The PIC may not conduct the operation if the PIC knows or has reason to know of any medical condition that would make the pilot unable to meet the requirements for at least a third-class medical certificate or is taking medicine or receiving treatment for a medical condition that results in the pilot being unable to meet the requirements for at least a third-class medical certificate.
    a. The PIC may conduct an operation under this exemption during day operations without an FAA-issued airman medical certificate under the following conditions: the UAS must be operated in a highly automated manner in which control of the UA rests solely within the UAS automated software with only minimal manual control input necessary for UA launch and recovery, or abnormal situations. If the PIC is not exercising the privileges of an Airman Medical Certificate, the PIC may not conduct the operation if the PIC knows or has reason to know of any medical condition that would prevent them from performing operational duties.

10. The PIC and visual observers (VO), if used, must be qualified in accordance with the Operator's training program. The PIC and VO, if used, must remain current and qualified before conducting operations under this exemption.

11. All training operations must be conducted only during dedicated training sessions for the petitioner's employees and must be conducted in accordance with the operating training program described in operator's training program.

12. The Operator must ensure that the PIC can satisfactorily make evasive and emergency maneuvers and maintain appropriate distances from persons, vessels, vehicles, and structures before operating non-training, proficiency, or experience-building flights under this exemption.

13. The VO, if used, or any other direct participant may not participate in the operation if they know or has reason to know of any physical or mental condition that would interfere with the safe operation of the aircraft.

14. VOs, if used, must have adequate visual abilities to be able to see the unmanned aircraft (UA) clearly, recognize terrain, obstructions, see and avoid aerial or ground hazards and

other aircraft without undue hesitation. The VOs, if used, must be able to establish and maintain by unaided vision, except vision that is corrected by the use of corrective lenses to maintain a normal field of vision allowing them to see all potential hazards without hesitation.

**Operational:**

15. Prior to each flight, the PIC, or qualified crewmember, must conduct a pre-flight inspection and determine if the aircraft is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, such as inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed, and the aircraft is found to be in a condition for safe flight. To be a qualified crewmember to conduct preflight inspections, other than the PIC, that crewmember must have received appropriate training, and the Operator authorize qualification per the operating documents.

16. The PIC is prohibited from beginning a flight unless, considering wind and forecast weather conditions, there is enough available power for the UA to conduct the intended operation with sufficient reserves such that the PIC can land the UA without posing an undue risk to aircraft or people and property on the ground, or the reserve power recommended by the manufacturer, if greater, is satisfied.

17. Unless otherwise authorized by the Administrator, the UA must remain within the VLOS of the PIC or the VOs. VLOS means the PIC must be able to, with natural unaided vision except for corrective lenses, see the UA and determine its orientation, height above the surface, and direction of flight. The UA must be conspicuous so as to be obvious within the VLOS area. The PIC may use VOs as an operational mitigation; however, the PIC retains the overall responsibility to avoid other aircraft.

18. Unless otherwise authorized by the Administrator, all operations must utilize the services of at least one or more VOs. Unless otherwise authorized by the Administrator the UA must be operated within the VLOS of the PIC or VOs at all times. If either the PIC or VOs are unable to maintain VLOS with the UA during flight, the entire flight operation must be terminated as soon as practicable. The VOs may be used to satisfy the VLOS requirement.

19. The VOs, if used, and PIC must be able to communicate verbally at all times. The PIC must ensure that the VOs, if used, can perform the duties required of the VOs. For purposes of this condition, a VO is someone: (1) who maintains effective communication with the PIC at all times; (2) who the PIC ensures is able to see the UA with human vision unaided by any device other than corrective lenses; and (3) coordinates with the PIC to scan the airspace where the UA is operating for any potential collision hazard and maintain awareness of the position of the UA through direct visual observation. If a VO is used, the operation must be conducted with a dedicated VO who has no collateral duties and is not the PIC during the flight.

20. The PIC, or any alternate PIC, must be designated in writing per the operating documents

before the flight. The means of transference from one PIC to another must be clearly stated in the operating documents explaining how and when official transfer of PIC authority occurs. PIC authority is not to be confused with acting as a PIC, assuming PIC duties or manipulating the controls of the aircraft. In all situations, the PIC is responsible for the safety of the operation. The PIC is also responsible for meeting all applicable conditions and limitations as prescribed in this exemption and ATO-issued COA, when conducting operations, and operating in accordance with the operating documents.

21. All crew, including the PIC and VOs, if used, must maintain two-way voice communications with each other during operations. If unable to maintain two-way voice communication, the PIC will land the UA in a safe location as soon as the PIC determines it is practicable to do so. If communication occurs by electronic device: the device must be continuous full-duplex; the PIC must be able to use the device hands-free; and the PIC must ensure that there is a reliable back-up communication method. Electronic messaging or texting is not permitted during flight operations. During operations, no person on whom the PIC relies for safe conduct of the operation may engage in communications not relevant to the operation.

22. Unless otherwise authorized by the Administrator, each UA must be controlled by only a single ground control station and one PIC at a time. A PIC may not operate multiple UA at the same time, unless otherwise authorized by the Administrator.

23. All operations must be conducted under visual meteorological conditions (VMC) in Class G airspace.

    a. The PIC must obtain and use real-time weather information as described in the operating documents. The operator's methods and procedures to maintain visibility and cloud clearance requirements must be accepted by the FAA and documented in the operating documents.
    b. Each operation may only occur when weather in the area of the operation is reported and forecast to be at least 1 statute mile visibility from the time of takeoff until the time of landing plus the additional time reserved for any contingency i.e. flight using reserved power. Tethered operations may be conducted during visibility of less than 1 statute mile. All tethered operations must remain below 100ft AGL.
    c. The UA must remain clear of clouds, except when conducting tethered operations. All tethered operations must remain below 100ft AGL.
    d. The PIC must land the aircraft as soon as possible if the PIC is unable to comply with the required visibility and cloud clearance requirements.

24. Operations under this exemption may be conducted during night, as defined in 14 CFR § 1.1. This exemption provides no relief from § 91.209.

25. For all night operations, the PIC must maintain a minimum third-class medical certificate and not have any night operating limitations on their FAA issued airman medical certificate, nor any medical condition that interferes with night vision and must be able to perceive those colors necessary to correctly distinguish the UA's position

and orientation at night.

26. All flight operations must be conducted at least 100 ft. from all persons who are not directly participating in the operation, and from vessels, vehicles, and structures, unless when operating:

    a. Over or near people directly participating in the operation of the UAS. People directly participating in the operation of the P2 include the PIC, crewmembers, and other consenting personnel whose presence is necessary to ensure the safety of the operation. Such persons must be briefed on the risks associated with the operation.
    b. Near nonparticipating persons. The Zipline P2 may be operated closer than 100 ft. to a person who is not directly participating in the operation only when barriers or structures are present. Such barriers must sufficiently protect the person from the aircraft and from debris or hazardous materials from the aircraft. Under these conditions, the Operator must ensure the person remains under such protection for the duration of the operation. If a situation arises in which the person leaves such protection and is within 100 ft. of the aircraft, flight operations must cease immediately in a manner that does not cause undue hazard to any person.
    c. Near vessels, vehicles, and structures. Prior to conducting operations within 100 ft. of any vessels, vehicles, or structures, the Operator must obtain permission to proceed within 100 ft. from a person with authority over such vessels, vehicles, or structures. The PIC must first assess the risk of operating closer to those objects and determine that it does not present an undue hazard.

27. The UA must remain clear and give way to all manned aviation operations and activities at all times.

28. Operations under this exemption may not occur from any moving vehicle or aircraft.

29. The PIC may not begin or continue a flight if any global positioning system (GPS) outage, signal fault, integrity issue, Notice to Air Mission (NOTAM) in effect for any part of the planned operational area, or any other condition affects the functionality or validity of the GPS signal.

30. The PIC must abort the flight operation if circumstances or emergencies arise that could degrade the safety of persons or property. In such cases, the PIC's termination of flight operations must not cause undue hazard to persons or property.

31. Accidents or other reportable incidents described in 49 CFR Part 830 must be reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: www.ntsb.gov.

32. The carriage of property for compensation or hire is strictly prohibited.

33. This exemption is not valid for operations outside of the United States.

Unless otherwise specified in this exemption, the UAS, the UAS PIC, and the UAS operations must comply with all applicable parts of 14 CFR including, but not limited to, Parts 5, 47, 61, and 91.

This exemption does not relieve petitioner from complying with Part 375. If operations under this exemption involve the use of foreign civil aircraft, the Operator must obtain a Foreign Aircraft Permit pursuant to 14 CFR § 375.41 prior to conducting any commercial air operations under the authority of this exemption. Application instructions are specified in 14 CFR § 375.43.

Failure to comply with any of the above conditions and limitations may result in the immediate suspension or rescission of this exemption.

**The Effect of the FAA's Decision**

The FAA's decision amends Exemption No. 22475A to 22475B and keeps the termination date of April 30, 2026, unless sooner superseded or rescinded.

To request an extension or amendment to this exemption, please submit your request by using the Regulatory Docket No. FAA-2024-1317 (*http://www.regulations.gov*). In addition, you should submit your request for extension or amendment no later than 120 days prior to the expiration listed above, or the date you need the amendment, respectively.

Any extension or amendment request must meet the requirements of 14 CFR §11.81.

Sincerely,

Digitally signed by TIMOTHY R ADAMS
Date: 2024.12.16 10:55:22 -05'00'

Timothy R. Adams
Deputy Director, Office of Safety Standards
Flight Standards Service