

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

ISSUED TO

Joseph Piazza
Responsible Person: Luke Piazza
Waiver Number: 107W-2023-02472

ADDRESS—

7883 Poplar Grove Rd
Severn, MD 21144

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 provisions contained in this certificate.

OPERATIONS AUTHORIZED

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.

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

14 CFR § 107.35—Operation of multiple small unmanned aircraft systems

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 Nos. 1 to 23, inclusive, are set forth on the attached pages.

This Certificate of Waiver is effective from November 30, 2023, to November 30, 2027, and is subject to cancellation at any time upon notice by the Administrator or an authorized representative.

BY DIRECTION OF THE ADMINISTRATOR

Emerging Technologies Division, AFS-700

SPECIAL PROVISIONS ISSUED TO**Joseph Piazza****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 small unmanned aircraft (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 § 107.35, 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.

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. The FAA LAANC system cannot be used for waived 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 (remote PIC), manipulator of the controls, and visual observer(s) (VO)¹ 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; 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 may 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;

¹ 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.

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;

Operation of Multiple sUAS Special Provisions sUAS operations with multiple sUA may be conducted, provided:

8. All operations under this Waiver must use one or more VO;
9. Operations may not be conducted during civil twilight or at night;
10. The remote 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;
11. The remote PIC may conduct operations of up to 20 sUA, 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;
12. Communication between the remote PIC and VO must allow for the remote PIC ground the sUA with sufficient time to yield right-of-way in accordance with §107.37;
13. The use of any technology or control system must ensure that precise control of all sUA is maintained throughout the operation and must ensure that an individual system failure does not interfere with the operation of other sUA or cause incidents, accidents, or loss of control involving other sUA in the swarm, as described in the waiver application;
14. 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;
15. 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 (sm) during the day;
16. Multiple sUA operations may only occur in areas in which access is restricted to people who are directly participating in the operation;

17. The remote PIC, the person manipulating the controls, and the dedicated VO must be able to determine the position, attitude, altitude, and direction of flight of each sUA relative to any other aircraft, persons, property, and obstructions during waived operations. Communication must be adequate for any person directly participating in the operation to halt operations when an unsafe condition occurs;
18. As described in the waiver application, prior to operations subject to this waiver, a geo fence must be set to contain all sUA within the planned operational area;
19. Prior to sUA operations that are subject to this Waiver, the remote PIC must ensure that the flight controllers, geo-fence systems and the associated flight control system operate as described in the waiver application;
20. 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;
21. ADS-B out (1090/978 MHz) may not be transmitted from the sUAS when operating pursuant to this Waiver;
22. 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. A FCC experimental authorization may not be used for sUAS operations under this Waiver; and
23. Operations conducted under this Waiver are limited to the location as described in waiver application.