

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO

National Transportation Safety Board (NTSB)
Responsible Person: William English
Waiver Number: 107W-2018-12885

ADDRESS –

3853 Inverness Rd
Fairfax, VA 22033

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

Night small unmanned aircraft system (sUAS) operations;
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 §§ 107.29—Daylight operation,
107.51(c)—Operating limitations for small unmanned aircraft - Visibility, and
107.51(d)—Operating limitations for small unmanned aircraft - Cloud Clearance

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 18, inclusive, are set forth on the attached pages.

This Certificate of Waiver is effective from August 1, 2018, to August 31, 2022, and is subject to cancellation at any time upon notice by the Administrator or an authorized representative.

BY DIRECTION OF THE ADMINISTRATOR

General Aviation and Commercial Division, AFS-800

**SPECIAL PROVISIONS ISSUED TO
National Transportation Safety Board (NTSB)**

General.

This Certificate of Waiver supercedes and replaces waivers 107W-2018-10035 and 107W-2018-11820. Waivers 107W-2018-10035 and 107W-2018-11820 are no longer valid.

The FAA's Flight Standards Service has reviewed your application to ensure compliance with the requirements of 14 CFR § 107.200. 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.

This Waiver may be canceled at any time by the Administrator, the person authorized to grant the Waiver, or the representative designated to monitor a specific operation. 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 may serve as justification for cancellation.

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.

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

14 CFR § 107.29, Daylight operation, is waived to allow sUAS operations during night.;

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

14 CFR § 107.51(d), Operating limitations for small unmanned aircraft - Cloud Clearance, is waived to allow operations less than 500' below clouds and less than 2000' horizontally from clouds.

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 Observer (VO) complies 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 are informed on the terms and provisions of this Waiver and the strict observance of the terms and provisions herein;
 - b. Must ensure the remote PIC, manipulators of the controls, and VO are informed and familiar with part 107 regulations not waived; and
 - c. 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), authorization(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 available 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 the Waiver holder's operations. 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 small unmanned aircraft (sUA) by registration number(s) used in the Waiver holder's operations. This list must be presented for inspection upon request from the Administrator or an authorized representative;
7. All operations under this Waiver must use one or more VO and must comply with § 107.33;

§ 107.29 Night sUAS Operations Special Provisions. sUAS operations may be conducted at night, as defined in 14 CFR § 1.1, provided:

8. Prior to conducting operations that are the subject of this Waiver, the remote PIC and VO must be trained, as described in the Waiver application, to recognize and overcome visual illusions caused by darkness, and understand physiological conditions which may degrade night vision. This training must be documented and must be presented for inspection upon request from the Administrator or an authorized representative;
9. The area of operation must be sufficiently illuminated to allow both the remote PIC and VO to identify people or obstacles on the ground, or a daytime site assessment must be performed prior to conducting operations that are the subject of this Waiver, noting any hazards or obstructions; and;
10. The sUA must be equipped with lighted anti-collision lighting visible from a distance of no less than 3 statute miles. The intensity of the anti-collision lighting may be reduced if, because of operating conditions, it would be in the interest of safety to do so.

§ 107.51(c)(d) Operating limitations for small unmanned aircraft Special Provisions. sUAS operations may be conducted with less than 3 statute miles visibility from the location of the ground control station and less than 500 feet below and within 2000 feet horizontally from a cloud provided:

11. Operations with less than 3 statute miles flight visibility as observed from the location of the ground control station may not be conducted at night as defined in § 1.1;
12. sUA operations conducted within 500 feet vertically and 2000 feet horizontally of a cloud may not be conducted at night as defined in § 1.1;
13. As described in the waiver application, operations conducted under this Waiver must be conducted in a location:
 - a. Clear of all non-participating personnel, property, buildings, roads, and utilities, and
 - b. The intended flight location must be monitored and restricted from access by non-participating persons;
14. Communication between the remote PIC and remote pilot acting as VO must allow for the remote PIC to maneuver the sUA with sufficient time to fulfill the existing requirements of part 107 that the FAA does not waive, which include:
 - a. Giving way to all other aircraft,
 - b. Reacting 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 for any reason, and
 - c. Maneuvering each sUA whenever necessary to maintain compliance with this Waiver and unwaived provisions of part 107;
15. The sUA must have high visibility exterior features to increase its conspicuity and use lighted anti-collision lights visible to other aircraft from a distance of no less than 3 statute miles;
16. As described in the waiver application, the sUA must remain within 1000 feet of the remote PIC during sUAS operations that are the subject of this Waiver. The Control Station must be equipped with a system to measure real time distance to the sUA and the RPIC must have the ability to monitor that information;
17. As described in the waiver application, all operations conducted under this Waiver are limited to no higher than no higher than 200 feet AGL when within 2 statute miles of any airport, and no higher than 100 feet AGL if closer than 2 statute miles of an airport and within 30 degrees either side of the extended runway centerline; and
18. Operations conducted under this Waiver are limited to:
 - a. Documentation of transportation accident and incident sites,
 - b. Documentation of the surrounding conditions relative to the event,
 - c. Training and R&D at the NTSB Training Center and associated test ground, or
 - d. Operations at the Maryland UAS Test Site.