

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO

**CyPhy Works, Inc., RESPONSIBLE PERSON: David Loh
Waiver Number: 107W-2016-00312**

ADDRESS –

**16C Electronics Avenue
Danvers, MA 01923**

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

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. Operations are authorized during night, within Class G airspace.

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

**14 CFR § 107.29 Daylight operation
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 17, inclusive, are set forth on the attached pages.

This Certificate of Waiver is effective from October 5, 2016 to October 31, 2020 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
CyPhy Works, Inc.**

General.

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.

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 §107.35 Operation of multiple sUAS 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.

Common 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. This Waiver must not be combined with any other waiver(s), authorization(s), or exemption(s) without specific authorization from the FAA;
2. 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;
3. Operations under this Waiver are to be conducted in Class G airspace only unless specific airspace authorization or Waiver is received from the FAA in accordance with § 107.41;
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;

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

7. All operations under this Waiver must use one or more VO;
8. Prior to conducting operations that are the subject of this Waiver, the Responsible Person listed on the Waiver must ensure the remote PIC and VO are 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 remote PIC and VO must ensure the area of operation is sufficiently illuminated to allow both the remote PIC and VO to identify people or obstacles on the ground, or the remote PIC and VO must conduct a daytime site assessment prior to conducting operations that are the subject of this Waiver, noting any hazards or obstructions;
10. The sUA must be equipped with lighted anti-collision lighting visible from a distance of no less than 3 statute miles. The remote PIC may reduce the intensity of the anti-collision lighting if he or she determines that, because of operating conditions, it would be in the interest of safety to do so;
11. In addition to the requirements of § 107.51(b), the sUA must not fly higher than 200 feet above any structure's immediate uppermost limit;
12. The remote PIC must ensure that all sUA remain inside the area of operation and that the remote PIC or VO can verify this at any time during operation;

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

13. The remote PIC 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 aircraft in the operation;
14. Prior to conducting operations under this Waiver, the remote PIC must ensure that the sUA, its tether and associated flight control system, as described in the Waiver application, operate properly and remain stationary, in predetermined, defined cones of operation;
15. Prior to conducting operations under this Waiver, the remote PIC must ensure that the sUA sensors, as described in the waiver application, and their flight control systems operate properly;

16. The weight of the sUA flown under this Waiver must not exceed 12 lbs and the combined weight of the sUA and its tether must not exceed 21.75 lbs with full payload capacity; and
17. The remote PIC must ensure that the sUA operated under this waiver must not exceed a height of 20 feet above a tree line, or 80 feet above ground level.