

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

# CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO

**Nasa Langley Research Center, Responsible Person: Ryan Hammitt  
Waiver Number: 107W-2017-00845**

ADDRESS

**6 East Taylor St  
Hampton, VA 23681**

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 at the Chesapeake Bay Bridge Tunnel Third Island within a .5 nm radius of Latitude 37° 02' 12.3" North, Longitude 076° 04' 35.7" West in accordance with Title 14 CFR Part 107, except:

sUAS operations in accordance with § 107.51(b) are limited to the altitude listed below:

- At or below 1100 feet above ground level (AGL).

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

**14 CFR § 107.51(b) Operating limitations for small unmanned aircraft (altitude)**

## STANDARD PROVISIONS

1. A copy of the application made for this certificate shall be attached and become a part hereof.
2. This certificate shall be presented for inspection upon the request of any authorized representative 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 13, inclusive, are set forth on the attached pages.

This Certificate of Waiver is effective from August 28, 2017 to August 27, 2019 (two year maximum), inclusive, and is subject to cancellation at any time upon notice by the Administrator or an authorized representative.

Issued on: 8/24/17

BY DIRECTION OF THE ADMINISTRATOR

*M. Randy Willis*

**Manager, Emerging Technologies Team (AJV-115)**

## SPECIAL PROVISIONS ISSUED TO NASA Langley Research Center

### 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 § 107.51(b), Operating limitations, altitude of sUAS higher than 400 feet AGL, not to exceed 1100 feet AGL.

**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. 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 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. 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;
5. A copy of this Waiver must be available during sUAS operations that are the subject of this Waiver;
6. 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;
7. The Responsible Person Ryan Hammitt shall ensure there is a means for immediate communication with the PIC during UAS operations if ATC deems necessary.
8. 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;
9. All operations under this Waiver must use one or more VO;

**Operations higher than 400 feet AGL Special Provisions.** sUAS operations may be conducted above 400 feet AGL, not to exceed 1100 feet AGL, provided:

10. The sUAS ground station must be equipped to display sUA altitude, position, attitude, and direction of flight information;
11. The sUA must be equipped with high visibility markings visible during the daytime from a distance of no less than one statute mile;
12. Not less than 24 hours prior to conducting operations that are the subject of this Waiver, a Notice to Airmen (NOTAM) must be filed. The NOTAM must include location, altitude, and/or operating area, time and nature of the activity, and number of sUA flying in the operating area; and
13. Operations conducted under this Waiver are limited to the area described in the waiver application, as follows:

A circular area with a .5 nm radius with the center defined as the following North latitude and West longitude point:

Latitude 37° 02' 12.3" North, Longitude 076° 04' 35.7" West

*NOTE: ORF Tower has supplied supplemental information to aid in the success of the requested operation. Please see attachment 1*

