

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO

**Intel Corporation, Responsible Person: Natalie Cheung
Waiver Number: 107W-2016-00004A**

ADDRESS

**2200 Mission College Blvd. RNB 5-141
Santa Clara, CA 95054-1549**

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 at night, for light shows, 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**

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

This Certificate of Waiver 107W-2016-00004A is effective from September 16, 2016 to September 30, 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 Intel Corporation

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. Intel Corporation's application details the specifics of the company's risk mitigations based on their prior flight testing, technology, operational history, and flight experience with these unique sUA and specific operations. This data ensures that Intel Corporation's remote pilots in command and visual observers will always be able to see and scan the airspace encompassing the sUA operational area and assure safety of those not directly participating in the operation. 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.

Area Authorized by this Waiver: The listed regulations are waived, to the extent specified by this document, for operations in Class G airspace under the specific operations/safety parameters described in their submitted application.

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, Ms. Natalie Cheung, for Intel Corporation, is directly responsible for safety of operations conducted under this Waiver and will ensure the remote PIC and VO comply 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 Waivered sUAS operations;
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;
8. Not more than 72 hours in advance, but not less than 24 hours prior to conducting operations that are the subject of this Waiver, the Responsible Person must file a Notice to Airmen (NOTAM). 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;

Night sUAS Operations Special Provisions. sUAS operations of multiple sUA maybe conducted at night, as defined in 14 CFR §1.1 provided:

9. The sUA must use lighting systems that provide adequate illumination for the remote PIC and VO to maintain visual line of sight capability unless a system is in place that ensures the remote PIC and VO are able to determine the position, attitude, altitude, and direction of flight of the sUA during operations in accordance with this Waiver;
10. Prior to conducting waived operations, the Responsible Person listed on the Waiver must ensure the remote PIC and VO are trained 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;
11. 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 waived operations, noting any hazards or obstructions;
12. As described in the Waiver application, the remote PIC must illuminate all sUA if the threat of intrusion into the area of operation by other aircraft occurs;
13. 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;

14. 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:

15. Prior to conducting operations under this Waiver, the remote PIC has a means to identify the boundaries of any structure so as to avoid collision with, or damage to property;
16. Communication between the remote PIC and VO must allow for the remote PIC to light the sUA and/or ground the sUA with sufficient time to yield right-of-way in accordance with § 107.37.
17. 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 swarm;
18. Prior to conducting operations under this Waiver, the remote PIC must ensure that the cylindrical, two-layer geo-fence system and its associated flight control system, as described in the Waiver application, operate properly and are programmed for visual alerts if they contact any geo-fence boundary;
19. Prior to conducting operations under this Waiver, the remote PIC must ensure that the sUA sensors and their flight control systems operate properly; and
20. The weight of the sUA flown under this Waiver must not exceed .75 lbs and the ground speed of the sUA must not exceed 12 nautical miles per hour (14 miles per hour).