

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

ISSUED TO

**FLIR Unmanned Aerial Systems, Responsible Person: Arne Skjaerpe  
Waiver Number: 107W-2016-00993A**

ADDRESS

**2800 Crystal Drive, Suite 330  
Arlington, VA 22202**

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, special, and common 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 from a moving land or water-borne vehicle. Night sUAS operations. sUAS operations beyond the remote pilot's visual line of sight. sUAS operations over human beings. sUAS operations in reduced visibility and reduced cloud clearance.

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

**14 CFR § 107.25(b) Operation from a moving vehicle or aircraft  
14 CFR § 107.29 Daylight operation  
14 CFR § 107.31 Visual line of sight aircraft operation  
14 CFR § 107.39 Operation over human beings  
14 CFR § 107.51(c) and 107.51(d) Operating limitations for 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 24, inclusive, are set forth on the attached pages.

This Certificate of Waiver is effective from May 3, 2017 to April 30, 2021, inclusive, 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**  
**FLIR Unmanned Aerial Systems**

**General.**

This Certificate of Waiver is an amendment which supersedes and replaces Waiver 107W-2016-00993 issued to FLIR Unmanned Aerial Systems for operations under 14 CFR 107. Waiver 107W-2016-00993 is no longer valid.

The FAA's Flight Standards Service has reviewed your application (FLIR Unmanned Aerial Systems formerly Prox Dynamics) to ensure compliance with the requirements of 14 CFR § 107.200. The Administrator finds that the proposed small Unmanned Aircraft System (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 the sUAS in the manner you described. In addition to the application, the FAA used the following documents to analyze and approve this Waiver and its associated provisions to operate the PD-100 Personal Reconnaissance System BH2 and BH3: Prox Dynamics' Operating Procedures and Prox Dynamics' Training Manual (identified as proprietary and hereinafter referred to as the application). Based on the UA's size, maximum impact kinetic energy, and the FAA's assessment, adherence to the provisions of this Waiver establishes a level of safety that ensures safe operations 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 serves as justification for cancellation of this Waiver.

**Area Authorized by this Waiver:** The listed regulations are waived, to the extent specified by this document, for operations within the states and territories of the United States of America.

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

14 CFR § 107.25(b) Operation from a moving vehicle is waived to allow sUAS operations from a moving land or water-borne vehicle over other than sparsely populated areas not carrying property for compensation or hire;

14 CFR § 107.29 Daylight operation is waived to allow operations at night;

14 CFR § 107.31 Visual line of sight aircraft operation is waived to allow operations beyond the remote pilot's visual line of sight;

14 CFR § 107.39 Operations over human beings is waived to allow sUAS operations over human beings; and

14 CFR § 107.51(c) and 107.51(d) Operating limitations for small unmanned aircraft is waived to allow operations as observed from the location of the control

station to occur when minimum flight visibility is less than 3 statute miles or when the small unmanned aircraft is less than 500 feet below or 2,000 feet horizontally from clouds.

**Common Special Provisions.** The Responsible Person for FLIR is directly responsible for the safety of operations conducted under this Waiver and will ensure any other individuals participating in the operation of the sUAS 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 pilot in command (PIC) and all personnel involved in the operation are informed of the terms and provisions of this Waiver and the strict observance of the terms and provisions herein;
  - b. Must ensure the remote PIC and all personnel involved in the operation are informed and familiar with part 107 regulations not waived; and
  - c. The above must be documented and presented for inspection upon request from the Administrator or an authorized representative;
2. This Waiver must 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;
4. Operations under this Waiver may only be conducted in Class G airspace unless a separate airspace Certificate of Waiver or Authorization 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 numbers 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 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;
8. As described in the waiver application, the sUA must remain within one statute mile of the remote PIC;
9. As described in the waiver application, the altitude of the sUA cannot be higher than 150 feet above ground level unless the sUA is flown within a 150-foot radius of a structure

and does not fly higher than 150 feet above the structure's immediate uppermost limit; any altitude restriction specified in an airspace authorization granted in conjunction with this Waiver takes precedence;

10. As described in the waiver application, the sUA must not be operated more than 34 statute miles per hour;

**Moving Vehicle sUAS Operations Special Provisions.** sUAS operations may be conducted from a moving land or water-borne vehicle over other than sparsely populated areas not carrying property for compensation or hire.

11. Prior to conducting operations under this waiver, the remote PIC and the driver must have general knowledge of the topography and environment for the planned flight route and have briefed the intended flight to address matters such as vehicle route, speeds, and obstacles;
12. Vehicle operation must not interfere with the duties and responsibilities of the remote PIC;
13. As described in the waiver application, the manipulator of the sUAS controls must be the holder of a remote pilot certificate with a sUAS rating;
14. Any electronic communication conducted by the driver during operations under this Waiver must be by use of a hands-free device;
15. The loss of data link procedures and contingency plans must account for the dynamic area of operation. As described in the waiver application, these plans and procedures must include a safe flight termination method or a safe lost link flight path around all obstacles, non-participating aircraft, persons, or vehicles on the ground, which are encountered during the operation;

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

16. As described in the waiver application, prior to conducting operations under this Waiver, the remote PIC must be 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;

**Visual Line of Sight Special Provisions.** sUAS operations may be conducted with the remote PIC using first person view, in lieu of visual line of sight, provided:

17. As described in the waiver application, the remote PIC must be able to determine that the Command and Control system and communications equipment have performance capabilities that meet the planned ranges for the proposed operation;

18. As described in the waiver application, the equipage (cameras) on the small UAS must function as described in the application and the remote PIC must be able to use the cameras for visual navigation, maintain situational awareness to avoid collisions with obstructions and non-participating human beings, or to yield right-of-way in accordance with § 107.37;

**sUAS Operations over human beings Special Provisions.** sUAS operations over human beings may be conducted provided:

19. The holder of this Waiver has the responsibility to train each new pilot in their operational procedures, as described in the waiver application, including emergency contingencies and in the special provisions of this Waiver; all training for any individual directly participating in the operation of the sUA must be documented and available to the Administrator upon request;
20. As described in the waiver application, the remote PIC must be proficient in the safe operation of the sUA;
21. No operations under this Waiver are permitted after modification to the sUAS design or performance; Repair and replacement of damaged components is allowed with a replacement part that is exactly the same as the original; no substitutions are allowed without FAA approval;
22. As described in the waiver application, the sUAS must operate no closer than 10 feet from any non-participating human being;

**sUAS Operating limitations for small unmanned aircraft – Weather: Visibility and Cloud Minimums Special Provisions.** sUAS operations may be conducted in weather conditions with reduced visibility and cloud clearance minimums, provided:

23. The minimum flight visibility, as observed from the location of the control station, must be no less than 300 feet; and
24. All operations conducted under this Waiver must remain clear of clouds.