

# UNMANNED AIRCRAFT SYSTEMS (UAS) EXEMPTION SUMMARY

## INTRODUCTION

In September 2014, the Federal Aviation Administration (FAA) granted regulatory exemptions to selected companies to operate Unmanned Aircraft Systems (UAS) on scripted, closed-set, motion picture and television productions under specific, outdoor conditions within the United States.

This summary has been developed to provide guidance for all outdoor UAS operations, including when the UAS is flown as a prop.

## I. REQUIREMENTS PRIOR TO OPERATION

All UAS vendor companies must possess a current, FAA Section 333 Exemption, FAA-approved UAS Motion Picture and Television Operations Manual (Manual), and must obtain an Air Traffic Organization-issued Certificate of Waiver or Authorization (COA) per instructions detailed in the respective Section 333 Exemption prior to conducting any commercial UAS operation.

The UAS vendor is responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components. Each UAS must comply with all manufacturer safety bulletins.

All UAS must be identified by serial number, registered in accordance with 14 CFR part 47, and have identification (N-Number) markings in accordance with 14 CFR part 45, Subpart C. Markings must be as large as practicable.

FAA regulations require that the UAS vendor utilize a qualified Pilot in Command (PIC) and a Visual Observer (VO) for each UAS in operation. The PIC and VO must meet the training and proficiency requirements set forth in the UAS vendor's Section 333 Exemption.

The PIC must have on set with them at all times all pertinent documentation, which includes, but is not limited to:

Operational Documents: Section 333 Exemption Grant, the Manual; any relevant COA; Plan Of Activities;

Pilot Certification:

- Pilot certificate (Airline Transport Pilot, Commercial, Private, Recreational, or Sport Pilot);
- Current medical certificate, or valid U.S. Driver's License issued by a state, the District of Columbia, Puerto Rico, a territory, a possession, or the Federal government.

(NOTE: These documents must be made available to both the Production Company and to regulatory agencies upon request)

The UAS vendor may either operate within the provisions of the FAA "blanket" COA (see below) or file a separate COA for activities outside of the "blanket" COA. The provisions are:

Flights at or below 200 feet, aircraft weighing less than 55 pounds, operating during daytime Visual Flight Rules (VFR) conditions, within visual line of sight (VLOS) of the pilots, and maintain the following distances away from airports or heliports:

5 nautical miles (NM) from an airport having an operational control tower; or

- 3 NM from an airport with a published instrument flight procedure, but not an operational tower; or
- 2 NM from an airport without a published instrument flight procedure or an operational tower; or
- 2 NM from a heliport with a published instrument flight procedure

The UAS vendor company must request a Notice to Airman (NOTAM) between 48 and 72 hours prior to UAS operation.

The UAS vendor may not operate within 5 nautical miles of an airport reference point (ARP) as denoted in the current FAA Airport/Facility Directory (AFD) or for airports not denoted with an ARP, the center of the airport symbol as denoted on the current FAA-published aeronautical chart, unless a letter of agreement with that airport's management is obtained or otherwise permitted by a COA issued to the exemption holder. The letter of agreement with the airport management must be made available to an FAA Inspector or any law enforcement official upon request.

At least 3 days before aerial filming, the UAS vendor must submit a written Plan of Activities to the local Flight Standards District Office (FSDO) with jurisdiction over the area of proposed filming. The 3-day notification may be waived with the concurrence of the FSDO. The plan of activities must include at least the following:

- a) Dates and times for all flights;
- b) Name and phone number of the UAS vendor for the UAS aerial filming conducted;
- c) Name and phone number of the person responsible for the on-scene operation of the UAS;
- d) Make, model, and serial or N-Number of UAS to be used;
- e) Name and certificate number of UAS PICs involved in the aerial filming;
- f) A statement that the operator has obtained permission from property owners and/or local officials to conduct the filming production event; the list of those who gave permission must be made available to the inspector upon request;
- g) Signature of exemption holder or representative; and description of the flight activity, including maps or diagrams of any area, city, town, county, and/or state over which filming will be conducted and the altitudes essential to accomplish the operation.

Before conducting UAS operations, the PIC must ensure that the radio frequency spectrum used for the operation and control of the UAS complies with the Federal Communications Commission (FCC) or other appropriate government-agency requirements and does not conflict with any radio frequencies used by production.

Authorities Having Jurisdiction (AHJ) may have their own requirements regarding UAS operations.

A safety meeting should be conducted with all affected production personnel prior to UAS operations.

## II. OPERATION AND SAFETY

The UAS must weigh less than 55 pounds (25 Kg), including energy source(s) and attached equipment.

The UAS may not be flown at a ground speed exceeding 87 knots (approximately 100 MPH).

The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for the UAS to conduct the intended operation and to operate after that for at least five minutes or with the reserve power recommended by the manufacturer if greater.

If the UAS loses communications or its Global Positioning System (GPS) signal, the UAS must return to a predetermined location within the security perimeter and land or be recovered in accordance with the Manual.

The UAS must be operated within Visual Line Of Sight (VLOS) of the PIC at all times. This requires the PIC to use human vision unaided by any device other than corrective lenses. The VO may be used to satisfy the VLOS requirement, as long as the PIC always maintains VLOS capability and the VO and PIC can communicate verbally at all times.

The UAS cannot be operated by the PIC from any moving device or vehicle.

Flights must be operated at an altitude of no more than 200 feet above ground level when utilizing the "blanket" COA, or no more than 400 feet above ground level when operating under a COA other than the "blanket" COA.

The UAS always must remain clear of, and yield the right of way to, all other manned operations and activities (e.g., ultralight vehicles, parachute activities, parasailing activities, and hang gliders).

UAS operations must be conducted during day time and in Visual Meteorological Conditions (VMC). Presently the FAA does not allow UAS operations at night.

The UA may not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC.

Prior to each flight, the PIC must conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, e.g., inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.

The PIC must abort the UAS operation in the event of unpredicted obstacles or emergencies.

The UAS vendor company must report to the FAA UAS Integration Office within 24 hours any: 1) incident, 2) accident, or 3) flight operation that transgresses the lateral or vertical boundary of the COA-defined operational area.

The UAS vendor company also must report all accidents to the National Transportation Safety Board.

Further flight operations may not be conducted until the incident, accident, or boundary transgression is reviewed and authorization to resume operations is provided.

### **III. DISTANCE REQUIREMENTS**

The UAS may not be operated directly over any person, except for authorized and consenting production personnel, who must be essential to the closed-set production operation.

The distance between the UAS and authorized and consenting production personnel shall be determined by the Manual.

All Flight operations must be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:

- a) Barriers or structures are present that sufficiently protect nonparticipating persons from the UAS and/or debris in the event of an accident. The operator must ensure that nonparticipating persons remain under such protection. If a situation arises where nonparticipating persons leave such protection and are within 500 feet of the UA, flight operations must cease immediately in a manner ensuring the safety of nonparticipating persons; and
- b) The owner/controller of any vessels, vehicles or structures has granted permission for operating closer to those objects and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.
- c) This distance may be reduced when operating under the Manual. In such instances, distance requirements shall be in compliance with the UAS vendor's Manual.

### **IV. NOTIFICATION**

The Production Company must notify all production personnel of the planned use of UAS so that any objection can be communicated prior to UAS operation.

Notification can be accomplished by including a statement like the following on the call sheet:

“An Unmanned Aircraft System (UAS) will be used in close proximity to production personnel and equipment. Any personnel who does not consent to working within the UAS area must notify \_\_\_\_\_ [please insert the assigned production designee(s)] prior to use of the UAS.”

## V. ADDITIONAL INFORMATION

For more information on the FAA and UAS:

<http://www.faa.gov/about/initiatives/uas/>

To view the FAA's Grants of Exemption:

[https://www.faa.gov/uas/legislative\\_programs/section\\_333/](https://www.faa.gov/uas/legislative_programs/section_333/)