

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION	
CERTIFICATE OF WAIVER OR AUTHORIZATION	
ISSUED TO	Public Agency – U.S. Department of Agriculture/United States Forest Service Part 91
ADDRESS	U.S. Department of Agriculture/United States Forest Service 3833 S. Development Avenue Boise, ID 83705-5354
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	Operation of small Unmanned Aircraft System(s), weighing less than 55 pounds and operating at speeds of less than 87 knots (100 mph), in Class G airspace at or below 1,199 feet Above Ground Level (AGL) under the jurisdiction of the Federal Aviation Administration (FAA) and local Air Traffic Control (ATC) facilities for the purpose of Public Aircraft operations. See Special Provisions.
LIST OF WAIVED REGULATIONS BY SECTION AND TITLE	14 CFR 91.113(b)
STANDARD PROVISIONS	
<ol style="list-style-type: none">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 herein4. 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. A thru J, inclusive, are set forth on the reverse side hereof.	
The certificate is effective from March 23, 2021 to March 22, 2023 inclusive, and is subject to cancellation at any time upon notice by the Administrator or his/her authorized representative.	
BY DIRECTION OF THE ADMINISTRATOR	
<u>FAA Central Service Area</u> <small>(Region)</small>	<u>Vonnie L. Giles</u> <small>(Signature)</small>
<u>Manager, Tactical Operations Team (AJV-C23)</u> <small>(Title)</small>	

Purpose: To prescribe UAS operating requirements in the National Airspace System (NAS) for the purpose of Public Aircraft Operations. The holder of this Certificate of Waiver or Authorization (COA) will be referred herein as the “Proponent”.

Public Aircraft

1. A public aircraft operation is determined by statutes, 49 USC §40102(a) (41) and §40125.
2. All public aircraft flights conducted under a COA must comply with the terms of the statute.
3. All flights must be conducted per the declarations submitted in the application, and as specified in the following Special Provisions.
4. This COA provides an alternate means of complying with 14 CFR §91.113(b) for unmanned aircraft operations.
5. All operations will be conducted in compliance with Title 14 CFR §91 and the conditions of the authorization issued herein. If the operator cannot adhere to any of these requirements, a separate FAA Form 7711-2 waiver application may be required.

SPECIAL PROVISIONS

A. General.

1. All personnel connected with the UAS operation must read and comply with the contents of this authorization and its provisions.
2. A copy of the COA including the special limitations must be immediately available to all operational personnel at each operating location whenever UAS operations are conducted.
3. This authorization may be canceled at any time by the Administrator, the person authorized to grant the authorization, or the representative designated to monitor a specific operation. As a general rule, this authorization 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 the authorization is cause for cancellation. The proponent will receive a written notice of cancellation.
4. During the time this COA is approved and active, a site safety evaluation/visit may be accomplished to ensure COA compliance, assess any adverse impact on ATC or airspace, and ensure this COA is not burdensome or ineffective. Deviations, accidents/incidents/mishaps, complaints, etc., will prompt a COA review or site visit to address the issue. Refusal to allow a site safety evaluation/visit may result in cancellation of the COA.

Note: This section does not pertain to agencies that have other existing agreements in place with the FAA.

5. Radiofrequency spectrum authorization is independent of the COA process and requires the proponent to obtain equipment certification and frequency assignments (licenses) in the Aeronautical Radio navigation, Aeronautical Mobile (Route), or Aeronautical Mobile Services, as appropriate, from the National Telecommunications and Information Administration (NTIA) for all radiofrequency devices, including the control link, ATC radios, transponders, detect and avoid systems, and navigation systems, used to support this COA (47 CFR Part 300).

B. Operations.

1. The UA must be operated within visual line of sight (VLOS) of the Pilot in Command (PIC) and the person manipulating the flight controls at all times unless otherwise specified in a Special Provision. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses. Although the remote PIC and person manipulating the controls must maintain the capability to see the UA, using one or more Visual Observers (VO) allows the remote PIC and person manipulating the controls to conduct other mission-critical duties (such as checking displays) while still ensuring situational awareness of the UA
2. Must yield right of way to other aircraft, manned or unmanned.
3. First-person view camera cannot satisfy “see-and-avoid” requirement but can be used as long as the visual requirement is satisfied in other ways.
4. Small unmanned aircraft means an unmanned aircraft weighing less than 55 pounds on takeoff, including everything that is on board or otherwise attached to the aircraft.

5. The minimum flight visibility, as observed from the location of the control station must be no less than 3 statute miles. For purposes of this section, flight visibility means the average slant distance from the control station at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night..
6. No person may act as a remote pilot in command or VO for more than one unmanned aircraft at one time unless otherwise authorized as a separate provision.
7. No operations from a moving vehicle or watercraft unless the operation is over a sparsely populated area and the PIC and VO are co-located.
8. Lost link must remain within visual line of sight of the PIC and/or VO unless operating in accordance with Special Provision H (BVLOS) below.
9. The remote pilot in command may deviate from the requirements of this rule in response to an in-flight emergency.
10. Requests to operate in an area outside the approved operating area of this authorization should be limited to emergency/life threatening operations. Coordinate these flights through the Special Government Interest (SGI) process by calling the SOSOC at (202) 267-8276, or email: 9-ATOR-HQ-SOSC@faa.gov.

C. Notice to Airmen (NOTAM).

1. A Distant (D) NOTAM must be issued prior to conducting UAS operations not more than 72 hours in advance, but not less than 24 hours for UAS operations prior to the operation for routine operations. This requirement may be accomplished:
 - a. Through the operator's local base operations or (D) NOTAM issuing authority, or
 - b. By contacting the NOTAM Flight Service Station at 1-877-4-US-NTMS (1-877-487- 6867). The issuing agency will require:
 - (1) Name and contact information of the pilot filing the (D) NOTAM request
 - (2) Location, altitude and operating area
 - (3) Time and nature of the activity.
2. The area of operation defined in the (D) NOTAM must only be for the actual area to be flown for each day defined by a point and the minimum radius required to conduct the operation.
3. Operator must cancel (D) NOTAMs when UAS operations are completed or will not be conducted.
4. For first responders only. Due to the immediacy of some emergency management operations, the (D) NOTAM notification requirement may be issued as soon as practical before flight and if the issuance of a (D) NOTAM may endanger the safety of persons on the ground, it may be excluded. If the (D) NOTAM is not issued, the proponent must be prepared to provide justification to the FAA upon request.

D. Reporting Requirements.

1. Documentation of all operations associated with UAS activities is required regardless of the airspace in which the UAS operates.
2. The Proponent must submit the number of flights on a monthly basis through the COA Application Processing System (CAPS).

E. sUAS Night Operations.

Small UAS operations may be conducted at night, as defined in 14 CFR § 1.1, provided:

1. All operations under the approved COA must use one or more VOs;
2. Prior to conducting night operations, the PIC and VO 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.
3. The sUAS must be equipped with lighted anti-collision lighting visible from a distance of no less than 3 statute miles. The intensity of the anti-collision lighting may be reduced if, because of operating conditions, it would be in the interest of safety to do so. Additionally, in order to comply with § 91.209, the aircraft must have position lighting that enables determination of location altitude, attitude, and direction of flight.

F. Special Use Airspace.

1. Coordination and de-confliction between Military Training Routes (MTR) and Special Use Airspace (SUA) is the operator's responsibility. When identifying an operational area the operator must evaluate whether an MTR or SUA will be affected. In the event the UAS operational area overlaps an MTR or SUA, the operator will contact the scheduling agency as soon as practicable in advance to coordinate and de-conflict. Approval from the scheduling agency is required for regulatory SUA, but not for MTR's and non-regulatory SUA. If no response to coordination efforts, the operator must exercise extreme caution and remain vigilant of all MTRs and/ or non-regulatory SUAs.
2. Scheduling agencies for MTRs are listed in the Area Planning AP/1B Military Planning Routes North and South America. If unable to gain access to AP/1B, contact the FAA at email address mail to: 9-AJV-115-UASOrganization@faa.gov with the IR/VR routes affected and the FAA will provide the scheduling agency information. Scheduling agencies for SUAs are listed in the FAA JO 7400.10.

G. Flight Planning Requirements.

Operations must only be conducted beyond the following distances from the airport reference point (ARP) of a public use airport, heliport, gliderport, or water landing port listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications:

1. 5 nautical miles (NM) from an airport having an operational control tower, or
2. 3 NM from an airport having a published instrument flight procedure, but not having an operational control tower, or
3. 2 NM from an airport not having a published instrument flight procedure or an operational control tower, or
4. 2 NM from a heliport.

H. Beyond Visual Line of Sight (BVLOS)

BVLOS operations are authorized when conducted within a 14 CFR § 99.7 or 14 CFR § 91.137 TFR. The TFR and COA will serve as acceptable mitigations to 14 CFR § 91.113. It is the

responsibility of the incident/on scene commander to develop approved airspace segregation and/or de- confliction plans within the TFR for manned/unmanned operations.

I. Air Traffic Control Special Provisions.

1. Coordination Requirements.

When operating within the confines of the following National Parks, the U.S. Department of the Interior must coordinate with aviation management and dispatch centers to ensure de-confliction from other aircraft:

- a. Grand Canyon National Park – Williams Dispatch
- b. Yosemite National Park – Yosemite Dispatch
- c. Sequoia-Kings Canyon National Park – Sequoia/Kings Dispatch
- d. Denali National Park – Alaska Regional Communications Center
- e. Glacier Bay National Park – Alaska Regional Communications Center
- f. Big Bend National Park – Big Bend Dispatch

2. Communication Requirements.

- a. Unless otherwise directed, the issuance of the (D) NOTAM will satisfy ATC Communication requirements.
- b. PIC must monitor as necessary on the appropriate Common Traffic Advisory Frequency (CTAF) frequency.

3. Flight Planning Requirements.

- a. The operator is responsible for ensuring that proposed UAS operating area does not enter a UAS flight restricted area as described under CFR 14 § 99.7, Temporary Flight Restriction (TFR), Special Security Instruction (SSI) without obtaining prior authorization. Location and contact information for the TFR SSI is depicted on the FAA website: <https://udds-faa.opendata.arcgis.com>. Proponent must request permission and receive authorization via the contacts listed on the website prior to entering a TFR SSI.
- b. The operator is responsible for ensuring that proposed UAS operating area does not enter a UAS flight restricted area as described under CFR 14 § 99.137, Temporary flight restrictions in the vicinity of disaster/hazard areas unless the UAS operation is participating in hazard relief activities and is being operated under the direction of the official in charge of on scene emergency response activities.

4. Procedural Requirements

- a. Extended Line of Sight operation within a polygon is authorized if the following provisions are met:
 - (1) Observers must be stationed no farther than 2NM apart.
 - (2) PIC/observers can monitor 100% of airspace where UAS is operating.
 - (3) PIC/observers are not prevented from detecting traffic due to obstructions, i.e., terrain or vegetation.
 - (4) PIC is tracking the location of UAS at all times on the Ground Control Station (GCS).

- (5) PIC has the ability to take evasive action to avoid conflict with an intruding aircraft based on feedback from the observer(s).
 - (6) PIC has the ability to immediately terminate the flight.
- b. Extended Line of Sight Operation from a single point up to 2NM from the GCS is authorized if the following provisions are met:
- (1) PIC/observers must have visual contact down to the surface within the UAS operating polygon.
 - (2) PIC/observers are not prevented from detecting traffic due to obstructions, i.e., terrain or vegetation.
 - (3) PIC is tracking the location of UAS at all times on the GCS.
 - (4) PIC has the ability to take evasive action to avoid conflict with an intruding aircraft based on feedback from the observer(s).
 - (5) PIC has the ability to immediately terminate the flight.
- c. ATC may delay, limit, prohibit, or terminate UAS operations when the safety of manned aircraft operations are a concern.
- d. The proponent must be familiar with and comply with 18 U.S. Code § 795 – “Photographing and sketching defense installations”.

J. Lost Link/Emergency/Contingency Procedures.

1. Lost Link Procedures:

In the event of a lost link, notification to ATC is not necessary provided the UAS PIC complies with the following provisions:

- a. The UA lost link will be programmed to ensure that lost link flight does not fly over persons and the landing location is within the view of the PIC.
 - b. Lost link procedures will not transit or orbit over populated areas, Victor Airways, or busy roadways/interstate highways.
 - c. Lost link procedures will be programmed to expeditiously return to a pre-programmed lost link home point and land within the area defined in the NOTAM. Lost link procedure will remain in Class G airspace at all time.
2. Emergency/Fly-Away Procedures: In the event of an emergency or fly-away toward an area or airport where the PIC has determined the UAS may create a hazard to aviation, the PIC will immediately notify the appropriate ATC facility. The PIC will provide the following information:
- a. Approximate location
 - b. Direction of flight
 - c. Last known altitude
 - d. Maximum remaining flight time

AUTHORIZATION

This Certificate of Waiver or Authorization does not, in itself, waive any Title 14 Code of Federal Regulations not specifically stated, nor any state law or local ordinance. Should the proposed operation conflict with any state law or local ordinance, or require permission of local authorities or property owners, it is the responsibility of the proponent to resolve the matter. This COA does not authorize flight within Temporary Flight Restrictions, Special Flight Rule Areas, regulatory Special Use Airspace or the Washington DC Federal Restricted Zone (FRZ) without pre-approval. The proponent is hereby authorized to operate the small Unmanned Aircraft System in the NAS within the areas defined in the Operations Authorized section of the cover page.