

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

Issued to: USDA Forest Service - Jonathan Freeman
Address: 367 S. Pearl St, Bayfield, CO 81122
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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: Fire Support
UAS Type: DJI M600 (FA3FNEMXAL), Mavic (FA3FNEAKTL)
Location and Class of Airspace: TFR 0/4863 and subsequent Ice Fire TFRS
At or Below: Surface to 16,000 MSL
Operations areas: Within the **ICE Fire** issued TFRs;

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE: **14 CFR 107.29 / 107.31 / 107.41 / 107.51B**

STANDARD PROVISIONS

1. A copy of the application made for this certification 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 5, inclusive, are set forth on following pages of this authorization.

This certificate is effective from **10/20/2020** to **12/19/2020** inclusive, and is subject to cancellation at any time upon notice by the Administrator or his/her authorized representative.

BY DIRECTION OF THE ADMINISTRATOR

FAA Headquarters – AJR-2
(Region)

October 20, 2020
(Date)

(Signature)

For - Gary Miller
Manager, Tactical Operations Security

SPECIAL PROVISIONS

1. Point of Contact:

Jonathan Freeman at **970-880-2369** is the person designated as responsible for the overall safety of UAS operations under this Certificate of Waiver or Authorization. During UAS operations for on-site communication/recall the Pilot shall be continuously available for direct contact by **Durango Interagency Dispatch Center** or the Air Traffic Security (AJR-2) System Operations Support Center (SOSC).

2. SCHEDULE OF FLIGHT OPERATIONS AND AUTHORIZED LEGS/ALTITUDE

a. This Certificate of Waiver or Authorization and the Special Provisions shall be in effect during the dates and times listed below. Unsafe flight operations are strictly prohibited.

**ALL UAS OPERATIONS MUST GIVE WAY TO MANNED
AIRCRAFT**

24-hour operation

b. This airspace authorization does not relieve the remote pilots from the responsibility to check the airspace they are operating in and comply with all restrictions that may be present in accordance with see 14 CFR 107.45 and 107.49 (a)(2), such as restricted and Prohibited Airspace, etc.

c. The facility may disapprove, terminate, restrict, or delay UAS flight operations covered by this authorization at any time.

3. Night Operation Limitations.

The following measures are considered adequate to ensure an acceptable level of safety for UAS night operations.

UAS night operations are those operations that occur between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time. (Note: this is equal to approximately 30 minutes after sunset until 30 minutes before sunrise).

- a. The Pilot in command must be in place 30 minutes prior to night operations to ensure dark adaptation.
- b. Observers will be positioned in appropriate locations during all UAS flight operations.

The following requirements must be met prior to performing any nighttime observer Duties.

- 1) Observers must be in place 30 minutes prior to the commencement of night flight operations to allow their eyes to adjust to the darkness. Night flight operations may not be conducted any sooner than 30 minutes after the evening civil twilight has ended.

- 2) Observers must undergo additional training on the lighting configuration of the UAS to ensure proper recognition during night flight operations.
- c. Night flight operations may not be conducted any sooner than 30 minutes after the evening civil twilight has ended.
- d. Because of field of view and distortion issues, vision assisted devices, (e.g., binoculars, night vision devices, etc.), may not be used as the primary means for visual observation duties. Such devices are permitted ONLY for augmentation of the observer's visual capability. Visual observers must use caution to ensure the UA remains within normal visual line-of-sight. Vision assisted devices are aids to vision and should not be confused with corrective lenses or contact lenses, which do not alter the field of view or distort vision.
- e. Night Flight is authorized provided the proponent's airworthiness criteria must include a performance analysis of the light emitting diode (LED) position lights installed to comply with 14 CFR section 91.209 unless the proponent has a specific waiver from 14 CFR Part 91.209. This performance analysis must ensure the position lights are of sufficient intensity, placement, and coverage to allow pilot(s) of other aircraft to determine the orientation and direction of flight of the proponent's aircraft. If the proponent has not established a criterion to evaluate aircraft position lights they must reference the applicable sections of 14 CFR parts 23, 25, 27, or 29, relating to minimum performance standards for aircraft position lights.
- f. For flights approved for night operations, the PIC must conduct three takeoffs (launch) and three landings (recovery) each to a full stop in the previous 90 days.
- g. Night operations require the proponent to maintain a "night specific" safety case with sufficient mitigations to avoid collision hazards at night.

4. EMERGENCY/CONTINGENCY PROCEDURES - Lost Link/Lost Communications Procedures:

- a. If the UAS loses communications or loses its GPS signal, the UA must return to a pre-determined location within the operating area and land.
- b. The PIC must abort the flight in the event of unpredicted obstacles or emergencies.
- c. The UAS operator must notify **Durango Interagency Dispatch Center** Telephone **970-385-1324/Ice Fire** in accordance with which fire is being worked for any Lost Link departure of the operation area depicted below.

5. Coordination requirements:

- a. The UAS Pilot in Command must adhere to the conditions issued by the dispatch center.

Attachment #1

