

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

ISSUED TO

**Northern Plains UAS Test Site
Responsible Person: Erin Roesler
Waiver Number: 107W-2022-00855**

ADDRESS –

**4201 James Ray Dr Stop 8392
Grand Forks, ND 58202**

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 provisions contained in this certificate.

OPERATIONS AUTHORIZED

sUAS operations higher than 400 feet above ground level, when not within a 400 foot radius of a structure.

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

14 CFR § 107.51(b)—Operating limitations for small unmanned aircraft - Altitude

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

This Certificate of Waiver is effective from June 9, 2022, to June 30, 2024, and is subject to cancellation at any time upon notice by the Administrator or an authorized representative.

BY DIRECTION OF THE ADMINISTRATOR

**Vonnie L. Giles
Tactical Operations Team Manager, AJV-C23**

SPECIAL PROVISIONS ISSUED TO Northern Plains UAS Test Site

General.

The FAA's Flight Standards Service has reviewed your application to ensure compliance with the requirements of 14 CFR § 107.200 and § 107.205. Pursuant to these authorities, the Administrator finds that the proposed small unmanned aircraft (sUA) 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 sUA in the manner you described. Adherence to the provisions of this Waiver establishes the required level of safety within the national airspace system.

The Administrator may cancel this Waiver at any time. 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 will serve as justification for cancellation.

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

14 CFR § 107.51(b), Operating limitations for small unmanned aircraft - **Altitude, is waived to allow sUAS operations higher than 400 feet above ground level (AGL), not to exceed 7000 feet (MSL).**

No part of this waiver will function as an airspace authorization under 14 CFR § 107.41. The FAA's Air Traffic Organization responds directly to requests for such authorizations.

Common Special Provisions. The Responsible Person is directly responsible for safety of operations conducted under this Waiver and will ensure the Remote Pilot in Command (remote PIC), manipulator of the controls, and visual observer(s) (VO)¹ 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 PIC, manipulators of the controls, and VO(s) are informed of the terms and provisions of this Waiver and strictly observe the terms and provisions herein;
 - b. Must ensure the remote PIC, manipulators of the controls, and VO(s) are informed and familiar with part 107 regulations; and
 - c. Evidence of the above (a and b) must be documented and must be presented for inspection upon request from the Administrator or an authorized representative;
2. This Waiver may 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. A copy of this Waiver must be accessible and available to the remote PIC at the ground control station during sUA operations that are the subject of this Waiver;

¹ Title 14 CFR § 107.3 defines the term "visual observer." Any VO participating in operations conducted under this Waiver must meet the requirements listed in § 107.33 throughout the duration of flight 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 operations under this Waiver. 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 sUA by registration number(s) used in operations under this Waiver. This list must be presented for inspection upon request from the Administrator or an authorized representative;
7. For the purposes of this Waiver, direct participants are the remote PICs, persons manipulating the controls, VOs, and any persons whose involvement is necessary for safety of the sUA operation. All other persons are considered non-participants;

Operations higher than 400 feet AGL Special Provisions sUAS operations may be conducted above 400 feet AGL, not to exceed 7000 feet MSL, provided:

8. All operations under this Waiver must use one or more VO; and **for operations above 3000 feet MSL** a chase plane must be used.
9. Operations may not be conducted at night, as defined in 14 CFR § 1.1;
10. As described in the waiver request, the sUAS ground control station must display in real time the following information: sUA altitude, sUA position, sUA direction of flight, and sUAS flight mode. This information must be available at all times to the remote PIC;
11. The Responsible Person listed on this Waiver must ensure the sUA is equipped with high visibility markings and/or lights visible during the daytime from a distance of no less than 3 statute mile;
12. Not less than 24 hours prior to conducting operations that are the subject of this Waiver, a Notice to Air Missions (NOTAM) must be filed. 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;
13. Prior to conducting operations under this Waiver, the remote PIC must ensure that the geo-fence system, telemetry system, associated flight control systems, and sensors, as described in the Waiver application, operate properly;
14. ADS-B out (1090/978 MHz) may not be transmitted from the sUAS when operating pursuant to this Waiver;
15. All emitters used in sUAS must be in compliance with all applicable FCC regulations and all provisions of the FCC authorization granted for the emitter. A FCC experimental authorization may not be used for sUAS operations under this Waiver; and
16. Proponent must notify Grand Forks RAPCON 30 minutes prior to schedule proposed operations at 701-747-6544 and provide the following information:
 - a. NOTAM and Authorization number,
 - b. Schedule of flight (time and duration)
 - c. Location (fix/radial/distance format)
 - d. Maximum altitude in MSL**
 - e. Telephone number where the pilot/operator can be reached immediately
 - f. Lost Link Procedure
 - g. Call sign of chase aircraft when applicable

17. **For UAS operations below 3,000' MSL** the operator should monitor as necessary the Grand Fork's Approach Control Frequency 132.3
18. **For UAS operations at or above 3,000' MSL**, the chase aircraft must maintain two-way communications with Grand Forks Approach Control Frequency 132.3 or 118.1 and have an operational transponder with associated VFR flight plan.
19. Proponent shall coordinate with the University North Dakota's Supervisor of Flying to ensure de-confliction of UND VFR practice areas at 701-777-7880.
20. Operator shall notify Grand Forks Approach Control immediately upon completion of UA's flight operations.
21. Grand Forks Approach Control may disapprove, terminate, restrict, or delay UAS flight operations under their airspace area of jurisdiction at any time.
22. **Due to the requirement for training of air traffic personnel on provisions of this COA, NPUASTS must NOT execute operations at or above 3,000' MSL until 30 days after the approval date of this authorization.**
23. If Lost Link occurs while operating in Class G airspace, the UAS lost link profile must remain in Class G airspace and land.
24. If Lost Link occurs in Grand Forks Approach Control Class E Airspace the operator will immediately notify Grand Forks Approach Control.
25. Loss of Sight in Class E Airspace:

If a VO loses sight of the UA, the operator must be notified immediately. If the UA is visually reacquired, the mission may continue. If not, the operator must immediately notify Grand Forks Approach Control and request to terminate the operation.
Loss of Communication between the operator and VO in Class E Airspace: The operator will request to return to Lost Link Home point and land. If communications are promptly reestablished, the mission may resume. If communication cannot be promptly re-established, the operator must land as soon as practical.
26. Loss of Communication between Grand Forks Approach Control and UAS operator: The operator must contact Grand Forks Approach Control at 701-747-6544 and request to land as soon as practical.
27. Fly Away/Loss of Control: In the event of a fly-away, the operator will immediately notify Grand Forks Approach Control via frequency or RAPCON phone number at 701-747-6544. The operator will provide the following information:
 - a. Altitude
 - b. Last known location
 - c. Direction of flight/heading
 - d. Fuel on board/Battery Time
 - e. PIC intentions
 - f. Termination of flight or emergency condition

28. Operations conducted under this Waiver are limited to the area described in the waiver application as follows: area defined as: **within 47°37'00"N / 97°31'18"W; 47°26'00"N / 97°31'18"W; 47°26'00"N / 97°18'18"W; 47°37'00"N / 97°18'18"W and within 2nm of cell tower at 47°28'5.06"N / 96°20'44.15"W; shown on Attachments 1 and 2.**

Operating Areas

Operational Area 1: within 47°37'00"N / 97°31'18"W; 47°26'00"N / 97°31'18"W; 47°26'00"N / 97°18'18"W; 47°37'00"N / 97°18'18"W



Operational Area 2: within 2nm of cell tower at 47°28'5.06"N / 96°20'44.15"W

