

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO

MAP Industries, LLC/ ATTN: Eric Cotten

POC Phone Number

(434) 227-2463

ADDRESS

129 Rapidan Church Lane, Madison, VA 22727

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

Unmanned Aircraft Systems operations in accordance with Title 14 CFR Part 107.41, except "Operating limitations for small unmanned aircraft" Part 107.51 b (2) are limited to the altitude listed below.

Class of Airspace: Class E Surface Area airspace in the vicinity of Shenandoah Valley regional Airport (SHD).

Altitudes as specified in special provisions

Under the jurisdiction of: Potomac Terminal Radar Approach Control (TRACON) (PCT)

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

107.41 Operations in certain airspace

STANDARD PROVISIONS

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 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 1 thru 4 inclusive are set forth on page 2 & 3 of this waiver.

This certificate 2016-ATO-P107-00105 is effective from March 17, 2017, to March 16, 2019, 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, AJV-115

(Region)

M. Randy Willis

Randy Willis

(Signature)

March 10, 2017

(Date)

Manager, Emerging Technologies Team (AJV-115)

(Title)

SPECIAL PROVISIONS

1. CONTACT INFORMATION:

- a. The Responsible Person, (Eric Cotten), for MAP Industries, LLC. is directly responsible for safety of operations conducted under this Waiver and will ensure the remote PIC and VO comply with all provisions of this Waiver.
- b. This Waiver must not be combined with any other waiver(s), authorization(s), or exemption(s) without specific authorization from the FAA.
- c. 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.
- d. The Responsible Person listed on this Waiver must maintain a current list of pilots by name and remote pilot certificate number used in the Waiver holder's operations. This list must be presented for inspection upon request from the Administrator or an authorized representative.
- e. 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.
- f. The Responsible Person shall ensure there is a means for immediate communication with the PIC during UAS operations if ATC deems necessary.

2. SCHEDULE OF FLIGHT OPERATIONS:

This Certificate of Waiver or Authorization and the Special Provisions shall be in effect from March 17, 2017 through March 16, 2019, **between sunrise and sunset local time.**

3. 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.

4. OPERATIONS: Operations within controlled airspace will involve aerial mapping and data collection flight for construction, mining, agriculture and real estate sorties. All operations will occur at the altitude dictated by the area in which they are being operated.

a. **Provisions for all Operations:**

- i. The PCT TRACON may restrict operations (example: lower altitudes) as needed to ensure safety of operations.
- ii. Operations may be terminated by the PCT TRACON at any time with a call to the cell phone listed in this waiver.
- iii. Operations will only be conducted in VFR conditions with greater than 5 miles visibility and 3,000 foot ceiling.
- iv. The PIC will monitor CTAF and broadcast, as necessary, prior to commencing, during and upon completion of UAS operations.

b. **Operations Area:**

- i. Between 0 and 2 Nautical Miles (NM) from the Airport Reference Point (ARP) (38°15'49.8"N 78°53'47.2"W), no UAS operations will occur.
- ii. Between 2 and 3 NM from the ARP (38°15'49.8"N 78°53'47.2"W), operations will be conducted at or below 100 feet Above Ground Level (AGL).
- iii. Between 3 and 4 NM from the ARP (38°15'49.8"N 78°53'47.2"W), operations will be conducted at or below 200 feet AGL.
- iv. In locations further than 4 NM from the ARP (38°15'49.8"N 78°53'47.2"W), but still within Class E surface area, operations will be conducted at or below 400 feet AGL.

OPERATIONS AREA
Class E Surface Area airspace in the vicinity of SHD

