



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Aviation Safety

800 Independence Ave  
Washington, DC 20591

June 28, 2023

Exemption No. 20316  
Regulatory Docket No. FAA-2023-0821

Mr. Nick Nawratil  
Hyllo, Inc.  
1020 Agnes Road  
Richmond, TX 77469

RE: Lone Star Aerial Application LLC  
239 Brookbend Dr.  
Waxahachie, TX 75165

Dear Mr. Nawratil:

This letter is to inform you that the Federal Aviation Administration (FAA) has granted your request for exemption. This letter transmits the FAA's decision, explains the FAA's basis, and provides the conditions and limitations of the exemption, including the date the exemption ends.

### **The Basis for the FAA's Decision**

By letter dated January 9, 2023, you petitioned the FAA on behalf of Lone Star Aerial Application LLC (Lone Star or "Operator") for an exemption from §§ 61.3(a)(1)(i), 91.7(a), 91.119(c), 91.121, 91.151(b), 91.403(b), 91.405(a), 91.407(a)(1), 91.409(a)(1), 91.409(a)(2), 91.417(a), 91.417(b), 137.19(c), 137.19(d), 137.19(e)(2)(ii), 137.19(e)(2)(iii), 137.19(e)(2)(v), 137.31, 137.33, 137.41(c), and 137.42 of Title 14 Code of Federal Regulations (14 CFR) to the extent necessary to allow Lone Star to operate unmanned aircraft system (UAS) above 55 pounds (lbs.) for the provision of commercial agricultural-related services.

Title 49 U.S.C. § 44807 (Section 44807) provides the Secretary of Transportation (hereinafter Secretary) with authority to determine whether a certificate of waiver, certificate of authorization, or a certificate under Section 44703 or Section 44704, is required for the operation of certain UAS. Section 44807(b) instructs the Secretary to

AFS-23-01561-E

base their determination on which types of UAS do not create a hazard to users of the National Airspace System (NAS) or the public. In making this determination, the Secretary must consider the size, weight, speed, operational capability of the UAS, and other aspects of the proposed operation. The Secretary delegated this authority to the Administrator on October 1, 2021. In accordance with the statutory criteria provided in 49 U.S.C. § 44807, and in consideration of the size, weight, speed, and operational capability, proximity to airports and populated areas, and specific operations, a determination has been made that certain aircraft do not create a hazard to users of the NAS or the public.

Thus, the Operator is approved to operate any UAS under this exemption that have been approved by the Secretary for agricultural operations. This list, along with the approved maximum takeoff weight (MTOW), which includes the payload weight, can be found on the List of Approved Agricultural UAS under Section 44807. The list, which will be updated periodically, is posted at [www.regulations.gov](http://www.regulations.gov), under docket number FAA-2023-1271. This list is for UAS weighing 55 pounds (lbs.) or greater including payload that are unable to fly under Part 107 due to the weight of the aircraft.

The FAA has issued grants of exemption in circumstances similar in material respects to those presented in your petition. In Grant of Exemption Nos. 18009, 18413A, and 19037B<sup>1</sup>, the FAA found that a grant of exemption was in the public interest, that the proposed operations' UAS safety features and the limitations under which the Operator would operate were sufficient mitigations that ensured the proposed agricultural operations would not adversely affect safety, and that the Operator may operate any UAS for these operations that has been previously approved by the Secretary for agricultural operations.

Having reviewed your reasons for requesting an exemption, I find that:

- They are similar in all material respects to relief previously requested in Grant of Exemption Nos. 18009, 18413A, and 19037B;
- The reasons stated by the FAA for granting Exemption Nos. 18009, 18413A, and 19037B also apply to the situation presented in your petition; and
- A grant of exemption is in the public interest.

### **The FAA's Decision**

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<sup>1</sup> All of these exemptions are available for review on the Regulatory Docket at [www.regulations.gov](http://www.regulations.gov), Exemption No. 18009 is available under Document ID No. FAA-2018-0574-0009, Exemption No. 18413A is available under Document ID No. FAA-2019-0802-0012, and Exemption No. 19037B is available under Document ID No. FAA-2022-0034-0007.

The FAA has determined that good cause exists for not publishing a summary of the petition in the *Federal Register* because the requested exemption would not set a precedent, and any delay in acting on this petition would be detrimental to Lone Star.

Under the authority contained in 49 U.S.C. §§ 106(f), 40113, 44701, and 44807, which the FAA Administrator has delegated to me, I hereby grant Lone Star Aerial Application LLC an exemption from 14 CFR §§ 61.3(a)(1)(i), 91.7(a), 91.119(c), 91.121, 91.151(b), 91.403(b), 91.405(a), 91.407(a)(1), 91.409(a)(1), 91.409(a)(2), 91.417(a), 91.417(b), 137.19(c), 137.19(d), 137.19(e)(2)(ii), 137.19(e)(2)(iii), 137.19(e)(2)(v), 137.31, 137.33, 137.41(c), and 137.42 to the extent necessary to allow Lone Star to operate any UAS found on the List of Approved Agricultural UAS under Section 44807 for the provision of commercial agricultural-related services, subject to the conditions and limitations described below.

### **Conditions and Limitations**

In this grant of exemption, Lone Star Aerial Application LLC is hereinafter referred to as “the Operator” or “Exemption Holder.”

1. The Operator must obtain an agricultural aircraft operator certificate under Part 137 by submitting FAA Form 8710-3 (copy enclosed) and the Operator’s exemption number to [UAS137Certificates@faa.gov](mailto:UAS137Certificates@faa.gov). Please note, the name of person or entity on the 8710-3 application must match the Exemption Holder’s name.
2. Prior to the Operator obtaining an agricultural aircraft operator certificate under Part 137, the Operator may conduct training flights, proficiency flights, experience-building flights, and maintenance functional test flights under this exemption with the understanding that the Operator is conducting these flights for the purpose of and in conjunction with obtaining a Part 137 agricultural aircraft operator certificate.
3. Operations authorized by this grant of exemption include any unmanned aircraft system (UAS), along with the approved maximum take-off weight (MTOW) weight, which includes payload, for the respective UAS identified on the List of Approved Agricultural UAS under Section 44807 at regulatory docket FAA-2023-1271 at [www.regulations.gov](http://www.regulations.gov), when weighing 55 pounds (lbs.) or greater including payload. Proposed operations of any aircraft not on the list, or at different weights than currently approved, will require a new petition or a petition to amend this exemption.
4. This exemption does not excuse the Operator from complying with 14 CFR Part 375. If operations under this exemption involve the use of foreign civil aircraft, the Operator must obtain a Foreign Aircraft Permit pursuant to 14 CFR § 375.41 before conducting any operations under this exemption. Application instructions are specified in 14 CFR § 375.43.

5. The unmanned aircraft (UA) may not be operated at a groundspeed exceeding 30 miles per hour or at any speed greater than the maximum operating speed recommended by the aircraft manufacturer, whichever is lower.
6. All operations must be conducted in accordance with an Air Traffic Organization (ATO) issued Certificate of Waiver or Authorization (COA). A copy of the blanket 49 U.S.C. § 44807 COA is enclosed with this exemption. The Exemption Holder must apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the enclosed COA. If a conflict exists between the COA and this condition, the more restrictive provision will apply. The COA will also require the Operator to request a Notice to Air Missions (NOTAM) not more than 72 hours in advance, but not less than 24 hours prior to each operation. Unless the COA or other subsequently issued FAA authorization specifies an altitude restriction lower than 200 feet above ground level (AGL), operations under this exemption may not exceed 200 feet AGL. Altitude must be reported in feet AGL.
7. The pilot in command (PIC) must be designated before the flight and cannot transfer their designation for the duration of the flight. In all situations, the Operator and the PIC are responsible for the safety of the operation. The Operator must ensure the PIC follows all applicable conditions and limitations as prescribed in this exemption and ATO-issued COA and operating in accordance with the operating documents. (*See*, Condition and Limitation No. 10). The UA must be operated within visual line of sight (VLOS) of the PIC at all times. The PIC must be able to use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued airman medical certificate.
8. The PIC may manipulate flight controls in the operation of no more than one UA at a time. Proposed operation of more than one UA at the same time (by one PIC) requires a new petition or a petition to amend this exemption.
9. All operations must utilize the services of at least one or more visual observers (VO). The VO must be trained in accordance with the Operator's training program. For purposes of this condition, a VO is someone: (1) who maintains effective communication with the PIC at all times; (2) who the PIC ensures is able to see the UA with human vision as described in Condition and Limitation No. 5; and (3) coordinates with the PIC to scan the airspace where the UA is operating for any potential collision hazard and maintain awareness of the position of the UA through direct visual observation. The UA must be operated within VLOS of both the PIC and VO at all times. The operation must be conducted with a dedicated VO who has no collateral duties and is not the PIC during the flight. The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times; electronic messaging or texting is not permitted during flight operations. The VO must maintain visual sight of the UA at all times during flight operations without distraction. The PIC must

ensure that the VO can perform the duties required of the VO. If either the PIC or a VO is unable to maintain VLOS with the UA during flight, the entire flight operation must be terminated as soon as practicable.

10. All documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are hereinafter referred to as the operating documents. At a minimum, the operating documents must include:
  - a. The Operator's operations manual;
  - b. The Operator's training program;
  - c. The manufacturer's provided flight manual;
  - d. All other manufacturer UAS provided documents;
  - e. This exemption; and
  - f. Any ATO-issued COA that applies to operations under this exemption.

These operating documents must be accessible during all UAS operations that occur under this exemption and made available to the Administrator or any law enforcement official upon request. If a discrepancy exists between the conditions and limitations in this exemption and the procedures outlined in the operating documents, the conditions and limitations herein take precedence and must be followed. Otherwise, the Operator must follow the procedures as outlined in its operating documents.

11. The Operator must have and keep current a comprehensive operations Manual that is tailored for their proposed operation and contain, at a minimum:
  - a. Operations policies, methods, and procedures that address Safety Risk Management (SRM);
  - b. Adverse weather;
  - c. Flight planning;
  - d. NOTAM;
  - e. Aircraft inspection;
  - f. Preflight duties and post-flight duties;
  - g. Normal and emergency flight procedures;
  - h. Crew Resource Management (CRM) and communications,
  - i. Crewmember responsibilities;
  - j. Accident reporting;
  - k. Hazardous material (HAZMAT) handling and stowage; and
  - l. UAS maintenance.
12. The Operator must have and keep current a comprehensive training program that is tailored for their proposed operation and contain, at a minimum:
  - a. Knowledge requirements of 14 CFR § 137.19(e)(1),
  - b. Initial and recurrent training;
  - c. Testing;

- d. Completion standards;
  - e. Ground training;
  - f. Site surveying;
  - g. Flight training;
  - h. Normal and emergency procedures;
  - i. UAS operating limitations;
  - j. Lost-link procedures;
  - k. This exemption;
  - l. Any ATO-issued COA that applies to operations under this exemption; and
  - m. HAZMAT handling and stowage.
13. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics (e.g., replacement of a flight-critical component) must undergo a functional test flight prior to conducting further operations under this exemption. Functional test flights may only be conducted by a PIC with a VO and other personnel required to conduct the functional flight test (such as a mechanic or technician) and must remain at least 500 feet from other people. The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.
14. The Operator is responsible for maintaining and inspecting all aircraft to be used in the operation and ensuring that they are all in a condition for safe operation.
15. 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, such as inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the UA is prohibited from operating until the necessary maintenance has been performed, and the UA is found to be in a condition for safe flight.
16. The Operator must follow the UAS manufacturer's operating limitations, maintenance instructions, service bulletins, overhaul, replacement, inspection, and life-limit requirements for the UAS and UAS components. Each UAS operated under this exemption must comply with all manufacturers' safety bulletins. Maintenance must be performed by individuals who have been trained by the operator in proper techniques and procedures for these UAS. All maintenance must be recorded in the UAS records including a brief description of the work performed, date of completion, and the name of the person performing the work.
17. A PIC must hold a remote pilot certificate with a small UAS rating issued under Part 107. The PIC must meet the requirements of Section 107.65, *Aeronautical knowledge recency*.
18. The PIC must also hold at least a current FAA third-class airman medical certificate.

The PIC may not conduct the operation if the PIC knows or has reason to know of any medical condition that would make the PIC unable to meet the requirements for at least a third-class airman medical certificate or is taking medication or receiving treatment for a medical condition that results in the PIC being unable to meet the requirements for at least a third- class airman medical certificate. The VO or any other direct participant may not participate in the operation if the VO or participant knows or has reason to know of any physical or mental condition that would interfere with the safe operation of the UAS.

19. The PIC must satisfactorily complete the Operator's training program requirements, as described in the training manual; and satisfactorily complete the applicable knowledge and skills requirements for agricultural aircraft operations outlined in Part 137, (137.19(e)(2)(ii), 137.19(e)(2)(iii), and 137.19(e)(2)(v)), as specified in this exemption are not required). The operator or chief supervisor's knowledge and skill tests of 14 CFR § 137.19(e) may be self-administered. Documentation of satisfactory completion of both the training program and the knowledge and skill tests of Section 137.19(e) must include the date of the test, as well as the PIC's name, FAA pilot certificate number, and legal signature. This documentation must be provided to the FAA upon request.
20. PIC qualification flight hours and currency may be logged in a manner consistent with 14 CFR § 61.51(b). However, time logged for UAS operations may not be recorded in the same columns or categories as time accrued during manned flight, and UAS flight time does not count toward total flight time required for any Part 61 requirement.
21. All training operations must be conducted during dedicated training sessions in accordance with the operator's training program. The operator may conduct training operations only for the operator's employees. Furthermore, the PIC must operate the UA not closer than 500 feet to any nonparticipating person while conducting training operations.
22. UAS operations may not be conducted during night, as defined in 14 CFR § 1.1. All operations must be conducted under visual meteorological conditions (VMC). Operations may not be conducted under special visual flight rules (SVFR).
23. 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.
24. For UAS operations where global navigation satellite system (GNSS) signal is necessary to safely operate the aircraft, the PIC must immediately recover or land the UA upon loss of GNSS signal.
25. If the PIC loses command or control link, the UA must follow a pre-determined route

to either reestablish link or immediately recover or land.

26. The PIC must abort the flight operation if unexpected circumstances or emergencies arise that could degrade the safety of persons or property. The PIC must terminate flight operations without causing undue hazard to persons or property in the air or on the surface.
27. The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for each aircraft involved in the operation to conduct the intended operation with sufficient reserve such that in the event of an emergency, the PIC can land the aircraft in a known area without posing an undue risk to aircraft or people and property on the surface. In the alternative, if the manufacturer's manual, specifications, or other documents that apply to operation of the UAS recommend a specific volume of reserve power, the PIC must adhere to the manufacturer's recommendation, as long as it allows the aircraft to conduct the operation with sufficient reserve and maintain power to land the aircraft in a known area without presenting undue risks, should an emergency arise.
28. Documents used by the Operator to ensure the safe operation and flight of the UAS and any documents required under 14 CFR §§ 91.9, 91.203, and 137.33 must be available to the PIC at the ground control station of the UAS any time any UA operates in accordance with this exemption. These documents must be made available to the Administrator or any law enforcement official upon request.
29. The UA must remain clear and give way to all manned aviation operations and activities at all times.
30. The UAS may not be operated by the PIC from any moving device or vehicle.
31. All flight operations must be conducted at least 500 feet from all persons who are not directly participating in the operation, and from vessels, vehicles, and structures, unless when operating:
  - a. *Over or near people directly participating in the operation of the UAS.* No person may operate the UA directly over a human being unless that human being is directly participating in the operation of the UAS, to include the PIC, VO, and other personnel who are directly participating in the safe operation of the UA.
  - b. *Near nonparticipating persons.* Except as provided in subsection (a) of this section, a UA may only be operated closer than 500 feet to a person when barriers or structures are present that sufficiently protect that person from the UA and/or debris or hazardous materials such as fuel or chemicals in the event of an accident. Under these conditions, the Operator must ensure that the person remains under such protection for the duration of the operation. If a situation



arises, in which the person leaves such protection and is within 500 feet of the UA, flight operations must cease immediately in a manner that does not cause undue hazard to persons.

- c. *Closer than 500 feet to vessels, vehicles and structures.* The UA may be operated closer than 500 feet, but not less than 100 feet, from vessels, vehicles, and structures under the following conditions:
    - i. UAS is equipped with an active geo-fence boundary, set no closer than 100 feet to applicable waterways, roadways, or structures;
    - ii. The PIC must have a minimum of 7 hours' experience operating the specific make and model UAS authorized under this exemption, at least 3 hours of which must be acquired within the preceding 12 calendar months;
    - iii. The PIC must have a minimum of 25 hours' experience as a PIC in dispensing agricultural materials or chemicals from a UA;
    - iv. The UA may not be operated at a groundspeed exceeding 15 miles per hour;
    - v. The UA altitude may not exceed 20 feet AGL; and
    - vi. The PIC must make a safety assessment of the risk of operating closer than 500 feet from those objects and determine that it does not present an undue hazard.
  - d. *Closer than 100 feet from vessels, vehicles and structures.* The UA may operate closer than 100 feet from vessels, vehicles, and structures in accordance with the conditions listed in 32(c) (2) through (6) and the following additional conditions:
    - i. The UAS is equipped with an active geo-fence boundary, set to avoid the applicable waterways, roadways, or structures; and
    - ii. The Operator must obtain permission from a person with the legal authority over any vessels, vehicles or structures prior to conducting operations closer than 100 feet from those objects.
32. All operations shall be conducted from and over predetermined, uninhabited, segregated, private, or controlled-access property. The PIC must ensure the entire operational area will be controlled to reduce risk to persons and property on the surface<sup>2</sup>, as well as other users of the National Airspace System (NAS). This area of operation will include a defined lateral and vertical area where the UA will operate and must be geo-fenced to prevent any lateral and vertical excursions by the operating UA. Safety procedures must be established for persons, property and applicable airspace within the area of operation. A briefing must be conducted regarding the planned UAS operations prior to operation at each location of operation where the Operator has not previously conducted agricultural aircraft operations. All personnel who will be performing duties within the boundaries of the area of operation must be present for this briefing. Additionally, all operations conducted under this exemption may only occur in areas of operation that have been physically examined by the

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<sup>2</sup> The operator will control access to minimize hazards to persons and property in the air and on the surface.

Exemption Holder prior to conducting agricultural aircraft operations and in accordance with the associated COA.

33. Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA must be reported within 24 hours as required by the applicable COA issued by the FAA ATO. Additionally, any incident or accident that occurs, or any flight operation that transgresses the lateral or vertical boundaries of the operational work area, must be reported to 137 UAS Operations Office at [UAS137Certificates@faa.gov](mailto:UAS137Certificates@faa.gov).

Failure to comply with any of the above conditions and limitations may result in the immediate suspension or rescission of this exemption.

Unless otherwise specified in this grant of exemption, the UAS, PIC, and the Operator must comply with all applicable parts of 14 CFR including, but not limited to, Parts 45, 47, 91, and 137. In addition, the Operator must comply with all limitations and provisions of the Operator's agricultural aircraft operator certificate, which the Operator must obtain prior to conducting agricultural operations in accordance with 14 CFR § 137.11.

**The Effect of the FAA's Decision**

This exemption terminates on July, 31, 2025, unless sooner superseded or rescinded.

To request an extension or amendment to this exemption, please submit your request by using the Regulatory Docket No. FAA-2023-0821 (<http://www.regulations.gov>). In addition, you should submit your request for extension or amendment no later than 120 days prior to the expiration listed above, or the date you need the amendment, respectively.

Any extension or amendment request must meet the requirements of 14 CFR § 11.81.

Sincerely,

/s/

Wesley L. Mooty  
Acting Deputy Executive Director  
Flight Standards Service

Enclosure(s)



US Department  
of Transportation  
  
Federal Aviation  
Administration

## AGRICULTURAL AIRCRAFT OPERATOR CERTIFICATE APPLICATION

**Paperwork Reduction Act Statement:** The information collected on this form is required. This form is submitted to determine eligibility for the issuance of the Agriculture Aircraft Operator Certificate. Confidentiality is neither requested nor provided. We estimate that it will take 1 hour to complete the form. Please note that an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control number associated with this collection is 2120-0049. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591 Attn: Information Collection Clearance Officer, ASP-110.

SUPPLEMENTAL  
INFORMATION

Form 8710-3 (12/16)

**INSTRUCTIONS**  
Complete form in its entirety  
Submit to the local Flight Standards  
District Office

**INSPECTION REPORT - For FAA Use Only***(To be completed by the General Aviation for Flight Standards District Office)***COMPLIANCE WITH APPLICABLE REGULATIONS**

1. PILOTS	NOT REQUIRED	SATISFACTORY	UNSATISFACTORY
A. CERTIFICATES			
B. RATING(S)			
C. KNOWLEDGE TEST			
D. SKILL TEST			
2. AIRCRAFT			
A. CERTIFICATED			
B. AIRWORTHY			
C. EQUIPPED FOR AGRICULTURAL OPERATIONS			

10. REMARKS *(Include an explanation of denial if application is disapproved).***4. DISTRICT OFFICE ACTION**

<input type="checkbox"/>	CERTIFICATE ISSUED	INSPECTORS SIGNATURES
<input type="checkbox"/>	APPLICATION DISAPPROVED	
DATE INSPECTION COMPLETED		

<p style="text-align: center;">DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</p> <p style="text-align: center;"><b>CERTIFICATE OF WAIVER OR AUTHORIZATION</b></p>	
<p>ISSUED TO</p> <p>Any Operator with a valid 49 USC 44807 Grant of Exemption</p>	
<p>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.</p>	
<p>OPERATIONS AUTHORIZED</p> <p>Operation of Unmanned Aircraft System(s) (UAS) in accordance with the operators' 49 USC 44807 Grant of Exemption in Class G airspace at or below 400 feet Above Ground Level (AGL) in the National Airspace System (NAS).</p>	
<p>LIST OF WAIVED REGULATIONS BY SECTION AND TITLE</p> <p>N/A</p>	
<p style="text-align: center;"><b>STANDARD PROVISIONS</b></p>	
<ol style="list-style-type: none"> <li>1. A copy of the application, made for this certificate shall be attached and become a part hereof.</li> <li>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.</li> <li>3. The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein.</li> <li>4. This certificate is nontransferable.</li> </ol>	
<p>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.</p>	
<p style="text-align: center;"><b>SPECIAL PROVISIONS</b></p>	
<p>Special Provisions Nos. A to G, inclusive, are set forth on the attached pages.</p>	
<p>This Certificate of Waiver or Authorization (COA) is valid for two years from the issuance of a 49 USC 44807 Grant of Exemption and is subject to cancellation at any time upon notice by the Administrator or his/her authorized representative.</p>	
<p style="text-align: center;">BY DIRECTION OF THE ADMINISTRATOR</p>	
<p style="text-align: center;">/S/</p>	
<p><u>FAA Headquarters</u> (Region)</p>	<p><u>Joseph Maibach</u> (Signature)</p>
<p style="text-align: center;"><u>Acting Manager, UAS Policy Team, AJV-P22</u> (Title)</p>	

**SPECIAL PROVISIONS****A. General.**

1. Unmanned aircraft have no on-board pilot to perform see-and-avoid responsibilities; therefore, when operating outside of active restricted and warning areas approved for aviation activities, provisions must be made to ensure an equivalent level of safety exists for unmanned operations consistent with 14 CFR Part 91 §91.111, §91.113 and §91.115.
2. The approval of this COA is effective only with an approved 49 USC 44807 Grant of Exemption.
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 operator will receive written notice of cancellation.

**B. Safety of Flight.**

1. The operator or pilot in command (PIC) is responsible for halting or canceling activity in the COA area if, at any time, the safety of persons or property on the surface or in the air is in jeopardy, or if there is a failure to comply with the terms or conditions of this authorization.
2. The PIC is responsible:
  - a. To remain clear and give way to all manned aviation operations and activities at all times,
  - b. For the safety of persons or property on the surface with respect to the UAS, and
  - c. For compliance with CFR Parts 91.111, 91.113 and 91.115.
3. UAS pilots must ensure there is a safe operating distance between aviation activities and Unmanned Aircraft (UA) at all times.
4. Visual observer (s) must be used at all times and maintain instantaneous communication with the PIC.
5. The PIC is responsible to ensure visual observer(s) are:
  - a. Able to see the UA and the surrounding airspace throughout the entire flight, and
  - b. Able to sufficiently provide the PIC with the UA's flight path, and proximity to all aviation activities and other hazards (e.g., terrain, weather, structures) to enable the PIC to exercise effective control of the UA to prevent the UA from creating a collision hazard.
6. Visual observer(s) must be able to communicate clearly to the PIC any instructions required to remain clear of conflicting traffic.



7. The operator or delegated representative must not operate in Prohibited Areas, Special Flight Rule Areas or, the Washington National Capital Region Flight Restricted Zone. Operations in the Washington DC Special Flight Rule Area may be conducted in accordance with FDC NOTAM 6/1117. Such areas are depicted on charts available at [http://www.faa.gov/air\\_traffic/flight\\_info/aeronav/](http://www.faa.gov/air_traffic/flight_info/aeronav/). Additionally, aircraft operators should abide by Notices to Airmen (NOTAMS) that restrict operations in proximity to power plants, electric substations, dams, wind farms, oil refineries, industrial complexes, national parks, the Disney resorts, stadiums, emergency services, the Washington DC Metro Flight Restricted Zone (FRZ), military or other federal facilities.

### C. Reporting Requirements.

1. Documentation of all operations associated with UAS activities is required, regardless of the airspace within which the UAS operates. **NOTE:** Negative (zero flights) reports are required.
2. The proponent must submit the following information to [9-AJV-115-UASOrganization@faa.gov](mailto:9-AJV-115-UASOrganization@faa.gov) on a monthly basis:
  - a. Name of operator, Exemption number, and aircraft registration number
  - b. UAS type and model
  - c. All operating locations to include location city/name and latitude/longitude
  - d. Number of flights (per location, per aircraft)
  - e. Total aircraft operational hours
  - f. Takeoff or Landing damage
  - g. Equipment malfunctions. Reportable malfunctions include, but are not limited to the following:
    - (1) On-board flight control system
    - (2) Navigation system
    - (3) Power plant failure in flight
    - (4) Fuel system failure
    - (5) Electrical system failure
    - (6) Control station failure
  - h. The number and duration of lost link events (control, performance and health monitoring, or communications) per aircraft per flight.

### D. Notice to Airmen (NOTAM).

A distant (D) NOTAM must be issued when unmanned aircraft operations are being conducted. This requirement may be accomplished:

1. Through the operator's local base operations or NOTAM issuing authority, or  
UAS Operations 400 feet and below for Civil  
Purposes November 2019

2. By contacting the NOTAM Flight Service Station at 1-877-4-US-NTMS (1-877-487- 6867) not more than 72 hours in advance, but not less than 24 hours prior to the operation, unless otherwise authorized as a special provision. The issuing agency will require the:
  - a. Name and address of the pilot filing the NOTAM request.
  - b. Location, altitude, and/or operating area.
  - c. Time and nature of the activity.
  - d. Number of UAS flying in the operating area.
3. The area of operation defined in the NOTAM must only be for the actual area to be flown for each day and defined by a point and the minimum radius required to conduct the operation.
4. The operator must cancel applicable NOTAMs when UAS operations are complete or will not be conducted.

**E. Coordination Requirements.**

1. Operators and UAS equipment must meet the requirements (communication, equipment, and clearance) of the class of airspace within which the UAs will operate.
2. Operator filing and the issuance of required distance (D) NOTAM will serve as advance ATC facility notification for UAS operations in an area.
3. Coordination and de-confliction between Military Training Routes (MTRs) is the operator's responsibility. When identifying an operational area the operator must evaluate whether an MTR will be affected. In the event the UAS operational area overlaps an MTR, the operator will contact the scheduling agency 24 hours in advance to coordinate and de-conflict. If unable to determine the MTR point of contact, contact the FAA at email address mail to: [9-AJV-115-UASOrganization@faa.gov](mailto:9-AJV-115-UASOrganization@faa.gov) with the IR/VR routes affected and the FAA will provide the scheduling agency information. If prior coordination and de-confliction does not take place 24 hours in advance, the operator must remain clear of all MTRs. Scheduling agencies for SUAs are listed in the FAA JO 7400.8.

**F. Flight Planning Requirements.**

1. Operations must be under Visual Meteorological Conditions (VMC) and meet the following conditions and limitations:
  - a. At or below 400 feet AGL, and
  - b. Beyond the following distances from the airport reference point (ARP) of a public use airport, heliport, gliderport, or seaport listed in the Digital - Chart Supplement (d-CS), 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.
2. For all UAS requests not covered by the conditions listed above, the exemption holder may apply for a new Air Traffic Organization (ATO) COA at <https://caps.faa.gov/coaportal>.

#### **G. Emergency/Contingency Procedures.**

- 1. Lost Link/Lost Communications Procedures: If the UAS loses communications or loses its GPS signal, the UA must return to a pre-determined location within the private or controlled-access property and land.
- 2. Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries defined in this COA must be reported to the FAA via email at: 9-AJV-115-UASOrganization@faa.gov within 24 hours. Accidents must be reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: [www.nts.gov](http://www.nts.gov).

#### **AUTHORIZATION**

This COA does not, in itself, waive any Title 14 Code of Federal Regulations, 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 operator to resolve the matter. This COA does not authorize flight within Special Use airspace without coordinating and de-conflicting with the scheduling agency. The operator is hereby authorized to operate the Unmanned Aircraft System in the National Airspace System.