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

Aviation Safety

800 Independence Ave
Washington, DC 20591

May 25, 2023

Exemption No. 19037B
Regulatory Docket No. FAA-2022-0034

Ms. Kelly J. Neubecker
President
UASolutions Group, LLC
19940 Simla Hwy
Simla, CO 80835

RE: Elevated Ag LLC
800 Springville Hill Road
Jonesboro, IL 62952

Dear Ms. Neubecker:

This letter is to inform you that the Federal Aviation Administration (FAA) amends this exemption to align with changes to current FAA processes. For reasons explained below, the FAA has revised the Part 137 certificate application and certification process and the aircraft approved under this exemption. Other changes have also been made to reflect updated FAA policy. 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, and lists the revised conditions and limitations.

The Basis for the FAA's Decision

By letter dated December 21, 2021, you petitioned the FAA on behalf of Elevated Ag LLC (Elevated) 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 Elevated to provide commercial agricultural-related services with the DJI Agras T-16 and DJI Agras T-20 unmanned aircraft systems (UAS). On October 21, 2022, you petitioned the FAA to add the DJI Agras T-40 UAS to all relief previously granted for the DJI Agras T-16 and DJI Agras T-20. The FAA subsequently granted this relief on January 24, 2023, in Exemption No. 19037A.

The FAA has seen a significant increase in agricultural aircraft operator certificate applicants seeking to use UAS in agricultural aircraft operations under 14 CFR Part 137 and has approved

hundreds of these requests with few incidents. Therefore, the FAA is shifting to a risk-based approach to streamline the certification process for certain lower-risk operators and explains the relevant changes to conditions and limitations in this document in the analysis that follows. These include the following changes: (1) the Part 137 certification process; (2) the documentation requirements; (3) the approved aircraft; and (4) updates to reflect FAA policy.

Part 137 certification process

Historically, an applicant requesting a Part 137 operator certificate would submit a Letter of Intent and Form 8710-3 to the jurisdictional Flight Standards District Office (FSDO) in order to be placed on the Certification Service Oversight Process (CSOP) list. In addition, the applicant would also have to petition for an exemption for relief to certain sections of the regulations pertaining to the proposed operation. This exemption streamlines the Part 137 UAS certification which removes the requirement for the applicant to submit documents to the jurisdictional FSDO, removes UAS applicants from the CSOP list and only requires the applicant to submit FAA Form 8710-3 and operator's exemption number to UAS137Certificates@faa.gov in accordance with Conditions and Limitation No. 1 of this exemption.

Part 137 UAS agricultural aircraft operations present a lower risk than other certificated operations. The FAA first issued an agricultural aircraft operator certificate to a UAS operator on July 31, 2015. As of March 22, 2023, there are 122 certificated Part 137 UAS operators. There have been no reported accidents or injuries among these operators during this time. Agricultural operations with UAS that are published on the List of Approved Agricultural UAS under Section 44807 are lower risk than manned aircraft in a similar operation because the unmanned aircraft (UA) weighs much less than a manned aircraft, carries a much smaller payload, carries no flammable fuel, is slower and more maneuverable than a manned aircraft. Conversely, manned aircraft can weigh thousands of pounds and carry hundreds of gallons of fuel and payload and fly much faster than a UA. Therefore, in an accident, a UA would impact the surface with less energy and cause less damage than a manned aircraft. Furthermore, battery powered multi-rotor UAS present no risk of fire from fuel spillage. Additionally, the pilot of a manned aircraft is subject to much greater risk than the pilot of a UA, who is on the ground. Moreover, because of their size, speed, and maneuverability, UAS are better suited for operations in areas too confined for manned aircraft. Based on the lower risk of certain unmanned aircraft agricultural operations, combined with the operator's compliance with the Conditions and Limitations described in this exemption, the FAA has determined that updating the 14 CFR Part 137 certification process would not adversely affect safety. Grants of exemption that have been issued and the operator has not yet gone through the certification process with the FSDO, or where the operator is still on the CSOP list awaiting a grant of exemption and certification, wherein the petition for exemption is similar in all material respects to the nature of operations and the corresponding regulations that are granted relief in this exemption will be updated to correspond with the policy in this exemption. Accordingly, the FAA will reissue amended grants of exemptions for those operators.

Documentation requirements

This exemption also affirms the type of operations that may be conducted prior to obtaining a Part 137 Operating Certificate which were previously addressed in Exemption No. 19037A. Operations such as training flights, proficiency flights, experience-building flights, and maintenance functional test flights have been expressly added as Condition and Limitation No. 2, which clarifies these flights can be conducted only for the purpose of obtaining a Part 137 certificate.

Although Part 137 does not require an operations manual or training program, this exemption requires both. This requirement mitigates safety concerns related to crew training and the streamlined UAS certification process now being implemented, as well as proper handling and stowage of hazardous materials and economic poisons. Previous Part 137 UAS exemptions[1] required the operator to submit these manuals to the FAA for review prior to a grant of exemption. However, the FAA has determined a sufficient level of safety can be maintained without submitting these manuals to the FAA for review, so long as the operator's operations manual and training program meet the criteria described in the exemption's Conditions and Limitations. Furthermore, the operator is required to be in possession of all operating documents referenced in Condition and Limitation No. 10 during operations.

As listed in Condition and Limitation No.11, this exemption requires that the operations manual, at a minimum, must address the following topics: Safety Risk Management (SRM), adverse weather, flight planning, Notice to Air Missions (NOTAM), aircraft inspection, preflight duties, post-flight duties, normal and emergency flight procedures, Crew Resource Management (CRM) and communications, crewmember responsibilities, accident reporting, hazardous material (HAZMAT) handling and stowage, and UAS maintenance. Additionally, as part of the FAA's continuous operational safety oversight, the operator must provide a copy of this manual to the FAA upon request,

As listed in Condition and Limitation No. 12, this exemption also requires that the training program, at a minimum, must address the following topics: the knowledge requirements of 14 CFR § 137.19(e)(1), initial training, recurrent training, testing, completion standards, ground training, site surveying, flight training, emergency procedures, lost-link procedures, this exemption, the Air Traffic Organization (ATO) issued Certificate of Waiver or Authorization (COA), and HAZMAT handling and stowage. Additionally, as part of the FAA's continuous operational safety oversight, the operator must provide a copy of this manual to the FAA upon request. All crewmembers involved in operating under the exemption must satisfactorily complete training in accordance with the operator's training program. Satisfactory completion of training must be documented, and the documentation must be provided to the FAA upon request. Furthermore, the operator may conduct training operations only for the operator's employees as noted in Condition and Limitation No. 21.

Because the FAA has determined that certain unmanned aircraft agricultural operations are lower risk than manned aircraft in a similar operation, the 14 CFR § 137.19(e) knowledge and skill tests previously administered and documented by the FAA, required under this exemption may now be self-administered. Satisfactory completion of the test of knowledge specified 14 CFR § 137.19(e)(1) and the test of skill specified in 14 CFR § 137.19(e)(2) must now be documented

[1] Exemption No. 18009, issued to Powers Flight Group, and Exemption No. 18413A issued to DroneXum, LLC.

by the operator and provided to the FAA upon request. Demonstration of the 14 CFR § 137.19(e) knowledge and skill tests by the applicant or their designated chief supervisor does not alleviate the pilot in command requirements of 14 CFR § 137.41(c) as referenced in Condition and Limitation No. 19.

The FAA has determined that Part 91, subpart E, Maintenance, Preventative Maintenance, and Alterations, applies to UAS operations conducted under the general operating and flight rules of Part 91. Since petitioners would be unable to comply with the requirements of subpart E, relief is necessary. The relief addressed in this exemption, is limited only to how to perform maintenance, preventive maintenance, or alterations on an aircraft other than as prescribed in that subpart and other applicable regulations, including Part 43 of Title 14. To ensure a level of safety equivalent to what would be achieved by strict compliance with those regulations, the FAA will require as outlined in Condition and Limitation No. 16. that the operator follows the UAS manufacturers' operating limitations, maintenance instructions, service bulletins, overhaul, replacement, inspection, and life limit requirements for the UAS and its components. Additionally, each UAS operated under this exemption must comply with all manufacturers' safety bulletins. Furthermore, maintenance must be performed by individuals who have been trained by the operator in proper techniques and procedures for performing maintenance on the UAS. Finally, all maintenance must be recorded in the aircraft records; including a brief description of the work performed, date of completion, and the name of the person performing the work.

The FAA has determined that in streamlining the certification requirements, there is a need to add these conditions and limitations to standardize and enhance maintenance requirements the operator must follow. Requiring the operator to follow the manufacturers provided maintenance publications ensures that the correct limitations, procedures, inspections, service, bulletins, and life limit requirements are followed. Requiring the individuals that perform maintenance to be trained by the operator adds an additional measure of operator responsibility, involvement, and supervision and verification of correct maintenance procedures. Maintaining aircraft records not only provides information to confirm proper maintenance procedures are followed, but also who performed the maintenance. Furthermore, recordkeeping provides trend analysis to the operator, for possible future recommended safety enhancements. Finally, maintaining aircraft records provide the opportunity for review by the FAA if an incident or accident occurs. Based on the maintenance and inspection requirements, maintenance personnel training, and recordkeeping requirements, operations under this exemption would not adversely affect safety and ensure the UAS is in a condition for safe flight.

Approved Aircraft

Title 49 U.S.C. § 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 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 this aircraft does not create a hazard to users of the NAS or the public.

As the operator is approved to use UAS that have previously been approved by the Secretary of Transportation under Section 44807, the operator is also approved to operate any UAS under this exemption that have been previously approved by the Secretary. This list, along with the approved weight including payload, can found on the List of Approved Agricultural UAS under Section 44807. The list, which will be updated periodically, is posted at www.regulations.gov, under docket number FAA-2023-1271.

Other changes to align with FAA policy

Manned commercial agricultural operations under 14 CFR Part 137 typically would require a second-class airman medical certificate issued under Part 67. Due to the nature of the proposed operations, the FAA has determined maintaining a medical certificate ensures the pilot does not have any physical or mental condition that would interfere with the safe operation of the UAS. In the grant of Exemption No. 19398,[2] the FAA determined that the PIC must hold at least a current FAA second-class airman medical certificate. However, the FAA recently reconsidered the issue. In Exemption No. 18601B,[3] Amazon Prime Air, the FAA found that the use of pilots holding the minimum of a valid third-class medical certificate would not adversely affect the safety of the petitioner's operation and granted relief to 14 CFR § 61.23(a)(2). The same rationale applies to this exemption. The FAA has determined that requiring a third-class medical certificate provides reasonable assurance that the pilot does not have any physical or mental condition that would interfere with the safe operation of the UAS. The FAA notes that, while this marks a change from the conditions and limitations in Exemption No. 19398, it is consistent with the FAA's policy as set forth in more recently issued exemptions; therefore, the FAA has revised Condition and Limitation No. 18 to reflect this updated requirement and also determined that relief from 14 CFR § 61.23(a)(2) is necessary. The FAA further notes that the PICs would continue to be prohibited from conducting flight operations during medical deficiency in accordance with 14 CFR § 61.53(a).

Additionally, certain Condition and Limitation editorial revisions were made for clarity, but did not affect the substance of the conditions and limitations.

The FAA's Decision

The FAA has determined that the justification for the issuance of Exemption No. 19037A remains valid with respect to this exemption and is in the public interest. Therefore, under the authority provided by 49 U.S.C. §§ 106(f), 40113, 44701, and 44807, which the FAA Administrator has delegated to me, I hereby grant Elevated Ag LLC an exemption from 14 CFR §§ 61.3(a)(1)(i), 61.23(a)(2), (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),

[2] Granted to Phoenix Air Unmanned, LLC, FAA-2022-0124.
[3] Granted to Amazon Air Prime, FAA-2019-0573.

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 Elevated 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 following conditions and limitations.

Conditions and Limitations

In this grant of exemption, Elevated Ag LLC is hereinafter referred to as "the Operator" or "Exemption Holder."

1. The Operator must obtain an agricultural aircraft operator certificate under 14 CFR Part 137 by submitting FAA Form 8710-3 and the Operator's exemption number to UAS137Certificates@faa.gov.

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 systems (UAS), along with the approved weight including 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, when weighing 55 pounds (lbs.) or greater including payload. Proposed operations of any aircraft not on the list, or at different weights than currently posted to the above docket, 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 unmanned aircraft (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 the same 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 unmanned aircraft system (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. The operating documents must include at a minimum:
    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. Notice to Air Missions (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. Hazardous material (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 § 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 from 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 from 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[4], 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

[4] The operator will control access to minimize hazards to persons and property in the air and on the surface.

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 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.

Unless otherwise specified in this grant of exemption, the UAS, PIC, and 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 aircraft operations in accordance with 14 CFR § 137.11.

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

The Effect of the FAA's Decision

The FAA's decision amends Exemption No. 19037A to 19037B and terminates on March 31, 2024, 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-2022-0034 (*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/

Caitlin E. Locke
Acting Deputy Executive Director
Flight Standards Service

Enclosure

AFS-23-01471-E

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO
Any Operator with a valid 49 USC 44807 Grant of Exemption

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 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).

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE
N/A

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 Nos. A to G, inclusive, are set forth on the attached pages.

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.

BY DIRECTION OF THE ADMINISTRATOR

/S/

FAA Headquarters
(Region)

Joseph Maibach
(Signature)

Acting Manager, UAS Policy Team, AJV-P22
(Title)

FAA Form 7711-1 (7-74)

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/. 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 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

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 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.ntsb.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.

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. Confidentially 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)

Form Approved
OMB No. 2120-0049
05/31/2018

US Department of Transportation
Federal Aviation Administration

AGRICULTURAL AIRCRAFT OPERATOR CERTIFICATE APPLICATION

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

1. APPLICATION FOR	TYPE		FOR DISPENSING *(Check one)*			
	☐	PRIVATE	☐	ECONOMIC POISONS	☐	ORIGINAL
	☐	COMMERCIAL	☐	OTHER THAN ECONOMIC POISONS	☐	AMENDMENT
					☐	REISSUANCE

2. NAME AND ADDRESS OF APPLICANT	3. PRINCIPAL OPERATIONS BASE *(Airport, City, State)*
TELEPHONE NUMBER	TELEPHONE NUMBER

4. OPERATING AS				5. NAME OF CHIEF SUPERVISOR OF OPERATIONS (Commercial Operations Only)
	☐	INDIVIDUAL	OTHER *(Specify)*	
	☐	CORPORATION		*(First)* *(Middle Initial)* *(Last)*
	☐	PARTNERSHIP		

6. AIRMAN CERTIFICATE HELD	CERTIFICATE NUMBER

GRADE			RATINGS			
☐	PRIVATE	☐	ASEL	☐	AMES	TYPE RATING(S) *(Specify)*
☐	COMMERCIAL	☐	AMEL	☐	HELICOPTER	
☐	AIRLINE TRANSPORT	☐	ASES	☐	GYROPLANE	

7A. DO YOU HOLD A CURRENTLY EFFECTIVE CERTIFICATE OF WAIVER FOR CONDUCTING AGRICULTURAL AIRCRAFT OPERATIONS?	NO
	YES *(Complete 7B)*

7B. WAIVER HELD	DATE ISSUED	EXPIRATION DATE	FAA DISTRICT OFFICE WHERE ISSUED

8. AGRICULTURAL AIRCRAFT TO BE OPERATED

MAKE	MODEL	EQUIPPED FOR		TOTAL NUMBER EACH AIRCRAFT OPERATED	REGISTRATION MARK (List a minimum of one)
		LIQUID	SOLID		

9. LIST THE NAME(S) AND AIRMAN CERTIFICATE NUMBER(S) OF AGRICULTURAL PILOT(S) WORKING FOR YOU AT THE PRESENT TIME
(Use separate sheet and attach if additional space is needed.)

NAME	CERT. NO.	NAME	CERT. NO.

10. REMARKS (if applicable)

11. CERTIFICATION: I CERTIFY THAT STATEMENTS MADE ON THIS FORM ARE TRUE AND CORRECT.

DATE	TITLE	SIGNATURE

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

		INSPECTORS SIGNATURES
	CERTIFICATE ISSUED	
	APPLICATION DISAPPROVED	
DATE INSPECTION COMPLETED		