NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.659

National Policy

Effective Date:
6/13/23

Cancellation Date:
6/13/24

SUBJ: Part 137 Unmanned Aircraft Systems (UAS) Certification

1. Purpose of This Notice. This notice provides guidance to Federal Aviation Administration (FAA) Flight Standards (FS) Safety Assurance offices concerning the changes to the certification process of Title 14 of the Code of Federal Regulations (14 CFR) part 137 UAS. The FAA has determined that part 137 UAS agricultural aircraft operations present a lower risk than other certificated operations and revising the part 137 certification process would not adversely affect safety. It is the intent of this notice to outline the changes to the certification process for UAS in agricultural aircraft operations. This notice will help ensure uniform application of policy through guidance.

2. Audience. The primary audience for this notice is the FS Safety Assurance offices' aviation safety inspectors (ASI) and principal inspectors (PI). The secondary audience includes FS ASIs' Front Line Managers (FLM), office managers, and division managers.

3. Where You Can Find This Notice. You can find this notice on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices and the Dynamic Regulatory System (DRS) at https://drs.faa.gov. Operators and the public can find this notice on the FAA's website at https://www.faa.gov/regulations_policies/orders_notices and DRS.

4. Background. The FAA has seen a significant increase in agricultural aircraft operator certificate applicants seeking to use UAS in agricultural aircraft operations under 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 these lower-risk operators. These include the following changes: (1) the part 137 certification process; (2) revising the documentation requirements; (3) approved aircraft; and (4) other changes to align with FAA policy.

5. Policy.

a. Part 137 UAS Certification Process. Historically, an applicant requesting a part 137 operator certificate utilizing UAS would submit a Letter of Intent and FAA Form 8710-3, Agricultural Aircraft Operator Certification Application, to the responsible Flight Standards District Office (FSDO) in order to be placed on the Certification Service Oversight Process (CSOP) National Applicant List where they would await initiation of the certification process. In addition, an applicant utilizing UAS without a type certificate would also have to petition for and

be granted an exemption for relief to certain sections of the regulations pertaining to the proposed operation prior to becoming a certified part 137 operator.

(1) This notice streamlines the part 137 UAS certification process by removing the requirement for the applicant to submit documents to the responsible FSDO and transfers them within the Safety Assurance System (SAS) to the 137 UAS Operations Office. UAS applicants that are already in the process of certification by the FSDO will be contacted and given the choice to complete certification with the FSDO or to complete certification as per this notice. While requirements have been removed from the certification process, the operator must still petition for an exemption from the applicable regulations that pertain to the requested operation and intended UAS used in the operations. This policy change only requires the applicant to submit FAA Form 8710-3 and the operator's issued exemption number to the 137 UAS Operations Office in FS at UAS137Certificates@faa.gov.

(2) Because the FAA has determined unmanned aircraft (UA) agricultural operations are lower risk than manned aircraft in a similar operation, the part 137, § 137.19(e) knowledge and skill tests required in the certification process may now be self-administered.[1] Satisfactory completion of the test of knowledge specified in § 137.19(e)(1) and the test of skill specified in § 137.19(e)(2) must be documented and shown to the FAA upon request. Demonstration of the § 137.19(e) knowledge and skill tests by the applicant or their designated chief supervisor does not alleviate the pilot-in-command (PIC) requirements of § 137.41(c).

(3) No Letters of Authorization (LOA) will be issued in the Web-based Operations Safety System (WebOPSS). The 137 UAS Operations Office will list the operator in the Enhanced Flight Standards Automation System (eFSAS) only; therefore, the responsible FSDO will not be required to list the operator in eFSAS or WebOPSS. An Operating Certificate will be issued by the 137 UAS Operations Office. In such case where the operator already holds an Operating Certificate for part 137 agricultural operations, the addition of UAS will not require any amendments to the operator's existing authorizations.

(4) Administratively, the 137 UAS Operations Office will be considered the responsible Flight Standards office for newly certificated part 137 certificate holders (CH) that only utilize UA. For part 137 CHs that utilize a mix of manned aircraft and UA, or for those part 137 CHs that utilize only manned aircraft, the responsible FSDO will be the responsible Flight Standards office. However, the 137 UAS Operations Office does not have adequate resources positioned geographically throughout the United States and its territories, and will rely on the assistance of the responsible FSDOs to conduct field activities to include inspections, demonstrations, surveillance, and investigations of events such as accidents, incidents, occurrences, pilot deviations, and complaints. The 137 UAS Operations Office will coordinate with the responsible FSDO for assistance with geographic field activities.

(5) FAA Order 1800.56, National Flight Standards Work Program Guidelines, requires responsible Flight Standards offices to conduct annual surveillance of at least 20 percent of

[1] Under certain/special circumstances, such as a request for LOA A130, Authorization to Operate an Unmanned Aircraft System Equipped with an Aerial Ignition System, some part 137 UAS certifications would still need to be accomplished at the FSDO, including observation of the knowledge and skill tests. The 137 UAS Operations Office will coordinate with the responsible FSDO if additional certification requirements are necessary.

certificated part 137 operators in their office. Since the FAA has determined UA agricultural operations are lower risk than manned aircraft in similar operations, the annual surveillance per Order 1800.56 for part 137 CHs that only utilize UA is not required. For part 137 CHs that utilize a mix of manned aircraft and UA, or for those part 137 CHs that utilize only manned aircraft, the annual surveillance per Order 1800.56 is still required. If the 137 UAS Operations Office determines surveillance of a part 137 CH that only utilizes UA is necessary, the office will coordinate the surveillance needs with the responsible FSDO.

b. Document Requirements. Although part 137 does not require an operations manual or training program, this policy change requires both for the part 137 UAS operator.[2] The 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 (HAZMAT) and economic poisons.

(1) The policy 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, postflight duties, normal and emergency flight procedures, Crew Resource Management (CRM) and communications, crewmember responsibilities, accident reporting, 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.

(2) The policy also requires that the training program, at a minimum, must address the following topics: the knowledge requirements of § 137.19(e)(1), initial training, recurrent training, testing, completion standards, ground training, site surveying, flight training, emergency procedures, lost-link procedures, the operator's exemption, the Air Traffic Organization (ATO)-issued Certificate of Waiver or Authorization (COA) (if applicable), 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 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.

(3) 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 as previously described. Furthermore, the operator is required to be in possession of all operating documents during operations.

c. Approved Aircraft. The operator is approved to use all previously approved aircraft under Title 49 of the United States Code (49 U.S.C.) § 44807. The operator is also authorized to operate any UAS weighing less than 55 pounds (lbs.) including payload with a valid corresponding exemption.

[2] Part 137 UAS operators that were certificated and hold an Operating Certificate prior to the effective date of this notice are not required to have the manuals listed in this notice. Manual requirements will be listed on future grants of exemption for these operators.

d. Alignment of Policy. The statutory requirement for an airman certificate is codified in 49 U.S.C. § 44711(a)(2). Pilots who conduct operations using a Remote Pilot Certificate would comply with 49 U.S.C. § 44711(a)(2), as described in the Operation and Certification of Small Unmanned Aircraft Systems final rule.

(1) The FAA will require pilots who act as PIC for part 137 CHs that only utilize UA to hold at least a Remote Pilot Certificate and they are not required to hold a Commercial Pilot Certificate. The FAA bases its decision on the specific requirements imposed by the Remote Pilot Certificate, operator-specific training, controlled-access locations, speed limitations, and extremely low-altitude operating environment.

(2) Manned agricultural operations under part 137 typically would require a second-class airman medical certificate issued under 14 CFR 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. Therefore, the FAA has determined that requiring a third-class medical certificate for UAS operations provides reasonable assurance that the pilot does not have any physical or mental condition that would interfere with the safe operation of the UAS.

6. Procedures for New Applicant.

a. Certification Process. Applicants will petition for exemption via Regulations.gov in accordance with 14 CFR part 11. Applicants will then email the 137 UAS Operations Office with the exemption number once they receive a grant of exemption. Applicants must wait until the exemption is issued before contacting the 137 UAS Operations Office.

b. Issuance. Applicants will then email the 137 UAS Operations Office at UAS137Certificates@faa.gov with the exemption number that was granted to them along with their completed FAA Form 8710-3. The 137 UAS Operations Office will then enter the required information in eFSAS and issue the Operating Certificate.

> **Note:** Upon the effective date of this notice, the FSDO will no longer accept any Letters of Intent or FAA Form 8710-3, or add any applicants in CSOP for part 137 UAS operators. If necessary, the FSDO will provide the information from this notice to applicants unaware of this policy change.

7. Action: CSOP Transfers for Existing Applicants, Existing Part 137 Operators Adding UAS, and N 8900.656 Coordination.

a. Within 7 days of the effective date of this notice, CSOP Coordinators will assist in transferring existing part 137 UAS applicants on the CSOP National Applicant List from the FSDOs to the 137 UAS Operations Office. This process does not require any additional communication to the applicant because it is an administrative transfer.

b. For part 137 UAS applicants that are already in-progress in CSOP and are working with a FSDO towards certification, the applicants will receive a notification informing them of the new streamlined part 137 UAS certification process and will provide the applicant a choice to either continue working the certification with the FSDO or to transfer to the new streamlined process.

c. FSDOs that receive requests from certificated part 137 operators who want to add UAS to their existing operations will handle those requests. To align with the policy change, ASIs will need to verify the operator has been issued an exemption, modify the existing operator profile in the enhanced Vital Information Database (eVID) to reflect the proposed changes, and file the documentation in the operator's file accordingly. No amendments to existing authorizations will be required.

d. ASIs will not be required to conduct the knowledge and skill tests for the UAS Chief Supervisor. To align with current policy, the operator's 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.

e. With the recent publication of Notice N 8900.656, LOA A130, Authorization to Operate an Unmanned Aircraft System Equipped with an Aerial Ignition System Under 14 CFR Part 137, UAS operators can now request a Section 363 (of the FAA Reauthorization Act of 2018) authorization for part 137 operations. If a new part 137 UAS applicant includes a request for Section 363 authorization as part of their petition for exemption, the responsible FSDO will receive notice from the 137 UAS Operations Office. The certification will be completed by the 137 UAS Operations Office, then the operator will be transferred to the responsible FSDO for Letter of Authorization (LOA) A130 to be processed as stated in N 8900.656. This will include the need to enter the operator into WebOPSS and conduct the knowledge and skill tests as required for that authorization. For current certificated operators, if the responsible FSDO with oversight receives a request for Section 363 authorization, they will be required to follow the guidance in N 8900.656 for the issuance of LOA A130. This will include the need to enter the operator into WebOPSS and conduct the knowledge and skill tests as required for issuance of LOA A130. Coordination with the Office of Hazardous Materials Safety (AXH) per N 8900.656 will be required.

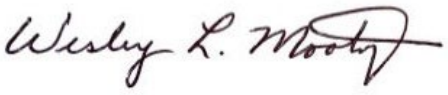
8. Updates. Within the next 12 months, the following documents will be updated:

- FAA Order 8900.1, Volume 2, Chapter 8, Section 1, The Certification Process of a Part 137 Operator;
- FAA Order 8900.1, Volume 5, Chapter 8, Section 1, Issuance of a Medical Certificate and/or a Statement of Demonstrated Ability, or Letter of Evidence; and
- Advisory Circular (AC) 137-1, Certification Process for Agricultural Aircraft Operators.

9. Reference.

- The sample Exemption for UAS in Appendix A applies to UAS with a takeoff weight less than 55 lbs.
- The sample Exemption for UAS in Appendix B applies to UAS with a takeoff weight greater than 55 lbs.

10. Disposition. We will incorporate the information in this notice into Order 8900.1 before this notice expires. Direct questions or comments concerning the information in this notice to the General Aviation and Commercial Division (AFS-800) at 202-267-1100.



Wesley L. Mooty
Acting Deputy Executive Director, Flight Standards Service

Appendix A. Sample Part 137 Exemption (UAS Less Than 55 lbs.)

[FAA Letterhead]

[DATE]

Exemption No. XXXXX
Regulatory Docket No. XXX-XXXXX

UAS AG 137
137 One Three Seven Street
Town, XX 11111

Dear Mr. Smith:

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, as well as other changes 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 September XX, 20XX, you petitioned the FAA on behalf of UAS AG 137 for an exemption from §§ 107.36, 137.19(c), 137.19(d), 137.19(e)(2)(ii), 137.19(e)(2)(iii), 137.19(e)(2)(v), 137.31(a), 137.31(b), 137.33(a), 137.33(b), 137.41(c), and 137.42 of Title 14, Code of Federal Regulations (14 CFR) to the extent necessary to allow UAS 137 to commercially operate a small unmanned aircraft system (UAS), weighing less than 55 pounds (lbs.), for agricultural aircraft operations. The FAA subsequently granted Smith Family Drones Exemption No. XXXXX on December 31, 2022.

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) revising the documentation requirements; and (3) 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 Condition 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 November 20, 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. Unmanned aircraft agricultural operations less than 55 lbs., operated under Part 107 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, and 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 multirotor 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 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 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 only be conducted 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 required the operator to submit these manuals to the FAA for review prior to a grant of exemption.[3] 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

[3] Exemption No. 17261, issued to Drone Seed, Co. March 17, 2017.

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. 4 during operations.

As listed in Condition and Limitation No. 5, 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, postflight 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.

The 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. As stated in Condition and Limitation No. 7, 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. 8.

Because the FAA has determined unmanned aircraft agricultural operations are lower risk than manned aircraft in a similar operation, the 14 CFR § 137.19(e) knowledge and skill tests required under this exemption may be self-administered and satisfactory completion of the test of knowledge specified in 14 CFR § 137.19(e)(1) and the test of skill specified in 14 CFR § 137.19(e)(2) must be documented and shown 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 stated in Condition and Limitation No. 7.

Federal Register Notice

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register. The FAA has determined that good cause exists because the amendment to the exemption would not set a precedent and any delay in acting on this petition would be detrimental to Pegasus Spray Midwest.

The FAA's analysis of the petitioner's operations and the FAA's determination that the operations would not adversely affect safety, given compliance with the Conditions and Limitations, have not changed. Additionally, certain Condition and Limitation editorial revisions were made for clarity.

The FAA's Decision

Under the authority contained in 49 U.S.C. §§ 106(f), 40113, and 44701, which the FAA Administrator has delegated to me, I hereby grant UAS AG 137 an exemption from 14 CFR §§ 107.36, 137.19(c), 137.19(d), 137.19(e)(2)(ii), 137.19(e)(2)(iii), 137.19(e)(2)(v), 137.31(a), 137.31(b), 137.33(a), 137.33(b), 137.41(c), and 137.42 to the extent necessary to allow UAS 137 to operate small UAS that weigh less than 55 lbs., on takeoff, to conduct agricultural aircraft operations. This exemption is subject to the conditions and limitations described below.

Conditions and Limitations

In the following Conditions and Limitations, UAS AG 137 is hereinafter referred to as "the Operator."

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 are limited to any small unmanned aircraft system (UAS) model with a maximum takeoff weight of less than 55 pounds, including everything that is on board or otherwise attached to the aircraft.

4. This exemption, and all documents needed to operate the small 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 manufacturers provided flight manual;
   d. All other manufacturer UAS provided documents;
   e. This exemption; and
   f. Air Traffic Organization (ATO)-issued Certificate of Waiver or Authorization (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.

5. 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, postflight 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.

6. 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 Section 137.19(e)(1);
   b. Initial training, 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 COA that applies to operations under this exemption; and
   m. Hazardous material (HAZMAT) handling and stowage.

7. The remote pilot in command (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; (Sections 137.19(e)(2)(ii), 137.19(e)(2)(iii), and 137.19(e)(2)(v), are not required). The Operator or chief supervisor's knowledge and skill tests of Section 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 shown to the FAA upon request.

8. 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.

9. Any small UAS used by the Operator that has undergone maintenance or alterations that affect the small UAS operation or flight characteristics of the aircraft (including replacement of a flight-critical component, updates to software or firmware of or associated with the system, and any other change that could affect the operation), must undergo a functional test flight prior to conducting further operations under this exemption. Such functional test flights must be conducted in a manner consistent with how the small UAS will be operated under this exemption. Functional test flights may only be conducted by a PIC with the assistance of a Visual Observer (VO) and other personnel necessary to conduct the test flight (such as a mechanic or technician). The test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property. For purposes of this condition and limitation, "assistance of a Visual Observer" means the assistance described in Section 107.33.

10. The Operator must follow the small UAS manufacturer's maintenance, overhaul, replacement, inspection, and life-limit requirements for the aircraft and aircraft components. Each small UAS operated under this exemption must comply with all updates to these documents that the manufacturer makes for the purposes of ensuring safety of operations in the small UAS.

11. For small UAS aerial application operations, conducted under Part 137 where Global Positioning System (GPS) signal is necessary to safely operate the small unmanned aircraft (UA), the PIC must immediately recover or land the small UA upon loss of GPS signal.

12. If the PIC loses command or control link with the small UA, the small UA must follow a predetermined route to either reestablish link or immediately recover or land, which must be documented as part of the knowledge and skill assessment that will occur in accordance with Section 137.19(e).

13. The PIC must abort the flight operation if unexpected circumstances or emergencies arise that could potentially 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 ground.

14. The relief granted from Section 107.36 is limited to the use of any economic poison as defined in Section 137.3.

15. The PIC may operate the small UAS from a moving device or vehicle as described in Section 107.25, which permits such operation in sparsely populated areas, provided the small UAS do not transport property for compensation or hire. If conducting agricultural aircraft operations in accordance with Section 107.25, which must be documented as part of the knowledge and skill assessment of Section 137.19 in the type of device or vehicle to be used in agricultural aircraft operations.

16. This exemption is not valid for operations outside the United States.

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

This exemption does not obviate the applicability of, or in any manner alter, the provisions of Parts 107 and 137 that are not the subject of this exemption. In this regard, the Operator must adhere to the terms of any waiver the FAA has issued to the Operator under Part 107, Subpart D that is associated with the agricultural operations that are the subject of this exemption. 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 Section 137.11.

The Effect of the FAA's Decision

The FAA's decision amends Exemption No. XXXXX to XXXXXA and terminates on January 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-XXXX-XXXX (https://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,

Enclosure

Appendix B. Sample Part 137 Exemption (UAS Greater Than 55 lbs.)

[FAA Letterhead]

[DATE]

Exemption No. XXXXX
Regulatory Docket No. XXX-XXXXX

UAS AG 137
Sample Street
Town, XX 11111

Dear Mr. Smith:

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 31, 2022, you petitioned the FAA on behalf of UAS AG 137 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 January 31, 2023, 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 June 1, 2023, in Exemption No. XXXXA.

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 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 multirotor 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 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. XXXXXA. 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

required the operator to submit these manuals to the FAA for review prior to a grant of exemption.[4] 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, postflight 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 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 § 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 in § 137.19(e)(1) and the test of skill specified in § 137.19(e)(2) must now be documented by the operator and provided to the FAA upon request. Demonstration of the § 137.19(e) knowledge and skill tests by the applicant or their designated chief supervisor does not alleviate the pilot in command requirements of § 137.41(c) as referenced in Condition and Limitation No. 19.

The FAA has determined that 14 CFR 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

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

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–XXXX–XXXX.

Other changes to align with FAA policy

Manned commercial agricultural operations under 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,[5] 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,[6] 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 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 C&L.

The FAA's Decision

The FAA has determined that the justification for the issuance of Exemption No. XXXXXA 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 UAS AG 137 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), 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 UAS 137 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, Smith Ag Drones is hereinafter referred to as "the Operator" or "Exemption Holder."

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

1. The Operator must obtain an agricultural aircraft operator certificate under 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 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–XXXX–XXXX 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 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 USC § 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 PIC is responsible for the safety of the operation. The PIC is also responsible for meeting 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.

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 postflight 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 § 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 preflight inspection and determine the UAS is in a condition for safe flight. The preflight 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), (iii), and (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 predetermined 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 geofence 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 geofence 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,[7] 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 geofenced 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 Exemption Holder prior to conducting agricultural aircraft operations and in accordance with the associated COA.

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

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. (FAA)XXXX to XXXXXB and terminates on XXXX XX, 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. UAS 137 (https://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,

Enclosure