



Federal Aviation Administration

#### **CORRECTED COPY**

The FAA is reissuing the April 16, 2015, grant of exemption of Exemption No. 11334. A correction was made to revise the company name to Jackson Family Wines, as well as the Exemption Number from 42780 to 11334. Below is the amended Exemption No. 11334 that includes the aforementioned change. We made the correction in our records as of April 27, 2015.

April 16, 2015

Exemption No. 11334 Regulatory Docket No. FAA-2015-0047

Mr. Tim B. Adelman Leclair Ryan, P.C. Counsel for Jackson Family Wines 180 Admiral Cochrane Drive Suite 370 Annapolis, MD 21401

Dear Mr. Adelman:

This letter is to inform you that we have granted your request for exemption. It transmits our decision, explains its basis, and gives you the conditions and limitations of the exemption, including the date it ends.

#### The Basis for Our Decision

By letters dated December 31, 2014 and January 7, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Jackson Family Wines (hereinafter petitioner or operator) for an exemption. The exemption would allow the petitioner to operate an unmanned aircraft system (UAS) to conduct surveillance over private property.

See Appendix A for the petition submitted to the FAA describing the proposed operations and the regulations that the petitioner seeks an exemption.

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

#### **Airworthiness Certification**

The UAS proposed by the petitioner is an AirCover QR–425.

In accordance with the statutory criteria provided in Section 333 of Public Law 112–95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that the relief from 14 CFR part 21, Certification procedures for products and parts, Subpart H—Airworthiness Certificates, and any associated noise certification and testing requirements of part 36, is not necessary.

#### The Basis for Our Decision

You have requested to use a UAS for aerial data collection. The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In Grants of Exemption No. 11062 to Astraeus Aerial (*see* Docket No. FAA–2014–0352), 11109 to Clayco, Inc. (*see* Docket No. FAA–2014–0507), 11112 to VDOS Global, LLC (*see* Docket No. FAA–2014–0382), and 11213 to Aeryon Labs, Inc. (*see* Docket No. FAA–2014–0642), the FAA found that the enhanced safety achieved using an unmanned aircraft (UA) with the specifications described by the petitioner and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, gives the FAA good cause to find that the UAS operation enabled by this exemption is in the public interest.

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

- They are similar in all material respects to relief previously requested in Grant of Exemption Nos. 11062, 11109, 11112, and 11213;
- The reasons stated by the FAA for granting Exemption Nos. 11062, 11109, 11112, and 11213 also apply to the situation you present; and
- A grant of exemption is in the public interest.

#### **Our Decision**

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, Jackson Family Wines is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to

the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

#### **Conditions and Limitations**

In this grant of exemption, Jackson Family Wines is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

- 1. Operations authorized by this grant of exemption are limited to the AirCover QR-425 when weighing less than 55 pounds including payload. Proposed operations of any other aircraft will require a new petition or a petition to amend this exemption.
- 2. Operations for the purpose of closed-set motion picture and television filming are not permitted.
- 3. The UA may not be operated at a speed exceeding 87 knots (100 miles per hour). The exemption holder may use either groundspeed or calibrated airspeed to determine compliance with the 87 knot speed restriction. In no case will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer.
- 4. The UA must be operated at an altitude of no more than 400 feet above ground level (AGL). Altitude must be reported in feet AGL.
- 5. The UA must be operated within visual line of sight (VLOS) of the PIC at all times. This requires the PIC to 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 or U.S. driver's license.
- 6. All operations must utilize a visual observer (VO). The UA must be operated within the visual line of sight (VLOS) of the PIC and VO at all times. 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 PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight. The PIC must ensure that the VO can perform the duties required of the VO.
- 7. This exemption and all documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are hereinafter referred to as the operating documents. The operating documents must be accessible during UAS operations and made available to the

Administrator 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. The operator may update or revise its operating documents. It is the operator's responsibility to track such revisions and present updated and revised documents to the Administrator or any law enforcement official upon request. The operator must also present updated and revised documents if it petitions for extension or amendment to this grant of exemption. If the operator determines that any update or revision would affect the basis upon which the FAA granted this exemption, then the operator must petition for an amendment to its grant of exemption. The FAA's UAS Integration Office (AFS-80) may be contacted if questions arise regarding updates or revisions to the operating documents.

- 8. 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 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.
- 9. The operator is responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.
- 10. 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, e.g. inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.
- 11. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.
- 12. Each UAS operated under this exemption must comply with all manufacturer safety bulletins.
- 13. Under this grant of exemption, a PIC must hold either an airline transport, commercial, private, recreational, or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, a possession, or the Federal government. The PIC must also meet the flight review requirements specified in 14 CFR § 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.

- 14. The operator may not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption, including evasive and emergency maneuvers and maintaining appropriate distances from persons, vessels, vehicles and structures. PIC qualification flight hours and currency must be logged in a manner consistent with 14 CFR § 61.51(b). Flights for the purposes of training the operator's PICs and VOs (training, proficiency, and experience-building) and determining the PIC's ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption are permitted under the terms of this exemption. However, training operations may only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights, all persons not essential for flight operations are considered nonparticipants, and the PIC must operate the UA with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119.
- 15. 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). Flights under special visual flight rules (SVFR) are not authorized.
- 16. The UA may not operate within 5 nautical miles of an airport reference point (ARP) as denoted in the current FAA Airport/Facility Directory (AFD) or for airports not denoted with an ARP, the center of the airport symbol as denoted on the current FAA-published aeronautical chart, unless a letter of agreement with that airport's management is obtained or otherwise permitted by a COA issued to the exemption holder. The letter of agreement with the airport management must be made available to the Administrator or any law enforcement official upon request.
- 17. 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.
- 18. If the UAS loses communications or loses its GPS signal, the UA must return to a predetermined location within the private or controlled-access property.
- 19. The PIC must abort the flight in the event of unpredicted obstacles or emergencies.
- 20. The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for the UA to conduct the intended operation and to operate after that for at least five minutes or with the reserve power recommended by the manufacturer if greater.
- 21. Air Traffic Organization (ATO) Certificate of Waiver or Authorization (COA). All operations shall be conducted in accordance with an ATO-issued COA. The exemption holder may apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the attached COA.

- 22. All aircraft operated in accordance with this exemption must be identified by serial number, registered in accordance with 14 CFR part 47, and have identification (N-Number) markings in accordance with 14 CFR part 45, Subpart C. Markings must be as large as practicable.
- 23. Documents used by the operator to ensure the safe operation and flight of the UAS and any documents required under 14 CFR §§ 91.9 and 91.203 must be available to the PIC at the Ground Control Station of the UAS any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.
- 24. The UA must remain clear and give way to all manned aviation operations and activities at all times.
- 25. The UAS may not be operated by the PIC from any moving device or vehicle.
- 26. All Flight operations must be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:
  - a. Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident. The operator must ensure that nonparticipating persons remain under such protection. If a situation arises where nonparticipating persons leave such protection and are within 500 feet of the UA, flight operations must cease immediately in a manner ensuring the safety of nonparticipating persons; and
  - b. The owner/controller of any vessels, vehicles or structures has granted permission for operating closer to those objects and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.
  - The PIC, VO, operator trainees or essential persons are not considered nonparticipating persons under this exemption.
- 27. All operations shall be conducted over private or controlled-access property with permission from the property owner/controller or authorized representative. Permission from property owner/controller or authorized representative will be obtained for each flight to be conducted.
- 28. 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 to the FAA's UAS Integration Office (AFS-80) 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.

If this exemption permits operations for the purpose of closed-set motion picture and television filming and production, the following additional conditions and limitations apply.

- 29. The operator must have a motion picture and television operations manual (MPTOM) as documented in this grant of exemption.
- 30. At least 3 days before aerial filming, the operator of the UAS affected by this exemption must submit a written Plan of Activities to the local Flight Standards District Office (FSDO) with jurisdiction over the area of proposed filming. The 3-day notification may be waived with the concurrence of the FSDO. The plan of activities must include at least the following:
  - a. Dates and times for all flights;
  - b. Name and phone number of the operator for the UAS aerial filming conducted under this grant of exemption;
  - c. Name and phone number of the person responsible for the on-scene operation of the UAS:
  - d. Make, model, and serial or N-Number of UAS to be used;
  - e. Name and certificate number of UAS PICs involved in the aerial filming;
  - f. A statement that the operator has obtained permission from property owners and/or local officials to conduct the filming production event; the list of those who gave permission must be made available to the inspector upon request;
  - g. Signature of exemption holder or representative; and
  - h. A description of the flight activity, including maps or diagrams of any area, city, town, county, and/or state over which filming will be conducted and the altitudes essential to accomplish the operation.
- 31. Flight operations may be conducted closer than 500 feet from participating persons consenting to be involved and necessary for the filming production, as specified in the exemption holder's MPTOM.

Unless otherwise specified in this grant of exemption, the UAS, the UAS PIC, and the UAS operations must comply with all applicable parts of 14 CFR including, but not limited to, parts 45, 47, 61, and 91.

This exemption terminates on April, 30, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan Director, Flight Standards Service

# UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION WASHINGTON, DC

JACKSON FAMILY WINES,  Petitioner.	Docket No. FAA-2014

# PETITION OF JACKSON FAMILY WINES FOR AN EXEMPTION FROM TITLE 14 OF THE CODE OF FEDERAL REGULATIONS TO PERMIT UNMANNED AIRCRAFT SYSTEMS (UAS) OPERATIONS

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Submitted on January 7, 2015

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Exhibit A – "Area of Operations"

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# I. Petition for Exemption Summary

Jackson Family Wines ("Jackson") seeks exemption from the requirements of 14 C.F.R. §§ 61.56 (flight review), 61.113(a) and (b) (private pilot limitations), 91.7(a) (airworthiness), 91.119 (minimum safe altitudes), 91.121 (altimeter settings), 91.151 (VFR fuel requirements), 91.405(a) (maintenance inspections), 91.407(a)(1) (return to service after maintenance), 91.409(a)(1) and (2) (annual inspection), and 91.417(a) and (b) (maintenance records). Jackson seeks these exemptions to permit it to conduct Unmanned Aircraft System ("UAS") operations over its private property in California and Washington.

#### II. Interests of Petitioner

Jackson owns and operates over 35,000 acres on which it grows and harvests grapes and conducts its large scale wine production business. For the purposes of this Petition, Jackson is focused on its properties in California and Washington, as depicted in Exhibit A "Area of Operations." The vineyards are large areas of farm land that is vulnerable to trespass and illegal activities. Currently, to protect the integrity of these properties, Jackson contracts with private security companies using human ground surveillance teams with local sheriff's department's canine units integrated into the surveillance teams. When the surveilling security guard discovers signs of trespassory use of Jackson property—often in the form of using Jackson irrigation and water systems for marijuana plant harvesting—the security guard contacts local law enforcement to request dispatch to these sites of suspected criminal activity.

The UAS operation will compliment Jackson's current surveillance efforts. It will minimize the need to utilize potentially dangerous surveillance methods where security guards and canine partners directly confront trespassers and their illegal activities. When a canine team alerts on potential illicit activity, highly trained UAS pilots will fly UAS equipped with still and

video photography over the Jackson properties to provide reliable birds-eye-view footage of what is occurring on the ground. This ability to see the properties for a few hundred feet in the air will allow Jackson to significantly enhance the effectiveness of its surveillance both in quality and quantity. When the photography detects suspicious activity, the images will be available to local law enforcement for further investigation.

Jackson's UAS operation will be conditioned and limited as described, in Section III of this Petition. It will not adversely affect safety; rather, it will minimize potential confrontations between Jackson's private security guards, their canine partners, and trespassers using Jackson's property for illicit operations. In furtherance of the goals of 14 C.F.R. § 11.81, the UAS operation utilizing still and video photography to report to local law enforcement will be in the public interest and will provide a level of increased safety by minimizing the potential dangerous situations for the Jackson agents and contractors currently providing direct human surveillance. Moreover, Jackson will be more effective at preventing the illegal marijuana grows and property theft.

# III. Proposed Conditions and Limitations for Petitioner's Exemption

Jackson proposes that its UAS operation be conducted pursuant to the Conditions and Operating Limitations set forth in Exhibit B – "Proposed Conditions and Limitations." Each of the conditions and limitations set forth in Exhibit B is consistent with previously granted small UAS Section 333 exemptions and FAA guidance.<sup>1</sup>

#### IV. Information Required to Support a Petition for Exemption

#### A. Contact Information of Counsel

Jackson Family Wines submits this Exemption Petition through counsel:

<sup>1</sup> See Exemption No. 11110 (December 10, 2014; Docket FAA-2014-0367) ("Trimble Exemption"); Exemption No. 11109 (December 10, 2014; Docket FAA-2014-0507) ("Clayco Exemption"); Exemption No. 11062 (September 25, 2014; Docket FAA-2014-0352) ("Astraeus Exemption").

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#### B. Specific Sections of 14 CFR to be Exempt

14 C.F.R. § 61.56 — Flight Review

Id. at § 61.113 — Private Pilot Privileges and Limitations: Pilot in Command

*Id.* at § 91.7(a) — Civil Aircraft Airworthiness

Id. at § 91.119 — Minimum Safe Altitudes: General.

*Id.* at § 91.121 — Altimeter Settings

Id. at § 91.151 — Fuel Requirements for Flight in VFR Conditions

Id. at § 91.405(a) — Maintenance Required

*Id.* at § 91.407(a)(1) — Operation After Maintenance, Preventive maintenance, Rebuilding, and Inspections

*Id.* at § 91.409(a)(1), (2) — Inspections

*Id.* at § 91.417(a), (b) — Maintenance Records

## C. The Extent of Relief Sought, and the Reason for Such Relief

i) When Jackson agents or contractors rely on UAS operations to conduct surveillance of Jackson's private property, Jackson will promote the safety, security, and wellbeing of all people and property involved by strictly abiding by the Proposed Conditions and Limitations set forth in Exhibit B. In order to conduct its proposed UAS operations with the AirCover QR-425s, Jackson requests exemptions from certain Federal Aviation Regulations that were intended to promote the safety of manned aircraft.

To conduct its UAS operations, Jackson petitions the FAA for an exemption from the following federal regulations for the reasons noted:

#### 14 C.F.R. § 61.56 — Flight Review

Jackson requests an exemption from this regulation to the extent necessary to permit

Jackson to conduct UAS operations over its private property with aircraft controlled by PICs
who have completed AirCover's training regimen and successfully passed the FAA's Private

Pilot Knowledge Exam. We respectfully submit this request in good faith after considering the
numerous conditions and limitations proposed by this petition and the extensive nature of the
AirCover's training program. A copy of AirCover's proprietary training materials is provided
for FAA review in Exhibit D – "Training Materials." However, recognizing the FAA has denied
a similar request for an exemption to the FAA pilot certificate requirement, Jackson alternatively
will agree to utilize airmen with at least a private pilot certificate for the pilots of its UAS
operation.

#### 14 C.F.R. § 61.113 — Private Pilot Privileges and Limitations: Pilot in Command

If the FAA determines that a private pilot certificate is necessary for UAS PICs, Jackson requests an exemption from § 61.113 to the extent necessary to permit Jackson to conduct UAS operations with PICs holding FAA private pilot certificates. In most instances, the FAA would require a pilot to hold a commercial pilot certificate where there is compensation either to the pilot or for the operation. Jackson seeks waiver from this requirement, consistent with previously granted Section 333 exemptions, because requiring the Jackson pilots operating the AirCover QR-425s to adhere to the commercial pilot certification requirements will not improve

the safety of operations. Requiring airman "aeronautical knowledge," "aeronautical experience," and "flight proficiency" at the commercial certificate level for those individuals operating a remote-controlled, battery-powered UAS aircraft weighing less than 7 pounds and operated in accordance with the conditions and limitations set forth in Exhibit B would not bring the corresponding safety benefits contemplated in the manned commercial aircraft setting.

Therefore, consistent with the certificate requirements imposed on the UAS pilots in recently granted Section 333 exemptions (see Astraeus Exemption, Trimble Exemption, and Clayco Exemption), Jackson requests the FAA grant an exemption from 14 C.F.R. § 61.113 and allow Jackson's UAS pilots who hold a FAA private pilot certificate or future FAA certification to serve as pilots for Jackson's UAS operations.

# 14 C.F.R. § 91.7(a) — Civil Aircraft Airworthiness

Jackson requests an exemption from the airworthiness certificate requirement because the aircraft flown in Jackson's UAS operations will not have an airworthiness certificate pursuant to 14 C.F.R. Part 21, Subpart H. Jackson understands that without an airworthiness certificate, it must inspect each aircraft before each flight to determine that it is compliant with Jackson's UAS Operations Manual which is provided in Exhibit C "Maintenance Manual." The AirCover Maintenance Manual was reviewed by the FAA in conjunction with an experimental airworthiness application submitted by AirCover. The Maintenance Manual was approved by Brook B. Stewart (SAC FSDO) on April 3, 2014. Jackson bases this particular exemption request on the rationale that "[C]ompliance with [Jackson's] Manuals [is a] sufficient means for determining an airworthy condition." Trimble Exemption, at 16.

14 C.F.R. § 91.119 — Minimum Safe Altitudes: General.

Jackson requests an exemption from this regulation so that its UAS operations may fly at low altitudes to better capture reliable video and still photography of its private property. In fact, only subpart (c) is relevant to Jackson's UAS operations because Jackson only intends to conduct UAS operations over its private vineyards which are not located near any populated areas and easily classified as "sparsely populated areas" contemplated by subpart (c).

Specifically with respect to subpart (c), Jackson requests an exemption from the restriction that "aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." An exemption from subpart (c) will allow Jackson UAS operations' aircraft to optimally assess the conditions of its property and any suspected illicit activity occurring thereon. The lower the aircraft can fly for purposes of capturing video and still photography, the more it alleviates the danger to human and canine surveillance teams. As the reliance on human and canine surveillance teams diminishes, the potential for dangerous confrontations with trespassers also diminishes. Specifically, an exemption would allow Jackson to operate within 500 feet of vehicles and structures on its property as part of its surveillance. However, Jackson will not operate within 500 feet of persons, vessels, vehicles or structures not located within its private property.

## **14** C.F.R. § **91.121** — Altimeter Settings

Jackson requests an exemption from this regulation. While the AirCover UAS does not use a barometric altimeter, it determines altitude with a GPS signal. Jackson's UAS operations pilots will check the aircraft's altitude reading prior to each takeoff, and will effectively zero the aircraft's altitude at the point of takeoff, to ensure that measurements of the aircraft's altitude are accurate relative to the local elevation. Jackson will also be conducting flights within visual line

of sight. If this approach is deemed to not satisfy 14 C.F.R. § 91.121, Jackson requests an exemption so that Jackson UAS operations can utilize this GPS signal methodology.

### 14 C.F.R. § 91.151 — Fuel Requirements for Flight in VFR Conditions

Jackson requests an exemption from this regulation to permit Jackson UAS pilots to plan for only 10 (ten) minutes of operating reserve time to be available at the end of each UAS operation. Jackson's UAS operations will all occur within the boundaries of its private property. The takeoff and landing will occur within view of the pilot and at all times during the flight, the UAS aircraft will be less than 1 (one) mile from its takeoff and landing sight and on Jackson's private property.

Jackson understands that the policy behind this regulation is to account for unexpected weather conditions and logistical delays occurring during a flight or when an aircraft seeks to land at its first planned destination. Jackson requests an exemption from this regulation because these considerations are not applicable here where Jackson's UAS operations will be hyperlocalized and will not realistically face the considerations undergirding the regulation's policy. Moreover, a shorter reserve will be an additional safety mechanism by limiting the ability of the UA to fly far from its initial launch location.

## 14 C.F.R. § 91.405(a) — Maintenance Required

Jackson requests an exemption from this regulation's obligation to perform inspections and discrepancy repairs by FAA authorized mechanics. Jackson proposes Conditions and Limitations in Exhibit B, that will require a level of maintenance consistent with the FAA's standards communicated in the Astraeus Exemption and the Trimble Exemption. Moreover, AirCover's maintenance and operations manual have been reviewed by the FAA AIR-230 in connection with its application for experimental airworthiness and approved by Brook B. Stewart

(SAC FSDO) on April 4, 2014. A copy of AirCover's proprietary Maintenance and Operations manual are provided for FAA review in Exhibit C – "Maintenance Manual."

Jackson's exemption request regarding this regulation is limited to subpart (a) because it will make appropriate logbook entries in aircraft maintenance records in compliance with subpart (b), appropriately mark any inoperative instrument or item of equipment for which maintenance has been properly deferred in compliance with subpart (c), and appropriately placard listed discrepancies that include inoperative instruments or equipment in compliance with subpart (d).

14 C.F.R. § 91.407(a)(1) — Operation After Maintenance, Preventive maintenance, Rebuilding, and Inspections

Jackson requests an exemption from this regulation to permit Jackson to conduct its UAS operations without having to have the UAS approved for return to service by a person authorized under 14 C.F.R. § 43.7. AirCover has developed a comprehensive maintenance manual that has been reviewed by AIR-230 and approved by Brook B. Stewart (SAC FSDO) on April 3, 2014, in conjunction with its application for experimental airworthiness certificate. Maintaining the UAS consistent with the maintenance manual will provide an adequate level of safety and will not adversely affect safety with regard to the regulatory maintenance and alteration requirements.

Jackson has accounted for the requisite conditions and limitations described in the Trimble Exemption and the Astraeus Exemption in crafting Jackson's own Conditions and Limitations. Jackson proposes that its UAS operations be subject to scrutiny under its Conditions and Limitations in lieu of the requirement that it satisfy 14 C.F.R. § 91.407(a)(1). Related to this regulation, Jackson UAS operations will comply with subpart (a)(2) because Jackson UAS operations will require completion of maintenance record entries.

14 C.F.R. § 91.409(a)(1) and (2) — Inspections

Jackson requests an exemption from this regulation so that Jackson will not be required to obtain annual inspections and airworthiness certificate inspections required by this regulation.

Instead, Jackson will maintain the UAS in accordance with the approved AirCover maintenance manual. Moreover, Jackson will adhere to the proposed Conditions and Limitations, which will provide a level of safety at least equivalent to that provided by this regulation and the requisite conditions and limitations described in the Trimble Exemption and the Astraeus Exemption.

# **14 C.F.R.** § **91.417(a)**, **(b)** — Maintenance Records

Jackson requests an exemption from this regulation so that Jackson will not be required to keep the maintenance records described by this regulation. Instead, Jackson will maintain the UAS in accordance with the approved AirCover maintenance manual. Moreover, Jackson will adhere to the proposed Conditions and Limitations, which will provide a level of safety at least equivalent to that provided by this regulation and the requisite conditions and limitations described in the Trimble Exemption and the Astraeus Exemption.

# D. Reasons Why an Exemption Would Further the Public Interest

With the FAA grant of Jackson's exemption petition, Jackson will be better able to safely monitor its private property. Using small UAS operations as an integrated part of the human and canine teams will reduce the potential for hostile confrontations between these teams and trespassers using Jackson's property. By providing the video and still photography captured by the UAS operations to local law enforcement, Jackson UAS operations will effectuate a smarter, more informed, and better prepared response to any illicit activities taking place on Jackson's property. Providing additional security to its properties, reducing the threat of theft and preventing illegal marijuana grows. Jackson's UAS operations will protect the public interest by reducing crime and reducing the burden on local law enforcement.

#### E. Reasons Why an Exemption Would Not Adversely Affect Safety

Jackson's UAS operations will be conducted over its private property, allowing Jackson to maintain a sterile operating environment. As such, Jackson will be able to conduct its operations without adversely affecting safety. Every flight will be restricted to Class G airspace above its own private property. Further, if the exception to 14 C.F.R. § 91.119 (the minimum safe altitudes provision) is granted, the UAS will be authorized to fly at low altitudes with little to no air traffic. Conducting its UAS operations at relatively low altitudes over its private property that is only frequented by (a) authorized Jackson agents or (b) unauthorized trespassers using Jackson's private property for illicit purposes, will allow Jackson to minimize safety risks created by the UAS aircraft. Concurrently, the UAS will eliminate the risk to the safety of the surveillance teams and local law enforcement that would otherwise be protecting the integrity of Jackson's property.

# F. Federal Register Summary

# 1. Exemptions Requested

Jackson Family Wines seeks exemption from the requirements of 14 C.F.R. §§ 61.56, 61.113(a) and (b), 91.7(a), 91.119, 91.121, 91.151, 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b).

#### 2. Brief description of the nature of the exemption

The FAA exemption will permit Jackson Family Wines to operate an Unmanned Aircraft System ("UAS") over its private property located in the States of California and Washington as a means of surveilling its property with video and still photography equipment mounted on UAS aircraft being flown immediately above its property by pilots trained pursuant to Jackson's Safety Conditions and Limitations provided to the FAA with Jackson's Exemption Petition.

# G. Additional Information Supporting an Exemption

Jackson will readily provide additional information that the FAA might find helpful, or to answer questions in response to any FAA requests. A confidential copy of each of the Manuals will be submitted to the FAA Assistant Chief Counsel for International Law, Legislation, and Regulations as supporting documentation for this petition. The Manuals contain proprietary information of Jackson and AirCover. Therefore, Jackson requests that the FAA treat the Manuals as confidential and not disclose them to the public.

#### V. Conclusion

As set forth above, Jackson seeks an exemption pursuant to 14 C.F.R. § 11.61 and Section 333 of the FAA Modernization and Reform Act of 2012. The exemption will permit safe operation of the AirCover UAS for the special purpose of conducting aerial surveillance of Jackson uninhabited, private, agrarian property in the States of California and Washington. By granting this petition, the FAA Administrator satisfies the Congressional mandate of the FAA Modernization and Reform Act of 2012, while also advancing the public interest by allowing Jackson to conduct UAS operations over its private property.

Respectfully Submitted,

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