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

800 Independence Ave., S.W.
Washington, D.C. 20591

June 25, 2015

Exemption No. 11902
Regulatory Docket No. FAA–2015−1312

Mr. Stuart Wade
Owner
Envision Virtual Tours, Inc.
P.O. Box 6939
Gainesville, GA 30504

Dear Mr. Wade:

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.

By letter posted to the public docket on April 28, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Envision Virtual Tours, Inc. (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial videography and photography for real estate.

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 UASs proposed by the petitioner is the DJI Phantom 2 Vision+, DJI Phantom 3 Professional, and DJI Inspire 1.

The petitioner requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*. 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 requested 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[1]. The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In Grants of Exemption Nos. 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, Envision Virtual Tours, Inc. 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.

[1] Aerial data collection includes any remote sensing and measuring by an instrument(s) aboard the UA. Examples include imagery (photography, video, infrared, etc.), electronic measurement (precision surveying, RF analysis, etc.), chemical measurement (particulate measurement, etc.), or any other gathering of data by instruments aboard the UA.

Conditions and Limitations

In this grant of exemption, Envision Virtual Tours, Inc. 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 DJI Phantom 2 Vision +, DJI Phantom 3 Professional, and DJI Inspire 1 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 pre-determined 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 June 30, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/
John S. Duncan
Director, Flight Standards Service

Enclosures

Docket Management System
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 20590

In re: Petition of Envision Virtual Tours, Inc. for Exemption Pursuant to Section 333 of the FAA Reform Act of 2012

Dear Sir or Madam:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA) and 14 C.F.R. Part 11, Envision Virtual Tours, Inc., referred to hereafter as Envision, a real estate advertising company based out of Gainesville, GA is petitioning for an exemption from the Federal Aviation Regulations (FARs) pertaining to the following described unmanned aircraft systems (UAS). Stephen Hardman, an employee and representative of Envision and prospective pilot in command during commercial operations has been in contact with James Massey, Rob Pappas, and Mike Wilson of the FAA on several occasions in regards to filing a petition and the requirements thereof. The aforementioned FAA officials have provided helpful information in the form of specific petitions, grants, rules, and other resources to review. The information provided highlights the FAA has the authority to allow for the safe commercial operation of certain UAS within the national airspace. Envision respectfully submits the following petition for exemption from the listed FARs described in detail below as to allow for safe commercial operation of its UAS. Envision plans to use the small, safe, and commonly used DJI Phantom 2 Vision +, DJI Phantom 3 Professional, and the DJI Inspire 1 for the purpose of producing videography and photography in order to market real estate. In the event that a grant is provided by the FAA, Envision is fully committed to abiding by the 31 conditions and limitations (attached at the end of this document as "Conditions and Limitations") expressed in Exemption No.'s 11213 (Aeryon Labs, Inc.) and 11341 Bob Sokoler (The Sokoler Medley Team RE/MAX), and other recent grants made for similar requests.

Envision plans to use UAS in order to capture aerial video and photographs for the purpose of enhancing real estate listings. By allowing Envision to transition to utilizing UAS by way of exemption, the FAA will provide Envision with the capacity to transition to safer methods for capturing aerial photos that are more economically accessible to the communities we serve, more environmentally friendly, and safer because of their light weight, lack of combustible fluids, and not having to carry human occupants. We believe that having the opportunity by way of a granted exemption to positively impact economic growth, the environment, as well as the overall safety of the communities we serve is in the public's best interest. Our operations will undoubtedly inspire the public through opening economic opportunities in the communities we serve. By using UAS, we will be able to completely eliminate the possibility of a large airborne vehicle crash while conducting our operations. This makes our operations safer to people and property.

Envision provides real estate marketing solutions to thousands of clients throughout the southeast. Having been in business since 2001, Envision has a great deal of experience in the

segment it seeks to apply the use of UAS. We are fully capable of deploying UAS for commercial purposes in a safe and controlled manner in order to minimize risks. We will deploy UAS with complete cooperation and permission from property owners.

The UAS we planned to use as mentioned above are the DJI Phantom 2 Vision +, DJI Phantom 3 Professional, and the DJI Inspire 1. All three devices are commonly used and have the most advanced safety features available. All three UAS are small and the design, operational characteristics, and specs for each type are attached as separate documents

Stephen Hardman will be the PIC for Envision. Mr. Hardman has extensive experience operating UAS. Along with several other types of quadcopters, he has owned and operated DJI UAS and has accumulated many hours of flight time during recreational flights since the technology first became available. Mr. Hardman will be furthering his education by completing flight training in order to obtain a sport pilot certificate. All of his experience is in geographical areas similar to those he will be using UAS commercially. Mr. Hardman will be accompanied by Stuart Wade who will be acting as a visual observer (VO). As the owner of Envision and experienced operator of the exact models UAS to be used commercially, Mr. Wade is uniquely qualified to assist as a VO during flights to ensure safety of surrounding people and property. As the owner of Envision, he is also fully committed to ensuring safe and productive UAS operations articulated in the following section.

Envision will incorporate thorough safety policies and operating procedures. The three UAS listed above will be flown in adherence to supplemental information entitled “Conditions and Limitations” along with the following restrictions:

1. The PIC will obtain a sport pilot certificate along with 35 hours total flight time with each UAS used for commercial purposes
2. The PIC will maintain a valid U.S. driver’s license
3. No flight will exceed 400 ft AGL
4. Airspeed of UAS will not exceed 20 knots
5. All flights will be restricted to 7 lbs gross weight
6. All flights conducted will have a pilot in command and a visual observer
7. UAS will be operated within visual line of site at all times
8. UAS will be operated over private property with the permission of the owner
9. UAS will not be operated over any groups of persons other than the PIC and VO
10. UAS will only be operated in daylight hours and clear weather conditions
11. A thorough inspection of the UAS’s operational readiness will be conducted before each flight in accordance with manufacturer’s recommendations. All recommendations can be found in the documents attached speartely.
12. A flight plan will be drafted before each operation and reviewed by the PIC and VO
13. The PIC and VO will conduct an area sweep where each operation is to be conducted to ensure a safe environment
14. The PIC and VO will have on their persons the necessary documents needed to verify legality of operation

15. The PIC will keep flight records in order to stay in line with manufacturer's recommendations for maintenance and replacement standards
16. UAS will not be operated within 5 nautical miles of an airport
17. UAS will not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud
18. PIC will abort any flight operation where conditions become unpredictable or in the case of an emergency
19. UAS will not operate without a clear connection to GPS stability
20. All manuals for each UAS being operated will be available and on hand to the PIC and VO any time the UAS is operating
21. The PIC will operate the UAS from a stable position and will not operate from a moving vehicle or while traversing hazardous terrain

Contact Information:

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P.O. Box 6939
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770-540-0525
Stuart@getmytour.com

The specific section or sections of 14 CFR from which you seek an exemption;

14CFR: parts 21;

45.23(b);

45.29;

61.113(a);

91.7(a);

91.9(b)(2);

91.103;

91.109(a);

91.119;

91.121;

91.151(a);

91.203(a) and (b);

91.405(a);

91.407(a)(1);

91.409(a)(2);

91.417(a) and (b).

The extent of relief you seek and the reason you seek the relief;

Envision respectfully submits this petition in accordance with Reform Act, 112 P.L. 95 §§ 331-334, seeking relief from any currently applicable federal aviation regulations FARs pertaining to UAS and operating to prevent Envision from commercial photographic flight operations within the U.S. national airspace system. The Reform Act in § 332 provides for such integration of civil UAS into our national airspace system as it is in the public's interest to do so. Envision's small and light weight UAS, not exceeding 7 lbs, meet the definition of "small unmanned aircraft" as set forth in § 331. Envision's light weight UAS are in line with the Reform Act and would be good candidates for exemption.

Envision requests exemption to use its UAS to capture videography and photography for real estate listings. We understand that the FAA is committed to safely integrating UAS into national airspace and believe that Envision would be a strong candidate for exemption because of our experience level, commitment to safe operating procedures, and desire to further educate the public about safe use of UAS by way of example. Safety is Envision's primary focus and we requests you also consider the following:

a. The size and weight of our UAS are under 7 lbs
b. Our UAS travel at low speeds always less than 20 knots
c. Our UAS are outfitted with the most up to date safety and fail safe features
d. The PIC for Envision is a very experienced UAS operator
e. Envision will strictly adhere to all 31 of the "Conditions and Limitations" applied to recent grants for similar petitions as outlined at the end of this petition
f. Envision will strictly adhere to the additional 22 stipulations as outlined above

Envision request exemption from the following specific regulations:

14 C.F.R Part 21 Certification Procedures for Product and Parts, Airworthiness Certificates

The FAA is authorized to exempt UAS from the requirement for an airworthiness certificate upon consideration of the size, speed, weight, operational capability, proximity to airports and populated areas, and whether operation within visual line of sight does creates a hazard to users of the national airspace system or the public. Because Envision plans to use three small UAS (DJI Phantom 2 Vision +, DJI Phantom 3 Professional, and DJI Inspire 1) weighing no more than 7 lbs under extremely controlled circumstances, and intends to keep speeds at less than 20 knots, we request an exemption from the above. By using these three safety oriented UAS, Envision will be able to create a safe operating environment.

14 C.F.R. 45.23 (b) Display of Marks: General and 45.29 Size of Marks

(a) Each operator of an aircraft must display on that aircraft marks consisting of the Roman capital letter "N" (denoting United States registration) followed by the registration number of the aircraft. Each suffix letter used in the marks displayed must also be a Roman capital letter.

The sizes of the UAS Envision plans to use are not large enough to accommodate the required size of the registration numbers. We request relief from the above requirement on the grounds that it is not applicable at this time. If registration numbers are issued for UAS, we will certainly add them in the largest format possible to ensure visibility. We would also like to point out that each UAS Envision plans to use is outfitted with green and red lights designed to communicate with the ground pilot.

14 C.F.R. 61.113 (a) &(b) Private Pilot Privileges and Limitations: Pilot in Command

(a) Except as provided in paragraphs (b) through (h) of this section, no person who holds a **private pilot certificate may act as pilot in command of an aircraft that is carrying passengers or property for compensation or hire; nor may that person, for compensation or hire, act as pilot in command of an aircraft.**

(b) A private pilot may, for compensation or hire, act as pilot in command of an aircraft in connection with any business or employment if:
(1)The flight is only incidental to that business or employment; and

(2)The aircraft does not carry passengers or property for compensation or hire.

Our UAS will not carry a pilot or passengers. We believe that we can achieve a higher level of safety by requiring the PIC to obtain a sport pilot certificate. Traditional operations in the past required a person or persons to elevate in a potentially combustible vehicle in order to carry out the same operations we plan to accomplish by way of UAS. Because we operate in a controlled environment, at low altitudes and speeds, with no persons on board, using light weight vehicles, the risks are substantially less than have been in the past. Envision also requests exemption regarding the limitations of compensation for hire since we will be charging clients for videography and photography in the real estate market.

14 C.F.R. 91.7 Civil Aircraft Worthiness

(a) No person may operate a civil aircraft unless it is in an airworthy condition.

(b) The pilot in command of a civil aircraft is responsible for determining whether that aircraft is in condition for safe flight. The pilot in command shall discontinue the flight when unairworthy mechanical, electrical, or structural conditions occur.

In the event that an exemption is granted, there will be no airworthiness certificate issued for Envision's UAS. Without an airworthiness certificate, no FAA regulatory standard will exist for determining airworthiness. As outlined above and in attached exhibits, Envision is committed to incorporating strict safety and operational procedures in order to create an adequate level of safety that should exceed current standards.

C.F.R.91.9(b)(2) Civil Aircraft Flight Manual, marking and placard requirements

(b) No person may operate a U.S.-registered civil aircraft—

(1)For which an Airplane or Rotorcraft Flight Manual is required by § 21.5 of this chapter unless there is available in the aircraft a current, approved Airplane or Rotorcraft Flight Manual or the manual provided for in § 121.141(b); and

(2)For which an Airplane or Rotorcraft Flight Manual is not required by § 21.5 of this chapter, unless there is available in the aircraft a current approved Airplane or Rotorcraft Flight Manual, approved manual material, markings, and placards, or any combination thereof.

(c) No person may operate a U.S.-registered civil aircraft unless that aircraft is identified in accordance with part 45 of this chapter.

Since the UAS we plan to use are not large enough to carry documentation and do not have on board pilots, Envision does not have the ability to carry such documents. We can recreate the same standard of safety by having the required manuals on hand during each flight.

C.F.R. 91.103 Pre-Flight Action

Each pilot in command shall, before beginning a flight, become familiar with all available information concerning that flight. This information must include—

(a)For a flight under IFR or a flight not in the vicinity of an airport, weather reports and forecasts, fuel requirements, alternatives available if the planned flight cannot be completed, and any known traffic delays of which the pilot in command has been advised by ATC;

(b) For any flight, runway lengths at airports of intended use, and the following takeoff and landing distance information:

(1)For civil aircraft for which an approved Airplane or Rotorcraft Flight Manual containing takeoff and landing distance data is required, the takeoff and landing distance data contained therein;
and

(2)For civil aircraft other than those specified in paragraph (b)(1) of this section, other reliable

information appropriate to the aircraft, relating to aircraft performance under expected values of airport elevation and runway slope, aircraft gross weight, and wind and temperature.

There is no pre-flight manual to refer to in regards to the UAS we plan to use. We will apply all pre-flight recommendations from the Manuals provided from the manufacturer along with our on safety measures as outlined above and in Exhibit A. Envision is committed to incorporated all of the safety measures illustrated throughout this petition as well as evolving our practices as needed to ensure a high level of safety.

C.F.R. 91.109(a) Flight Instruction; Simulated Instrument flight and certain flight tests

(a) No person may operate a civil aircraft (except a manned free balloon) that is being used for flight instruction unless that aircraft has fully functioning dual controls. However, instrument flight instruction may be given in an airplane that is equipped with a single, functioning throwover control wheel that controls the elevator and ailerons, in place of fixed, dual controls, when—

(1)The instructor has determined that the flight can be conducted safely; and

(2)The person manipulating the controls has at least a private pilot certificate with appropriate category and class ratings.

Because the UAS is radio controlled and operated, it does not have fully functional dual controls. It is on the other hand outfitted with very effective safety features that assist the craft in returning to a safe landing zone that is designated before flight if the PIC is no longer able to operate the UAS. Envision does not consider this regulation applicable and requests exemption.

C.F.R. 91.119 Minimum Safe Altitudes

Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(a)Anywhere. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.

(b)over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

(c)Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

(d)Helicopters, powered parachutes, and weight-shift-control aircraft. If the operation is conducted without hazard to persons or property on the surface—

(1) A helicopter may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section, provided each person operating the helicopter complies with any routes or altitudes specifically prescribed for helicopters by the FAA; and

(2) A powered parachute or weight-shift-control aircraft may be operated at less than the minimums prescribed in paragraph (c) of this section.

Envision asserts that the above is not applicable and believes it is in the interest of safety to maintain strict rules for maximum altitudes. We will not be operating our UAS above 400 feet AGL. Our UAS do not contain flammable or combustible fluids and therefore offer a safer circumstance compared to current standards. They are also small and light weight and are designed to automatically return to safe landing zones in the event of an emergency. Risks are minimized through operating in extremely controlled circumstances as outlined in this petition.

C.F.R. 91.121 Altimeter Settings
Requires each person to reference an altimeter

The UAS Envision plans to use utilizes GPS for altitude readings. Safety can be achieved by referencing the GPS data before and during each flight. We believe that an exemption for this regulation is necessary on the basis that an adequate level of safety and adherence to the purpose of the regulation can be achieved through the GPS readings.

C.F.R. 91.151(a) Fuel requirements for flight in VFR conditions.

(a) No person may begin a flight in an airplane under VFR conditions unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed—

(1) During the day, to fly after that for at least 30 minutes; or

(2) At night, to fly after that for at least 45 minutes.

We request an exemption to the above regulation on the basis that the UAS we plan to use do not carry fuel and we will only be conducting operations during daylight hours. We also only conduct operations in clear and favorable conditions compared to traditional aircraft. Our UAS are also outfitted with automatic return home features when the battery life reaches a certain level. Because of the short amount of time required to accomplish our goals of capturing videography and photography, we plan to land the UAS before exceeding 70% battery life.

C.F.R. 91.203 (a) &(b) Civil aircraft: Certifications required.

(a) Except as provided in § 91.715, no person may operate a civil aircraft unless it has within it the following:

(1) An appropriate and current airworthiness certificate. Each U.S. airworthiness certificate used to comply with this subparagraph (except a special flight permit, a copy of the applicable operations specifications issued under § 21.197 c of this chapter, appropriate sections of the air carrier manual required by parts 121 and 135 of this chapter containing that portion of the operations specifications issued under § 21.197 c or an authorization under § 91.611) must have on it the registration number assigned to the aircraft under part 47 of this chapter . However, the airworthiness certificate need not have on it an assigned special identification number before 10 days after that number is first affixed to the aircraft. A revised airworthiness certificate having on it an assigned special identification number, that has been affixed to an aircraft, may only be obtained upon application to an FAA Flight Standards district office.

(2) An effective U.S. registration certificate issued to its owner or, for operation within the United States, the second copy of the Aircraft registration Application as provided for in § 47.31 c or a registration certification issued under the laws of a foreign country.

(b) No person may operate a civil aircraft unless the airworthiness certificate required by paragraph

(a) of this section or a special flight authorization issued under § 91.715 is displayed at the cabin or cockpit entrance so that it is legible to passengers or crew.

Our UAS are not capable of carrying certification and registration documents and therefore believe this is inapplicable. There is no onboard pilot and such documents would need to be produced by the ground operator. We will ensure that all documentation required by the FAA is on hand at ground level during all flight operations.

C.F.R. 91.405 (a) Maintenance Required
Each owner or operator of an aircraft—
(a) Shall have that aircraft inspected as prescribed in subpart E of this part and shall between required inspections, except as provided in paragraph (c) of this section, have discrepancies repaired as prescribed in part 43 of this chapter;

Envision seeks exemption from the above on the basis that in the event of a grant, there will be no airworthiness certificate as to this applies. Though in the interest a assuring a high level of safety, we are committed to addressing any repairs replacements immediately. We will seek the assistance of the most qualified in the industry which would be the manufacturer.

C.F.R. 91.407 (a) (1) Operation after Maintenance, Preventative Maintenance, Rebuilding, or Alteration

(a) No person may operate any aircraft that has undergone maintenance, preventive maintenance, (1) It has been approved for return to service by a person authorized under § 43.7 of this chapter

Envision points out that at this time there are no persons authorized to certify the models UAS we seek to use for commercial purposes. Although, as stated above, we will seek the assistance of the best qualified service technicians and help from the manufacturer. Because of the relatively simple nature of the flight components, the light weight, and low speeds and altitude, we believe we can offer a high standard of safety while operating and maintaining our UAS. We are also located within 30 minutes of one of the largest distributors of DJI products, Atlanta Hobby.

C.F.R. 91.409(a)(2) Inspections

(a) Except as provided in paragraph (c) of this section, no person may operate an aircraft unless, within the preceding 12 calendar months, it has had—

(2) An inspection for the issuance of an airworthiness certificate in accordance with part 21 of this chapter.

In the event of an exemption being granted, we believe that this is inapplicable and therefore request relief.

14 C.F.R. 91.417(a) Maintenance Records

(a) Except for work performed in accordance with §§ 91.411 and 91.413, each registered owner or operator shall keep the following records for the periods specified in paragraph (b) of this section:

(1)Records of the maintenance, preventive maintenance, and alteration and records of the 100-hour, annual, progressive, and other required or approved inspections, as appropriate, for each aircraft (including the airframe) and each engine, propeller, rotor, and appliance of an aircraft. The records must include—

(i) A description (or reference to data acceptable to the Administrator) of the work performed; and

(ii) The date of completion of the work performed; and

(iii) The signature, and certificate number of the person approving the aircraft for return to service.

(2) Records containing the following information:

(i) The total time in service of the airframe, each engine, each propeller, and each rotor.

(ii) The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance.

(iii) The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.

(iv) The current inspection status of the aircraft, including the time since the last inspection required by the inspection program under which the aircraft and its appliances are maintained.

(v) The current status of applicable airworthiness directives (AD) and safety directives including, for each, the method of compliance, the AD or safety directive number and revision date. If the AD or safety directive involves recurring action, the time and date when the next action is required.

(vi)Copies of the forms prescribed by § 43.9 d of this chapter for each major alteration to the airframe and currently installed engines, rotors, propellers, and appliances.

Envision requests relief from the above on the basis that at this time, those regulations are inapplicable to the small and relatively simple UAS we plan to use. Because of the limited payloads of the small UAS we plan to use can handle, modifications are limited. The only possible modifications we plan to use are for safety purposes in the form of prop guards designed by the manufacturer. In addition, we plan to utilize the most detailed records possible relative to the operating nature of the simple UAS incorporated at Envision.

How your request would benefit the public as a whole;

The impact of an exemption for Envision to use UAS will reach far beyond the company and the clients we serve. Granting an exemption for Envision would allow the company to immediately transition into providing services that are safer, more environmentally friendly, and economically accessible.

As highlighted throughout this petition, Envision believes the substitution of small UAS in place of traditional aircraft to accomplish the same objectives provides a host a safety benefits. The UAS are considerably safer because of their size, weight, and power source. They are operated at low altitudes under extremely controlled circumstances and do not require onboard pilots. We believe that this strongly supports the position that the risks to person or property are dramatically lower with UAS. It is undoubtedly in the public's interest to reduce the occurrences of catastrophic or fatal crashes by way of integrating newer and safer technologies to accomplish the same goals. We appreciate the cautious nature of integrating UAS and are committed to serving as an example of safe operations.

The environmental impact of granting an exemption for Envision as well as any other responsible petitioner is significant. In a time when society is highly conscious of their environmental footprint, switching to battery operated UAS is a logical step for society as a whole. Traditional aircraft will always have a role in the national airspace. With that said, Envision believes that by obtaining an exemption to carry out its objectives, it will be empowered to replace the wasteful use of traditional aircraft and the emissions expelled from the fuel they burn. It is commonly accepted that becoming more efficient and less wasteful whether it be in regards to trash disposal, gas, food, and other resources is in the public's best interest. Throughout history, society has eagerly adopted new ways to conserve the resources available to everybody. An exemption for Envision and companies alike, will allow us to continue those efforts and impact the environment we all share as a society.

The economic benefits of the exemption Envision seeks are far reaching. This exemption will not only benefit our clients and Envision but also the communities in general that we serve. Through the use of UAS, we will be able offer economically accessible options to homeowners and realtors that were completely out of reach accept for a limited group. Our country's continuous efforts to create equal opportunity constitute the framework of our economic system. Creating accessible options for entrepreneurs, leveling the playing field, discouraging monopolies, and creating a vibrant atmosphere of competition has been accepted as America's path towards an elevation of society as a whole since the country was founded. UAS are a prime example of what makes new technologies so valuable to society. It has the potential to help people of all circumstances that are exposed. An exemption for Envision will allow us to share in that positive impact on society as a whole.

Another tremendous public benefit an exemption for Envision would offer is to help promote cooperation and trust with regulatory organizations. By providing us with an exemption, it will provide a concrete example for other companies and people looking to conduct business responsibly and lawfully. Envision's experience in dealing with the FAA in regards to using UAS has been positive. They have highlighted that the FAA is committed to providing a path through the exemption process for businesses to incorporate the technology. Clear rules have been outlined and Envision is committed to abiding by those rules. Each exemption granted to responsible companies like Envision help the public understand the process and create a positive outlook for anyone looking to engage with this new technology.

Reasons why the exemption would not adversely affect safety, or how the exemption would provide a level of safety at least equal to the existing rule;

As stated and supported throughout this petition, Envision Virtual Tours, Inc. is fully capable of integrating UAS in a manner that will not adversely affect safety. We have also put forth that integrating UAS for the purpose of obtaining real estate photos and videography not only meets but exceeds the current level of safety offered through traditional manned aircraft.

A summary we can publish in the Federal Register

Pursuant to 14 C.F.R. Part 11, the following summary is provided for publication in the Federal Register:

Envision Virtual Tours, Inc. seeks an exemption from the following:

14CFR: parts 21;

45.23(b);

45.29;

61.113(a);

91.7(a);

91.9(b)(2);

91.103;

91.109(a);

91.119;

91.121;

91.151(a);

91.203(a) and (b);

91.405(a);

91.407(a)(1);

91.409(a)(2);

91.417(a) and (b).

An exemption for Envision Virtual Tours, Inc. will allow commercial operations of UAS under strictly controlled conditions for the purpose of real estate photography, videography, and marketing. The pilot in command will obtain a sport pilot certificate and will be accompanied by a visual observer. The PIC for Envision Virtual Tours, Inc. plans to use the DJI Phantom 2 Vision +, DJI Phantom 3 Professional, and the DJI Inspire 1. All three UAS are outfitted with numerous safety features and are commonly used. They are all small, lightweight, and pose minimal risks to property and people. The UAS's physical characteristics and fail safe features combined with Envision's commitment to safe operating procedures and policies meets or exceeds the level of safety commonly accepted with traditional manned aircraft.

An exemption as requested in this petition should be granted and will allow Envision Virtual Tours, Inc. the ability to impact safety, the environment, and the economy of society as a whole.

If you want to exercise the privileges of your exemption outside the United States, you must state the reason.

We do not seek to exercise the privileges of an exemption outside the United States.

Best Regards,

Stuart Wade, Owner
Envision Virtual Tours, Inc.

Conditions and Limitations

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 DJI Phantom 2 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 pre-determined 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.