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

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

June 5, 2015

Exemption No. 11753
Regulatory Docket No. FAA–2015–0948

Mr. William A. Clary
P.O. Box 1854
1252 Alpinview Drive
Big Bear City, CA 92314

Dear Mr. Clary:

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 9, 2015, you petitioned the Federal Aviation Administration (FAA) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial video and photography for the motion picture and television industry along with inspections.

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 are a DJI S1000 and Aeronavics Skyjib 8.

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] and closed set motion picture and filming. 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, William A. Clary 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, William A. Clary 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 S1000 and Aeronavics Skyjib 8 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 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

FROM:
Plt. William Clary PPL#3791891
P.O. Box 1854
1252 Alpinview Dr.
Big Bear City, CA 92314
Tel: (970) 531-2062

Email – wclary@gotaerial.com Regulatory Docket No. _____

TO:
U. S. Department of Transportation
Docket Management System
1200 New Jersey Ave., SE
Washington DC 20590

Re: Exemption Request Pursuant to Section 333 of the FAA Reform Act and Part 11 of the Federal Aviation Regulations from: 14 CFR 61.113(a) and (b); 91.103; 91.119(c); 91.121; 91.151(a); 91.405(a); 91.407(a)(1); 91.409 (a)(1) and (2); 91.417(a) and (b).

Dear Sir or Madam:
Below is the requested information via the "Public Guidance for Petitions for Exemption Filed under Section 333" . William A. Clarys requested exemption would permit the operation of Unmanned Aerial Systems (UAS) under a controlled and safe environment. The granting of an exemption would greatly enhance safety and fulfill the Secretary of Transportation's (the FAA Administrator's) responsibilities to "…establish requirements for the safe operation of such aircraft systems in the national airspace system." Section 333(c) of the Reform Act.

1. As pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the "Reform Act") and 14 C.F.R. Part 11, William A. Clary an owner and operator of unmanned aerial systems (UAS) . for the aerial video and photography for the motion picture and television industry along with inspections hereby applies for an exemption from the Federal Aviation Regulations ("FARs") to allow for me to conduct commercial UAS operations with my DJI S1000 and Aeronavics Skyjib 8.

William A. Clarys has been designing, building and operating various forms of UAS including fixed wing, single rotor, and mutlirotor aerial platforms for the previous 15+years. I started my UAS carrier in 1997 during my enlistment in the U.S. Army (Honorably Discharged) and have been providing professional aerial imagery since 2001. I currently adhere to all the current FAA safety requirements in addition to others which have allowed me to have perfect safety record (btgoG).

William A. Clary contacted the FAA in 2001 as to my actions and intentions and was advised to pass the private pilot written exam, which he did. William A. Clary also has his single engine private pilot license (PPL#3791891) and is current as of Jan2015. My Class III Medical is also current as of Dec2014.

Given William A. Clarys body of work and safety record he has been admitted into the International Cinematographers Guild (local 600) as a Drone Aerial Service Provider. William A. Clary also have taken a UAS flight test from an FAA 333 exempt company (Pictorvision) and passed.

William A. Clary has safely provided UAS services for 14years, 1000's of clients, has 4,500+ UAS operating hours, trained many pilots, conducted news interviews, and my works can be seen on the History Channel, Weather Channel, Discovery Channel, commercials and feature films, documentaries, Colorado Department of Transportation, Denver Police, and on Getty Images as a contributor, to mention a few.

Also, William A. Clary has or have been a consultant, test pilot, developer and or contributor for many UAS industry manufactures and developers such as DJI Innovations, Aeronavics, Dragonlink, AXI Motors, Hoverfly, and Honeywell.

The equipment William A. Clary operates are multi-rotorcraft equipped with an on board GPS and Return to Home Feature, weighting 55 lbs or less including camera and or payload. I will operate them under normal VFR conditions, at speeds of no more than 50 KIAS and will have the capability to hover and move in the vertical and horizontal and will only be operate line of sight

William A. Clarys operations will insure that the UAS will not create a hazard to the public or National Air Space described in the FMRA 333, and I will insure to get a COA when necessary.

Given William A. Clarys experience and body of work, the small size of the UAS, the limited environment in which, they operate and safety record, William A. Clarys request falls within that zone of safety in which Congress envisioned that the FAA must, by exemption, allow commercial operation.

As the Pilot in Command (PIC), William A. Clary agrees to fly my UAS within line of sight, less then 400feet above the ground, slower then 55kts, and 5miles from any airport, heliport, seaplane base, spaceport, restricted airspace, or any other location with aviation activities, unless the nearest air traffic authority has been notified and operations have been cleared.

All of William A. Clarys UAS's have proven capability for controlled and safe flight, in addition the DJI S1000 and Aeronavics Skyjib 8. UAS's have been approved in previous 333 exempt companies.

2. Preflight inspections, maintenance and repair schedule and logs have been provided in the attached documents.

3. William A. Clarys will only utilize radio frequencies that comply with all Federal Communications Commission regulations (FCC).

4. As the PIC, William A. Clary agrees to maintain a current single engine private pilot license and adhere to any and all current and future FAA UAS regulations.

5. As the PIC, William A. Clarys agrees to maintain a current III Class Medical.

6. William A. Clarys safety procedures include using a Visual Safety Officer qualified with at least a "passed" single engine private pilot written exam.

7. William A. Clarys will operate my UAS no higher then 400feet, no faster then 50kts, visual line of sight, weigh less then 50lbs, and during standard VFR conditions.

8. William A. Clarys planed use of purpose is for motion picture filming or similar operations, flight demonstration, area inspections or similar and can expect to safety hazzrds such as telephone wires, buildings, birds, people, blowing objects, wind, rain and snow.

9. When operating within 5miles from any airport, heliport, seaplane base, spaceport, restricted airspace, or any other location with aviation activities, aerial operations will not happen unless the nearest air traffic authority has been notified and aerial operations have been approved.

10. William A. Clarys agrees to operate all my UAS's within visual line of site and will conduct extensive preflight site inspection ensuring a constant line of sight.

11. Preflight procedures have been include in Appendix and exhibit a desire for the highest level of safety.

12. William A. Clary agrees to notify the Flight Standards District Offices (FSDOs) prior to operations, such as motion picture and television filming, or pipeline and power line patrol.

13. William A. Clary agrees to obtain a COA when applicable and do so before conducting any aerial operations.

14. In conclusion, William A. Clary believes that being granted an exemption will greatly increase the safety and cinematic quality of the UAS industry.

Additional and supporting information can be found below or attached to this document

- UAS Flight Operations and Procedures Manual (FOPM)……Attachment 1
- UAS Aircraft Flight Maintenance Records……. Attachment 2
- UAS Flight Authorization Sheet …….Attachment 3
- UAS Pilot Flight Log …….…….Attachment 2
- UAS Inspection and Maintenance Manual (POH)..…..……Attachment 4, 4-1
- UAS Maintenance and Repair Log Book……..…. Attachment 2
- UAS Manufacturer Manuals ……...Attachment 5, 5-1
- UAS Training Manual…….Attachment 1
- UAS Preflight, Takeoff and Landing Checklist …….Attachment 6, 6-1
- UAS Risk Assessment Tool …….. Attachment 7
- UAS Crew Data sheet ……Attachment 2
- UAS Preflight Safety Assessment ……..Attachment 8

UASs operated by William A. Clary will weigh less than 55 pounds, including the payload (i.e. camera, lens, and gimbal). They operate at speeds of no more than 50 knots, can hover, and can simultaneously move vertically and horizontally. William A. Clary will only operate its UASs in line of sight and will operate only within the sterile area described in the FOPM. Such operations will insure that the UAS will "not create a hazard to users of the national airspace system or the public." Given the small size of William Clarys UASs and the restricted sterile environment within which they will operate, William Clarys UAS operations adhere to the Reform Act's safety requirements. Additionally, due to the size of the UASs and the limited areas in which they will operate, approval of this application presents no national security issues. Based on the substantial level of safety surrounding the proposed operations, and the significant public benefit (enhanced safety), reduction in environmental impacts (reduced emissions and noise), the grant of the requested exemption is in the public interest. Accordingly, William Clary respectfully requests that the FAA grant the requested exemption without delay.

Aircraft And Equivalent Level Of Safety

The operating limitations proposed by William A. Clary provide for at least an equivalent or higher level of safety because operations further enhance safety of movie and television filming using conventional aircraft.

As set forth in the FOPM, the limitations and conditions include:

• The UASs will weigh less than 55 pounds

• Flights will be operated within line of sight of a pilot and/or observer.
Maximum flight time for each operational flight will be 30 minutes. Flights will be terminated at 25% battery power reserve should that occur prior to the 30
minute limit.

• Flights will be operated at an altitude of no more than 400 feet AGL, and not more than 200 feet above an elevated platform from which filming is planned.

• Minimum crew for each operation will consist of the UAS Pilot, the Visual Observer, and the Camera Operator.

• A UAS pilot will be an FAA licensed airman with at least a private pilot's certificate and third class medical.

• A UAS Pilot will be Pilot in Command (PIC). If a pilot certificate holder other than the UAS Pilot, who possesses the necessary PIC qualifications, is also present on set (i.e. the Aerial Coordinator), that person can also be designated as PIC.

• The UAS will only operate within a confined "Sterile Area" as defined in the FOPM.

• The FOPM requires the establishment of a "Security Perimeter" for the flight operations area.
• A briefing will be conducted for planned UAS operations prior to each day's flight.
All personnel performing duties within the boundaries of the safety perimeter are required to attend.

• The operator will file a FAA Form 7711-1, or its equivalent, as modified in light of the requested exemption, with the appropriate Flight Standards District Office ("FSDO").

• The operator will obtain consent of all persons involved in the filming and ensure that only consenting persons will be allowed within 100 feet of the flight operation. This radius may be reduced to 30 feet based upon an equivalent level of safety determination, as required under the FOPM. With the advanced permission of the FSDO, operations at closer range can be approved.

• The operator will submit a written Plan of Activities to the FSDO three days before the proposed shoot as required in the FOPM.

• The Pilot and observer must be trained in UAS operations and have received current information on the particular UAS to be operated as required by the FOPM.

• The Observer and pilot will at all times be able to communicate by voice and/or text.

• Written and/or oral permission from the relevant property holders will be obtained.

• All required permissions and permits will be obtained from territorial, state, county, or city jurisdictions, including local law enforcement, fire, or other appropriate governmental agencies.

• If the UAS loses communications or loses its GPS signal, the UAS will have the capability to return to a pre-determined location within the Security Perimeter and land.

• The UAS will have the capability to abort a flight in case of unpredicted obstacles or emergencies.

Specific sections of 14 CFR from which William A. Clary is seeking exemptions are:

14 CFR 61.113(a) and (b); 91.103; 91.119(c);
91.121; 91.151(a); 91.405(a); 91.407(a)(1); 91.409 (a)(1) and (2); 91.417(a) and (b).

These limitations and conditions to which I, William A. Clary agrees to be bound when conducting business/commercial operations under this FAA issued exemption are consistent with the Administrators grant of Exemption to the MPAA, include:

1. The UAS must weigh less than 55 pounds (25 Kg), including energy source(s) and equipment. Operations authorized by this grant of exemption are limited to the following aircraft: DJI S1000 and Aeronavics Skyjib 8..

Proposed operations of any other aircraft will require a new petition or a petition to amend this grant.

2. The UAS may not be flown at a speed exceeding a ground speed of 50 knots.

3. Flights must be operated at an altitude of no more than 400 feet above ground level (AGL), as indicated by the procedures specified in the operator's manual. All altitudes reported to ATC must be in feet AGL.

4. The UAS must be operated within visual line of sight (VLOS) of the Operator at all times. This requires the Operator to be able to use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued medical certificate.

5. All operations must utilize a visual observer (VO). 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.

6. The operator's checklist is considered acceptable to the FAA, provided the additional requirements identified in these conditions and limitations are added or amended. The operator's checklist and this grant of exemption must be maintained 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 checklists the conditions and limitations herein take precedence and must be followed. Otherwise, the operator must follow the procedures as outlined in its checklists.

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

7. Prior to each flight the PIC must inspect the UAS to ensure it is in a condition for safe flight. 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. The Ground Control Station, if utilized, must be included in the preflight inspection. All maintenance and alterations must be properly documented in the aircraft records.

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 in accordance with the operator's manual. The PIC who conducts the functional test flight must make an entry in the UAS aircraft records of the flight. The requirements and procedures for a functional test flight and aircraft record entry must be added to the operator's manual.

9. The operator must follow the manufacturer's UAS aircraft/component, maintenance, overhaul, replacement, inspection, and life limit requirements. When unavailable, aircraft maintenance/ component/overhaul, replacement, and inspection/maintenance requirements must be established and identified in the operator's manual. At a minimum, the following will be included in the operator's manual:
a. Actuators Servos
b. Transmission (single rotor)
c. Power plant (motors)
d. Propellers
e. Electronic speed controller
f. Batteries
g. Mechanical dynamic components (single rotor)
h. Remote command and control
i. Ground control station (if used)
j. Any other components as determined by the operator

10. The Operator In Command (OIC) must possessed A certificate of graduation from a pilot training course conducted by an FAA-approved pilot school, or a statement of accomplishment from the school certifying the satisfactory completion of the ground school portion and at least a current third-class medical certificate.

11. Prior to operations conducted for the purpose of motion picture filming (or similar operations), the OIC must have accumulated and logged, in a manner consistent with 14 CFR § 61.51 (b), a minimum of 30 hours of total time as a UAS rotorcraft pilot and at least ten hours logged as a UAS pilot with a similar UAS type (single blade or multirotor).

Prior documented flight experience that was obtained in compliance with applicable regulations may satisfy this requirement. Training, proficiency, and experience-building flights can also be conducted under this grant of exemption to accomplish the required flight cycles and flight time.

During training, proficiency, and experience-building flights, all persons not essential for flight operations are considered non-participants, and the PIC must operate the SUAV with appropriate distance from non-participants in accordance with 14 CFR § 91.119. Prior to operations conducted for the purpose of motion picture filming (or similar operations), the OIC must have accumulated and logged, in a manner consistent with 14 CFR § 61.51 (b), a minimum of five hours as UAS pilot operating the make and model of UAS to be utilized for operations under the exemption and three take-offs and three landings in the preceding 90 days. Training, proficiency, experience-building, and take-off and landing currency flights can be conducted under this grant of exemption to accomplish the required flight time and 90 day currency. During training, proficiency, experience-building, and take-off and landing currency flights all persons not essential for flight operations are considered non-participants, and the PIC must operate the UAS with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119.

12. Prior to operations conducted for the purpose of motion picture filming (or similar operations), a flight demonstration, administered by an operator-approved and -qualified pilot must be successfully completed and documented. This documentation must be available for review upon request by the Administrator. Because the knowledge and airmanship test qualifications have been developed by the operator, and there are no established practical test standards that support a jurisdictional FAA FSDO evaluation and approval of company designated examiners, the petitioner will conduct these tests in accordance with the operator's manual.

13. The UAS may not be operated directly over any person, except authorized and consenting production personnel, below an altitude that is hazardous to persons or property on the surface in the event of a UAS failure or emergency.

14. Regarding the distance from participating persons, the operator's manual has safety mitigations for authorized and consenting production personnel. At all times, those persons must be essential to the closed-set film operations. Because these procedures are specific to participating persons, no further FSDO or Aviation Safety Inspector (ASI) approval is necessary for reductions to the distances specified in the petitioner's manuals. This is consistent with the manned aircraft procedures described in FAA Order 8900.1, V3, C8, S1 Issue a Certificate of Waiver for Motion Picture and Television Filming.

15. The UAS may not be operated directly over any person, except authorized and consenting production personnel, below an altitude that is hazardous to persons or property on the surface in the event of a UAS failure or emergency.

16. Regarding distance from non-participating persons, the operator must ensure that no persons are allowed within 500 feet of the area except those consenting to be involved and necessary for the filming production. This provision may be reduced to no less than 200 feet if it would not adversely affect safety and the Administrator has approved it. For example, an equivalent level of safety may be determined by an aviation safety inspector's evaluation of the filming production area to note terrain features, obstructions, buildings, safety barriers, etc.

Such barriers may protect non-participating
persons (observers, the public, news media, etc.) from debris in the event of an accident. This is also consistent with the same FAA Order 8900.1, V3, C8, S1.

17 .If the UAS loses communications or loses its GPS signal, the UAS must return to a pre-determined location within the security perimeter and land or be recovered.

18. The UAS PIC must abort the flight in the event of unpredicted obstacles or emergencies. The Operator shall carry/use appropriate LIPO battery protective bags and fire extinguishing equipment.

19. Each UAS operation must be completed within 30 minutes flight time or with 25% battery power remaining, whichever occurs first.

20.1n addition to the conditions and limitations proposed by the operator, the FAA has determined that any operations conducted under this grant of exemption must be done pursuant to the following conditions and limitations:

21. The operator must obtain an Air Traffic Organization (ATO) issued Certificate of Waiver or Authorization (GOA) prior to conducting any operations under this grant of exemption. This GOA will also require the operator to request a Notice to Airman (NOTAM) not more than 72 hours in advance, but not less than 48 hours prior to the operation.

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. The PIC must develop procedures to document and maintain a record of the UAS maintenance, preventative maintenance, alterations, status of replacement/overhaul component parts, and the total time in service of the UAS. These procedures must be added to the operator's manual/checklists.

24. Each UAS operated under this exemption must comply with all manufacturer Safety Bulletins.

25. The PIC must develop UAS technician qualification criteria. These criteria must be added to the operator's manual/Checklists.

26. The preflight inspection section in the operator's checklists manual must be amended to include the following requirement: The preflight inspection must account for all discrepancies, i.e. inoperable components, items, or equipment, not covered in the relevant preflight inspection sections of the operator's manual.

27. Before conducting operations, the radio frequency spectrum used for operation and control of the UAS must comply with the Federal Communications Commission (FCC) or other appropriate government oversight agency requirements.

28.At least three days before scheduled filming, the PIC of the UAS affected by this exemption must submit a written Plan of Activities to the local 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 filming production 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 filming production event
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
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

29. The 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.

30. The UAS must remain clear and yield the right of way to all other manned operations and activities at all times (including, but not limited to, ultralight vehicles, parachute activities, parasailing activities, hang gliders, etc.).

31.UASoperations 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.

32. The UAS cannot be operated by the OIC from any moving device or vehicle.

33. The UAS 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.

34.The UAS may not operate in Class B, C, or D airspace without written approval from the FAA. The UAS may not operate within 5 nautical miles of the geographic center of a non-towered airport as denoted on a current FAA-published aeronautical chart unless a letter of agreement with that airport's management is obtained, and the operation is conducted in accordance with a NOTAM as required by the operator's GOA The letter of agreement with the airport management must be made available to the Administrator upon request.

35.Any 1) incident, 2) accident, or 3) flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable GOA must be reported to the Federal Aviation Administration's (FAA) 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. Further flight operations may not be conducted until the incident, accident, or transgression is reviewed by AFS-80 and authorization to resume operations is provided.
Unless otherwise specified in this grant of exemption, the UAS, and operator must comply with all applicable parts of 14 CFR including, but not limited to, parts 45, 47, 61, and 91.

Description of Regulations Which May Apply From Which Petitioner Requests Exception

1. Exception 14 C.F.R. Part 21, Subpart H:

Airworthiness Certificates 14 C.F.R. §91.203 (a) (1)Subpart H, entitled Airworthiness Certificates, establishes the procedural requirements for the issuance of airworthiness certificates as required by FAR §91.203 (a) (1). Given the size and limited operating area associated with the SUAVS to be utilized by the Petitioner, an exemption from Part 21 Subpart H meets the requirements of an equivalent level of safety under Part 11 and Section 333 of the FMRA. The Federal Aviation Act (49 U.S.C.§44701 (f)) and Section 333 of the FMRA both authorize the FAA to exempt aircraft from the requirement for an airworthiness certificate, upon consideration of the size, weight, speed, operational capability, and proximity to airports and populated areas of the particular SUAVS. In all cases, an analysis of these criteria demonstrates that the UAS operated without an airworthiness certificate, in the restricted environment and under the conditions proposed will be at least as safe, or safer, than a conventional aircraft (fixed wing or rotorcraft) operating with an airworthiness certificate without the restrictions and conditions proposed.
The UAS to be operated hereunder is less than 55 lbs. fully loaded, is by definition unmanned and carries neither a pilot nor passenger, carries no explosive materials or flammable liquid fuels, and operates exclusively within a limited flight area. Unlike other civil aircraft, operations under this exemption will be tightly controlled and monitored by the PIC/Operator and will also remain within the requirements of, and in compliance with, local public safety requirements. These safety enhancements, which already apply to civil aircraft provide a greater degree of safety to the public and property owners than conventional operations conducted with airworthiness certificates issued under 14 C.F.R. Part 21, Subpart H. Lastly, application of these same criteria demonstrates that there is no credible threat to national security posed by the UAS due to its size, speed of operation, location of operation, lack of explosive materials or flammable liquid fuels, and inability to carry a substantial external load.

14 C.F.R. § 45.23 (b). Marking of the Aircraft
The regulation requires; When marks include only the Roman capital letter "N" and the registration number is displayed on limited, restricted or light-sport category aircraft or experimental or provisionally certificated aircraft, the operator must also display on that aircraft near each entrance to the cabin, cockpit, or pilot station, in letters not less than 2 inches nor more than 6 inches high, the words "limited," "restricted," "light-sport," "experimental," or "provisional," as applicable.

Even though the UAS will have no airworthiness certificate, an exemption may be needed as the UAS will have no entrance to the cabin, cockpit or pilot station on which the word "Experimental" can be placed. Given the size of the UAS, two-inch lettering will be impossible. The word "Experimental" will be placed on the fuselage in compliance with §45.29 (f). The equivalent level of safety will be provided by having the UAS marked on its fuselage as required by §45.29 (f) where the pilot, observer and others working with the SUAVS will see the identification of the UAS as "Experimental." The FAA has issued the following exemptions to this regulation to Exemptions Nos. 10700, 8738, 10167 and 10167 A.

14 C.F.R. § 61.113 (a) & (b): Private Pilot Privileges and Limitations: Pilot in Command.
Sections 61.113 (a) & (b) limit private pilots to non-commercial operations. Because the UASis unmanned and will not carry a pilot or passengers, the proposed operations can achieve the equivalent level of safety of current operations by requiring the PIC operating the aircraft to have a FAA ground school rather than a commercial pilot's license to operate this small UAS. Unlike a conventional aircraft that carries the pilot and passengers, the SUAVS is remotely controlled with no living thing on board. The area of operation is controlled and restricted, and all flights are planned and coordinated in advance. The level of safety provided by the requirements included herein exceed that provided by a single individual holding a commercial pilot's certificate operating a conventional aircraft. The risks associated with the operation of the UAS are so diminished from the level of risk associated with commercial operations contemplated by Part 61 when drafted, that allowing operations of the UAS as requested with a private pilot as the PIC exceeds the present level of safety achieved by 14 C.F.R. §61.113 (a) & (b).

14 C.F.R. §91.7(a): Civil aircraft airworthiness.
The regulation requires that no person may operate a civil aircraft unless it is in airworthy condition. As there will be no airworthiness certificate issued for the aircraft, should this exemption be granted, no FAA regulatory standard will exist for determining airworthiness. Given the size of the aircraft and the requirements contained herein for the use of safety check lists prior to each flight, an equivalent level of safety will be provided.

14 C.F.R. § 91.9 (b) (2): Civil Aircraft Flight Manual in the Aircraft.
Section 91.9 (b) (2) provides: No person may operate a U.S.-registered civil aircraft ...
(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.
The UAS, given its size and configuration has no ability or place to carry such a flight manual on the aircraft, not only because there is no pilot on board, but because there is no room or capacity to carry such an item on the aircraft.
The equivalent level of safety will be maintained by keeping the UAS operation manual and appropriate checklists at the ground control point where the pilot flying the UAS will have immediate access to it. The FAA has issued the following exemptions to this regulation: Exemption Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 95658, 10167, 10167A, 10602, 32827, and 10700.

14 C.F.R. § 91.103: Pre-flight action
This regulation requires each pilot in command to take certain actions before flight to insure the safety of flight. As FAA approved rotorcraft flight manuals will not be provided for the aircraft an exemption will be needed. An equivalent level of safety will be provided as set forth hereinabove. The PIC will take all actions including reviewing weather, flight battery requirements, landing and takeoff distances and aircraft performance data before initiation of flight using appropriate checklists.

14 C.F.R. §91.109: Flight instruction

Section 91.103 provides that 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.

UAS and remotely piloted aircraft, by their design do not have fully functional dual controls. Flight control is accomplished through the use of a radio transmitter that communicates with the aircraft via a receiver in the UAS. The FAA has approved exemptions for flight training without fully functional dual controls for a number of aircraft and for flight instruction in experimental aircraft. See Exemption Nos.5778K & 9862A. The equivalent level of safety provided by the fact that neither a pilot nor passengers will be carried in the aircraft and by the size and speed of the aircraft.

14 C.F.R. §91.119: Minimum safe altitudes

Section 91.119 establishes safe altitudes for operation of civil aircraft. Section 91.119 (d) allows helicopters to be operated at less than the minimums prescribed, provided the person operating the helicopter complies with any route or altitudes prescribed for helicopters by the FAA. This exemption is for a UAS and the exemption requests authority to operate at altitudes up to 400 AGL underneath navigable airspace and in class E and G airspace maintaining safe separation from actual aircraft, an exemption may be needed to allow such operations.

The equivalent level of safety will be achieved given the size, weight, speed of the UAS as well as the location where it is operated. No flight will be taken without the permission of the property owner or local officials. Because of the advance notice to the property owner and participants in the filming activity, attempts will be made to contact all affected individuals regarding the planned flight operations. Compared to flight operations with aircraft or rotorcraft weighting far more than the maximum 551bs. proposed herein, and the lack of flammable fuel, any risk associated with these operations is far less than those presently presented with conventional aircraft. In addition, the low-altitude operations of the SUAVS will ensure separation between these UAS operations and the operations of conventional aircraft that must comply with Section 91.119.

14 C.F.R. §91.121 Altimeter Settings

This regulation requires each person operating an aircraft to maintain cruising altitude by reference to an altimeter that is set " ... to the elevation of the departure airport or an appropriate altimeter setting available before departure." As the UAS may not have a barometric altimeter, but instead a GPS altitude read out, an exemption may be needed. An equivalent level of safety will be achieved by the operator, pursuant to the Manual and Safety Check list, confirming the altitude of the launch site shown on the GPS altitude indicator before flight.

14 C.F.R. § 91.151 (a): Fuel Requirements for Flight in VFR Conditions

Section 91.151 (a) prohibits an individual from beginning "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." The battery powering the UAS provides approximately between 10-60 minutes of powered flight. To meet the 30 minute reserve requirement in 14 CFR §91.151, SUAVS flights would be limited to approximately 10 minutes in length.

Given the limitations on the SUAVS proposed flight area and the location of its proposed operations within a predetermined area, a longer time frame for flight in daylight or night VFR conditions is reasonable. Petitioner believes that an exemption from 14 CFR §91.151 (a) falls within the scope of prior exemptions. See Exemption 10673 (allowing Lockheed Martin Corporation to operate without compliance with FAR 91.151 (a)). Operating the SUAVS in controlled area where only people and property owners or official representatives who have signed waivers will be allowed, with less than 30 minutes of flight operation time, does not give rise to the type of risks that Section 91.151 (a) was intended to alleviate particularly given the size and speed of the UAS. Additionally, limiting UAS flights to 20 minutes would greatly reduce the utility for which the exemption will be granted.

Petitioner believes that an equivalent level of safety can be achieved by limiting flights to 60 minutes or no less than 20% of battery power, whichever happens first. This restriction would be more than adequate to return the UAS to its planned landing zone from anywhere within its limited operating area.Similar exemptions have been granted to other operations, including Exemptions 2689F, 5745, 10673, and 10808.

14 C.F.R. §91.203 (a) and (b): Carrying Civil Aircraft Certification and Registration

The regulation provides in pertinent part:

(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 ....

(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.

The SUAVS fully loaded weighs no more than 55 lbs and typically less than 20 lbs. And is operated without an onboard pilot. As such, there is no ability or place to carry certification and registration documents or to display them on the SUAVS.

An equivalent level of safety will be achieved by keeping these documents at the ground control point where the pilot flying the SUAVS will have immediate access to them, to the extent they are applicable to the SUAVS. The FAA has issued numerous exemptions to this regulation. A representative sample of other exceptions includes Exemption Nos. 9565, 9665, 9789, 9789A, 9797, 9797A, 9816A, and 10700.

14 C.F.R. §91.405 (a); 407 (a) (1); 409 (a) (2); 417(a) & (b): Maintenance Inspections

These regulations require that an aircraft operator or owner "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 ... ," and others shall inspect or maintain the aircraft in compliance with Part 43.

Given that these section and Part 43 apply only to aircraft with an airworthiness certificate, and the requirements of pre-flight inspection required herein, these sections will not apply to the applicant. Routine and pre-flight maintenance will be accomplished by the operator. An equivalent level of safety will be achieved because these UAS are very limited in size and will carry a very small payload and operate only in restricted areas for limited periods of time. If mechanical issues arise the UAS can land immediately and given its small size poses very little risk to persona or property. The operator will ensure that the UAS is in working order prior to initiating flight, perform required maintenance, and keep a log of any maintenance performed. Moreover, the operator is the person most familiar with the aircraft and best suited to maintain the aircraft in an airworthy condition to provide the equivalent level of safety.

2. Publication Summary:

Pursuant to 14 C.F.R. Part 11, the following summary is provided for publication in the Federal Register, should it be determined that publication is needed:

Petitioner seeks an exemption from the following rules:
14 CFR Part 21, 14 C.F.R. 91.109, 14 CFR 91.405 (a), 14 C.F.R. 45.23(b), 14 C.F. R. 91.119, 14 CFR 407 (a) (1), 14 CFR 61.113 (a) & (b), 14 C.F.R. 91.121, 14 CFR 409 (a) (2), 14 C.F.R. 91.7 (a), 14 CFR 91.151 (a), 14 CFR 417 (a) & (b), 14 CFR 91.9 (b) (2) 14 CFR 91.203 (a) & (b), 14 C.F.R. 91.103
to operate commercially a UAS vehicle (551bs or less) for Aerial Photography Operations.
Approval of exemptions allowing commercial operations of UASs for aerial photography/Inspection for the following; Business Operations: over land, water-ways, and oceans; operation over/in non restricted National Parks, National Forests, flight in nonnavigable airspace, using non-intrusive recording devices, operation in otherwise unrestricted US States/Territories will enhance safety by reducing risk. Conventional film operations, using jet or piston power aircraft, operate at extremely low altitudes, just feet from the subject being filmed, and in extreme proximity to people and structures; and present the risks associated with vehicles that weigh in the neighborhood of 4,0001bs, carrying large amounts of jet A or other fuel. In addition such actual certificated aircraft must fly to and from the film location. In contrast, a UAS weighing fewer than 55 lbs., and powered by batteries rather than fuel, eliminates virtually all of that risk. The UAS is driven/carried to the film set, not flown. The UAS will carry no passengers or crew and, therefore, will not expose any crew to the risks associated with manned aircraft flights.
The operation of UAS, weighing less than 55 lbs., conducted in the strict conditions outlined above, will provide at least an equivalent level of safety supporting the grant of the exemptions requested herein, including exempting the Petitioner from the requirements of Part 21 and allowing commercial operations. These lightweight aircraft operate at slow speeds, close to the ground, and in a line of sight, relatively sterile environment and are, as a result, far safer than conventional operations conducted with actual aircraft/helicopters operating in close proximity to the ground and people.

3. Privacy
All business/commercial flights which occur over private or controlled access property will be with the property owner's prior consent and knowledge. Filming will be of people who have also consented to being filmed or otherwise have agreed to be in the area where filming will take place. Petitioner will not infringe on any individual or landowner privacy rights. Limited nighttime operations may be conducted. Nighttime as defined FAR's in Section is as follows 1.1. "Night means the time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time." Night operations may be conducted by the SUAVS following the guidelines above and provided such operations have sufficient lighting so that Petitioner/Operator maintains visual line of sight. Allowing SUAVS this exemption will provide a far safer nighttime filming alternative to the current full size aircraft operations.

4. Commercial Activities: That, within the conditions described in this Request and any others the US DOT-FAA understands must be included, authorization be granted to us to use UASs, as described herein, which are equipped with cameras and sensors, in order to engage in the following professional and commercial activities:
(a) Video filming and photography by air for public and private purposes, including: television, cinematography, advertising and promotions, only with the written authorization of the owners or producers.

(b) Video filming and photography by air to support professional operations in engineering, land surveying, architecture, real estate and other related professional activities, only with the written authorization of the owners.
(c) Video filming and inspections by air of agricultural areas only under contract with the owners or with a government entity.
(d) Video filming and inspections by air of infrastructure such as bridges, highways, electrical installations, dams, aqueducts, photovoltaic power stations, pipelines and wind farms, only under contract with the owners or with a government entity.
(e) Video filming and inspection by air of land and residential, commercial and industrial structures, only under contract with the owners or with any government authority.
(f) Inspections by air to detect sources of pollution, gas emissions and leaks, under contract with the owners of the properties involved or with a government entity.
(g) Provide support to search and rescue operations and reconnaissance in cases of need, law enforcement operations, emergency or natural disasters and only when government authorities have requested it by contract or donation.
(h) Offer consultancy, demonstrations, and training to private and public entities, which are interested in the DOT-FAA authorization for the use of UASs like ours.

5. Conclusion: General Request of Exemption: That, taking into consideration that:
a) all of our operations will be subject to FAA supervision and regulations, and will never interfere with air traffic and/or any other government activity;
b) we are committed to comply rigorously with the FAA's safety measures, the protection of third party rights, and the procedures that are part of this Request including the manuals and risk mitigation procedures;
c) aforementioned security measures as well as our comprehensive manuals are equivalent to conventional aircraft regulations, and therefore mitigate proportional and reasonable air and ground safety in what pertains to these small devices;
d) our flights would only take place under 400 feet (AGL), during daytime, far away from airports and congested or populated areas, following strict security measures, within the PIC visual line of sight (VLOS), with written authorization from the owners of the property in which the activity is taking place and/or written authorization from a government agency. Due to the nature of the services we will offer, most of our flights will take place between 100 and 200 feet (AGL);
e) our services benefit the public interest as a whole;
f) we have FAA certified pilots and trained specialists with expertise in the maintenance of UASs, and we have a workshop specialized in the repair, maintenance, and programming of UAS-Model Aircrafts and other R/C devices;
g) in order to address the NAS and national security concerns, all our staff has with necessary credentials and experience to perform their respective tasks;
h) we are hereby providing all the specifications for each and every one of our devices that are already acceptable in the national market as Model Aircrafts; and
i) we will offer commercial and professional services in a safer, more cost-effective, and accessible way than other conventional methods, which are used for these services…
…the DOT-FAA grants us authorization to offer professional and commercial services using the UASs specified herein, subject to what is included in this Request and any other conditions which the US DOT-FAA understands must be amended or included.

Summary for Publication
Pursuant to 14 C.F.R. Part 11, the following summary is provided for publication in the Federal Register, should it be determined that publication is needed:
William A. Clary seeks an exemption from the following rules:
14 CFR 61.113(a) and (b); 91.103; 91.119(c);
91.121; 91.151(a); 91.405(a); 91.407(a)(1); 91.409 (a)(1) and (2); 91.417(a) and (b).
to operate commercially a small unmanned vehicle (55 pounds or less) in motion picture and television operations. As established by the UAS exemptions already granted by the FAA, allowing commercial operations of UASs in the film industry will enhance safety by reducing risk. Conventional film operations, using turbine aircraft, operate at low altitudes and present the risks associated with aircraft that weigh around 4,000 pounds, and which carry large amounts of Jet A fuel. Such aircraft must also fly to and from the film location. In contrast, a UAS weighing fewer than 55 pounds and powered by batteries eliminates virtually all of that risk given the small size and lack of combustible fuel. The UAS is carried, and not flown, to a film set. In this regard, the UAS carries no passengers or crew and, therefore, will not expose them to the risks associated with manned flights.

The operation of UASs conducted in the strict conditions outlined in the FOPM will provide an equivalent level of safety supporting the grant of the exemption requested herein. The UASs operate at slow speeds, close to the ground, and in a sterile environment. As a result, they are far safer than conventional operations conducted with turbine helicopters flying near the ground and people.

Privacy
All flights will occur over private or controlled access areas with the property owner's prior consent and knowledge. Filming will be only of people who have given their consent or otherwise have agreed to be in the area where filming will take place.
Satisfaction of the criteria provided in Section 333 of the Reform Act of 2012 (size, weight, speed, operating capabilities, proximity to airports and populated areas and operation within visual line of sight and national security) provide more than adequate justification to grant William A. Clarys requested exemption, allowing William A. Clary UAS commercial operations for the motion picture/television industry and inspections pursuant to the FOPM included herewith.

I Request that the administrator please keep private the following attachments

- UAS Flight Operations and Procedures Manual (FOPM)……Attachment 1
- UAS Aircraft Flight Maintenance Records……. Attachment 2
- UAS Flight Authorization Sheet …….Attachment 3
- UAS Pilot Flight Log ……..…….Attachment 2
- UAS Inspection and Maintenance Manual (POH)..…..……Attachment 4, 4-1
- UAS Maintenance and Repair Log Book……..…. Attachment 2
- UAS Manufacturer Manuals ……...Attachment 5, 5-1
- UAS Training Manual…….Attachment 1
- UAS Preflight, Takeoff and Landing Checklist …….Attachment 6, 6-1
- UAS Risk Assessment Tool …….. Attachment 7
- UAS Crew Data sheet ……Attachment 2
- UAS Preflight Safety Assessment ……..Attachment 8

If you have any questions or need any additional information, please feel free to contact me at (970) 531-2062, wclary@gotaerial.com

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