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

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

May 26, 2015

Exemption No. 11693
Regulatory Docket No. FAA−2014−1030

Mr. Raymond V. Jobe
Counsel for Replicopy, Inc. dba RDM Productions
Attorney and Counselor at Law
8150 North Central Expressway, Suite 747
Dallas, TX 75206

Dear Mr. Jobe:

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

The Basis for Our Decision

By letters dated December 9, 2014 and April 7, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Replicopy, Inc. dba RDM Productions (hereinafter petitioner or operator) for an exemption. The exemption would allow the petitioner to operate an unmanned aircraft system (UAS) to conduct standard and aerial videography and film productions for the purposes of documentation, experimentation, demonstration, and education.

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

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

Airworthiness Certification

The UAS proposed by the petitioner is a DJI Inspire.

The petitioner requested relief from 14 CFR part 21, C*ertification 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, and any associated noise certification and testing requirements of part 36, is not necessary.

The Basis for Our Decision

You have requested to use a UAS for aerial data collection. The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In Grants of Exemption No. 11062 to Astraeus Aerial (*see* Docket No. FAA−2014−0352), 11109 to Clayco, Inc. (*see* Docket No. FAA−2014−0507), 11112 to VDOS Global, LLC (*see* Docket No. FAA−2014−0382), and 11213 to Aeryon Lab, 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, Replicopy, Inc. dba RDM Productions is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

Conditions and Limitations

Relative to this grant of exemption, Replicopy, Inc. dba RDM Productions 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 Inspire 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 grant.

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 Colombia, 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 exemption.

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 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 May 31, 2017, unless sooner superseded or rescinded.

Sincerely,

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

RAYMOND V. JOBE
ATTORNEY AND COUNSELOR AT LAW

December 9, 2014

Via Electronic Filing

Attn: Docket Operations
U.S. Department of Transportation (DOT)
1200 New Jersey Avenue SE, Room W12-140
West Building Ground Floor
Washington, DC 20590-0001

Re: Exemption Request of Replicopy, Inc. d/b/a/ RDM Productions under Section 333 of the FAA Reform Act; Part 11 of the Federal Aviation Regulations; 14 CFR 45.23(b); 14 CFR Part 21; 14 CFR 61.113(a) & (b); 91.7(a); 91.9(b)(2); 91.103(b); 91.109: 91.119; 91.121; 91.151(a); 91.203(a) & (b); 91.405(a); 91.407(a)(1); 91.409(a)(2); 91.417(a) & (b).

Dear Sir or Madame:

This application is sought on behalf of Replicopy, Inc. d/b/a/ RDM Productions ("Replicopy" or "RDM") pursuant to the FAA Modernization and Reform Act of 2012 and 14 C.F.R. 11. RDM is a broadcasting and media production company based out of the Dallas/Fort Worth area, Texas SOS File No. 0149067900. RDM seeks exemption from the Federal Aviation Regulations (FARs) contained herein so that RDM be permitted to operate its small unmanned aircrafts ("SUAs"), or unmanned aircraft systems ("UASs"), commercially in airspace regulated by the Federal Aviation Administration ("FAA") wherein such operations are conducted within and under the requirements set out and established by the FAA in Section 333 of the FAA Reform Act.

RDM specializes in standard and aerial videography and film production for the purposes of documentation, experimentation, demonstration and education. RDM seeks the use of SUAs or UASs to assist in RDM's documentation, experimentation, demonstration and education. RDM's opportunities for growth in the media production market are limited because of the current FAA restrictions as it pertains to the operations of UASs. RDM submits this proposed Petition for Exemption to the FAA to demonstrate its commitment in complying with the Federal Aviation Regulations and the National Airspace System ("NAS") in their safe, responsible and limited commercial use of UASs.

Daniel L. Redd is the Owner and President of Replicopy, Inc., d/b/a RDM Productions. Robert L. Redd is the Vice President and Manager at Replicopy, Inc., Director at RDM Productions and Manager of Memories Films. As Daniel Redd is an experienced, licensed pilot, and Robert Redd holds a student pilot license and has flying experience, both Daniel and Robert

· 8150 N. Central Expressway · Suite 747 · Dallas, Texas · 75206 · Telephone (214) 522-4111 ·
· Facsimile (214) 522-3550 · rayjobe@gmail.com ·

Redd are familiar with commercial aviation and are aware and familiar with the dangers that unregulated UASs operation presents to persons and property on the ground. RDM has aptly equipped each of their UASs for aerial photography and cinematography. RDM applies for an exemption from the FARs to allow operation of its UASs on motion picture sets, within and under the conditions outlined herein, and under such other limitations as may be established by the FAA as required by Section 333 of the *FAA Modernization and Reform Act of 2012*, Pub. Law 112-95, 126 Stat. 11 (2012).

Section 333 of the *FAA Modernization and Reform Act of 2012* ("FAAMRA") grants the authority to the Secretary to establish a policy outlining guidelines until the Unmanned Aircraft Systems rule is finalized. As the FAAMRA found that because UASs do not pose a threat to national airspace users or national security, operations of UASs do not need an FAA-issued certificate of airworthiness.

This Petition for Exemption would permit the operation of small, lightweight, unmanned UASs under controlled conditions in airspace, in the UASs pilot's line of sight, that is further in limited and predetermined and marked areas of operation. RDM would allow for controlled access and would further provide safety enhancements to the already safe operations in the film and television industry presently using conventional aircraft. RDM acknowledges how essential safety is when operating UASs. The specifications regarding operating procedures and safety controls listed in UASs manuals are attached hereto. The operating specifications and safety procedures of the UASs, which RDM commits to uphold, ensures that they do not pose a hazard or threat to other aircraft, national security or public safety.

Granting RDM's Petition for Exemption coheres with the Secretary of Transportation's responsibility to integrate UASs into the NAS and to "establish requirements for the safe operation of such aircraft systems in the national airspace system" pursuant to the FAA Reform Act § 333(c).

Considering the foregoing and RDM's commitment to safety and regulations of the FAA, the specific regulations from which exemptions under Title 14 of the Federal Code of Regulations are herein requested are as follows: 14 CFR 45.23(b); 14 CFR Part 21; 14 CFR 61.113(a) & (b).

Exemption Request Section 333 of the FAA Reform Act; Part 11 of the Federal Aviation Regulations; 14 CFR 45.23(b); 14 CFR Part 21; 14 CFR 61.113(a) & (b); 91.7(a); 91.9(b)(2); 91.103(b); 91.109; 91.119; 91.121; 91.151(a); 91.203(a) & (b); 91.405(a); 91.407(a)(1); 91.409(a)(2); 91.417(a) & (b).

RDM Productions submits this Petition in accordance with the FAA Reform Act, 112 P.L. 95 §§ 331-334, seeking relief from any currently applicable FARs operating to prevent RDM contemplated commercial photography and cinematography, research and other flight operations within the NAS. The Reform Act in Section 332 provides for such integration of civil UASs into our NAS as it is in the public's interest to do so. RDM's lightweight UASs meet the definition of "small unmanned aircraft" as defined in Section 331and therefore the integration of

RDM's lightweight UASs are expressly contemplated by the Reform Act. RDM would like to operate its lightweight UASs prior to the time period by which the Reform Act requires the FAA to promulgate rules governing such craft.

The size, weight, speed and operational capabilities of the UASs at issue, which RDM would use, with authorization from the FAA, show that they do not pose a threat to other aircraft, national security nor public safety. The term "small unmanned aircraft," as defined by the U.S. Congress in Section 331, 112 Pub. Law 95, 2014, means "an unmanned aircraft weighing less than 55 pounds."

RDM's UASs are small, lightweight devices containing counter-rotating propellers for optimum balance, control and stability. They are capable of vertical and horizontal operations but operate only within the line of sight of the pilot (UAS operator). Each device weighs no more than 55 pounds, including any photography or cinematic equipment. The UASs operate at speeds at 50 knots (57 mph) speeds or less and are capable of hovering less than 400 feet altitude. In addition to the UAS pilot, RDM uses a spotter and a technician, such that, at minimum, three RDM personnel govern the safe flight of an RDM small unmanned aircraft at all times.

RDM does not operate its UASs near airports and generally does not operate them near populated areas. The UAS operating software and GPS navigation systems do not allow any of the RDM UAS devices to operate near airports or restricted fly zones. The failsafe software will disable the UAS devices from taking off and also limit the UAS systems from operating within specific GPS preset no-fly zones. To date, RDM has only operated its UAS on cordoned off areas and areas under the complete control of RDM or RDM clients. RDM only operates its UASs in predetermined areas and only in compliance with well regarded safety protocols such as those contained within the well established and commonly known Motion Picture and Television Operations Manual.

Applicant further and specifically seeks authorization to use UASs, which are equipped with cameras and sensors, in order to perform photography, audio and video filming by air for public and private uses, including: television, cinematography, advertising, promotions, or public events.

RDM's operation of its UASs will not "create a hazard to users of the national airspace system or the public." 112 P.L. 95 § 333(b). Given the small size and weight of RDM's UASs, combined with their operation in cordoned off and well-controlled areas, RDMs fleet falls within Congress's contemplated safety zone when it promulgated the FAA Reform Act and the corresponding directive to integrate UASs into the NAS. RDM's UASs have a solid safety record and do not pose any threat to the general public or national security.

Maintenance of the UASs will be performed by the operator, in accordance with the aircraft's flight and operating manual. The operator agrees to ensure the each UASs is inspected before each flight, to perform all required maintenance and to maintain a log of all maintenance and repairs performed on all unmanned aircraft systems.

Granting RDM's exemption request furthers the public interest. First, Congress has already pronounced that it is in the public's interest to integrate commercially flown UASs into the NAS, hence passing the FAA Reform Act. Second, RDM has conducted research into safe UAS operation each time it flies one of their UASs. Flight data, visual inspections, recorded observations and flight analyses are compiled to further enhance current safety protocols in place. Allowing RDM to log more flight time directly relates to its research and its ability to further enhance current safety measures. Third, the public has an interest in reducing the danger and emission associated with current aerial cinematic capture methods, namely, full size helicopters. RDM's UASs are all battery powered and create no emissions. If an RDM UAS crashes there is no fuel to ignite and explode. The impact of RDM's lightweight UASs is far less than a full size helicopter, notwithstanding the statistically noteworthy safety record of full size helicopters used in motion picture capture. The public's interest is furthered by minimizing ecological and crash impacts by permitting motion picture capture through RDM's lightweight UASs.

Progression of the arts and sciences has been fundamental to our society since its inclusion in the U.S. Constitution. Indeed, Congress mandated the integration of UASs into our NAS, in part, to achieve progression in this noteworthy, and inevitable, field. Permitting RDM to immediately fly within the United States furthers these goals. Whether it is the amalgam of scientific discoveries applicable to feature film making (including those drawing upon architecture, physics, engineering and cultural inclusiveness) to advancements in publicly usable technologies or advancements in equipment available to law enforcement personnel and first responders that does not cost millions of dollars, granting RDM's exemption request substantially furthers the public's interest in ways known and currently unknown.

To further explain why RDM's exemption will not adversely affect safety or how granting RDM's exemption request will provide a level of safety at least equal to existing rule:

RDM's exemption will not adversely affect safety. Permitting RDM to log more flight time in FAA controlled airspace will allow RDM to innovate and implement new and as of yet undiscovered safety protocols. Additionally, RDM proposes the following safety procedures and restrictions if granted an exemption:

- RDM's UASs weight not more than 55 pounds, including any photography or cinematic equipment;
- RDM only operating its UASs at an altitude of 400 feet or less;
- RDM shall limit the UAS operation to thirty (30) minute flights, or ceasing operation at 25% battery;
- RDM's lands its UASs when they reach 25% battery;
- The operator(s) of the unmanned aircraft system will hold private pilot certificates;

- RDM's remote control pilots operate RDM UASs only within line of sight;
- RDM's remote control pilots have video backup should they somehow lose sight of its UASs;
- RDM staffs each flight with a remote control pilot, technician and a spotter with communication system enabling real-time communications between them;
- RDM employs a GPS system within each UAS allowing the UAS to hover in place if communications between the device and the remote control pilot is lost and then slowly descend at twenty-five (25) percent battery;
- RDM actively analyzes electronic flight data and other sources of information to constantly update and enhance safety protocols;
- RDM only operates its UASs in secured areas that are strictly controlled, are away from airports and populated areas;
- RDM shall not operative its UASs at night;
- RDM shall conduct an inspection of its UASs before each flight;
- RDM shall operate its UASs only on closed sets;
- All RDM flights shall occur only in private or controlled access property, having the property owner's prior consent and knowledge;
- RDM has procedures in place to abort flights in the event of a safety breach or a potential danger; and
- RDM shall obtain all necessary consent and permissions prior to operation of those being filmed or an agreement to be in the designated filming area prior to filming taking place.

A summary the FAA may publish in the Federal Register:

A. 14 C.F.R. 21 and 14 C.F.R. 91: Airworthiness Certificates, Manuals and The Like.

14 C.F.R. § 21, Subpart H, entitled Airworthiness Certificates, sets forth requirements for procurement of necessary airworthiness certificates in relation to FAR § 91.203(a)(1). The size, weight and enclosed operations area of RDM's UASs permits exemption from Part 21 because RDM'S UASs meet an equivalent level of safety pursuant to Section 333 of the FAA Reform Act. The FAA is authorized to exempt aircraft from the airworthiness certificate requirement under both the Act (49 U.S.C. §44701 (f)) and Section 333 of the Reform Act. Both pieces of legislation permit the FAA to exempt UASs from the airworthiness certificate requirement in consideration

of the weight, size, speed, maneuverability and proximity to areas such as airports and dense populations. RDM's UASs meet or exceed each of the elements.

14 C.F.R. § 91.7(a) prohibits the operation of an aircraft without an airworthiness certificate. As no such certificate will be applicable in the form contemplated by the FARs, this Regulation is inapplicable.

14 C.F.R. § 91.9(b)(2) requires an aircraft flight manual in the aircraft. As there are no pilots or passengers, and given the size of the UASs, this Regulation is inapplicable. An equivalent level of safety will be achieved by maintaining a manual at the flight operations center with the remote control pilot of the RDM UAS. The FAA has previously issued exemptions to this regulation in Exemptions Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 9565B, 10167, 10167A, 10602, 10700 and 32827.

14 C.F.R. § 91.121 regarding altimeter settings is inapplicable insofar as RDM's UASs utilize electronic global positioning systems (GPS) and internal gyroscopes to provide spatial coordination.

14 C.F.R. §§ 91.203 (a) and (b) provides for the carrying of civil aircraft certifications and registrations. They are inapplicable for the same reasons described above. The equivalent level of safety will be achieved by maintaining such certifications and registrations at the RDM flight operations center.

B. 14 C.F.R. § 45.23: Marking of the Aircraft.

Applicable Codes of Federal Regulation require aircraft to be marked according to certain specifications. RDM's UASs are, by definition, unmanned. They therefore do not have a cabin, cockpit or pilot station on which to mark designated words or phrases. Further, two-inch lettering is difficult to place on such a small aircraft. Regardless, RDM will mark its UASs in the largest possible letting by placing the word "EXPERIMENTAL" on its fuselage as required by 14 C.F.R. § 45.29(f) so that the pilot, technician, spotter and others working with the UAV will see the markings. The FAA has previously issued exemptions to this regulation through Exemption Nos. 8738, 10167, 10167A and 10700.

C. 14 C.F.R. § 61.113: Private Pilot Privileges and Limitations:

Pursuant to 14 C.F.R. §§ 61.113 (a) and (b), private pilots are limited to non-commercial operations. RDM can achieve an equivalent level of safety as achieved by current regulations because RDM's UASs do not carry any pilots or passengers. Further, while helpful, a pilot license will not ensure remote control piloting skills, though RDM pilot vetting and training programs will. Further, private pilot licensees will operate RDM's UASs with the same skill. The risks attendant to the operation of RDM's UASs is far less than the risk levels inherent in the commercial activities outlined in 14 C.F.R. § 61 et seq. Thus, allowing RDM to operate its UASs with a

private pilot as the pilot in control will exceed current safety levels in relation to 14 C.F.R. §§ 61.113 (a) and (b).

D. 14 C.F.R. § 91.119: Minimum Safe Altitudes.

14 C.F.R. § 91.119 prescribes safe altitudes for the operation of civil aircraft. It allows helicopters to be operated at lower altitudes in certain conditions. RDM's UASs will never operate at an altitude greater than 400 AGL. RDM will, however, operate its UASs in cordoned off areas with security perimeters, providing a level of safety at least equivalent to those in relation to minimum safe altitudes. Given the size, weight, maneuverability and speed of RDM's UASs, an equivalent level of safety will be achieved.

E. 14 C.F.R. § 91.405(a); 91.407(a)(1); 91.409(a)(2); 91.417 (a) and (b): Maintenance Inspections.

The above-cited Regulations require, amongst other things, aircraft owners and operators to "have [the] 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."

These Regulations only apply to aircraft with an airworthiness certificate. They will not, therefore, apply to RDM should its requested exemption be granted. RDM conducts an extensive maintenance program that involves regular software updates and constant inspection for assessment of any damaged hardware. Therefore, an equivalent level of safety will be achieved. RDM has researched and developed its own designs.

F. Summary

RDM seeks an exemption from the following Regulations: 14 C.F.R. 21, subpart H; 14 C.F.R. 45.23(b); 14 C.F.R. §§ 61.113 (a) and (b); 14 C.F.R. § 91.7(a); 14 C.F.R. § 91.9(b)(2); 14 C.F.R. § 91.103(b); 14 C.F.R. § 91.109; 14 C.F.R. § 91.119; 14 C.F.R. § 91.121; 14 C.F.R. § 91.151(a); 14 C.F.R. §§ 91.203 (a) and (b); 14 C.F.R. § 91.405(a); 14 C.F.R. § 91.407(a)(1); 14 C.F.R. § 91.409(a)(2); 14 C.F.R. §§ 91.417 (a) and (b) to commercially operate its fleet of small unmanned vehicles and lightweight unmanned aircraft vehicles in motion picture or television operations and to conducts its own research.

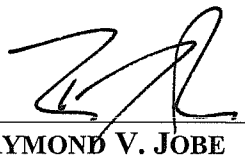
Granting RDM's request for exemption will reduce current risk levels and thereby enhance safety. Currently, motion picture image capture relies primarily on the use of larger aircraft running on combustible fuel. RDM's UASs do not contain potentially explosive fuel, are smaller, lighter and more maneuverable than conventional motion picture aircraft. Further, RDM UASs operates at lower altitudes and in controlled airspace. RDM has been analyzing flight data and other information in compiling

novel safety protocols and the implementation of a flight operations manual that exceeds currently accepted means and methods of safe flight.

There are no people on board RDM UASs and therefore the likelihood of death or serious bodily injury is significantly limited. RDM's operation of its UASs, weighing less than 55 pounds and traveling at speeds no more than 50 knots in cordoned off areas will provide at least an equivalent level of safety as that achieved under current FARs.

Therefore, RDM respectfully respects that the FAA grant its exemption request without delay. The FAA has the authority to issue the exemption sought by RDM pursuant to the Federal Aviation Act, 85 P.L. 726, as amended (the "Act").

Respectfully submitted,



RAYMOND V. JOBE
Counsel for Replicopy, Inc. d/b/a/ RDM Productions

cc: Daniel L. Redd