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

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

June 2, 2015

Exemption No. 11733
Regulatory Docket No. FAA−2015−0036

Mr. William H. Upchurch
President
The Visual Arts Group, LLC
3725 Highcroft Circle
Norcross, GA 30092

Dear Mr. Upchurch:

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 dated January 8, 2015,[1] you petitioned the Federal Aviation Administration (FAA) on behalf of The Visual Arts Group, LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial still photography and videography, primarily for use in the motion picture industry; in industrial, agricultural, law enforcement and emergency first responder uses; and to conduct research on UAS safety protocols and to develop an enhanced platform for first responder use.

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.

[1] On May 13, 2015, the petitioner responded to the FAA's request for additional information.

Airworthiness Certification

The UAS proposed by the petitioner are the DJI Inspire 1 and DJI S1000.

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 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 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, The Visual Arts Group, LLC 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 and closed set motion picture and filming. This exemption is subject to the conditions and limitations listed below.

Conditions and Limitations

In this grant of exemption, The Visual Arts Group, LLC 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 1 and DJI S1000 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 May 31, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Enclosures

The Visual Arts Group, LLC
Media in Motion
www.thevisualartsgroup.com

January 8, 2015

VIA FDMS AND OVERNIGHT COURIER
United States Department of Transportation
Docket Management System
1200 New Jersey Ave., SE
West Building Ground Floor Room W12-140
Washington, DC 20590

Re: Exemption Request Pursuant To Section 333 of the FAA Reform Act of 2012

Dear Sir or Madam:

As President of The Visual Arts Group, LLC, I am writing regarding the FAA Modernization and Reform Act of 2012 (the "Reform Act" 112 P.L. 95) and the procedures contained in 14 C.F.R.11,to request that The Visual Arts Group, LLC, (**hereafter referred to as VAG)** an owner and operator of small unmanned aircraft, be exempted from the Federal Aviation Regulations ("FARs") listed below so that VAG may operate its small unmanned aircraft / lightweight unmanned aircraft systems ("UAS") commercially in airspace regulated by the Federal Aviation Administration ("FAA").

VAG is a Georgia based video and film production company with a 30 year history. Formed in 1985, VAG is an award winning Production Company that produces TV commercials, documentary's and Industrial Programs. VAG is currently testing and has developed operational procedures for small, unmanned aircraft and lightweight UASs designed specifically to carry still photography and video cameras. VAG plans on operating several sizes of UASs. Each UAS offered will have a payload limit, thereby allowing VAG to provide an aerial camera platform suitable to the weight requirement of the camera system being used. The maximum payload limit VAG requires is 50lbs. The camera systems will range from the GoPro to the Arri Alexa. VAG would equip each of its small unmanned aircraft for aerial still photography and videography, primarily for use in the motion picture industry, though given their stability and maneuverability; they may be used for other industrial and agricultural applications. Additional uses may be for law enforcement and emergency first responders. VAG's UASs are the most advanced remote control aircraft being used for these purposes and they are already highly regarded by noteworthy experts in the field of unmanned rotorcraft, as well as experts in the film and video industry..

The Visual Arts Group was founded in 1985 by U.S. Air force veteran Wm. Upchurch for the purpose of producing and providing production services for a variety of film and video projects. Clients include the US Army, UPS, Coca-Cola, The Olympics, and a host of other fortune 500 companies. An example of a VAG video project where a UAS would have been very beneficial was the Linebacker training film for the U.S. Army. VAG (independent Contractor) was contracted to film Bradley Fighting vehicles equipped with Stinger Missiles at the White Sands Missile Range adjacent to Ft Bliss located in El Paso, Texas. An overhead view would have added significant clarity to the ground based operations.

Based in Atlanta, Georgia, VAG requests permission to fly its UASs commercially in the United States for the purpose of recording aerial cinematography, conduct research on UAS safety protocols and to develop an enhanced platform for first responder use. VAG's principal UAS pilot holds a FAA pilots license.

To date, VAG has rejected all offers to provide UAS aerial camera platforms.
VAG does not intend to offer commercial UAS services until it is in compliance with any applicable FARs. It has done so despite Judge Patrick G. Geraghty's decision in the Raphael Pirker matter and his reasoning that no FARs prohibits the use of small unmanned aircraft or lightweight UASs like those flown by VAG.

VAG's exemption request would permit its operation of lightweight, unmanned (piloted by remote control) and comparatively Inexpensive UASs in tightly controlled and limited airspace. Predetermined, specifically marked areas of operation, cordoned off locations and corresponding enhancements to current safety controls will allow VAG to operate within current safety parameters while developing new ones.

Currently, similar lightweight, remote controlled UASs are legally operated
by amateurs with no flight experience, safety plan or controls in place to prevent an accident. It is only logical to allow VAG's experienced remote control pilots, technicians and safety crew to operate similar lightweight UASs. This will act to further safety protocols specific to lightweight UASs as VAG researches flight data and other information gained through permitted flight operations. Granting VAG's request comports with the Secretary of Transportation's (FAA Administrator's) responsibilities to not only integrate UASs into the national airspace system, but to "...establish requirements for the safe operation of such aircraft systems [UASs] in the national airspace system" under Section 333(c) of the Reform Act. Further, VAG will conduct its operations in compliance with the protocols described herein or as otherwise established by the FAA.

For the reasons stated below, VAG respectfully requests the grant of an exemption allowing it to operate lightweight, remote controlled UAS's.

1. VAG Contact Information:

The Visual Arts Group, LLC
3725 Highcroft Circle
Atlanta-Norcross,Georgia 30092
404-661-8669
howell@mindspring.com

2. The Specific Sections of Title 14 of the Code of Federal Regulations from which VAG requests exemption are:

14 CFR 21;
14 C.F.R. 45.23(b);
14 CFR 61.113 (a) & (b);
14 C.F.R. 91,et seq.;
14 CFR 407 (a) (1);
14 CFR 409 (a) (2); and,
14 CFR 417 (a) & (b).

3. The Extent of Relief VAG Seeks and the Reason It Seeks Such Relief:

The FAA has the authority to issue the exemption sought by VAG pursuant to the Federal Aviation Act, 85 P.L. 726 (1958), as amended (the "Act").

VAG submits this application in accordance with the Reform Act, 112 P.L.95 §§ 331-334, seeking relief from any currently applicable FARs operating to prevent VAG's contemplated commercial cinematic, research and other flight operations within the national airspace system. The Reform Act in Section 332 provides for such integration of civil unmanned aircraft systems into our national airspace system as it is in the public's interest to do so. VAG's lightweight UASs meet the definition of "small unmanned aircraft" as defined in Section 331 and therefore the integration of VAG's lightweight UASs are expressly contemplated by the Reform Act. VAG 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 Reform Act guides the Secretary in determining the types of UASs that may operate safely in our national airspace system.

Considerations include:
• The weight, size, speed and overall capabilities of the UAS;
• Whether the UAS will be operated near airports or populated areas; and,
• Whether the UAS will be operated by line of sight.

112 P.L. 95§ 333 (a). Each of these items militates in favor of an exemption for VAG.

VAG's UASs utilize between four and twelve counter - rotating propellers for extreme balance, control and stability. They each weigh less than 55 pounds, including camera other equipment. Each of VAG's small unmanned aircraft are designed to primarily hover in place and operate at less than a 50 knot maximum speed. They are capable of vertical and horizontal operations but operate only within the line of sight of the remote control pilot. In addition to the remote control pilot, VAG uses a spotter and a technician, such that, at minimum, three VAG personnel govern the safe flight of a VAG UAS at all times.

Utilizing battery power and non-combustible fuels, flights generally last between five and twenty minutes. VAG does not operate its UASs with less than twenty five percent battery capacity. Safety systems in place include a GPS mode that allows VAG's UASs to hover in place if communication with the radio control pilot is lost and then slowly descend the UAS at twenty five percent battery capacity. Further, VAG's fleet is programmed, in some instances, to slowly follow a predetermined set of waypoints to return to a safety point if communications are lost.

VAG does not operate its UASs near airports and generally does not operate them near populated areas and electrical transmission lines. To date, VAGs has only operated its fleet on private interior warehouse locations, cordoned off areas and areas under the control of VAGs clients. VAG intends to operate its UASs in predetermined areas and only in compliance with highly regarded safety protocols such as those contained within the well established and commonly known Motion Picture and Television Operations Manual.

VAG's operation of its fleet of small unmanned aircraft 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 VAG's UASs, combined with their operation in cordoned off and well-controlled areas, VAG's fleet falls within Congress's contemplated safety zone when it promulgated the Reform Act and the corresponding directive to integrate UASs into the national airspace system. Indeed, VAG's UASs have a demonstrable safety record and do not pose any threat to the general public or national security.

4. How VAG's Request Will Benefit the Public As A Whole:

Granting VAG'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 national airspace system, hence the passing of the Reform Act. Second, VAG conducts research into safe UAS operations every time it flies one of its UASs. Flight data, visual inspections, recorded observations and flight analyses are compiled to further enhance current safety protocols. Allowing VAG 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 video capture methods, namely, full size helicopters. VAG's UASs are battery powered and create no emissions. If a VAG UAS crashes there is no fuel to ignite and explode.

The impact of VAG'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 VAG's lightweight UASs.

Progression of the arts and sciences has been fundamental to our society since its inclusion in the United States Constitution. Indeed, Congress mandated the integration of UASs into our national airspace system, in part, to achieve progression in this noteworthy, and inevitable, field. Permitting VAG 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 / first responders that does not cost millions of dollars, granting VAG's exemption request substantially furthers the public's interest in ways known and currently unknown.

5. Reasons Why VAG's Exemption Will Not Adversely Affect Safety Or How The Exemption Will Provide a Level of Safety At Least Equal To Existing Rule:

VAG's exemption will not adversely affect safety. Quite the contrary, for the reasons stated, supra, permitting VAG to log more flight time in FAA controlled airspace will allow VAG to innovate and implement new and novel, as of yet undiscovered safety protocols. In addition, VAG submits the following representations of enhancements to current aerial motion picture capture techniques:

- VAG's UASs weigh less than 55 pounds complete with camera payload;
- VAG only operates its UASs below 400 feet;
- VAG's UASs only operate for 5-20 minutes per flight;
- VAG lands its UASs when they reach 25% battery power;
- VAG's remote control pilots operate VAG's UASs by line of sight;
- VAG's remote control pilots have video backup should they somehow lose sight of the UAS;
- VAG staffs each flight with a remote control pilot, technician and spotter with communication systems enabling real time communication between them;
- VAG's UASs have GPS flight modes whereby they hover and then slowly land if communication with the remote control pilot is lostor battery power is below 25%;
- VAG actively analyses electronic flight data and other sources of information to constantly update and enhance safety protocols;

- VAG employs FAA licensed pilot(s) and conducts a regimented training program;
- VAG only operates in quarantined areas that are strictly controlled, are away from airports and populated areas;
- VAG conducts extensive briefings prior to flight, during which safety carries primary importance;
- VAG always obtains all necessary permissions and permits prior to operation; and,
- VAG has procedures in place to abort flights in the event of safety breaches or potential danger.

VAG's safety protocols provide a level of safety at least equal to existing rules, and in nearly every instance, greater than existing rules. It is important to note that absent the integration of commercial UASs into our national airspace system, helicopters are the primary means of aerial motion picture capture. While the safety record of such helicopters is remarkably astounding, it is far safer to operate a battery powered lightweight UAS. First, the potential loss of life is diminished because UASs carry no people on board and VAG only operates them in specific areas away from mass populations. Second, there is no fuel on board a UAS and thus the potential for fire or explosions is greatly diminished. Third, the small size and extreme maneuverability of VAG's UASs allow our remote control pilots to avoid hazards. Lastly, given their small size and weight, even when close enough to capture amazing images, VAG's UASs need not be so close to the objects they are focused on. Accordingly, VAG's UASs have operated and will continue to operate at and above current safety levels

6. A Summary The FAA May Publish in the Federal Register:

A. 14C.F.R.21and 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 operational area of VAG's UASs permits exemption from Part 21 because VAG's UASs meet an equivalent level of safety pursuant to Section 333 of the Reform Act. The FAA is authorized to exempt aircraft from the air worthiness 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. VAG'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. The FAA has previously
Issued exemptions to this regulation in Exemption 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 VAG's UASs utilize electronic global positioning systems and six 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 VAG's 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. VAG's UASs are, by definition, unmanned. They therefore do not have a cabin, cockpit or pilot station on which to mark certain words or phrases. Further, two-inch lettering is difficult to place on such small aircraft. Regardless, VAG will mark its UASs in the largest possible lettering 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 Exemptions Nos. 8738, 10167, 10167A and 10700 and 32827.

14 C.F.R. § 91.121 regarding altimeter settings is inapplicable insofar as VAG's UASs utilize electronic global positioning systems 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 VAG's 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. VAG's UASs are, by definition, unmanned. They therefore do not have a cabin, cockpit or pilot station on which to mark certain words or phrases. Further, two-inch lettering is difficult to place on such small aircraft. Regardless, VAG will mark its UASs in the largest possible lettering 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 Exemptions Nos. 8738, 10167, 10167A and 10700.

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

Pursuant to 14 C.F.R. §§ 61.113 (a) & (b), private pilots are limited to non-commercial operations. VAG can achieve an equivalent level of safety as achieved by current Regulations because VAG's UASs do not carry any pilots or passengers. Further, while helpful, a pilot license will not ensure remote control piloting skills, though VAG's pilot vetting and training programs will. Further, private pilot licensees will oversee VAG's UASs with the same skill. Further, the risks attendant to the operation of VAG'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 VAG 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) & (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. VAG's UASs will never operate at an altitude greater than 400 AGL. VAG 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 VAG's UASs, an equivalent level of safety will be achieved.

E. 14 C.F.R. 91.405(a); 407(a) (1); 409(a) (2); 417(a)&(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 VAG should its requested exemption be granted. VAG conducts an extensive maintenance program that involves regular software updates and curative measures for any damaged hardware. Therefore, an equivalent level of safety will be achieved. This is particularly true insofar as VAG has researched and developed its own designs.

F. Summary

VAG 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) & (b);14 C.F.R. § 91.7
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. § 91.409 (a) (2); and, 14 C.F.R. §§ 91.417 (a) & (b) to
commercially operate its fleet of small unmanned vehicles and lightweight unmanned aircraft vehicles in motion picture or industrial operations, to conduct its own research and to develop economic platforms for law enforcement / first responders.

Granting VAG'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. VAG's craft do not contain potentially explosive fuel, are smaller, lighter and more maneuverable than conventional motion picture aircraft. Further, VAG operates at lower altitudes and in controlled airspace. VAG 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 VAG's UASs and therefore the likelihood of death or serious bodily injury is significantly limited. VAG's operation of its UASs, weighting less than 55 pounds and travelling at speeds lower than 50 knots in cordoned off areas will provide at least an equivalent level of safety as that achieved under current FARs.

Accordingly, The Visual Arts Group (VAG), respectfully requests that the FAA grant its exemption request as soon as possible.

Respectfully submitted,

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