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

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

September 3, 2015

Exemption No. 12377A
Regulatory Docket No. FAA–2015–1784

Mr. Christopher Starnes
Starnes Aviation LLC
280 Virginia Avenue Northeast Suite 106
Norton, VA 24273

Dear Mr. Starnes:

This letter is to inform you that we have granted your petition for an amendment. It explains the basis for our decision, describes its effect, and lists any changes to the original conditions and limitations.

By letter dated April 25, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Starnes Aviation LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct photography and video education, training[1], and demonstration. In the August 6, 2015 decision letter, the FAA was unable to approve the Team Black Sheep Discovery Pro and Lumenier QAV500. The FAA is now prepared to act on that request.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested amendment to the exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner. The unmanned aircraft authorized in the original grant are comparable in type, size, weight, speed and operating capabilities to those in this petition.

[1] The petitioner also requested authority to conduct UAS training. At this time, the FAA is unable to authorize UAS operations for training until a further assessment is completed. When the FAA completes its review, we will proceed accordingly and no further action will be required by the petitioner. However, the petitioner is permitted to train its own pilot in commands and visual observers in accordance with condition no. 14 and the other conditions and limitations in this exemption.

Airworthiness Certification

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 relief from 14 CFR part 21, C*ertification procedures for products and parts, Subpart H—Airworthiness Certificates,* and any associated noise certification and testing requirements of part 36, is not necessary.

Our Decision

The FAA has determined that the justification for the issuance of Exemption No. 12377 remains valid and is in the public interest. Therefore, under the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, the operator is granted an amendment to add new aircraft to its UAS operations.

The operator shall add this amendment to its original exemption.

Conditions and Limitations

All conditions and limitations within Grant of Exemption No. 12377 remain in effect except as follows. Condition No. 1 has been updated to reflect the additional aircraft.

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, Team Black Sheep Discovery Pro, and Lumenier QAV500 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.

This exemption terminates on August 31, 2017, unless sooner superseded or rescinded.

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

Enclosures

Date: April 25, 2015

Starnes Aviation LLC
280 Virginia Ave NE Ste 106
Norton, VA 24273
Phone# 276-365-8071
Email: chris@starnesav.com
Christopher Starnes MD – FAA Senior AME 01190

Re: Exemption Request Pursuant to Section 333 of the FMRA and Part 11 of the Federal Aviation Regulations, Seeking Exemption from:
14 C.F.R. Part 21 Subpart H
14 C.F.R. § 21.191(a)
14 C.F.R. § 45.23(b)
14 C.F.R. § 45.27
14 C.F.R. §§ 61.113(a) and (b)
14 C.F.R. § 91.l 19(c)
14 C.F.R. § 91.121
14 C.F.R. § 91.151(a)
14 C.F.R. § 91.405(a)
14 C.F.R. § 91.407(a) (l)
14 C.F.R. §§ 91.409(a) (l) and (2)
14 C.F.R. §§ 91.417(a) and (b)

Dear Sir or Madam:
Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA) and 14 C.F.R. Part 11, Starnes Aviation LLC (SALLC) hereby applies for an exemption from the listed Federal Aviation Regulations (" FARs") and any other necessary to allow operation of its small Unmanned Aircraft Systems ("UAS") for commercial photography and video Education, Training and Demonstration for Emergency First Responders to intergrade UAS into certain Departments of Government. Second is to educate UAS to the Public and The Americans with Disabilities Act (ADA). SALLC will share knowledge with the community that prohibits discrimination against people with disabilities in employment, transportation, public accommodation, communications, and governmental activities. SALLC is opening this door for future opportunities, employment, and business development. Respectful, responsible and safe UAS flying is of the highest priority of our company. UAS operations are conducted under the conditions outlined herein.

Description of Petitioner

Dr. Chris Starnes is a Senior FAA Medical Examiner and Commercial Instrument Rated Pilot. Dr. Starnes writes for The Twin Cessna Flyer and my short story below.
Starnes Aviation was established in 2006 to hold ownership and operation of a part 91 Piper Aztec. C I used the aircraft and business to help me get from rural Virginia to medical meetings and teaching venues. In 2008 I became ill with Leukemia and needed a bone marrow transplant in 2009. I resigned to leave aviation and put my beloved Aztec up for sale. I knew that my life

might be over and my aviation dreams would remain just that. Under the pressure of local peers and a recognized need for a local AME I had requested the FAA allow me to complete AME training in 2007. Today, I spend my time as the Administrator of my wife's Dermatology practice. My practice of being an AME is contained within her office. I practice walking at work but if you see me I'm the guy in the wheelchair with carbon fiber legs. I work every day to get back into the left seat. I work every day to make Cutting Edge Dermatology the best it can be. Coming in for a medical is an emotionally challenging event. I want to do everything I can to educate the community on health or disease and how it relates to aerospace medicine.

SALLC is evolving and opening an exciting new fun venture. Being in a wheelchair I have gotten into flying quad rotors or "drones" for fun. This has given my family and me a new lease on life. Having had the experience of a being a pilot and going thru what I went through was depressing that I would not be able to fly again. UAS has given me that happiness again and a new direction in sharing my knowledge to educate the present to change the future for UAS safety in national air space. Being a writer for a publication in aviation, this will allow SALLC to share UAS safety article's to a larger community.

Aircraft

Starnes Aviation LLC will operate 1: Team Black Sheep Discovery pro with aerial mob arm extensions which allow 15.5"props. 400kv motors, 6s batteries 2-3 batteries with 4000mwh each. This allows 45-55 min flight time. Dji naza m v2, 5.8ghz video tbs (team black sheep) 500 mw transmitter, ir distro camera and tbs 59 fpv camera, mountable gopro, ground station hooked to ipad and projector to large white screen for public education. 2.4 ghz ground station for programming, with rc control on 2.4 or ez uhf from immersion rc - frsky tarranis controller. Weight of aircraft 4.4lb.
2: lumenier qav500 with 540mm arms for 12" props. Tmotor u3 motors, beechwood tmotor 12" props, dji naza m v2, lightbridge, 900mhz ground station dji, 2.4 ghz frsky trannis control or ezuhf, dji zenmuse gh3 gimbal with gopro or ir distro. 4s battery - 4000, 5200 and 8000 mwh battery options. 4.4 lb aircraft weight

3: DJI Inspire 1, Model T600, with a total weight of 2935g or 6.47lbs. The dimensions are 438mm x 451mm x 301mm or 17.24inch x 17.75inch x 11.85 inches. Under still air the Maximum speed is no more than 22m/s or 49mph with a cruising speed of 11m/s or 25mph. The DJI Inspire 1 has the ability to hover and move along a vertical and horizontal plane simultaneously. The DJI Inspire 1 has four motors, Motor Model DJI 3510, powered by a 6-cell 4500mAh or 5700mAh Lithium Polymer battery. There are four propellers, Propeller Model DJI 1345, in use. The DJI Inspire 1 will be controlled with the C1 remote controller with an operating frequency of 2.400GHz – 2.483GHz. The live video feed will have an operating frequency of 5.728GHz – 5.850GHz. DJI Inspire 1 has a program to limit height it will be set to 200ft AGL.
See link: http://team-blacksheep.com/products/prod:discopro http://www.lumenier.com/products/multirotors/qav500 http://www.dji.com/product/inspire-1/spec

AIRCRAFT AND EQUIVALENT LEVEL OF SAFETY.

The UAS will weigh less than 55 lbs.
The UAS will have a maximum operating speed of no more than 50mph.
Flights will be operated within line of sight of the Pilot in Command (PIC) and/or Visual Observer (VO).
Maximum flight time for each operational flight will be 30 minutes. Flights will be terminated at 25% battery power reserve or 30 minutes of flight time whichever occurs first.
Flights will be operated at an altitude of no more than 200 feet Above Ground Level (AGL) and remain in the line of sight.
Minimum crew for each operation will consist of the UAS Pilot, the Visual Observer (VO) and may include but not limited to a Camera Operator.
The UAS pilot will be a designated Pilot in Command (PIC).
A briefing will be performed regarding the planned UAS operations prior to each day's flight.
The flights will occur no closer than a 5 mile radius of the geographic center/Airport Reference Point (ARP) of a tower controlled or uncontrolled airport.
If operations will be within a 5 mile radius of the geographic center/Airport Reference Point (ARP) of a tower controlled or uncontrolled airport the respective airports will be contacted advising them of the estimated flight time, flight duration, elevation of flight and other pertinent information.
The PIC and VO will have been trained in operation of UAS and receive up-to-date information for the particular UAS to be operated.
The PIC and VO will be able to communicate by voice, radio, and/or text at all times.
If the UAS loses communications with the remote controller or loses GPS signal, the UAS will have the capability to return to a pre-determined location within a designated location and land autonomously.
The UAS will have the capability to abort a flight in case of unpredicted obstacles, weather, or emergencies.
UAS has in its program to limit height and distance from PIC.

I. The Extent of Relief Starnes Aviation LLC Seeks and the Reason It Seeks Such Relief:
Starnes Aviation LLC submits this application in accordance with the Reform Act, 112 P.L. 95 §§331- 334, seeking relief from any currently applicable federal aviation regulations PARs pertaining to UASs (unmanned aircraft systems) and operating to prevent Starnes Aviation LLC contemplated commercial photography, Photographic mapping, and other flight operations within the U.S. national airspace system.
The Reform Act in §332 provides for such integration of civil UASs into our national airspace system as it is in the public's interest to do so. Starnes Aviation LLC lightweight UASs meet the definition of "small unmanned aircraft" as set forth in §331 and combined with a sterling safety record in similar industries, Starnes Aviation LLC light duty UASs are ideal recipients of exemption by the intent of the Reform Act.
Considerations for relief include a combination of sUAS physical characteristics, safety features, and safe practices identified in §333:
• sUAS weight, • sUAS overall size, • sUAS speed over ground, • sUAS flight zone characteristics,
- Non-operation near airports (civilian or military),
- Tightly controlled operation in populated areas,

Re: Exemption Request Pursuant To Section 333 of the FAA Reform Act of2012

• Operation of the UAS by VLOS. • Coordination by a minimum of 2 persons, 2 staff members of SALLC and one safety official from

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 sUASs, an exemption from Part 21 Subpart H meets the requirements of an equivalent level of safety under Part 11 and §333 of the Reform Act. 111e Federal Aviation Act (49 U.S.C.§4470 1 (f)) and §333 of the Reform Act 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 sUAS. 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 sUAS to be operated by SALLC is less than 10 lb. with maximal payload consisting of remote sensing instrumentation, carries neither no persons, carries no explosive or flammable materials including combustible fuels, and operates exclusively within a secured area. Unlike other civil aircraft, operations under this exemption will be tightly controlled and monitored by both the pilot (PIC), 'spotter' role designated to act as both the remote sensing controller and secondary monitor for safety issues, and a technician, which assists in matters related to maintaining the sUAS and also monitors for safety concerns and liaisons to the on-site safety officials. These enhancements to current safety practices and regulations, which already apply to civil aircraft, provide a greater degree of safety to the public and property owners than conventional aircraft 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 intrinsic credible threat to national security posed by the UAS, due to its size, speed of operation, location of operation, lack of intrinsic 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 sUAS will have no airworthiness certificate, an exemption may be needed as the sUAS will have no entrance to the cabin, cockpit or pilot station on which the word "Experimental" can be placed. Given the size of the sUAS, two-inch lettering will be impossible. The word "Experimental" will be placed on the frame in compliance with §45.29 (f) at a size suitable for the available space.

Re: Exemption Request Pursuant To Section 333 of the FAA Reform Act of2012

14 C.P.R. §61.113 (a) & (b): Private Pilot Privileges and Limitations: Pilot in Command. §61.113 (a) & (b) limit private pilots to non-commercial operations. Because the sUAS will not carry a pilot or passengers, the proposed operations can achieve the equivalent level of safety of current operations by requiring a ground crew member to have a private pilot's license rather than a commercial pilot's license to operate this sUAS. Unlike a conventional aircraft that carries the pilot and passengers, the sUAS is remotely controlled with no persons on board. The area of operation is controlled and restricted, and all flights are planned and coordinated in advance. The risks associated with the operation of the sUAS are so diminished from the level of risk associated with commercial operations contemplated by Part 61 when drafted, that allowing operations as requested with a private pilot in the ground crew exceeds the present level of safety achieved by 14 C.P.R. §61.1 13 (a) & (b).

14 C.P.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 in the Manual for maintenance and use of safety check lists prior to each flight, a subset of which are provided in enclosed Supplemental material, an equivalent level of safety will be provided.

14 C.F.R. §91.9 (b) (2): Civil Aircraft Flight Manual in the Aircraft. §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 sUAS, given its size and configuration has no ability to carry a physical flight manual on the aircraft. The equivalent level of safety will be maintained by keeping the flight manual at the ground control point where the pilot flying the sUAS 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: Preflight action this regulation requires each PIC 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. The PIC will take all actions including reviewing weather, flight battery requirements, landing and takeoff distances and aircraft performance data before initiation of flight. Further, we have proprietary manuals created with the help of sUAS experts, the manufacturer, the regional sUAS vendor and policy holding insurer and continue to work with these organizations to ensure best safe practices are adhered to.

14 C.P.R. §91.109: Flight instruction §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. sUASs and remotely piloted aircraft, by their design do not have fully functional dual controls. Flight control is accomplished through the use of a control box that communicates with the aircraft via radio communications. 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. Enhancing this safety is the technology inherent in the remote controls utilizing digital communications which is paired to the sUAS making it nearly impossible to unintentionally or intentionally have the control communications interrupted.

14 C.F.R. §91.119: Minimum safe altitudes §91.119 establishes safe altitudes for operation of civil aircraft. §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. As this exemption is for a sUAS that closely mimics the behavior of a helicopter, and the exemption requests authority to operate at altitudes up to 400 AGL, an exemption may be needed to allow such operations. As set forth herein, the UAS will never operate at higher than 400 AGL or beyond unaided visual line of sight, whichever is closer. It will however be operated in a restricted area with security officials tasked with ensuring public safety, and where buildings and people will not be exposed to operations without their pre-obtained consent and training.
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 operation will be taken without the permission of the property owner in the case of private property or local officials i the case of public property or private property with public interests. Because of the advance notice to the property owner and participants in the remote sensing activity, all affected individuals will be aware of the planned flight operations. Compared to flight operations with aircraft or rotorcraft weighting far more than the maximum 10 lb of SALLC sUASs proposed herein and the lack of flammable fuel, any risk associated with these operations is far less than those presently presented with conventional aircraft operating at or below 500 AGL. In addition, the low-altitude operations of the sUAS will ensure separation between these small- UAS operations and the operations of conventional aircraft that must comply with §91.119.
14 C.F.R. §91. 121 Altimeter Settings §91.121 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 sUAS 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, confirming the altitude of the launch site shown on the GPS altitude indicator before flight. The PIC and Technician will also ensure effective pairing with multiple GPS sources to guarantee accurate detection of height.

14 C.F.R. §9 1.151 (a): Fuel Requirements for Flight in VFR Conditions §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 sUAS provides approximately 15 minutes of powered flight in hover mode without payload. SALLC sUAS will not be able to meet the 30 minute reserve requirement in 14 CPR §91.151. Operating the small UAS, in a tightly controlled area where only people and property owners or official representatives who have signed waivers will be allowed, with less than 30 minutes of reserve power, does not engender the type of risks that Section 91.151(a) was intended to alleviate given the size and speed of the small UAS. SALLC believes that an equivalent level of safety can be

achieved by limiting flights to » 10 minutes or 25% of battery power whichever happens first. This restriction would be more than adequate to return the sUAS toils planned landing zone from anywhere in its limited operating area. Similar exemptions have been granted to other operations, including Exemptions 2689F, 5745, 10673, and

Re: Exemption Request Pursuant To Section 333 of the FAA Reform Act of2012

14 C.P.R. §91.203 (a) & (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 sUAS fully loaded weighs no more than l0 lb 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 sUAS. An equivalent level of safety will be achieved by keeping these documents at the ground control point where the pilot flying the sUAS will have immediate access to them, to the extent they are applicable to the sUAS. 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.P.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, these sections will not apply to the applicant. Maintenance will be accomplished by the operator pursuant to the flight manual. An equivalent level of safety will be achieved because these small UASs are very limited in size and will carry a small payload and operate only in restricted areas for limited periods of time. If mechanical issues arise the UAS can land immediately and will be operating from no higher than 400 feet AGL. 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.

An exemption granted to SALLC would permit its operation of lightweight, unmanned, remotely controlled, sUASs in a tightly controlled environment with limited airspace. SALLC utilizes local business' safety officers in specifically determined areas (designed flight zone) to mitigate injury and property damage while fulfilling clients' goals. Technical enhancements to current safety controls will allow SALLC to operate exceeding current safety specifications, and stay ahead of, or meet, new ones being implemented by the FAA and Department of Transportation. Further, SALLC conducts its operations in compliance with protocols described herein or as otherwise established by the FAA.

Summary the FAA may publish in the Federal Register:
14 C.F.R. 21 and 14 C.F.R. 91: Airworthiness Certificates, Manuals and alike. 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)(l).
The size, weight and enclosed operational area of SALLC permit exemption from Part 21 because SALLC meet an equivalent level of safety pursuant to Section 333 of the 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 A. Section 333 of the Reform Act. Both pieces of legislation permit the FAA to exempt UAS's from the airworthiness certificate requirement in consideration of the weight, size, speed, maneuverability and proximity to areas such as airports and dense populations. SALLC 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 UAS's, this Regulation is inapplicable. An equivalent level of safety will be achieved by maintaining a Flight log.
14 C.F.R. § 91.121 regarding altimeter settings is inapplicable insofar as SALLC UAS's utilize electronic global positioning systems and internal gyroscopes to provide spatial coordination. Also preprogram height and distance.
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 information buy flight log at the SALLC Office.
14 C.F.R. § 45.23: Marking of the Aircraft. Applicable Codes of Federal Regulation require aircraft to be marked according to certain specifications. SALLC 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.
14 C.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. SALLC can achieve an equivalent level of safety as achieved by current Regulations because SALLC do not carry any pilots or passengers.
Further, while helpful, a pilot license will not ensure remote control piloting skills, though SALLC pilot vetting and training programs (based upon completion of an FAA Approved Ground School and a self-administered UAS flight training program and internal procedures will. All Further, the risks attendant to the operation of SALLC is far less than the risk levels inherent in the commercial activities outlined in 14 C.F.R. § 61, et seq.
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. SALLC will never operate at an altitude greater than 200 AGL. SALLC will, however, operate its UAS's in sectioned 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 SALLC, an equivalent level of safety will be achieved.
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 SALLC should its requested exemption be granted. SALLC maintenance program will be to send UAS to a certified repair shop that involves regular software updates and constant inspection for assessment of any damaged hardware. Therefore, an equivalent level of safety will be achieved.

Summary

Starnes Aviation LLC seeks an exemption from the following Regulations: 14 C.F.R. 21, subpart H; 14 C.P.R. 45.23(b); 14 C.F.R. §§ 61.113 (a) & (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.P.R.§ 91.409 (a)(2); 14 C.P.R. § 91.409 (a)(2); and, 14 C.P.R.§§ 91.417 (a) & (b) to operate its fleet for commercial photograph/video with education /demonstration to Emergency Services, Community education and ADA program's. SALLC will offer education to change the present and change the future. America's NAS and economic future is bright if SALLC is granted the opportunity to educate our state and neighboring states to be respectful and responsible operators as hobbyist and future professionals of UAS. Granting SALLC request for exemption will reduce current risk levels and thereby enhance safety. Further, SALLC operates at lower altitudes and in controlled airspace. SALLC owner have strong ties to its aviation community to affect change if exemption is granted. UAS's and therefore the likelihood of death or serious bodily injury are significantly limited.

SALLC respectfully requests that the FAA grants its exemption request without delay. The FAA has the authority to issue the exemption sought by Starnes Aviation LLC pursuant to the Federal Aviation Act, 85 P.L. 726 (1958), as amended (the "Act").

Sincerely,

Christopher Starnes MD FACP AME