Exemption No. 11191

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, DC 20591

In the matter of the petition of

SINGER'S CREATIONS

for an exemption from part 21 Subpart H; § 61.113(a) and (b); 61.23(a); §§ 91.109; 91.121; 91.151(a); 91.405(a); 91.407(a)(1); 91.409(a)(1) and (2); and 91.417(a) and (b) of Title 14, Code of Federal Regulations

Regulatory Docket No. FAA–2014–0915

GRANT OF EXEMPTION

By letter dated November 2, 2014, Mr. Michael Singer, Founder, Singer's Creations (hereinafter petitioner or operator), 4075 Linglestown Road, PMB #333, Harrisburg, PA 17112, petitioned the Federal Aviation Administration (FAA) for an exemption from part 21 Subpart H and §§ 61.113(a) and (b); 61.23(a), 91.109, 91.121, 91.151(a), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b) of Title 14, Code of Federal Regulations (14 CFR). The exemption would allow the petitioner to operate the DJI Phantom 2 Vision + unmanned aircraft system (UAS) to conduct aerial photography and videography for homeowners, realtors, home builders, home contractors, and/or home inspectors for real estate marketing and inspections of home exteriors.

The petitioner supports its request with the following information:

The petitioner proposes to operate the DJI S Phantom 2 Vision + UAS primarily to conduct aerial photography and videography for homeowners, realtors, home builders, home contractors, and/or home inspectors for real estate marketing and inspections of home exteriors. See Appendix A for the petition submitted to the FAA, including the regulations from which the petitioner seeks an exemption.

The petitioner has provided the following information to support its request for an exemption, which includes the petition and supporting documents:

1) Phantom Training Guide,
2) Phantom User Manual,
3) Phantom Guide, and
4) Academy of Model Aeronautics (AMA) Safety Code

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.

The FAA's analysis is as follows:

The FAA has organized its analysis into four sections: (1) Unmanned Aircraft System (UAS), (2) the UAS pilot in command (PIC), (3) the UAS operating parameters, and (4) the public interest.

Unmanned Aircraft System (UAS)

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 P.L. 112-95 in reference to 49 USC § 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 parts 21, and any associated noise certification and testing requirements of part 36, is not necessary.

Manned helicopters conducting aerial filming can weigh thousands of pounds or more and are operated by an onboard pilot, in addition to other onboard crewmembers, as necessary. The petitioner's unmanned aircraft (UA) will weigh less than 6 lbs. with no onboard pilot or crew. The pilot and crew will be remotely located from the aircraft. The limited weight significantly reduces the potential for harm to participating and nonparticipating individuals or property in the event of an incident or accident. The risk to an onboard pilot and crew during an incident or accident is eliminated with the use of a UA for the aerial filming operation.

Manned aircraft are at risk of fuel spillage and fire in the event of an incident or accident. The petitioner's UA carries no fuel, and therefore the risk of fire following an incident or accident due to fuel spillage is eliminated.

This exemption does not require an electronic means to monitor and communicate with other aircraft, such as transponders or sense and avoid technology. Rather the FAA is mitigating the risk of these operations by placing limits on altitude, requiring stand-off distance from clouds,

permitting daytime operations only, requiring that the UA be operated within visual line of sight (VLOS), utilizing a visual observer for all flights, and yielding right of way to all other operations. Additionally, the exemption provides that the operator will request a notice to airmen (NOTAM) prior to operations to alert other users of the NAS. These mitigations address awareness of UAS operations occurring in the airspace.

The petitioner's UAS has the capability to operate safely after experiencing certain in-flight contingencies or failures and uses an auto-pilot system to maintain UAS stability and control. The UAS is also able to respond to a loss of global positioning system (GPS) or a lost-link event with a pre-coordinated, predictable, automated flight maneuver. These safety features provide an equivalent level of safety compared to a manned aircraft performing a similar operation and mitigate the risk of command and control link failures.

Regarding the petitioner's requested relief from 14 CFR §§ 91.405 (a) *Maintenance required*, 91.407(a)(1) O*peration after maintenance, preventive maintenance, rebuilding, or alteration*, 91.409(a)(1) and (a)(2) *Inspections*, and 91.417(a) and (b) *Maintenance records*, the FAA has carefully evaluated the petitioner's request and determined that cause for granting the exemption is warranted. The FAA notes that the petitioner's UAS operating documents contain detailed preflight checks, as well as routine maintenance, preventative maintenance, replacement of component parts and alterations for the UAS. The FAA finds that adherence to the petitioner's operating documents and the conditions and limitations below are sufficient to ensure that safety is not adversely affected. In accordance with the petitioner's UAS maintenance, inspection, and recordkeeping requirements, the FAA finds that exemption from 14 CFR §§ 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b) is warranted subject to the conditions and limitations below.

UAS Pilot in Command (PIC)

Regarding 14 CFR § 61.113(a) and (b) *Private pilot privileges and limitations*, the petitioner requested regulatory relief to operate its UAS without an FAA-certificated pilot and relief from 14 CFR § 61.23(a) *Operations requiring a medical certificate* stating neither would improve safety. However, the FAA does not possess the authority to exempt the petitioner from the statutory requirement to hold an airman certificate, as prescribed in 49 USC § 44711.

Although Section 333 provides limited statutory flexibility relative to 49 USC § 44704 for the purposes of airworthiness certification, it does not provide flexibility relative to other sections of 49 USC. The FAA does not possess the authority to exempt petitioner from the statutory requirement to hold an airman certificate, as prescribed in 49 USC § 44711. For further information see Exemption No. 11110, Trimble Navigation, Ltd.

The FAA is also requiring a pilot certificate for UAS operations because pilots holding an FAA issued private or commercial pilot certificate are subject to the security screening by the Department of Homeland Security that certificated airmen undergo. As previously determined

by the Secretary, the requirement to have an airman certificate ameliorates security concerns over civil UAS operations conducted in accordance with Section 333.

Given the above, the FAA must determine the appropriate level of pilot certification for the petitioner's proposed operation.

Under current regulations, civil operations for compensation or hire require a PIC holding a commercial pilot certificate per 14 CFR part 61. Based on the private pilot limitations in accordance with pertinent parts of 14 CFR §61.113(a), a pilot holding a private pilot certificate cannot act as a PIC of an aircraft for compensation or hire. However, in Grant of Exemption No. 11062 to Astraeus Aerial (Astraeus), the FAA determined that a PIC with a private pilot certificate operating the Astraeus UAS would not adversely affect operations in the NAS or present a hazard to persons or property on the ground.

The FAA has analyzed the petitioner's proposed operation and has determined that it does not differ significantly from the situation described in Grant of Exemption No. 11062 (Astraeus Aerial). The petitioner plans to operate over private property with controlled access in the NAS. Given: 1) the similar nature of the petitioner's proposed operating environment to that of Astraeus, 2) the parallel nature of private pilot aeronautical knowledge requirements to those of commercial requirements [ref: Exemption No. 11062], and 3) the airmanship skills necessary to operate the UAS, the FAA finds that the additional airmanship experience of a commercially certificated pilot would not correlate to the airmanship skills necessary for the petitioner's specific proposed operations. Therefore, the FAA finds that a PIC holding a private pilot certificate and a third-class airman medical certificate is appropriate for the proposed operations.

With regard to PIC's training program, the petitioner has proposed that prior to the first commercial operation the PIC be required to perform the greater of 20 flights or 20 hours of flight time in the Phantom UAS, as well as successfully demonstrate flight maneuvers specified in the Phantom Pilot Training Guide and study and be familiar with Phantom 2 Vision+ manuals identified in the petition. The conditions and limitations below stipulate that the petitioner may not permit any PIC to operate unless that PIC has demonstrated through the petitioner's training and currency requirements that the PIC is able 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 people, vessels, vehicles and structures.

The petitioner proposed that its PIC would not hold a medical certificate. As outlined in 14 CFR § 61.23, airmen exercising the privileges of a private certificate must possess a current third-class medical certificate.

In conclusion, the FAA finds that a PIC holding a private pilot certificate and a third-class airman medical certificate and who has completed the petitioner's UAS training and currency requirements can conduct the proposed UAS operations without adversely affecting the safety

of the NAS or persons or property on the ground. Upon consideration of the overall safety case presented by the petitioner and the concerns of the commenters, the FAA finds that granting the requested relief from 14 CFR § 61.113(a) is warranted. The FAA also finds that relief from 14 CFR § 61.113(b) is not needed. Relief from 14 CFR § 61.23(a) is not granted.

The petitioner has not indicated it will supplement its proposed operation(s) with a visual observer (VO). In Grant of Exemption No. 11062, the FAA agreed with the petitioner's proposed use of a VO and required a VO to be used in all UAS operations. However, the FAA considers the PIC's ability to maintain VLOS with the UAS to be of primary significance and thus the medical certification requirement falls only on the PIC. Although a medical certificate is not required for a VO, the UA must never be operated beyond the actual visual capabilities of the VO, and the VO and PIC must have the ability to maintain VLOS with the UA at all times. It is the responsibility of the PIC to be aware of the VO's visual limitations and limit operations of the UA to distances within the visual capabilities of both the PIC and VO. Moreover, the VO will not be operating the aircraft. Therefore, as in Grant of Exemption No. 11062, the FAA does not consider a medical certificate necessary for the VO and the requirement for a VO is included in the conditions and limitations below.

The FAA considers the PIC to be designated for the duration of the flight. Therefore, per the conditions and limitations below, the PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight.

UAS Operating Parameters

Though the petitioner did not request relief from 14 CFR § 91.7(a) *Civil aircraft airworthiness*, the FAA finds the relief is necessary. While the UAS will not require an airworthiness certificate in accordance with 14 CFR part 21, Subpart H, the FAA considers the petitioner's compliance with its operating documents to be sufficient means for determining an airworthy condition in accordance with § 91.7(a). Therefore, relief from § 91.7(a) is granted. The petitioner is still required to ensure that its aircraft is in an airworthy condition – based on compliance with manuals and checklists identified above – prior to every flight.

Additionally, in accordance with 14 CFR § 91.7(b), the PIC of the UAS is responsible for determining whether the aircraft is in a condition for safe flight and the FAA finds that the PIC can comply with this requirement.

Regarding the petitioner's requested relief from 14 CFR § 91.109 *Flight instruction; Simulated instrument flight and certain flight tests,* the petitioner did not describe training scenarios in which a dual set of controls would be utilized or required, i.e. dual flight instruction, provided by a flight instructor or other company-designated individual, that would require that individual to have fully functioning dual controls. Rather, the petitioner intends to accomplish training as referenced in the operating documents. Furthermore, the FAA is requiring that the petitioner's PICs possess at least a private pilot's certificate. Also,

this exemption will require that training operations only be conducted during dedicated training sessions. The FAA finds that safety will not be adversely impacted if the petitioner follows the training outlined in the operating documents. As such, the FAA finds that the petitioner can conduct its operations without the requested relief from § 91.109.

The petitioner did not request relief from 14 CFR § 91.119(c) *Minimum safe altitudes:* (c), *Over other than congested area.* However, the petitioner states operations will be conducted in areas with controlled access and would provide safety enhancements above those in the AMA Safety Code. While the petitioner proposes to operate the UA no more than 400 feet above ground level (AGL), it failed to provide an explanation for exposing nonparticipating persons to increased risk due to their proximity to the operations. Therefore, the FAA is requiring that prior to conducting UAS specific operations all persons not essential to flight operations (nonparticipating persons) must remain at appropriate distances. In open areas this requires the UA to remain 500 feet from all persons other than essential flight personnel (i.e. the PIC and VO). The FAA has also considered that the UA in this case will weigh less than 6 pounds. If barriers or structures are present that can sufficiently protect nonparticipating persons from debris in the event of an accident then the UA may operate closer than 500 feet to persons afforded such protection. 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. The primary concern, when considering how to immediately cease operations, is the safety of those nonparticipating persons. In addition, the FAA finds that operations may be conducted closer than 500 feet to vessels, vehicles and structures when the land owner/controller grants such permission and the PIC makes a safety assessment of the risk of operating closer to those objects.

Thus, the FAA finds that relief from § 91.119(c) is necessary because all operations will be conducted below 400 feet AGL and may be operated closer than 500 feet from persons, vessels, vehicles, and structures as described above. Provided adherence to the procedures in the operating documents and the additional conditions and limitations outlined below, the FAA finds that relief from § 91.119(c) is warranted.

Regarding the petitioner's requested relief from 14 CFR § 91.121 *Altimeter Settings*, the FAA believes that an altitude reading is a critical safety component of the petitioner's proposed operation. Although the petitioner will not have a typical barometric altimeter onboard the aircraft, the FAA finds the petitioner's intention to operate the UA within VLOS and at or below 400 feet AGL, combined with the petitioner's intention to provide altitude information to the UAS pilot via a radio communications telemetry data link, which downlinks from the aircraft to the PIC for active monitoring of the flight path, to be a sufficient method for ensuring the UAS operations do not adversely affect safety. The altitude information will be generated by GPS equipment installed onboard the aircraft, and/or a static pressure sensor (barometer) which aids in estimating the altitude. Prior to each flight, a zero altitude initiation point must be established and confirmed for accuracy by the UAS PIC. The FAA has determined that good cause exists for granting the requested relief to 14 CFR 91.

The petitioner has also requested relief from § 91.151 (a) *Fuel requirements for flight in VFR conditions. S*imilar UAS-specific relief has been granted an Exemption Nos. 8811, 10808, and 10673 for daytime, Visual Flight Rules (VFR) conditions. The petitioner's UAS provides low battery warnings at 30% capacity that indicate the PIC must command the UA's return to the launch point when low battery capacity voltage is reached. The UAS also provides critical low battery warnings at 15% battery capacity indicating that the UA will begin to descend and land automatically. These factors provide the FAA with sufficient reason to grant the relief from 14 CFR § 91.151(a) as requested in accordance with the conditions and limitations below. The PIC will be prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough power to fly at normal cruising speed to the intended landing point and land the UA with 30% battery power remaining.

Regarding an Air Traffic Organization (ATO) issued Certificate of Waiver or Authorization (COA), the majority of current UAS operations occurring in the National Airspace System (NAS) are being coordinated through Air Traffic Control (ATC) by the issuance of a COA. This is an existing process that not only makes local ATC facilities aware of UAS operations, but also provides ATC the ability to consider airspace issues that are unique to UAS operations. The COA will require the operator to request a Notice to Airmen (NOTAM), which is the mechanism for alerting other users of the NAS to the UAS activities being conducted. Therefore, the FAA believes that adherence to this process is the safest and most expeditious way to permit the petitioner to conduct their proposed UAS operations.

Public Interest

The FAA finds that a grant of exemption is in the public interest. The enhanced safety and reduced environmental impact achieved using a 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.

The following table summarizes the FAA's determinations regarding the relief sought by the petitioner:

Relief considered (14 CFR)	FAA determination (14 CFR)
21 Subpart H	Relief not necessary
61.113(a) and (b)	Relief for 61.113(a) granted with conditions and limitations; relief for 61.113(b) is not necessary
61.23(a)	Relief not granted
91.7(a)	Relief granted with conditions and limitations
91.109	Relief not necessary
91.119(c)	Relief granted with conditions and limitations
91.121	Relief granted with conditions and limitations
91.151(a)	Relief for (a)(1), day, granted with conditions and limitations
91.405(a)	Relief granted with conditions and limitations
91.407(a)(1)	Relief granted with conditions and limitations
91.409(a)(1) and (2)	Relief granted with conditions and limitations
91.417(a) and (b)	Relief granted with conditions and limitations

The FAA's 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, Singer's Creations is granted an exemption from 14 CFR §§ 61.113(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 conduct aerial photography and videography for homeowners, realtors, home builders, home contractors, and/or home inspectors for use in real estate marketing and inspections of home exteriors.

This exemption is subject to the conditions and limitations listed below.

Conditions and Limitations

Relative to this grant of exemption**,** Singer's Creations is hereafter referred to as the operator.

The petition and the following supporting documentation are hereinafter referred to as the operating documents:

1) Phantom Training Guide,
2) Phantom User Manual,
3) Phantom Guide,
4) Academy of Model Aeronautics (AMA) Safety Code

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 following aircraft described in the operating documents which is the DJI Phantom 2 Vision + Unmanned Aircraft System, a quad rotor aircraft with a maximum takeoff weight of less than 6 pounds. Proposed operations of any other aircraft will require a new petition or a petition to amend this grant.

2. UAS operations under this exemption are limited to aerial photography and videography for homeowners, realtors, home builders, home contractors, and/or home inspectors for use in real estate marketing and inspections of home exteriors.

3. The UA may not be flown at an indicated airspeed exceeding 29 knots (15 m/s).

4. The UA must be operated at an altitude of no more than 400 feet above ground level (AGL), as indicated by the procedures specified in the operating documents. All altitudes reported to ATC must be 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.

6. All operations must utilize a visual observer (VO). The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times. 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.

7. The VO must not perform any other duties beyond assisting the PIC with seeing and avoiding other air traffic and other ground based obstacles/obstructions and is not permitted to operate the camera or other instruments.

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

9. Prior to each flight the PIC must inspect the UAS to ensure it is in a condition for safe flight. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight. The Ground Control Station must be included in the preflight inspection. All maintenance and alterations must be properly documented in the aircraft records.

10. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics, e.g. replacement of a flight critical component, must undergo a functional test flight in accordance with the operating documents. The PIC who conducts the functional test flight must make an entry in the UAS aircraft records of the flight. The requirements and procedures for a functional test flight and aircraft record entry must be added to the operating documents.

11. The preflight inspection section in the operating documents must be amended to include the following requirement: The preflight inspection must account for all discrepancies, i.e. inoperable components, items, or equipment, not covered in the relevant preflight inspection sections of the operating documents.

12. The operator must follow the manufacturer's UAS aircraft/component, maintenance, overhaul, replacement, inspection, and life limit requirements, with particular attention to flight critical components that may not be addressed in the manufacturer's manuals.

13. The operator must carry out their maintenance, inspections, and record keeping requirements, in accordance with the operating documents. Maintenance, inspection, and alterations must be noted in the aircraft logbook, including total flight hours,

description of work accomplished, and the signature of the authorized UAS technician returning the UAS to service.

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

15. The authorized person must make a record entry in the aircraft record of the corrective action taken against discrepancies discovered between inspections.

16. The PIC must possess at least a private pilot certificate and a third-class airman medical certificate for all of petitioner's flight operations. 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.

17. Prior to operations, the PIC must have completed the operator's training and currency requirements as prescribed in the operating documents. During that training, the PIC must have accumulated and logged, in a manner consistent with 14 CFR § 61.51(b), the minimum hours prescribe in the operating documents as UAS pilot operating the make and model of the UAS to be utilized for operations under the exemption. Training, proficiency, and experience-building flights can be conducted under this grant of exemption to qualify the operator's PIC(s), VO(s) and other essential personnel as defined in the operating documents. However, said training operations may only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights the PIC is required to operate the UA with appropriate distances in accordance with 14 CFR § 91.119.

18. The operator may not permit any PIC to operate unless that PIC has demonstrated through the operator's training and currency requirements that the PIC is able 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 people, vessels, vehicles and structures.

19. 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.

20. The UA may not operate within 5 nautical miles of an airport reference point as denoted on a current FAA-published aeronautical chart unless a letter of agreement with that airport's management is obtained, and the operation is conducted in accordance with a NOTAM as required by the operator's COA. The letter of agreement with the airport management must be made available to the Administrator upon request.

21. 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.

22. 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 and land or be recovered in accordance with the operating documents.

23. The PIC must abort the flight in the event of unpredicted obstacles or emergencies in accordance with the operating documents.

24. The PIC will be prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough power to fly at normal cruising speed to the intended landing point and land the UA with 30% battery power remaining in accordance with the operating documents.

25. The operator must obtain an Air Traffic Organization (ATO) issued Certificate of Waiver or Authorization (COA) prior to conducting any operations under this grant of exemption. This COA will also require the operator to request a Notice to Airman (NOTAM) not more than 72 hours in advance, but not less than 48 hours prior to the operation. All operations shall be conducted in accordance with airspace requirements in the ATO issued COA including class of airspace, altitude level and potential transponder requirements.

26. 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.

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

28. The documents required under 14 CFR §§ 91.9 and 91.203 must be available to the PIC at the Ground Control Station of the UAS any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.

29. The UA must remain clear and yield the right of way to all other aviation operations and activities at all times.

30. The UAS may not be operated by the PIC from any moving device or vehicle.

31. Flight operations must be conducted at least 500 feet from all nonparticipating persons (persons other than the PIC or VO), vessels, vehicles, and structures unless:

a. Barriers or structures are present that sufficiently protect nonparticipating persons from 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 and/or;
b. The aircraft is operated near vessels, vehicles or structures where the land owner/controller has granted permission and the PIC has made a safety assessment of the risk of operating closer to those objects and;
c. Operations near the PIC or VO do not present an undue hazard to the PIC or VO per § 91.119(a).

32. 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 prior to the beginning of every flight.

33. 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.

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 March 31, 2017, unless sooner superseded or rescinded.

Issued in Washington, DC, on March 3, 2015.

/s/
John Barbagallo
Acting Deputy Director, Flight Standards Service