



Blue-Chip Unmanned Aerial Solutions Inc.

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September 30, 2014

U.S. Department of Transportation  
Docket Operations  
1200 New Jersey Ave., SE  
Washington, DC 20590

**Re: Submission of Request for Authorization to Conduct Unmanned Aircraft Systems Operations Allowed by Section 333 of the FAA Modernization and Reform Act of 2012 Through the Exemption Process Identified Under 14 C.F.R. Section 11.81**

Dear Sir/Madam,

Pursuant to Section 333 of PL 112-95 commonly known as the “FAA Modernization and Reform Act of 2012” or “The Reform Act”, Blue-Chip Unmanned Aerial Solutions Inc. (d/b/a Blue-Chip UAS), hereby applies for authorization to conduct commercial unmanned aerial systems (UAS) operations for the agriculture, oil and gas, aerial photography and wildlife preservation industries, within the United States National Airspace System (NAS); within Class G and occasionally E airspace, along with additional restrictions identified herein.

This request is separate from any and all Certificate of Authorization/Waiver (COA) requests submitted by public agencies identifying, Blue-Chip UAS (or its affiliates), as their UAS contract service provider authorized under Sec. 334 of the “Reform Act.”

This request does not pertain to any and all activities conducted under the guidance of the Department of Defense while operating over restricted military airspace during military exercises in which, Blue-Chip UAS (or its affiliates), has been identified as a participant in providing UAS operations and support.

Contained within is detailed information on why the approval of this request is in the "...public's interest..." and how the approval will "...provide a level of safety at least equal to that provided by the rule..." Blue-Chip UAS, seeks exemption from. In addition, through their vast operational experience in the UAS field seen nowhere within the civilian community, Blue-Chip UAS will indicate how the approval will facilitate their ability to work with the FAA to "...safely accelerate the integration of civil unmanned aircraft systems into the national airspace system..." as directed by Congress.

Thank you for your time and consideration in this matter and please feel free to contact me with additional information or requests you may desire.

A handwritten signature in black ink, appearing to read 'C. Stevens', with a stylized flourish at the end.

Clint P. Stevens  
President and CEO  
Blue-Chip UAS

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### Additional Documentation:

- Flight Planning Document (*Proprietary - provided as secondary document*)
- Magpie UAS Operations Manual (*Proprietary - provided as secondary document upon request*)
- Blue-Chip UAS Operations Manual (*Proprietary - provided as secondary document upon request*)
- Founder Biographies (*Confidential - Available upon request*)

## **I. Company Background**

Blue-Chip Unmanned Aerial Solutions Inc., was founded in 2014 by four members of the United States Air Force as their transition from the military to the civilian job market. Over the past decade, the “Blue-Chips” have amassed an astonishing 75,000+ hours of operational experience in the unmanned aerial systems (UAS) industry. Conducting operational mission sets both state-side and forward deployed in support of Operations ENDURING FREEDOM, IRAQI FREEDOM and NEW DAWN along with other worldwide contingencies; the “Blue-Chips” have built a resume unparalleled when it comes to UAS operational experience.

Furthermore, the “Blue-Chips” have more than a decade of military and civilian flight and aircraft maintenance experience. From B-1B weapons systems to flight operations training for a large airline emergency procedures department to flying heavy military aircraft, globally; the experience and diversity the “Blue-Chips” bring to the United States civilian UAS operations industry is second to none and therefore “...in the public’s best interest...” for the Secretary to approve this exemption request.

*NOTE: Confidential biographies available upon request*

## **II. Training & Operations**

Section 333 of “The Reform Act” states:

*“...the Secretary of Transportation shall determine if certain unmanned aircraft systems may operate safely in the national airspace system...In making the determination under subsection (a), the Secretary shall determine, at a minimum— (1) which types of unmanned aircraft systems, if any, as a result of their size, weight, speed, operational capability, proximity to airports and populated areas, and operation within visual line of sight do not create a hazard to users of the national airspace system or the public or pose a threat to national security...”*

Blue-Chip UAS will utilize the Sensurion Magpie air vehicle(s) to conduct operations for the agriculture, oil and gas, aerial photography and wildlife preservation industries. The Magpie meets the requirements for determination for exemption in the fact it has a 6’ wingspan, maximum weight of 10.5 lbs, maximum/cruise/stall speeds of 60/35/10 knots respectively and flies for less than two hours (battery limited). Operating within visual line of sight (VLOS) and remaining below 400 ft AGL are standard operating procedures for Blue-Chip UAS and will remain so until further advances in safety of flight are introduced to the market and regulated by the FAA. As described below, all operations will be confined to those areas no closer than one statute mile of any airfield and the proper authorities will be notified with any operations within five statute miles. Furthermore, when it comes to national security concerns, the “Blue-Chips” have spent a combined 50+ years defending our country as military members ensuring national security is of the utmost priority in any activities they partake in.

## **The Aircraft: Magpie UAS**

Design: The Magpie UAS is built from a variety of durable, lightweight and modular components that aid in its capability to be on mission in a variety of conditions. As well, the modularity of construction allows for easy exchange of structural, propulsion or sensor components – in the field. ~ *As defined by Sensurion*

### Aircraft Performance/Specifications:

- Aircraft Composition: Carbon Fiber
- Flight Controls:
  - Primary: GPS Guided Autopilot (Ground Control Station)
  - Backup: Standard Flight Controls (RC Transmitter)
- Power Supply: Electric Motor / NextGen Battery Technology
- Wingspan: 72” / 6 ft
- Speed knots: Max: 60 / Cruise: 35 / Stall: 10
- Empty Weight: 5.5 lbs
- Max Payload: 5 lbs
- Launch (Take Off): Hand-launchable
- Recovery (Landing): Skid Recoverable (belly landing)

Operator Training: All initial Magpie flight operations and maintenance training will be conducted by Sensurion through their initial certification process. Once an operator is certified by Sensurion they will enter into Blue-Chip UAS operations qualification training which includes FAA authorized ground school training and a class III medical examination. Upon successful completion, the operator will earn their Co-Operator/Observer rating. Co-Operators/Observers will be required to conduct 50 operational hours to be considered for Operator in Command qualification testing. The operator will then be required to complete a written test and “check ride” in-which upon successful completion, the operator will receive their Operator in Command rating.

*NOTE: Ground School Training will be conducted by FAA certified instructors*

Initial certification training requirements instructed by Sensurion include:

#### Pre-Flight Training:

- Unpacking and assembly
- Power requirements, set-up and connectivity
- System end-to-end set-up and test / inspections
- Preflight, run-up and system checks

#### Flight Operations Training:

- Proper Handling
- Motor Operations

- GCS Flight Programming and Test
- Launch
- Basic Flight (climb, cruise, descent, landing)
- Maneuvering
- Airspace and Landing Zone Operations
- Flight Reprogramming
- Flight Monitoring
- In-Flight Emergency Procedures

Post Flight:

- Shut Down Procedures
- Data Retrieval and Storage
- End-to-End Test and Maintenance Logs
- Disassembly
- Packing, Storage and Transportation

Co-Operator/Observer qualification training requirements instructed by Blue-Chip UAS include:

- Understanding FAA Rules / Regulations
- Collection Requirements
- Operational Planning
- Flight Planning
- Area of Operations ~ Hazard Mitigation
- Daily Flight and Inspection Log Completion
- Proper Authority Notification Process

Operator in Command qualification testing requirements instructed by Blue-Chip UAS include:

- Written Exam consisting of 60 questions with a pass rate of 70% following the guidelines set forth by the FAA Airman Knowledge Testing requirements
- “Check Ride” and Oral exam consisting of:
  - Airport Operations
  - Maintenance Inspections
  - Flight Plan Development
  - Area of Operations Hazard Mitigation
  - Weather Hazard Mitigation
  - Emergency Procedures
  - Pre-Flight Operations
  - Flight Operations
  - Post-Flight Operations

### Operations Execution:

Given the fact commercial UAS operations are restricted due to the lack of regulations, a logical and safe solution is to utilize the safety guidance provided for hobbyist use of sUAS and other model aircraft as identified by Advisory Circular 91-57 and Section 336 of the “Reform Act”. Blue-Chip UAS operations will be conducted in a methodical, efficient and most importantly, safe manner adhering to strict guidelines which address safety concerns with proximity to airports and populated areas in the interim of official guidance from the FAA as the rules and regulations are being further developed.

The following list provides specific rules and guidelines all Blue-Chip UAS operations will adhere to too ensure at least an equivalent or higher level of safety when compared to manned aircraft performing the same functions as outlined within 14 C.F.R.:

1) All flight crews will:

- Be comprised of a minimum of three certified operators; one serving as Operator in Command (OIC) and the others as Co-Operator/Observers
- Consist of one certified air vehicle maintenance technician to conduct pre and post flight inspections

*NOTE: OIC/Observer may also fill the role of the maintenance technician*

- Attend pre and post flight mission briefs which will consist of weather information, flight information to include operational area and mission objectives, hazard mitigation actions and most importantly emergency and abort procedures; also included will be any NOTAMs or improvements to standard operating procedures through further refinements in operations
- Sign applicable documentation verifying their attendance to mandatory briefs as well as produce daily pre and post flight inspections and flight logs

2) All flight operations will:

- At no time fly within one statute mile of any operational airfield
- Provide prior notification to airfield operator and airfield air traffic control tower (when applicable) when operating within five statute miles of any active airfield; no later than 24 hours prior to air operations
- Provide prior written notification to local/county sheriff and fire departments in the event assistance is required to include: flight plans, type and capabilities of air vehicle(s) operated and operator’s contact information; no later than 24 hours prior to operations
- Be conducted using sUAS as defined by the FAA weighing less than 55 lbs; all operations authorized through this exemption request will be done with the Magpie UAS (*future aircraft will be presented to FAA for approval prior to operational use*)
- Be conducted in Class G and occasionally E airspace and shall not exceed 400 ft above ground level (AGL)

- Be conducted within visual line of sight (VLOS) of the qualified OIC and Co-Operator/Observers
- Give right-of-way to and avoid flying near manned aircraft at all times
- Be conducted in rural environments and outside of city limits
- Be conducted with prior written consent from land owner
- Ensure air vehicles do not encroach within 250 ft of any improved road, person, vehicle or structure that is not associated with operations
- Abort/Cancel in the event of detrimental weather to include wind speeds exceeding the allowable limits as defined within operations manual

### 3) Emergency Procedures:

- In the event the air vehicle loses GPS signal, automated landing will immediately commence. The flight plan is built in such a way that hazards are identified prior to launch and an immediate landing within the flight plan will ensure all hazards are avoided. *(This safety feature is inherent to sUAS and no further assistance from the OIC is necessary; however, the OIC will retain option for manual control at all times)*
- In the event the OIC loses signal with the air vehicle, automated landing will immediately commence. The flight plan is built in such a way that hazards are identified prior to launch and an immediate landing within the flight plan will ensure all hazards are avoided. *(This safety feature is inherent to the sUAS and with operations being conducted in the rural environment as previously stated, there are no concerns to personnel, vehicles or structures with an autonomous landing)*
- In the event hazardous weather unexpectedly approaches and may affect operations, the OIC will immediately abort the operation and conduct landing activities
- In the event an in-flight emergency occurs, (ie. air vehicle maintenance issues), the OIC will immediately abort flight and conduct landing activities; air vehicle inspection will immediately be achieved and the air vehicle will not return to service without proper authorization from certified maintenance technicians
- In a “significant” event (ie. air vehicle crashes and outside assistance is needed), OIC will conduct notification procedures to include county sheriff and fire departments, airfield operator/tower if applicable and any other authority required to mitigate situation
  - A “significant” event report will be generated by the OIC, verified by the Co/Observer and maintenance technician and immediately provided to the Director of Operations

*NOTE: Notification will be made to the FAA to assist in future prevention techniques*



By following these strict, mostly self imposed guidelines; Blue-Chip UAS, will achieve a safety level greater than that directed by the rules in which they seek exemption, especially true when you compare the same operating procedures against a manned aircraft. sUAS are inherently safer in all facets due to the fact that they are much smaller, fly at much lower speeds, there are no human operators on board and there is zero fuel to be concerned with in the event of a crash. As processes are further refined, the operations will only add to an already higher level of safety compared to manned flight operations in which serves the public's best interest in the FAA's endeavor to integrate UAS into the NAS.

### **III. Regulations – Exemption Requested**

Pursuant to 14 C.F.R. § 11.81(e), Blue-Chip UAS seeks exemption from the below mentioned regulations and provides reason as to why the exemption should be approved based on the level of safety at least equal to that of which the rules require.

- **14 C.F.R. Part 21 Subpart H – Airworthiness Certificates**

- **Establishes:** *The procedural requirements for the issuance of airworthiness certificates as required by 14 C.F.R. § 91.203(a)(1)*

Given the small size of the UAS, the limited operating areas and meticulous procedures defined within the training and operations section (re-iterated below), an exemption from Part 21 Subpart H meets the requirements of an equivalent level of safety under Part 11 and Section 333 of the “Reform Act” with consideration “of the size, weight, speed, operational capability, and proximity to airports and populated areas of the particular UAS.”

- sUAS Size: 6’ wingspan
- sUAS Weight: 10.5lbs
- sUAS Speed (knots): Max – 60; Cruise – 35
- sUAS Capes: 2 hour battery limited flight time (No fuel on board)
- No operations within one statute mile; Prior notice given to ATC tower/Airport Operator w/in five statute miles
- No operations within city limits; Rural areas only with a minimum distance of 250 ft from persons, structures, roads and vehicles
- Operations will be contained within one square mile as indicated by the flight plan provided as a secondary proprietary document

*NOTE: The FAA has recently set precedence to this regulation within like given parameters and an exemption should be approved on this basis. See exemption approvals for Astraeus Aerial, Aerial MOB, HeliVideo Productions, RC Pro Productions, Snaproll Media and Pictorvision.*

- **14 C.F.R. § 45.23(b) – Aircraft Marking and Identification Requirements**

- **14 C.F.R. § 45.23(b)**, Markings of the Aircraft, states:

*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.*

Blue-Chip UAS will ensure compliance with § 45.29(f) to meet the intent of the regulation by placing the word “experimental” on the fuselage of the air vehicle(s).

*NOTE: The FAA has set precedence to this regulation within like given parameters and an exemption should be approved on this basis along with previous exemptions: Nos. 10700, 10167 and 10167A. Also, see most recent exemption approvals for Astraeus Aerial, Aerial MOB, HeliVideo Productions, RC Pro Productions, Snaproll Media and Pictorvision for further justification of approval.*

- **14 C.F.R. 61.113 (a)(b) and 61.133(a)(1)(ii) – Private and Commercial Pilot Privilege and Limitations**

- **14 C.F.R. § 61.113:** (a) Except as provided in paragraphs (b) through (g) of this section, no person who holds a private pilot certificate may act as pilot in command of an aircraft that is carrying passengers or property for compensation or hire; nor may that person, for compensation or hire, act as pilot in command of an aircraft. (b) A private pilot may, for compensation or hire, act as pilot in command of an aircraft in connection with any business or employment if:
- **14 C.F.R. § 61.133:** (a) Privileges – (1) General. A person who holds a commercial pilot certificate may act as pilot in command of an aircraft – (ii) For compensation or hire, provided the person is qualified in accordance with this part and with the applicable parts of this chapter that apply to the operation.

Currently, there are no applicable areas identified for sUAS in either the private or commercial sector and therefore an exemption is required to conduct commercial operations. As flight operations will be conducted in a restricted environment as described in the operations section, these strict guidelines will achieve an equivalent level of safety for each individual flight especially when compared to commercial flights identified in Part 61 when originally developed. In addition, with the Magpie primary control system utilizing GPS waypoints for guidance and control, Blue-Chip UAS flight operations will be conducted by qualified Magpie operators with ground school certification and a class III medical.

*NOTE: Operators may or may not hold a private pilot license.*

Due to the fact not all operators will be rated pilots, all flight operations will be overseen and directed by an FAA certified commercial pilot with advanced ground school instructor certification, leading to at least an equivalent level of safety.

- **14 C.F.R. 91.7(a) – Civil Aircraft Airworthiness**

- **States:** *No person may operate a civil aircraft unless it is in an airworthy condition.*

Currently there is no airworthiness certificate for the Magpie UAS, however, the manufacturer is in the process of obtaining said certificate. In the interim, daily pre and post flight inspections will be accomplished in accordance with manufactures maintenance manual(s) and guidance. During flight, the OIC will adhere to § 91.7(b) and abort air operations immediately upon identification of an in flight emergency. Any maintenance performed will be conducted by certified maintenance technicians and/or the manufacturer themselves. By applying the prescribed operations, inspection and maintenance procedures within the operations section, an equivalent level of safety will be achieved.

*NOTE: The FAA has set precedent by previously issuing exemptions for § 91.7(a): Exemption Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 9565B, 10167, 10167A, 10602, 32827, and 10700. Also, see most recent exemption approvals for Astraeus Aerial, Aerial MOB, HeliVideo Productions, RC Pro Productions, Snaproll Media and Pictorvision for further justification of approval.*

- **14 C.F.R. 91.103 – Preflight Action**

- **States:** *Each pilot in command shall, before beginning a flight, become familiar with all available information concerning that flight. This information must include- (paragraphs a, b, 1 and 2)*

A pre-flight mission brief must be attended by all crew members. This “PMB” will contain weather and all flight information including emergency and abort procedures. A signature will be required by all crew members indicating they have received the PMB and have read any NOTAMs or other procedural updates which may have impact to standard operating procedures. In addition, the OIC will verify air vehicle is ready for flight by coordinating with the maintenance technician during pre-flight inspection.

The exemption requested for this section is specifically addressed toward the requirements which do not apply to sUAS operations such as runways and air traffic control integration.

*NOTE: As previously stated, air traffic control and airport operator will be notified prior to any operations being executed within five statute miles*

*NOTE: The FAA has recently set precedence to this regulation within like given parameters and an exemption should be approved on this basis. See exemption approvals for Astraeus Aerial, Aerial MOB, HeliVideo Productions, RC Pro Productions, Snaproll Media and Pictorvision.*

- **14 C.F.R. 91.109(a) – Flight Instruction**

- **States:** *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.*

The majority of sUAS by design are developed with single operational control through the use of pre-determined GPS enabled waypoints programmed before or during flight in addition to the use of a single hand held transmitter or control station controlled by the

OIC. The design does not allow for dual controls during flight training and therefore the exemption is requested to qualify/certify operators as required by the manufacturer along with specific operations training and procedures identified above within section II.

An equivalent level of safety will be ensured during training operations by utilizing the same flight planning process for normal operations. As identified in the flight planning document, all ground hazards will be identified and mitigation techniques will be enacted to ensure flights stay outside of 250 ft of any improved roads, vehicles, persons or structures. All training operations will be conducted within a confined space on private land in-which permission has been obtained by land owner prior to the execution of training.

*NOTE: The FAA has set precedent by previously issuing exemptions for § 91.109(a): Exemption Nos. 5778K and 9862A. Also, see most recent exemption approvals for Astraeus Aerial, Aerial MOB, HeliVideo Productions, RC Pro Productions, Snaproll Media and Pictorvision for further justification of approval.*

- **14 C.F.R. 91.119 (c) – Minimum Safe Altitudes**

- **States:** *Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes: (c) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.*

All Blue-Chip UAS operations will be conducted at 400 ft AGL or below in uncontrolled Class G and occasionally E airspace. As sUAS are inherently safer than traditional aircraft due to their small size, light weight, battery operated vice fuel and no human on-board; Blue-Chip UAS will not operate within 250 ft to any improved roads, vehicles persons or structures (other than those being inspected as part of the flight operation). In addition, objects/hazards will be identified and geo-located prior to flight to be utilized within the flight planning stages to ensure this objective is met.

*NOTE: See Flight Planning Document*

- **14 C.F.R. 91.121 – Altimeter Settings**

- **States:** *Each person operating an aircraft shall maintain the cruising altitude or flight level of that aircraft, as the case may be, by reference to an altimeter that is set, when operating...*

SUAS are equipped with Global Positioning System (GPS) which provide altitude and geo-location data to the operator vice utilizing an altimeter. Due to this fact, an exemption is required for this system to be utilized in flight. GPS are precise within a few feet and therefore meet a safety level equal to if not higher than regulatory guidance.

As described in the emergency procedures section; in the event the air vehicle losses GPS signal, automated landing will immediately commence. The flight plan is built in such a way that hazards are identified prior to launch and an immediate landing within the flight plan will ensure all hazards are avoided.

*NOTE: The FAA has recently set precedence to this regulation within like given parameters and an exemption should be approved on this basis. See exemption approvals for Astraesus Aerial, Aerial MOB, HeliVideo Productions, RC Pro Productions, Snaproll Media and Pictorvision.*

- **14 C.F.R. 91.151(a) – Fuel Requirements for Flight in VFR Conditions**

- **States:** *No person may begin 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;*

This regulation is written based on the capabilities of a traditional aircraft which have flight times of several hours or greater; therefore, with the majority of sUAS which have flight times of only an hour or less, this regulation would effectively deny the ability of the air vehicle to operate.

Using a Cessna 182 as an example, approximately 8% remaining fuel is required to meet the 30 minute flight time directed by this regulation. To meet the intent, Blue-Chip UAS, will operate its air vehicles to no less than 10% remaining battery power to ensure safe landing and retrieval of the air vehicle. This 10% buffer is greater than the Cessna 182 and the ability to quickly and safely land sUAS in non-traditional environments ensures at least an equal level of safety.

*NOTE: The FAA has set precedent by previously issuing exemptions for § 91.151(a): Exemption Nos. 10673, 2689F, 5745, 10673 and 10808. Also, see most recent exemption approvals for Astraesus Aerial, Aerial MOB, HeliVideo Productions, RC Pro Productions, Snaproll Media and Pictorvision for further justification of approval.*

- **14 C.F.R. 91.405(a), 91.407(a)(1), 91.409(a)(2) and 91.417(a) & (b) – Maintenance Inspections**

- **91.405(a) States:** *Each owner or operator of an aircraft—(a) 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*
- **91.407(a)(1) States:** *(a) No person may operate any aircraft that has undergone maintenance, preventive maintenance, rebuilding, or alteration unless—(1) It has been approved for return to service by a person authorized under § 43.7 of this chapter*
- **91.409(a)(2) States:** *(a) Except as provided in paragraph (c) of this section, no person may operate an aircraft unless, within the preceding 12 calendar months, it has had—(2) An inspection for the issuance of an airworthiness certificate in accordance with part 21 of this chapter. No inspection performed under paragraph (b) of this section may be substituted for any inspection required by this paragraph unless it is performed by a person authorized to perform annual inspections and is entered as an “annual” inspection in the required maintenance records.*
- **91.417(a) & (b) States:** *(a) Except for work performed in accordance with §§ 91.411 and 91.413, each registered owner or operator shall keep the following records for the periods specified in paragraph (b) of this section: (paragraphs 1 (i – iii), 2 (i – vi)); (b) The owner or operator shall retain the following records for the periods prescribed: (paragraphs 1 – 3)*

Due to the fact the Magpie UAS at present does not have an airworthiness certificate, these regulations do not apply and therefore an exemption is required. Pre/Post and routine inspections (not to exceed 50 flight hours) and maintenance will be conducted in accordance with the manufacturer's guidance as stated in the operations manual. In addition, to meet the intent of these regulations, Blue-Chip UAS, will maintain daily logs of pre and post flight inspections and have maintenance performed by certified technicians and/or the manufacturer themselves. In the event maintenance is required, certified technicians will verify the air vehicle is in flight readiness status prior to releasing to OIC for use in operations.

Unscheduled maintenance will be accomplished in the event of a mechanical or structural failure during flight. Upon completion of unscheduled maintenance, documentation will be provided to the Director of Operations to sign off and verify that the air vehicle is once again ready for flight and accept the level of risk associated with returning the air vehicle to flight status. At no time will there be changes made to the air vehicle which would impact the structural integrity of the air frame without the manufacturer making such changes and verifying the flight its air worthiness.

All inspection and maintenance will be documented and maintained in-house. These actions will meet the intent of the regulation exemption is being requested and lead to the equivalent level of safety.

*NOTE: The FAA has recently set precedence to this regulation within like given parameters and an exemption should be approved on this basis. See exemption approvals for Astraeus Aerial, Aerial MOB, HeliVideo Productions, RC Pro Productions, Snaproll Media and Pictorvision.*

#### **IV. Public Interest**

The public's best interest is achieved by the safe integration of UAS into the NAS. With the ongoing exemption process, the FAA has to identify those exemption requests with the public's best interest in mind and select the companies who will be able to achieve this in a safe and responsible manner. Two of the main problems the public has with UAS are the fear of what they will be used for and whether or not they are safe to fly within the same airspace as commercial airliners. Blue-Chip UAS is more than willing to help with public education and that starts with conducting operations within strict operating environments and then providing the results to the public to start to sway opinion in a positive light.

With the experience this team has built from UAS operations, manned flight operations and training and aircraft maintenance; the FAA will provide a great service to the American public by approving Blue-Chip UAS's exemption request herein. Blue-Chip UAS will provide any additional information requested and will diligently work with the FAA to make this approval a reality as it is in the best interest and safety of the public as directed by Congress.

## **V. Privacy Concerns**

As previously stated, one of the main concerns the public has with the integration of UAS into the NAS is privacy and spying; especially as of recent with the “disclosure” of the NSA’s communication programs. The media has also placed a negative light on UAS when it comes to privacy; showing only how the military has used this technology to conduct combat operations through the use of the visual and infrared sensors they carry.

Fortunately with this matter, Blue-Chip UAS is well versed in the privacy and oversight concerns which are addressed by federal government regulations: Executive Order 12333, DoD Directive 5240.1-R and AFI 14-104. Although the regulations do not apply to private commercial entities, our knowledge and experience in working within these regulations will assist and ensure any and all privacy concerns will be minimal and immediately mitigated.

In addition, the most efficient and successful avenue to combat these concerns is to educate the public in how UAS technology will be used to exponentially improve all of our lives as Americans and place emphasize on how we should embrace the technology instead of fearing it. In these regards, Blue-Chip UAS, will look at actions we can take to move forward with this endeavor and assist the FAA and all UAS employment companies as a whole to better public perception and create a cohesive environment we all can operate in safely.

## **VI. FAA Collaboration**

Blue-Chip UAS is committed to the safe integration of UAS into the NAS and will provide any and all information on its flight operations to the FAA to assist in the rules making process. As stated in the operations section, post flight logs will be required to be completed to produce monthly flight summaries which will include both positive and negative reporting placing emphasize on any issues which may arise during any segment of the operations. Blue-Chip UAS offers the monthly summaries to the FAA as input and flight data to ensure accurate information is utilized along with offering our expertise and knowledge in the rule making process.

## Summary ~ Federal Register

Pursuant to Section 333 of PL 112-95 commonly known as the “FAA Modernization and Reform Act of 2012” or “The Reform Act”, Blue-Chip Unmanned Aerial Solutions Inc. (d/b/a Blue-Chip UAS), hereby applies for authorization to conduct commercial unmanned aerial systems (UAS) operations for the agriculture, oil and gas, aerial photography and wildlife preservation industries, within the United States National Airspace System (NAS); within Class G and occasionally E airspace.

Rules in which Blue-Chip UAS seeks exemption:

- 14 C.F.R. Part 21 Subpart H
- 14 C.F.R. § 91.7(a)
- 14 C.F.R. § 45.23(b)
- 14 C.F.R. § 61.113 and 61.133(a)(1)(ii)
- 14 C.F.R. § 91.7(a)
- 14 C.F.R. § 91.103
- 14 C.F.R. § 91.109(a)
- 14 C.F.R. § 91.119
- 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)(1)
- 14 C.F.R. § 91.409(a)(2)
- 14 C.F.R. § 91.417(a) & (b)

Throughout this exemption request, Blue-Chip UAS has shown how their expertise and knowledge with UAS technology will ensure the public’s best interest is at hand and assist the FAA with their charge to: “...safely accelerate the integration of civil unmanned aircraft systems into the national airspace system...” as directed by Congress. They have also shown how the approval of this request will meet and exceed “...at least an equivalent level of safety...” for the regulations they seek exemption.

At each level through process refinement, Blue-Chip UAS, will capture and document the best practices to develop proven tactics, techniques and procedures and provide that information to the FAA to incorporate into the UAS integration process.

When it comes to the public and what is in their best interest you will be hard pressed to find a team more qualified for an exemption under Section 333 than Blue-Chip UAS. It will be a great service to the country and in the “public’s best interest” to include this team in the UAS integration endeavor in-which an equivalent level of safety will be ensured by operations being conducted by the undisputed experts they are.