



UNITED STATES MARINE CORPS
MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE
PSC BOX 20005
CAMP LEJEUNE NC 28542-0005

MCIEAST-MCB CAMLEJO 3710.30

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MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE CAMP LEJEUNE ORDER
3710.30

From: Commanding General
To: Distribution List

Subj: OPERATION OF PUBLIC (GOVERNMENT) AND CIVIL (NON-GOVERNMENT)
COMMERCIAL/HOBBYIST/MODEL, SMALL UNMANNED AERIAL SYSTEMS/DRONES
ABOARD MARINE CORPS INSTALLATIONS EAST INSTALLATIONS

Ref: (a) USNORTHCOM FP Directive 08-059
(b) DoD Instruction 5200.08 Ch 3, "Security of DoD Installations
and Resources and the DoD Physical Security Review Board
(PSRB)," 20 November 2015
(c) CJCSI 3255.01 Ch 1
(d) FAA Order JO 7200.23
(e) Public Law 112-95
(f) MCO 3570.1C
(g) NAVMC 3500.107A
(h) FAA AC 91-57A
(i) 14 CFR Parts 45, 91, 101, and 107
(j) 18 U.S.C. §795 §796
(k) 50 U.S.C. §797
(l) DoD Directive 5030.61 Ch 1, "DoD Airworthiness Policy," 25
June 2015
(m) OPNAVINST 3710.7U
(n) ALNAV 052-16 of 27 July 2016
(o) FAA 8900.1 Vol 16

Encl: (1) Regulations and Instructions
(2) Conditions and Limitations
(3) Common Terms and Definitions
(4) Air Traffic Control Tower (ATCT) Notification Checklist

1. Situation. The proliferation of small Unmanned Aerial Systems (sUAS), often called "Drones", which are operated by governmental agencies, commercial entities, and hobbyists introduce new safety and security challenges to Installation Commanders. Serious injury and the loss of material assets due to mishaps or information gained by potential adversaries directly and negatively impact the warfighting capability of regional Installations. A recent rise in the development and proliferation of sUAS/Drones and hobbyist/model aircraft creates an entirely new risk dynamic relative to how and where the operations associated with these systems can and should occur.

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2. Mission. Marine Corps Installations East (MCIEAST) Commanders shall develop and publish guidance to ensure that any use of sUAS/Drones aboard Installations is done in a safe and secure manner.

3. Execution. Based on current regulations and instructions listed in enclosure (1), this regional Order provides guidance and requirements for Commanders. Although this Order establishes minimum requirements, it does not restrict commands from establishing more stringent requirements based on unique command challenges. Federal and Department of Defense (DoD) sUAS policy, regulations, and guidance are anticipated to continue evolving. All commands are responsible for monitoring public law, Federal regulations, and guidance on sUAS/Drone operations. When necessary, changes to this Order shall be made by the Commanding General (CG), MCIEAST-Marine Corps Base, Camp Lejeune (MCB CAMLEJ). This Order focuses on two categories of sUAS/Drones: those used in Public Operations (government use) and those used for Civilian Operations (non-government use). These categories, though distinct, can and often do include the same sUAS/Drone types.

a. Commander's Intent and Concept of Operations

(1) In accordance with references (a) and (b), the CG, MCIEAST-MCB CAMLEJ, is responsible to ensure Installations, property, and personnel are protected, applicable laws and regulations are enforced, and has the responsibility and authority to enforce security measures to ensure the protection of DoD property and personnel assigned, attached, or subject to their Command.

(2) This Order is applicable to all MCIEAST organizations to include any command (active or reserve component), staff organization, or supporting agency that is affiliated with the U.S. Marine Corps, Department of the Navy, DoD, Department of Justice, or Department of Homeland Security operating aboard an MCIEAST Installation. This Order also applies to persons and organizations organic to or tenanted aboard the Installation, contractors, and those in transit or otherwise temporary resident because of training or mobilization commitments.

(3) Ensure personnel seeking to conduct sUAS operational planning, administration, and execution are provided adequate information and guidance.

(4) This Order will be used in conjunction with the references and other current regulations and directives to ensure compliance with established policies, procedures, and higher headquarters guidance. Deviations from procedures and instructions must be approved by, or referred to, the CG (Attn: Assistant Chief of Staff (AC/S), G-3/5 (Operations and Plans Division, Operations and Training Department)).

b. sUAS/Drones. Aircraft weighing less than 55 pounds operated without the possibility of direct human intervention from within or on the aircraft. While this Order focuses on sUAS weighing less than 55 pounds, larger unmanned aircraft operations must also be administered to satisfy references (a) and (b) safety and security interests and must comply with all DoD and Federal Aviation Administration (FAA) criteria.

c. Public Operations (Government). Per references (c), (d), and (e), this category is comprised of any sUAS/Drone operated, owned, leased, used, tested, or demonstrated by/for the government (Federal/state/local).

(1) Operation of a publicly operated sUAS/Drone outside of Restricted Airspace must comply with all applicable FAA and DoD regulations, regardless of whether the operation is being conducted over/within Installation property.

(2) For operations within restricted airspace, operators should refer to the applicable Installation range regulations and references (f) and (g).

(3) Common public uses (government operations) today include law enforcement, firefighting, border patrol, disaster relief, search and rescue, and military training.

Note: A privately owned sUAS used for any purpose related to government activities must operate under the rules for public operations. For example, a Marine bringing a privately owned sUAS to the field for an exercise to record images of the site setup or for use during exercise activities, makes the sUAS a public aircraft and subject to all provisions, associated flight clearance, and training.

d. Civil Operations (Non-Government). Per reference (e), any sUAS/Drone operation that does not meet the statutory criteria for a public aircraft operation is considered a civil operation. All civil operations must be conducted in accordance with all FAA regulations applicable to the operation.

e. sUAS/Drone Operations Guidance

(1) Public Operations (Government). In accordance with all DoD/FAA regulations, conditions and limitations prescribed in enclosure (2), and in compliance with applicable DoD orders and Bases/Stations regulations, Installation Commanders may authorize DoD sponsored sUAS/Drone Public Operations aboard their Installations on a case-by-case basis. Enclosure (3) is provided to introduce common terms for sUAS/Drone administrators and operators. Commanders shall conduct Operational Risk Management (ORM) assessments prior to providing authorization with specific attention to the safety of personnel, facilities, and operational security. The Commander is

authorized to revoke flight authorization for any operation deemed a risk.

(2) Civil Operations (Non-Government). For the purposes of this order, there are three civil sUAS categories.

(a) 14 CFR Part 107 Operations. Commanders may not authorize Part 107 sUAS/Drone operations aboard their Installations. Commanders may not approve Part 107 civilian sUAS flight operations over private property within in Class C, D, or E airspace without FAA concurrence.

1. ATC facilities and/or airfield operations shall refer non-hobbyist/non-model sUAS operators wanting to fly in DoD Class C, D, or E airspace to the FAA UAS website (faa.gov/uas). From there, FAA HQ will contact military representatives to process the request through DoD airspace management channels.

2. Unless specifically authorized in a Certificate of Authorization (COA) from the FAA, Part 107 sUAS/Drones shall not be flown within five nautical miles (nm) of an airport unless the Commander negotiates a Letter of Agreement (LOA) to fly over private property only. At a minimum, the LOA will establish an Air Traffic Control (ATC) management plan that outlines segregation of manned and unmanned aircraft and will expressly prohibit video and photography of DoD Installations.

(b) 14 CFR Part 101 Hobbyist or Model Aircraft/Drone Operations

1. Commanders shall not authorize Hobbyist or Model Aircraft/Drone Operations aboard their Installations. Hobbyist and Model Aircraft/Drones are defined in references (d), (e), (h), and (i).

2. This prohibition does not apply on private property within five nautical miles of a military airport. References (d) and (i) requires hobbyist and model aircraft sUAS/Drone operators to contact the airport and the Air Traffic Control Tower (ATCT), if an ATCT is present, before flight if intending to operate within five nm of the airport. Commanders with airfield(s) and/or an ATCT will adapt enclosure (4) the hobbyist sUAS/Drone/model aircraft notification checklist for use. The checklist provides the necessary information to evaluate the operator's intentions and determine the safety of the operation. This basic information includes location, time, and altitude for the proposed sUAS/Drone/model aircraft operations. Upon receiving notification, the airfield/ATCT requirement is only to acknowledge the notification unless the operation is considered unsafe. If the operation is considered unsafe, deny the request and state the reason(s) for denial. Conversely, do not use the word "approved" in communication with the operator. Issuing an approval would imply consent and waive compliance of all Code of Federal

Regulations criteria for the sUAS operator. If the operation does not present a hazard, then inform the operator the notification has been received and the obligation to notify has been met.

3. Hobbyist or Model aircraft operators flying from a permanent location over State/Local public property or private property located within five nm of a military airport must establish a mutually agreed upon operating procedure with the airport operator and the control tower (when an ATCT is located at the airport).

(c) Other. The FAA's Certificate of Waiver or Authorization (COA) process will be used for operations that cannot be conducted under 14 CFR Parts 101 or 107.

f. sUAS/Drone Requirements for Public Operations (Government). Commanders shall include the conditions and limitations listed in enclosure (2) and the following:

(1) Flight Requirements/Restrictions. If the Installation Commander determines public operations sUAS/Drone flights may be permitted on the Installation. Ensure that:

(a) A sUAS/Drone requirements approval letter is received from the first General Officer in the sUAS operator's chain of command. OPFOR table of organization and equipment UAS are not subject to this General Officer pre-approval.

(b) All public operations are conducted in compliance with applicable airworthiness and spectrum authorizations, exemptions, and COAs for the operation.

(c) Unless specifically authorized in a COA, flight altitudes will be restricted to 400 feet above ground level or below.

(d) Unless specifically authorized in a COA, flights will be restricted to daylight hours under Visual Flight Rules (VFR).

(e) Unless specifically authorized in a COA, sUAS/Drones shall not be flown within five nm of an airport.

(f) All sUAS/Drones must be identified by serial number and have identification (N-Number) markings in accordance with Part 45, Subpart C of reference (f). Markings must be as large as practicable.

(2) Video and Photography

(a) Section 795 of reference (j), "Photographing and Sketching Defense Installations" states; "it shall be unlawful to make any photograph, sketch, picture, drawing, map, or graphical representation of such vital military and naval Installations or

equipment without first obtaining permission of the Commanding Officer of the military or naval post, camp, or station, or naval vessels, military and naval aircraft, and any separate military or naval command concerned, or higher authority, and promptly submitting the product obtained to such Commanding Officer or higher authority for censorship or such other action as they may deem necessary. Whoever violates this section shall be fined under this title or imprisoned not more than one year, or both."

(b) Section 796 of reference (j), "*Use of aircraft for photographing defense Installations*" states; "Whoever uses or permits the use of an aircraft or any contrivance used or designed for navigation or flight in the air, for the purpose of making a photograph, sketch, picture, drawing, map, or graphical representation of vital military or naval Installations or equipment, in violation of Section 795 of reference (j), shall be fined under this title or imprisoned not more than one year, or both."

(c) Unless specifically approved by the Installation Commander, capturing video or still images during sUAS/Drone operations is prohibited.

(d) Installation Commanders shall establish specific guidance and policies regarding requests for capturing data (i.e., video, still images, and special imaging technology) from sUAS/Drones to support mission requirements in line with current photography policy and guidelines, and subject to anti-terrorism/force protection (AT/FP) and mission assurance (MA) interests.

(e) Except as otherwise permitted by the Installation Commander, and unless a law enforcement agency first obtains a search warrant authorizing the use of sUAS/Drones, no person, entity, or agency may use a sUAS/Drones to photograph private real property, use special imaging technology, or conduct surveillance of a person or a dwelling occupied by a person and that dwelling's curtilage without the person's consent.

(f) Without specific approval from the Installation Commander to obtain images or data, sUAS/Drone operators must disable all video and sensor capabilities the aircraft may possess prior to flight aboard MCIEAST Installations.

(3) sUAS/Drone Incursions. In accordance with existing laws and regulations, an Installation Commander has the responsibility and authority under reference (k) to enforce appropriate security measures to ensure the protection of DoD property and personnel assigned, attached, or subject to their Command and per reference (b) it is DoD policy that DoD Installations, property, and personnel shall be protected and that applicable laws and regulations shall be enforced. As such, an Installation Commander has great latitude in controlling and limiting sUAS/Drone operations originating on the Installation;

however, there are limited direct actions that can be taken in response to sUAS/Drone activity initiated off Installation. Commanders must work closely with the local community in deterring these actions.

(a) To the maximum extent possible, attempt to establish Memoranda of Understanding/Agreements with local community Law Enforcement Authorities (LEA) to coordinate off-Installation response options.

(b) Ensure local LEA are aware of Sections 795 and 796 of reference (j) so they can inform potential violators of their infractions and penalties. State and local LEA are often in the best position to deter, detect, immediately investigate, and as appropriate, pursue enforcement actions to stop unauthorized or unsafe sUAS/Drone operations when initiated/conducted from off installation property.

(4) Unauthorized sUAS/Drone Activity Reporting. Any suspected unauthorized sUAS/Drone activity must be reported to Installation law enforcement, mission assurance, and appropriate chain of command. Immediate notification of a UAS incident, accident, or other suspected violation should also be reported to an FAA Regional Operation Center (ROC). FAA's Southern / New England ROC covers the following states and territories; AL, CT, FL, GA, KY, MA, ME, MS, NC, NH, PR, RI, SC, TN, VI, and VT; call (404) 305-5150 or email 9-ASO-ROC@faa.gov. FAA's Eastern ROC covers DC, DE, MD, NJ, NY, PA, VA, and WV; call (718) 553-3100 or email 7-AEA-ROC@faa.gov. Installations with a Command Airspace Liaison Officer (CALO) must provide a copy of each report to the Regional Airspace Coordinator. CALOs must retain these reports for three years.

g. Tasks

(1) Commanders shall implement a sUAS/Drone safety and security policy that meets the requirements of this Order and other applicable orders.

(2) Commanders shall integrate risk management strategies into appropriate planning, orders, training and indoctrination programs, technical and tactical publications, checklists, and standing operating procedures.

4. Administration and Logistics. Records created as a result of this Order shall include records management requirements to ensure the proper maintenance and use of records, regardless of format or medium, to promote accessibility and authorized retention per the approved records schedule.

5. Command and Signal

a. Command. This Order is applicable to MCIEAST subordinate commands, department heads, and all tenant commands and organizations aboard MCIEAST Installations. This Order is also applicable to all active duty Marines on or off duty, as well as reserve Marines and DoD civilian personnel on duty. This Order extends to military family members and all other civilian personnel, including contractors while on MCIEAST Installations, participants in any Marine Corps sponsored events, operations, or training, and applies to all Marine Corps facilities, equipment, and material.

b. Signal. This Order is effective the date signed.



T. D. WEIDLEY

DISTRIBUTION: A/B/C

Regulations and Instructions

- a. USNORTHCOM Force Protection Directive 08-59
- b. DoD Instruction 5200.08, Ch 1, "Physical Security Program," 9 Apr 2009
- c. CJCSI 3255.01, Joint Unmanned Aircraft Systems Minimum Training Standards
- d. 50 U.S.C. §797, Penalty for violation of security regulations and orders
- e. 18 U.S.C. §795, Photographing and sketching defense installations
- f. 18 U.S.C. §796, Use of aircraft for photographing defense installations
- g. 18 U.S.C. §797, Publication and sale of photographs of defense Installations
- h. 18 U.S.C. §1382, Entering military, Naval, or Coast Guard property
- i. FAA-DoD MOA Concerning the operation of DoD Unmanned Aircraft Systems
(UAS) systems in the National Airspace System (NAS)
- j. DoD Directive 5030.61, Ch 1, "DoD Air Worthiness Policy," 25 Jun 2015
- k. OPNAVINST 3710.7U, Naval Air Training and Operating Procedures Standardization (NATOPS) General Flight and Operating Instructions
- l. NAVAIRINST 13034.1D, Flight Clearance Policy for Air Vehicles and Aircraft Systems
- m. FAA Order 8900.1, Vol 16, UAS
- n. ALNAV 052-16, Guidance on Procurement and Operation of Unmanned Aircraft Systems
- o. FAA Order JO 7200.23, Unmanned Aircraft Systems (UAS)
- p. OPNAVINST 4790.2J, Naval Aviation Maintenance Program
- q. NAVMC 3500.107A, Group 1 UAS T&R Manual
- r. 14 Code of Federal Regulations (CFR) Part 107
- s. 14 CFR 91.111, Operating near other aircraft
- t. 14 CFR 91.113, Right of way rules: Except water
- u. 14 CFR 91.115, Right of way rules: Water operations
- v. 14 CFR 45, Subpart C, Nationality and Registration Marks
- w. FAA Certificate of Waiver or Authorization (COA)
- x. OPNAVINST 3750.6S, Naval Aviation Safety Management Systems
- y. DoD Instruction 6055.07, "Mishap Notification, Investigation, Reporting, and Record Keeping." 6 Jun 2011
- z. OPNAV N98 Aircraft Controlling Custodian (ACC)
- aa. SECNAVINST 5000.2E, DoN Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System
- ab. MCO 3570.1C and Department of the Army Pamphlet 385-63 (DA PAM 385-63), UAS considerations
- ac. MCWP 3-42.1, Unmanned Aircraft Systems Operations
- ad. North Carolina General Statute 16B. 15A-300.1, Restrictions on use of unmanned aircraft systems
- ae. FAA Advisory Circular (AC) No. 91-57A, Model Aircraft Operating Standards
- af. FAA Memorandum, Guidance for UAS ATCT Notification Calls

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- ag. FAA Law Enforcement Guidance for Suspected Unauthorized UAS Operations
- ah. FAA Law Enforcement Reference Card

Conditions and Limitations

Prior to granting authorization to conduct sUAS/Drone operations on base, Installation Commanders shall ensure:

a. Compliance with all requirements noted in this Order, DoD/FAA Regulations, and applicable base regulations Commanders may authorize DoD Public sUAS/Drone operations aboard their installations. For clarity, DoD sponsored sUAS operations are considered Public Operations. Installation Commanders shall conduct ORM assessments prior to providing authorization with specific attention to the safety of personnel, facilities, and operational security. The Commander is authorized to revoke flight authorization for any sUAS/Drone operation deemed a risk.

b. In accordance with references (a) and (b), maintain positive control of any captured data, and ensure data is not available for public release. No data may be collected, streamed, converted to storage, or shared until the Installation Commander's MA Office first reviews the data, determines MA and AT/FP concerns, and ensures all requirements to protect security and critical infrastructure are met.

c. Civil Operations (Non-Government). There are three categories within Civil Operations. The first is sUAS/Drones used for commercial purposes, the second is hobbyist or model aircraft use, and the third is other. Commanders may not authorize non-DoD sponsored Commercial sUAS/Drone Operations aboard their installations. Commanders may not authorize Model Aircraft/Drone Operations aboard their Installations.

d. Except as otherwise permitted by the Commander and unless a law enforcement agency first obtains a search warrant authorizing the use of an sUAS/Drone, no person, entity, or agency may use a sUAS/Drone to photograph private real property, use special imaging technology, or conduct surveillance of a person or a dwelling occupied by a person and that dwelling's curtilage without the person's consent.

e. All operations shall be conducted in accordance with an FAA-issued COA or Class D COA Via Notification and terms of the Commander's approval. Operators may apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the COA or Class D COA via Notification. In the latter, the Commander's approval must be updated accordingly.

f. For operations outside Restricted Airspace, verify proponents have obtained an FAA issued COA that permits the sUAS/Drone to operate for a particular purpose, in a particular area. The COA allows an operator to use a defined block of airspace and includes special safety provisions unique to the proposed operation.

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(1) The FAA's objective is to issue a COA with parameters that ensure a level of safety equivalent to manned aircraft. Usually, this entails making sure that the sUAS/Drone does not operate in a populated area and that the aircraft is observed, either by someone in a manned aircraft or someone on the ground, to ensure separation from other aircraft in accordance with right-of-way rules.

(2) COAs usually are issued for a specific period, either for specific events or up to two years in many cases for recurring events.

(3) The typical COA application approval process is completed within 60 business days of receipt, provided there are no submittal errors, missing information, or safety or airspace issues.

Note: A Marine Corps sUAS/Drone system of record (i.e., Table of Equipment item) will have the required airworthiness and spectrum certifications but is still required to operate under a COA outside of Restricted Airspace. A commercial sUAS/Drone which is purchased by a military entity such as Public Affairs or a combat unit must be authorized by the first General Officer in the chain of command, will require the noted airworthiness and spectrum certifications, must operate under a COA, and if operations will be conducted within five miles of an airport, with or without ATCF, must establish an aviation management plan to segregate manned and unmanned aircraft.

g. Public Operations are limited to Group 1 geo-fenced sUAS/Drones weighing 20 pounds or less including payload. All sUAS/Drones must be certified for use via Navy and Marine Corps Small Tactical Unmanned Aircraft Systems (PMA-263). Each sUAS/Drone system must have Spectrum approval before conducting flight operations. Fixed wing sUAS/Drones operations are not authorized.

h. Any government UAS incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area must be reported to the base operations department and safety office. All incidents, deviations, flying regulation violations, and mishaps will also be reported in accordance with reference (g).

i. All Pilot in Charge (PICs) must be certified by the Training and Logistics Support Activity (TALSA) for the specific airframe being operated. PICs must also meet the pilot currency requirements established by PMA-263 and in a sUAS/Drone in which the PIC is rated on the sUAS/Drone pilot certificate and as specified in §61.56 of reference (h).

j. The sUAS/Drone must remain clear and give way to all manned aviation operations and activities at all times. The PIC is

responsible to avoid colliding with other aircraft, people, structures, and terrain.

k. The sUAS/Drone may not be operated from any moving device or vehicle.

l. The sUAS/Drone may not be operated at a speed exceeding 87 knots (100 miles per hour). The PIC may use groundspeed to determine compliance with the 87 knot speed restriction. In no case will the sUAS/Drone be operated at airspeeds greater than the maximum operating airspeed recommended by the sUAS/Drone aircraft manufacturer.

m. The sUAS/Drone must be operated at an altitude of no more than 400 feet Above Ground Level (AGL); lower if needed to segregate sUAS/Drone from manned flight operations. Altitude must be reported in feet AGL.

n. The sUAS/Drone must be operated within visual line of sight (VLOS) of the PIC and/or a Visual Observer (VO) at all times. This requires the PIC and VO to be able to use human vision unaided by any device other than corrective lenses, as specified in reference (h) and Chapter 15-85 of reference (1).

o. The PIC must be designated before the flight and cannot transfer this designation for the duration of the flight. VOs must be used at all times. One person is not authorized to perform both pilot and observer duties at once. The PIC must ensure that the VO can perform the duties required of the VO. The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The PIC and VO must be able to communicate verbally at all times; electronic messaging or texting is not permitted during flight operations. The VO must be able to see the aircraft and the surrounding airspace throughout the entire flight. The VO must be able to provide the PIC with the sUAS/Drone flight path and proximity to all aviation activities (e.g., other aircraft) and other hazards (e.g., terrain, weather, structures) sufficiently to exercise control of the sUAS/Drone to:

- (1) Comply with reference (f) §91.111, §91.113, §91.115; and
- (2) Prevent the sUAS/Drone from creating a collision hazard.

p. All documents needed to operate the sUAS/Drone and conduct its operations in accordance with these conditions and limitations are hereinafter referred to as the operating documents. The operating documents must be accessible during sUAS/Drone operations and made available to DoD Safety Offices upon request. If a discrepancy exists between the conditions and limitations and the procedures outlined in the operating documents, the conditions and limitations herein take

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precedence and must be followed. Otherwise, sUAS/Drone operators must follow the procedures as outlined in its operating documents. sUAS/Drone operators are expected to update or revise operating documents. It is the sUAS/Drone operator's responsibility to track such revisions and present updated and revised documents to DoD Safety Offices or any law enforcement official upon request.

q. Any sUAS/Drone that has undergone maintenance or alterations that affect the sUAS/Drone operation or flight characteristics, e.g., replacement of a flight critical component, must undergo a functional test flight as prescribed by PMA-263 prior to conducting further operations under this Order. Functional test flights may only be conducted by a PIC with a VO and must remain at least 500 feet laterally from other people. The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.

r. Prior to each flight, the PIC must conduct a pre-flight inspection and determine the sUAS/Drone is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, e.g., inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the sUAS/Drone, the aircraft is prohibited from operating until the necessary maintenance has been performed and the sUAS/Drone is found to be in a condition for safe flight.

s. sUAS/Drone operators must follow the sUAS/Drone manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.

t. Each sUAS/Drone operator must comply with all manufacturer safety bulletins.

u. Each PIC and VO must hold current medical certification in accordance with references (h) and (m).

v. sUAS/Drone operators may not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the sUAS/Drones in a manner consistent with how the sUAS/Drone will be operated, including evasive and emergency maneuvers, and maintaining appropriate distances from other aircraft, persons, vehicles, and structures. PIC qualification flight hours and currency must be logged in a manner consistent with PMA-263 TALSA standards. Flights for the purposes of training PICs and VOs (training, proficiency, and experience-building) and determining the PIC's ability to safely operate the sUAS/Drone in a manner consistent with how the sUAS/Drone will be operated are permitted under the terms of this Order. However, training operations may only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights, all persons

not essential for flight operations are considered non-participants, and the PIC must operate the sUAS/Drone without endangering persons or property on the surface.

w. sUAS/Drone operations may not be conducted at night (between official sunset and sunrise). All operations must be conducted under visual meteorological conditions. Flights under special visual flight rules are not authorized. Flights under instrument flight rules are not authorized.

x. The sUAS/Drone 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 three statute miles from the PIC.

y. If the sUAS/Drone loses link, communications, or its Global Positioning System (GPS) signal, the sUAS/Drone must be programmed to return to a pre-determined location and land on government property within the boundaries of the sUAS/Drone preapproved operating area.

z. The PIC must abort the flight in the event of unpredicted obstacles or emergencies.

aa. The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for the sUAS/Drone to conduct the intended operation and to operate after that for at least five minutes or with the reserve power recommended by the manufacturer if greater.

ab. All operations shall be conducted in accordance with an FAA-issued COA or Class D COA Via Notification and terms of the Commander's approval. Operators may apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the COA or Class D COA via Notification. In the latter, the Commander's approval must be updated accordingly.

ac. All sUAS/Drone must be identified by serial number, registered with PMA-263 or the FAA, and have identification (N-Number) markings in accordance with Part 45, Subpart C of reference (f). Markings must be as large as practicable.

ad. Documents used to ensure the safe operation and flight of the sUAS/Drones (flight manual for example) and any documents required by PMA-263 must be available to the PIC at the Ground Control Station of the sUAS/Drone any time the aircraft is operating. These documents must be made available to DoD Safety Offices or any law enforcement official upon request.

ae. Only certified remote sUAS/Drone pilots in command will control sUAS/Drones. All Flight operations must be conducted at least

500 feet from all non-participating persons, vehicles, and structures unless:

(1) Barriers or structures are present that sufficiently protect non-participating persons from the sUAS/Drones and/or debris in the event of an accident. sUAS/Drone operators must ensure that non-participating persons remain under such protection. If a situation arises where non-participating persons leave such protection and are within 500 feet of the sUAS/Drone, flight operations must cease immediately in a manner ensuring the safety of nonparticipating persons; and

(2) The owner/controller of any vehicles or structures has granted permission for operating closer to those objects and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard. The PIC, VO, operator trainees, or essential persons are not considered non-participating persons.

af. All sUAS/Drone operations shall only be conducted over DoD controlled-access property.

ag. Absent specific approval, sUAS/Drone operators shall disable any video capability the aircraft may possess prior to flight aboard MCIEAST Installations. sUAS/Drones may not carry munitions or lasers. Objects may not be released from sUAS/Drones.

ah. In accordance with references (l), (m), and (n), an airworthiness approval in the form of a flight clearance must be issued or promulgated by Commander, Naval Air Systems Command, NATOPS. This requirement applies to all U.S. Navy and U.S. Marine Corps owned or leased aircraft, both manned and unmanned, including pre-accepted aircraft or aircraft operated as public use aircraft by or for the DoD. Per reference (o), sUAS operators must have National Telecommunications and Information Administration authorization to transmit on the radio frequencies used for uplink and downlink of control, telemetry, and payload information.

Common Terms and Definitions

Airworthiness Approval. An aircraft and flight systems flight clearance issued or promulgated by Commander, Naval Air Systems Command in accordance with reference (n).

Ceiling. The heights above the earth's surface of the lowest layer of clouds or obscuring phenomena that is reported as "broken," "overcast," or "obscuration," and not classified as "thin" or "partial."

Certificate of Authorization (COA). The primary means by which public UAS operators petition and obtain FAA permission to access the NAS.

CFR. Code of Federal Regulations.

Class D COA Via Notification. Streamlined process for DoD proponents to notify FAA of intended UAS/Drone operations within Class D airspace under provisions delineated in the DoD - FAA Memorandum of Agreement (MOA) concerning the operation of DoD UAS in the National Airspace System dated 16 September 2013. An air traffic control management plan (codified in a letter of agreement with the Installation Commander) that outlines segregation of manned and unmanned aircraft is required before submitting a petition to fly.

Class G COA Via Notification. Streamlined process for DoD proponents to notify FAA of intended UAS operations within Class G airspace under provisions delineated in the DoD - FAA MOA concerning the operation of DoD UAS in the National Airspace System dated 16 September 2013.

Containment. The action of keeping something under control or within limits.

Currency. Pilot skill check.

Current. Not expired; up-to-date.

Flight Check. An ATC equipment inspection conducted by FAA aircraft.

Geo-fenced/Geo-fencing. An on board software capability establishing a computer based perimeter preventing the sUAS/Drone from departing the assigned operating area.

Global Positioning System (GPS). GPS refers to the worldwide positioning, navigation and timing determination capability available from the U.S. satellite constellation. GPS is composed of space, control, and user elements.

Ground Visibility. Prevailing horizontal visibility near the earth's surface as reported by the U.S. National Weather Service or an accredited observer.

Instrument Meteorological Conditions. Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling less than the minima specified for visual meteorological conditions.

Lost Link. A lack of positive sUAS/Drone control caused by a break in electronic signals between the ground control station and the sUAS/Drone aircraft.

Mishap. Accident, wreck, crash.

Non-participating. Not taking part in; not joining, not supporting, not belonging, and/or not required for the UAS training event.

Notice to Airmen. A notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, or procedure of, or hazard in the National Airspace System) the timely knowledge of which is essential to personnel concerned with flight operations.

Official Weather Report. The most recent prevailing ceiling, visibility, and other weather phenomena published by a certified Weather Office or source.

Pilot in Command (PIC). The person manipulating the flight controls of a sUAS and responsible for safe sUAS/Drone aircraft operations.

See and Avoid. PIC requirement to observe and maneuver to avoid other aircraft. Right-of-way rules are contained in reference (f) Part 107. sUAS must operate in a manner that does not interfere with, and gives way to, any manned aircraft. The PIC (and Visual Observer if one is assigned) must be able to see the unmanned aircraft throughout the entire flight in order to:

- 1) Know the unmanned aircraft's location;
- 2) Determine the unmanned aircraft's attitude, altitude, and direction of flight;
- 3) Observe the airspace for other air traffic or hazards, and
- 4) Determine that the unmanned aircraft does not endanger the life or property of another.

Special Visual Flight Rules. Meteorological conditions that are less than those required for basic VFR flight in Class B, C, D, or E surface areas and in which some aircraft are permitted flight under visual flight rules.

Spill Out. A collision alert created when an aircraft exits an assigned operating area without authorization and transmitted to air traffic control using the phrase "whiskey alert".

Visual Flight Rules (VFR). Rules that govern the procedures for conducting flight under visual conditions. The term "VFR" is also used in the U.S. to indicate weather conditions that are equal to or greater than minimum VFR requirements.

Visual Line of Sight. Maintaining direct visual observation of the small unmanned aircraft unaided by any technology other than glasses or contact lenses.

Visual Meteorological Conditions. Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling equal to or better than specified minima.

Visual Observer (VO). When assigned, the person who must maintain visual line of sight contact with the sUAS/Drone and surrounding airspace and assist the pilot in command with seeing and avoiding other air traffic, objects aloft, or on the ground. The VO is responsible to scan the airspace where the small unmanned aircraft is operating and be on the lookout for any potential collision hazard (e.g., other aircraft, terrain, structures, and personnel). The VO provides the PIC with information to help avoid a mishap.

Whiskey Alert. A term used to alert ATC that a spill out situation is imminent.

Whiskey Alert Format. Notification must include the following information:

- (1) Location
- (2) Altitude
- (3) Intentions/coordination to resolve conflicts
- (4) Heading (time permitting)
- (5) Call sign/type (time permitting)

Air Traffic Control Tower (ATCT) Notification Checklist

**ATCT MODEL AIRCRAFT NOTIFICATION
CHECKLIST**

If you receive a call notifying you that someone wants to operate a model aircraft within 5 miles of an airport, follow this checklist to gather information of the operation.

NOTE: Model aircraft cover a wide array of types, such as R/C (Remote Control) Airplanes & Helicopters and the newer UAS vehicles.

1. Ask the caller if they are operating as a Model Operator (Hobbyist) or as a Public (Fire/Police/Law) or other non-model aircraft (Business) operator. If it is for Public or non-model aircraft purposes, they should have a COA on file with the facility, if not, give them the website: WWW.FAA.GOV/UAS and inform the caller to apply for the appropriate permissions and you can end the call.
2. Ask the caller if they are flying within 5 miles of your airport, if they are not, inform them they do not need to be notifying you.
3. If they are flying as a Model Operator:
 - a. Complete as much of checklist as you can, information is voluntary, on the part of the caller.
 - b. If they give you a location you are not familiar with, ask their direction and distance from the airport.
 - c. If they are in an area where there is a potential flight hazard, you can deny the operation and inform them of the reason, i.e. manned aircraft in that area, Special Use Airspace, a heliport is nearby, etc.
 - d. If the caller requests to operate in an area where there is no perceived hazard, acknowledge the operation, do not use the word approved or imply approval.

ATCT MODEL AIRCRAFT CHECKLIST

1. Name of Caller: _____
2. Callers phone number: _____
3. UAS Registration number, if available:

4. Location of operation: _____
5. Start Time/Date Operation:

6. Duration of operation: _____
7. Description of UAS, if needed:

8. Maximum Operating Altitude: _____

Before ending the call, provide the operator the following recommendations:

1. If operation is denied, provide reason.
2. Be sure to keep your Model Aircraft in sight with your own eyes.
3. Always see and avoid all other aircraft.
4. Recommend that they stay below 400' AGL.
5. Thank the caller for the notification.

FAA Personnel

If you observe or receive reports on unsafe UAS operations, advise aircraft in the vicinity of the reported hazard, contact local law enforcement for assistance, contact the DEN and file a MOR.

Retain this checklist with the daily records for 45 calendar days.

Time/Date of Call: _____

Operating Initials: _____ Op Denied Yes / No

If Denied, why: _____