



United States Department of the Interior

Office of Aviation Services

Information Bulletin

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Distribution: All DOI Employees

Subject: Issuance of the Memorandum of Agreement (MOA), dated Jan 23, 2014 between the Department of Interior (DOI) Office of Aviation Services (OAS) and the Federal Aviation Administration, UAS Integration Office (AFS-80) Regarding Operation of Small Unmanned Aircraft Systems in Class G Airspace.

Information:

This Information Bulletin (IB) identifies and clarifies DOI Bureau responsibilities in the implementation and use of this MOA.

This MOA establishes a framework under which DOI Bureaus must operate to comply with FAA rules and procedures pertaining to small UAS (sUAS) employment. The scope of sUAS operations under this MOA applies only to systems weighing 55 lbs or less engaged in public aircraft operations below 400 ft AGL and is limited to natural resource and scientific applications, as well as Search and Rescue (SAR) efforts. All other UAS operations to include wildland fire and law enforcement operations must still comply with the FAA Certificate of Authorization (COA) application and approval process before flights can commence. See attached flow chart for a graphical depiction of the project approval process for DOI UAS operations.

Although this MOA eases some pre-mission administrative approval requirements on certain DOI UAS operations, all aviation [Departmental Manual](#) and [Operational Procedures Memorandum 13-11 \(extension\)](#) requirements regarding aircraft operations and acquisitions still apply. As reiterated in the [letter from Kim A. Thorsen](#), DAS- Public Safety, Resource Protection and Emergency Services, to the Bureau Directors dated August 13, 2012, the importance of adherence to our policies and management principles is critical to ensure the long term viability of UAS operations in DOI. Additionally, there is still not an FAA approved process for UAS contractors to conduct commercial operations in the National Airspace. DOI Bureaus must still comply with many of the requirements previously mandated under the COA process and the DOI UAS Operational Test and Evaluation (OT&E) agreement.

Prior to UAS operations, DOI Bureaus must route an OT&E proposal through their National Aviation Manager and obtain SES level approval to confirm the proposed UAS projects are vetted and aligned with the respective Bureau mission and operational requirements. The OT&E proposal is a simple format outlining potential UAS projects, number and type of UAS to be flown, project durations, bureau points of contact, etc. Only points of contact for approved projects will be granted access to the COA On-line website.

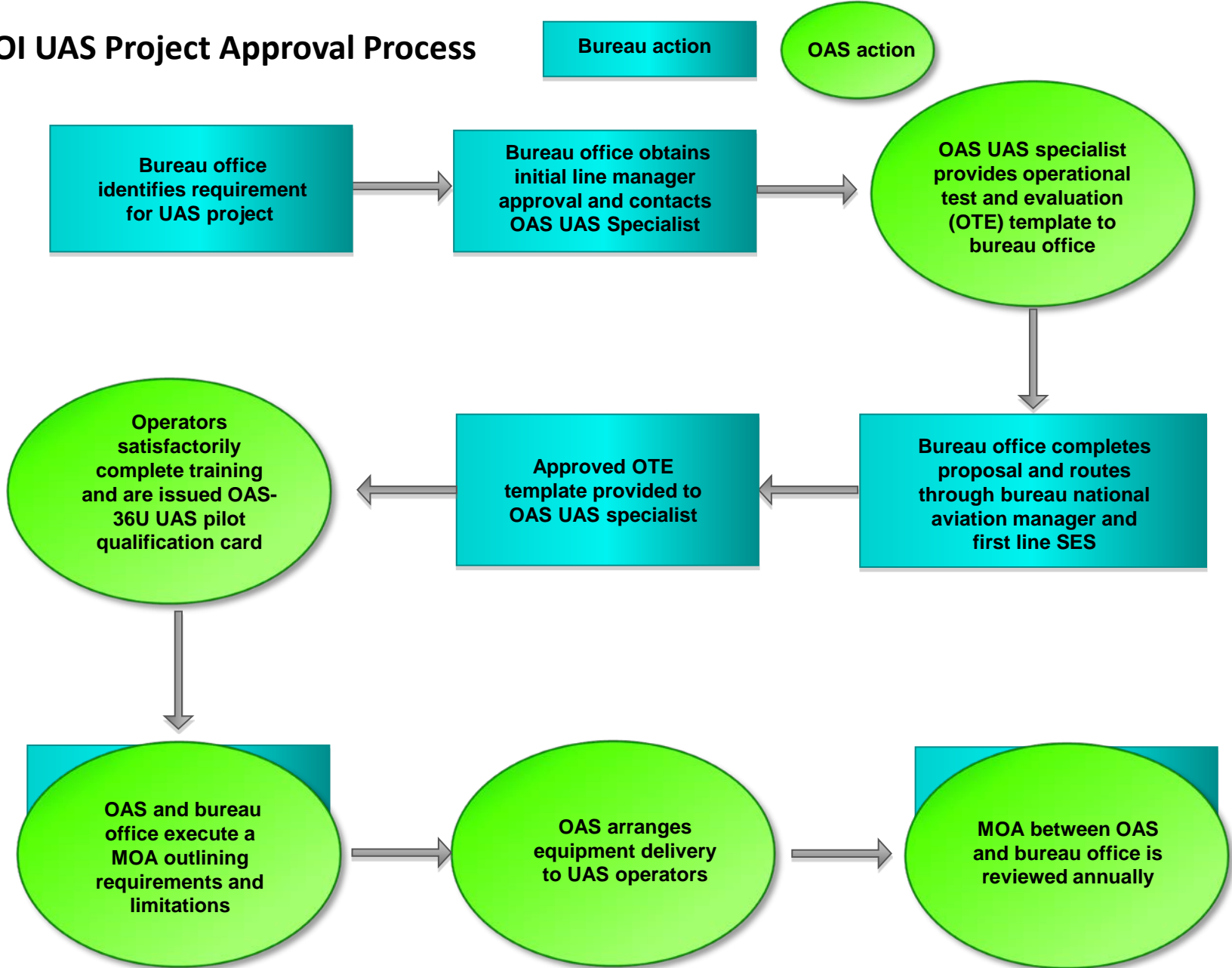
In addition to other pre-flight requirements, individual UAS operators and users must still complete the required training, obtain frequency/spectrum authorization, file NOTAM's and ensure the Project Aviation Safety Plan (PASP) has been signed before each individual UAS project. As part of the post flight analysis and debrief, UAS operators are still required to submit the following:

- Safety communique's (SAFECOMS's) as applicable.
- Lessons learned or after action report specific to the project.
- OAS-2U Aircraft Use Report within 5 business days from the conclusion of the flight.

Contact Bureau Aviation Managers (unit, state, region, national as identified by your respective bureau) for specific DOI and Bureau requirements prior to use.

The DOI/FAA agreement is effective immediately and remains in effect until either organization amends, revises or cancels. The OAS point of contact is Brad Koeckeritz, 208-433-5091, Bradley_Koeckeritz@ios.doi.gov.

DOI UAS Project Approval Process



Contact UAS Specialist Brad Koeckeritz with any questions. Bradley.Koeckeritz@ios.doi.gov, 208-433-5091.

**Memorandum of Agreement between the U.S. Department of the Interior
and the Federal Aviation Administration Regarding Operation of Small
Unmanned Aircraft Systems in Class G Airspace**

A. Introduction: This Memorandum of Agreement (MOA) between the U.S. Department of the Interior (DOI) and the Federal Aviation Administration (FAA) sets forth provisions that will allow DOI-operated small Unmanned Aircraft Systems (sUAS) increased access to Class G airspace for public aircraft operations in accordance with applicable laws and government agency policy.

B. Scope: The policies, procedures and operations prescribed in this MOA apply to DOI sUAS operations involving scientific applications, wildlife surveys and Search and Rescue (SAR) efforts within Class G airspace at or below 400 ft AGL, authorized through Certificate of Waiver or Authorization (COA) via Notification procedures.

C. Authority: Title 49 of the United States Code (49 USC) § 106 provides the authority to the FAA to set aviation safety standards and regulate aviation operations in the National Airspace System (NAS). Title 49 USC provides the authority for government agencies to conduct public aircraft operations in the national airspace subject to certain limitations § 40125.

D. UAS Airworthiness Certification: The DOI assumes responsibility that the sUAS it will operate under this MOA are airworthy and in condition for safe operation based on the manufacturer's specifications, technical manuals and maintenance recommendations for the aircraft, control station, and associated support equipment. Where appropriate for unmanned aircraft, the aviation standards aircraft detailed in DOI Department Manuals 351 DM, Flight Operations Standards and Procedures and 352 DM, Aviation Safety shall be applied. More specific guidance is contained in DOI Operational Procedures Memorandum (OPM) No.11, DOI Use of Unmanned Aircraft Systems, and OAS Instruction 5400-202. All DOI UAS will be inspected for airworthiness and kit condition by OAS designated aircraft inspectors at the same interval as DOI manned aircraft.

E. UAS Pilot/Crewmember Qualification: The pilot in command (PIC) and flight crewmembers, including visual observers, of DOI sUAS shall be qualified in accordance with the requirements listed in the FAA UAS Operational Approval Notice N8900.227. sUAS pilots and observers are required to have an appropriate current medical exam in accordance with DOI OPM No. 11 and will be subject to annual flight evaluations administered by DOI Office of Aviation Services designated pilot inspectors. These qualifications must meet or exceed requirements listed in the FAA UAS Operational Approval 8900.227.

F. Spectrum and Associated Documents: DOI will be responsible in ensuring that the appropriate frequency spectrum approvals are obtained in advance of any sUAS operation.

G. DOI UAS Access to the NAS Using COA via Notification Procedures: In addition to the use of standard COAs, the FAA agrees to authorize access for DOI sUAS outside of Restricted, Warning or Prohibited Areas operations in Class G airspace through the COA via Notification procedure. COA via Notification procedures may be authorized as follows:

1. COA via Notification in Class G airspace applies to sUAS weighing 55 pounds or less and for operations at or below 400 ft AGL.
2. The proponent will notify the FAA via Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) COA online and publish a Notice to Airmen (NOTAM) to alert non-participating aircraft of the operation.
3. Operations will be conducted within visual line of sight of the pilot/operator utilizing Class G VFR weather requirements.
4. COA via Notification operational, incident, and accident data will be reported via COA On-line.

H. Specific Provisions for DOI UAS Operations over Federal Lands:

1. DOI will be responsible for coordinating sUAS operations over lands owned or managed by the DOI Bureaus. These areas include National Parks, National Wildlife Refuges, etc.
2. For operations over other U.S. government, state or privately-owned or managed lands, excluding DoD restricted areas/airspace, DOI will coordinate with the appropriate authority and ensure the property owners have advance notice prior to the proposed sUAS operation. This coordination should include anticipated periods of operation, purpose of the flights, and contact information for the responsible agency should questions or issues arise.

I. General Limitations to Operations in Class G Airspace:

1. Operations will not be conducted over populated areas. For planning purposes, populated areas are those areas indicated in yellow on VFR sectional charts.
2. Flights will be planned to avoid sustained/repeated overflight of heavily trafficked roads or highways but may briefly cross over active roads as necessary. Surveillance of roads or outside gatherings of people shall be accomplished with offset surveillance techniques to minimize risk to persons or property on the ground.
3. Flights will be conducted in compliance with all applicable CFR's, state, and local rules and regulations and in accordance with any applicable Special Flight Rules Area (SFRA) considerations.
4. Operations within Class G airspace underlying Class B or C airspace (Mode C veil) generally require either an independent sUAS flight termination system or a transponder and must be conducted via a regular COA.

- 5. The sUAS will remain outside of five (5) NM from any civil airport or heliport at or below 400 ft AGL.
- 6. Night operations are permitted provided:
 - a. The PIC must hold, at a minimum, an FAA private pilot certificate or FAA-recognized equivalent.
 - b. The sUAS meets the night lighting requirements as defined in 14 CFR 91.209.
 - c. Flight Crews have been trained on the lighting configuration of the sUAS and are in place 30 minutes prior to night operations to ensure night vision adaptation has occurred.

Note: sUAS night operations are those operations that occur between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time. This is equal to approximately 30 minutes after sunset until 30 minutes before sunrise, except in Alaska.

J. Implementation Plan: The FAA’s office of primary responsibility is the Unmanned Aircraft Systems Integration Office (AFS-80). DOI’s office of primary responsibility is the Office of Aviation Services. This MOA will be reviewed annually and is effective upon the last signature. Additionally, this MOA may be cancelled at any time by either party upon notification in writing.

U.S. Department of the Interior:

Mark L. Bathrick 1/23/14
Mark L. Bathrick, Director, Office of Aviation Services Date

Federal Aviation Administration:

James H. Williams 1/23/14
James H. Williams, Manager, UAS Integration Office, AFS-80 Date