United States Department of Agriculture
Animal and Plant Health Inspection Service

Wildlife Services Directive

WS 2.645
June 2025

UNMANNED AIRCRAFT SYSTEMS

1. PURPOSE

To provide guidelines and standards for safe use of Unmanned Aircraft Systems (UAS) and provide guidance on data gathered from UAS in Wildlife Services (WS) program activities.

2. AUTHORITY

a. 7 U.S.C. 8351 to 8353 authorizes officers, agents, and employees of the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), WS to conduct a program of wildlife services and to enter into agreements with States, local jurisdictions, individuals, and public and private agencies, organizations, and institutions for the purpose of conducting such services.

3. DEFINITIONS

a. 14 CFR Part 107 – Small UAS: applies to the registration, airman certification, and operation of civil small UAS within the United States. This part also applies to the eligibility of civil small UAS to operate over human beings in the United States.

b. 14 CFR Part 108 – Beyond Visual Line of Sight (BVLOS): applies to the use of specialized UAS to fly beyond line of sight.

c. 14 CFR Part 137 – Dispensing Chemicals and Agricultural Products with UAS: governs use of aircraft, including UAS, to dispense or spray substances.

d. 41 CFR Part 102-33 – Management of Government Aircraft: rules that apply to all federally-funded aviation activities of executive branch agencies of the U. S. government who use government aircraft to accomplish their official business.

e. 49 CFR Part 830 – Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records: rules that apply to the National Transportation Safety Board (NTSB) reporting requirements of a UAS accident, including persons suffering serious injury or substantial damage to the aircraft.

f. Accident: An event that results in an injury or death, and/or damage to property greater than $500 (not including the UAS).

g. Aircraft Logbook: A logbook used to record and maintain information specific to one UAS. This logbook may include information about the UAS, including flight dates and time, flight location, and maintenance.

h. Blue UAS List: An evolving list of Department of Defense approved UAS that are compliant with section 848 of the National Defense Authorization Act.

i. Flyaway: An emergency situation where the UAS flight control system malfunctions and prevents the aircraft from operating in a predictable manner. A communication interruption or lost link event does not constitute a flyaway.

j. Geospatial Data Act of 2018 (GDA): formalizes governance processes related to geospatial data, provides policy and guidance to promote a broader cooperation between public and private sectors.

k. Incident: An occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.

l. Inspection: Careful examination of a UAS, to ensure proper operations, that is conducted before an airframe is put into service, pre- and post-flight, and after repairs. Items to be inspected may include the airframe, control surfaces, propellers, power system (including batteries), and software.

m. OMB Circular 126: Improving the management and use of Government aircraft.

n. Pilot Logbook: A logbook or similar flight operations software/application used to record a pilot's flying hours. It contains every flight a pilot has flown including location, purpose for flight and duration, and number of take-offs and landings.

o. Pilot in Command (PIC): Person directly responsible, and acts as final authority, for operation of the aircraft.

p. Personal Identifiable Information (PII): includes, but is not limited to, the following:
   (1.) Name – full or partial.
   (2.) Personal identification number, such as social security number, passport number, driver's license number, tax ID, or financial account numbers.
   (3.) Address information, such as street address.
   (4.) Information about an individual that can be linked to a name, personal identifying number, or street address, or email address.
   (5.) Imagery that clearly identifies one's face, license plate, or other form of personal identification.

q. Unmanned Aircraft Systems (UAS): An unmanned aircraft and its associated elements (including communication links and the components that control aircraft) that are required for safe and efficient operation.

r. WS Employee or Personnel: Includes federal employees, non-federal employees supervised by WS, and interns and volunteers who conduct official WS duties under the supervision of WS.

s. WS UAS Management Specialist: Responsible for management of WS unmanned aircraft fleet and guides policy governing aircraft use.

4. BACKGROUND

The WS program utilizes UAS to help protect agriculture, natural resources, property, and human health and safety against damage and threats caused by wildlife. UAS can be an efficient and cost-effective means to add aerial capabilities to WS operations, such as: wildlife damage management, disease monitoring, research, and other activities.

5. POLICY

a. UAS purchased must follow Federal Acquisition Regulations. The WS Unmanned Aircraft System Committee (WS UASC) will maintain the list of pre-approved UAS (NDAA compliant or Blue UAS) that can be purchased, provide technical assistance to WS personnel, and determine UAS needs through discussions with WS personnel and application of the UAS in published literature. UAS not on the pre-approved UAS list may be vetted and approved for use on an 'as-needed' basis by the WS UAS Committee and the Wildlife Services National Aviation Coordinator.

b. WS personnel must conduct UAS operations under 14 CFR 107 if applicable, as well as any current waivers or MOUs approved by the Federal Aviation Administration (FAA).

c. WS personnel conducting operations under 14 CFR 108 must be certified by the FAA under Part 108 and equipped with aircraft meeting all the safety requirements for this type of operation.

d. WS personnel must maintain UAS (aircraft and data) under 41 CFR 102-33 Management of Government Aircraft.

e. WS personnel conducting UAS operations, research, and safety activities, including training and maintenance, will comply with applicable Federal, state, and local laws and regulations, procedures outlined in the WS UAS Flight Operations Manual, and any applicable land use restrictions (Military Bases, National Park System, Wilderness Areas, etc.).

f. WS UAS must be registered with the FAA under the WS' DroneZone account managed by the WS UAS Management Specialist and marked as "prescribed" in the WS UAS Flight Operations Manual.

g. Personally owned UAS will not be used for WS operations.

h. WS UAS pilots must maintain flight logs in an aircraft logbook for all registered UAS as described in the WS UAS Flight Operations Manual (meeting requirements of 41 CFR 102-33 and OMB Circular A-126).

i. WS UAS pilots must immediately report all accidents and incidents to the WS UAS Management Specialist or WS UASC, to their direct supervisor, and to the FAA or NTSB if required.

(1.) Accidents which result in injury or property damage > $500 (not including the UAS) must be reported to the FAA and NTSB within 10 days.

(2.) Accidents that result in hospitalization, death, or property damage estimated > $10,000, must be reported to APHIS within 2 hours (see instructions on the online APHIS First Report site).

(a.) If unsure whether an accident or incident is reportable to APHIS, contact the WS UAS Management Specialist, WS UAS Committee, or WS Safety and Health Manager.

(3.) The PIC must report all accidents and incidents to the WS UAS Management Specialist within 5 days of the event (email: WS.UAS@usda.gov).

(4.) The WS UAS Management Specialist will determine if the accident or incident is reportable to the FAA under federal regulations. The WS UAS Management Specialist will:

(a.) Immediately notify the WS Management Team of any significant incident or accident prior to being reported to the FAA.

(b.) Coordinate and assist with investigations into any incidents, accidents, or property damage related to WS use of UAS.

(c.) Report findings and any recommendations to the WS Management Team.

(5.) A flyaway must be reported to the NTSB within 10 days, per Title 49 Part 830, to report an aircraft flight control system malfunction.

j. All incidents in which a UAS strikes a bird or is attacked and struck by a bird shall be reported to the FAA National Wildlife Strike Database via Form 5200-7 (http://wildlife.faa.gov).

k. PII or geospatial data collected during UAS operations and deemed necessary for the mission of WS will be maintained in a system of records covered by the Privacy Act of 1974 or the Geospatial Data Act of 2018. If data were collected for research purposes, they will be managed in accordance with USDA DR 1020-006, Public Access to Scholarly Publications and Digital Scientific Research Data. If PII is incidentally collected by UAS activities, all PII will be obscured or removed.

6. TRAINING REQUIREMENTS

a. WS personnel must complete WS training requirements to become certified/carded to conduct UAS operations as a PIC. The WS UAS pilot certification process requires:

1) WS State Directors/Project Leaders/National Coordinators identify qualified candidates under their supervision.

2) WS candidates must pass the FAA Unmanned Aircraft General – Small (Part 107) knowledge exam to obtain their FAA Remote Pilot Certification.

3) WS personnel must complete a WS-approved UAS training program that includes classroom and practical portions. Training will cover Federal regulations, WS policy, safety, weather considerations, airspace use, emergency procedures, maintenance, preflight inspection procedures, data management, and hands-on flying of UAS. Upon completion of the UAS training program, the UAS pilot will receive a WS UAS Airman Card to certify them to conduct UAS mission for WS.

b. Advanced WS UAS training programs can consist of nighttime operations, joint helicopter/UAS operations, and fixed wing operations. The WS UAS Operations Manual will have a list of approved advanced trainings and their requirements. WS UAS Airmen shall not conduct operations without proper training or certifications.

7. RECERTIFICATION REQUIREMENT

UAS pilots must log ≥ 6 hrs of flight time every year to renew their WS UAS Airman Card. Pilots unable to meet these criteria will need to conduct a UAS check ride with a UAS committee approved pilot or instructor before flying missions for WS. UAS pilots must also take the online FAA Unmanned Aircraft General-Small airman knowledge exam every 24 months to keep their small UAS Part 107 rating.

8. RESPONSIBILITIES

a. UAS pilots must follow guidelines and safety procedures required under federal regulations (14 CFR 107 and 41 CFR 102-33), USDA, APHIS, and the WS UAS Flight

Operations Manual. Each UAS pilot must conduct operations under conditions that are safe to self, crew, and bystanders, and not likely to damage property.

b. WS State Directors/Project Leaders/National Coordinators are responsible for the supervision, management, and compliance of UAS activities within their area of responsibility. This includes coordination of UAS operations with local stakeholders, supervision of UAS pilots, proper storage and maintenance of UAS, training of UAS pilots in accordance with required policies and guidelines and ensuring that all geospatial data acquired via UAS aligns with GDA guidelines. WS State Directors/Project Leaders/National Coordinators are also responsible for communicating UAS issues and needs to the WS UAS Management Specialist and Committee.

c. The WS UAS Committee and UAS Management Specialist will maintain the pre-approved UAS list and advise WS on UAS that are vetted and compliant with the law for purchase. Pilots are responsible for inspections of UAS after repairs or modifications that do not significantly change the flight characteristics of the aircraft. The WS UAS Committee will identify the manufacturer or key personnel to inspect any UAS that have modifications or repairs that significantly alter flight. Pilots must conduct pre- and post-flight inspections and document all repairs in the aircraft logbook, which is kept with the UAS for the life of the UAS.

9. SCOPE

This Directive is applicable to WS personnel and programs.

REFERENCES

a. WS UAS Flight Operations Manual (SharePoint link)
https://usdagcc.sharepoint.com/:w:/r/sites/aphis-ws/WS%20UAS/UASWG/_layouts/15/Doc.aspx?sourcedoc=%7B93862442-AC91-4B5E-82CC-BFD445F3ED9E%7D&file=UAS%20Manual%20Version%202025.01.docx&action=default&mobileredirect=true

b. 14 CFR Part 107 – Small Unmanned Aircraft Systems (Code of Federal Regulations)
http://www.ecfr.gov/cgi-bin/text-idx?SID=e331c2fe611df1717386d29eee38b000&mc=true&node=pt14.2.107&rgn=div5

c. Privacy Act of 1974 (PDF)
https://www.gpo.gov/fdsys/pkg/USCODE-2012-title5/pdf/USCODE-2012-title5-partI-chap5-subchapII-sec552a.pdf

d. Federal Acquisition Regulations (PDF)
https://www.acquisition.gov/sites/default/files/current/far/pdf/FAR.pdf

e. Blue UAS List
https://www.diu.mil/blue-uas-cleared-list

f. USDA Geospatial Strategic Plan
https://www.usda.gov/sites/default/files/2021-12/Enterprise%20Geospatial%20Strategic%20Plan_Final.pdf

g. Departmental Regulation: Public Access to Scholarly Publications and Digital Scientific Research Data
DR 1020-006; Public Access to Scholarly Publications and Digital Scientific Research Data (usda.gov).

h. 41 CFR 102-33 – Management of Government Aircraft
eCFR :: 41 CFR Part 102-33 -- Management of Government Aircraft (FMR Part 102-33)

i. OMB Circular A-126 – Improving the Management and Use of Government Aircraft.
Circular A-126 -- Improving the Management and Use of Government Aircraft

j. 49 CFR Part 830 – Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records.
https://www.ecfr.gov/current/title-49/subtitle-B/chapter-VIII/part-830

Jessica Fantinato
Deputy Administrator

JESSICA FANTINATO
Digitally signed by JESSICA FANTINATO
Date: 2025.06.10 12:41:12 -04'00'