DOI OPERATIONAL PROCEDURES (OPM) MEMORANDUM NO. 29

Subject: Special Use Activities for Manned Aircraft

Effective Date: January 1, 2020

Supersedes: OPM 29 dated January 1, 2015

NOTE: Standards for Technical Oversight now in OAS Instruction 5400-205.

Expiration: December 31, 2020

1. **Purpose.** This OPM identifies the specific special use activities referred to in 351 DM 1 and establishes definitions, policies and pilot qualifications and evaluation requirements for special use activities conducted by the Department of the Interior (DOI). Aircraft requirements for special use are not addressed here. This document is applicable to all manned aircraft pilots, Fleet and Contract, conducting special use activities under the operational control of DOI.

2. **Background.** In DOI, Special Use Activities involve the utilization of airplanes and helicopters in flight operations which do not meet the definition of point-to-point flight (see 350 DM 1) and which require special considerations due to additional equipment and/or the increased risks inherent in such operations. Point-to-point missions, when flown in Department owned or contracted aircraft, shall be considered civil aircraft operations and must be flown in full compliance with the applicable provisions of 14 CFR. In general, special use activities are conducted as inherently governmental public aircraft operations. Regardless of such status, DOI pilots must comply with the applicable provisions of 14 CFR and deviate only as authorized by published Department policy.

3. **Authority.** This policy is established by the Director of the Office of Aviation Services (OAS) in accordance with the provisions of Departmental Manual 112 DM 12, 350 DM 1; and Secretarial Order 3322 dated August 23, 2012.

4. **Policy.**

   A. Pilots conducting special use activities for DOI must conform to the standards and requirements contained in the Department Manuals, Operational Procedures Memorandum (OPM), DOI Handbooks, applicable procurement documents (contract pilots).

   B. On a case by case basis, OAS pilot inspectors may extend a pilot’s special use approval up to two calendar months.

   C. Requests for equivalencies, waivers, and exceptions will be in writing and routed through the bureau National Aviation Manager and Bureau Regional/State Aviation Manager to OAS Chief, Technical Services. Waivers to policy must be approved by the OAS Director.
D. Pilot approval is required for the following special use activities.

NOTE: Bureau policy may have additional requirements.

1) **Aerial Application.** (Airplane and Helicopter)

   NOTE: Contractor provided, aerial application, procured under an end product contract is not special use and this OPM does not apply.

   a) Agricultural operations as defined in 14 CFR 137.
   b) Subsets include:

      (1) Precision Spray (Helicopter) an operation where individual plants are treated with chemical herbicides from a single spray nozzle suspended on a longline.
      (2) Herbicide Application by Projectile (Helicopter) an operation where individual plants in steep mountainous terrain are treated with chemical herbicides utilizing a specialized paintball gun to dispense spherical projectiles filled with herbicide.
      (3) Traditional Aerial Application with booms and spreaders (Fleet Airplane and Helicopter).

   c) Contractors conducting aerial application for DOI are required to have an Agricultural Aircraft Operator Certificate prescribed by 14 CFR 137.
   d) When conducted in a fleet aircraft, an Agricultural Aircraft Operator Certificate is not required.
   e) Aerial application is not applicable to application of water and/or retardant on fires.
   f) An initial and 36 month recurrent flight evaluation is required for fleet pilots.
   g) An initial only flight evaluation is required for contractors conducting Herbicide Application by Projectile (Helicopter).
   h) An initial and 36 month recurrent flight evaluation is required for contractors conducting Precision Spray.
   i) Personal protective equipment (PPE) in accordance with the *Aviation Life Support Equipment (ALSE) Handbook* for low level flight is required.

2) **Aerial Capture, Eradication and Tagging of Animals (ACETA).** (Helicopter)

   a) Operations conducted to perform Aerial Capture, Eradication and Tagging of Animals. Subsets of ACETA include:

      (1) Eradication/Darting/Marking (performed above 50 feet AGL)
      (2) Eradication/Darting/Marking (performed below 50 feet AGL)
      (3) Herding
      (4) Netgunning (Hand-held Netgun)
      (5) Trapping
      NOTE: See Appendix 1 for ACETA subset base definitions

   b) Refer to the applicable contract, *ACETA Handbook*, and/or any bureau specific policy.
c) An initial and 36 month recurrent flight evaluation is required.
d) PPE in accordance with the ALSE Handbook is required.

3) Aerial Ignition. (Helicopter)
   a) An operation that utilizes a plastic sphere dispenser (PSD) or a helitorch for prescribed fire or for burn operations on wildland fires.
   b) Best practices are documented in the Interagency Aerial Ignition Guide (PMS 501), which may be adopted as policy by the operating bureau.
   c) A one time, initial only flight evaluation is required.
   d) PPE in accordance with the ALSE Handbook is required.

4) Aerial Supervision Module (ASM). (Airplane)
   a) An operation which combines a qualified leadplane pilot with a qualified air tactical group supervisor in one airplane.
   b) Best practices are documented in the Interagency Aerial Supervision Guide (PMS 505, NFES 002544), which may be adopted as policy by the operating bureau.
   c) An initial and 12 month recurrent flight evaluation is required.
   d) PPE in accordance with the ALSE Handbook for low level flight is required.

5) Air Attack Pilot (ATGS or HLCO). (Airplane and Helicopter)
   a) An operation in which an air tactical group supervisor (ATGS) or helicopter coordinator (HLCO), manages airspace and air resources from an aircraft over an incident.
   b) Best practices are documented in the Interagency Aerial Supervision Guide (PMS 505, NFES 002544), which may be adopted as policy by the operating bureau.
   c) An initial and 60 month recurrent flight evaluation is required for airplane based air attack pilots.
   d) Specific PPE is required.
      (1) Airplane - Leather shoes or boots, and full length cotton or Nomex pants or a flight suit.
      (2) Helicopter - in accordance with the ALSE Handbook.

6) Animal Classification. (Helicopter)
   NOTE: General animal survey/census/inventory operations are not conducted under Animal Classification, but are conducted as Low Level and Reconnaissance operations.
   a) An operation conducted to acquire a detailed animal census. Identification of specific characteristics of the animals may require the maneuvering the helicopter much lower to ground than required for an inventory survey in which animals are simply counted from higher altitudes. May also require maneuvering the helicopter to direct the animals into a position that allows identification of characteristics such as age, sex, or health to be readily identified. Animal Classification is not considered a subset of ACETA.
b) An initial flight evaluation is required.
c) PPE in accordance with the \textit{ALSE Handbook} is required.

7) \textbf{External Load. (Airplane)}

a) Any flight operation requiring external carriage of a load outside of or extending from the fuselage.
b) Conducted in accordance with FAA authorization.
c) A one time, initial only flight evaluation is required.
d) No PPE required for external load in and of itself.

8) \textbf{External Load. (Helicopter)}

a) Class B, C or D external load.
b) Subsets of External Load (Helicopter) are:

(1) Belly Hook/Sling - \(\leq 50\) feet.
(2) Cargo Letdown - An operation in which cargo is deployed from a hovering helicopter by the means of an approved webbing, descent device, and auxiliary equipment.
(3) Longline - \(>50\) feet.
(4) Hoist Operations - An operation where an aircraft mounted winch is utilized to load or unload a helicopter while in a hover.
(5) Rappel - An operation in which personnel use ropes and friction devices to exit a helicopter while hovering.
(6) Rope Assisted Delivery System (RADS) - An operation in which personnel use ropes to exit a helicopter while hovering, also known as fast-rope.
(7) Short Haul - An operation in which personnel are transported from one location to another as an external load.

c) Contractors conducting external load operations for DOI are required to have a Rotorcraft External Load Operator Certificate prescribed by 14 CFR 133.
d) When conducted in a fleet aircraft, a Rotorcraft External Load Operator Certificate is not required.
e) Hoist Operations follow specific DOI/Bureau or cooperator policy.
f) RADS policy is TBD.
g) Rappel and Cargo Letdown best practices are documented in the \textit{Interagency Helicopter Rappel Guide}, which may be adopted as policy by the operating bureau.
h) Short Haul reference the \textit{Helicopter Short-Haul Handbook} or the Law Enforcement Short Haul Policy, as applicable.
i) A one time, initial only flight evaluation is required for Belly Hook/Sling.
j) An initial and 36 month recurrent flight evaluation is required for Cargo Letdown, Hoist (no people), and Longline.

k) An initial and 12 month recurrent flight evaluation is required for any external load operation when a live person is the load.

l) PPE in accordance with the ALSE Handbook is required.

9) **Float Operations**. (Helicopter)
   a) Fixed or hull floats only. Popouts are excluded.
   b) A one time, initial only flight evaluation is required.
   c) PPE in accordance with the ALSE Handbook is required.

10) **Glacier Landings-Skis** (Airplane)
    a) Takeoff and landing operations on a glacier.
    b) Pilot must have 200 hours as PIC in skiplanes.
    c) Prerequisites - Mountainous Terrain (Airplane). When pioneering sites, Low Level (Airplane).
    d) Currency pilot must have three ski takeoffs and landings in the previous 90 days to carry passengers.
    e) An initial and 36 month recurrent flight evaluation is required.
    f) No PPE required for high altitude glacier landings in and of itself.

11) **Low Level**. (Airplane and Helicopter)
    a) An operation other than takeoff or landing where flight is conducted less than 500 feet above the surface.
    b) 200 hours PIC low level in category; or 10 hours in category of low level flight instruction.
    c) An initial and 36 month recurrent flight evaluation is required for airplanes.
    d) A one time, initial only flight evaluation is required for helicopters.
    e) PPE in accordance with the ALSE Handbook is required.

12) **Mountainous Terrain**. (Airplane and Helicopter)
    a) Mountainous terrain is an endorsement required for operations conducted within 1000 feet of terrain (horizontal or vertical) in the areas designated by the FAA as mountainous IAW 14 CFR 95 Subpart B, except take off, landing and as noted here.
    b) A mountainous terrain endorsement is not required for contract pilots conducting point to point flights IAW 14 CFR 135.
    c) Pilots holding a DOI pilot qualification card prior to the effective date of this OPM and operating in mountainous terrain IAW 14 CFR 95 Subpart B are grandfathered in without the requirement for a Mountainous Terrain flight evaluation. However, unacceptable performance IAW the IPTS, during any future flight evaluation maybe grounds for denial of the mountainous terrain endorsement at that time. Additional training maybe required and a re-evaluation is required after denial.
d) Pilots applying for an initial DOI pilot qualifications card as of the effective date of this OPM with a requirement to operate within 1000 feet of terrain (horizontal or vertical) in mountainous terrain must pass a Mountainous Terrain flight evaluation conducted in accordance with the Interagency Airplane Pilot Practical Test Standards prior to operating in mountainous terrain.
e) A one time, initial only flight evaluation is required.
f) No PPE required for mountainous terrain in and of itself.

13) Night Vision Goggle (NVG) Operations. (Airplane and Helicopter)

a) Night flight in an aircraft aided by light enhancing goggles.
b) An initial and 12 month recurrent flight evaluation is required.
c) No PPE required for NVG operations in and of itself.

14) Off Airport Operations-Wheels. (Airplane)

a) An Off Airport Operations-Wheels is a take-off or landing anywhere that is:
   (1) Not listed in a FAA Chart Supplement (formerly AFD),
   (2) An airport that is “not maintained” in accordance with a FAA Chart Supplement,
   (3) Not authorized in the DOI Airport Directory (currently under development), or
   (4) Not denoted as an airport on a lower 48 FAA Sectional Chart.

b) Pilot must have documented training or experience in off airport operations.
c) RAM/SAM may authorize continued use, in the current manner, of active landing areas that will now be considered off airport sites (per this new definition) until the new DOI Airport Directory is published. This grandfather clause will remain in effect until the DOI Airport Directory is published.
d) Prerequisites – Low Level (Airplane), Mountainous Terrain (Airplane) when operating in mountainous terrain, and (Fleet Pilot Only) Emergency Maneuver Training.
e) Currency - Pilot must have three takeoffs and landings, off-airport, in an airplane on wheels in the preceding 90 days to carry passengers.
f) An initial and 36 month recurrent flight evaluation is required for contract pilots
g) An initial and 24 month recurrent flight evaluation is required for fleet pilots.
h) PPE in accordance with the ALSE Handbook for low level flight is required.

15) Offshore Platform Landings. (Helicopter)

NOTE: Offshore Platform Landings by contract pilots is not special use.

a) Takeoff or landing on an elevated heliport structure surrounded by water.
b) Pilots conducting offshore platform landings must have 100 hours PIC of offshore navigation or 50 hours PIC of offshore navigation in the previous 12 months.
c) Pilots conducting offshore platform landings must have 10 takeoffs and 10 landings to platforms or vessels, drill-ships, semi-submersible drilling platforms, or barges.
d) For contract pilots a one time, initial only flight evaluation is required.
e) For fleet pilots an initial and 36 month recurrent flight evaluation is required.
f) PPE in accordance with the *ALSE Handbook* is required.

16) **Paracargo.** (Airplane)

a) An operation in which cargo is delivered from an airplane in flight.
b) Best practices are documented in the *Interagency Smokejumper Pilot Operation Guide*, which may be adopted as policy by the operating bureau.
c) An initial and 12 month recurrent flight evaluation is required.
d) PPE in accordance with the *ALSE Handbook* for low level flight is required.

17) **Reconnaissance.** (Airplane and Helicopter)

a) Reconnaissance flights may include but are not limited to: Aerial observation, reconnaissance, surveillance, photo flights, survey, tracking or patrol flights.
b) Prerequisites Mountainous Terrain (in category) when conducted in mountainous terrain.
c) An initial only flight evaluation is required.
d) Airplane - No PPE is required for Reconnaissance conducted entirely above 500 feet AGL. PPE in accordance with the *ALSE Handbook* is required for low level and over water Reconnaissance.
e) Helicopter - PPE in accordance with the *ALSE Handbook* is required.

18) **Single-skid, Toe-in and hover Exit/entry Procedures (STEP).** (Helicopter)

a) An operation in which personnel and/or cargo are loaded or unloaded, without the use of ropes or hoists, while the helicopter either has no contact with the ground (a low hover) or has limited contact with the ground (i.e. one skid/wheel/toe-in).
b) Refer to OPM-40.
c) An initial and 36 month recurrent flight evaluation is required.
d) PPE in accordance with the *ALSE Handbook* is required.

19) **Skiplane Operations.** (Airplane) Contract Pilots Only

a) Pilots must have documented training or experience in skiplane operations.
b) Currency - Pilots must have three take-offs and three landings to a full stop in a skiplane in the preceding 90 days prior to carrying passengers in a skiplane.
c) An initial flight evaluation is required for contract pilots. With documented skiplane experience this initial flight evaluation may be waived at the pilot inspector’s discretion.
d) No PPE required for skiplane operations in and of itself.
20) **Smokejumper.** (Airplane)

   a) An operation in which personnel are deployed via parachute from an airplane in flight.
   b) Best practices are documented in the *Interagency Smokejumper Pilot Operation Guide*, which may be adopted as policy by the operating bureau.
   c) An initial and 12 month recurrent flight evaluation is required.
   d) PPE in accordance with the *ALSE Handbook* for low level flight is required.

21) **Snow Operations (deep snow).** (Helicopter)

   a) Operations that require landing in snow of such depth that use of special pilot techniques is required.
   b) Reference the *Interagency Helicopter Operations Guide* (PMS 510, NFES 1885).
   c) A one time, initial only flight evaluation is required.
   d) No PPE required for snow operations in and of itself.

22) **Vessel Landings.** (Helicopter)

   a) Takeoff and landing operations on vessels, drillships, semi-submersible drilling platforms, barges, or other landing areas subject to pitch and roll of the sea.
   b) Pilots conducting Vessel Landings must have: 200 hours PIC of offshore navigation or 100 hours PIC of offshore navigation with 50 hours PIC accomplished during the previous 12 months.
   c) Pilots conducting Vessel Landings must have 10 offshore landings to vessels, drillships, semi-submersible drilling platforms, barges, or other landing areas subject to pitch and roll of the sea, this does not include fixed facilities regardless of movement.
   d) An initial and 36 month recurrent flight evaluation is required.
   e) PPE in accordance with the *ALSE Handbook* is required.

23) **Water/Retardant Delivery.** (Airplane and Helicopter)

   a) Sub categories include Airtankers, Initial Attack (IA) Airtankers, Single Engine Airtanker (SEAT) Level I & II, Single Engine Scoopers, Multi Engine Scoopers and Helicopters with buckets or fixed tanks.
   b) Contractors are required to have an Agricultural Aircraft Operator Certificate prescribed by 14 CFR 137.
   c) Refer to the appropriate current procurement document for pilot privileges, limitations and qualifications.
   d) An initial and 12 month recurrent flight evaluation is required for Level II SEAT pilots.
   e) An initial and 36 month recurrent flight evaluation is required for all other pilots.
   f) PPE in accordance with the *ALSE Handbook* for low level flight is required.
Attachments:
Appendix 1: Definitions
Definitions

1. **ACETA** (subset definitions) (see *ACETA Handbook* for expanded definitions).
   A. Darting - Use of a helicopter to chemically immobilize/sedate animals by discharging a tranquilizer dart from a specialized dart gun fired from the aircraft.
   B. Eradication - Use of a helicopter to euthanize animals by discharging a firearm from the aircraft.
   C. Herding - Use of a helicopter to haze and subsequently encourage movement of an animal or group of animals along the ground from one location to another.
   D. Marking - Use of a helicopter to mark animals with paint or dye utilizing a specialized paintball gun fired from the aircraft.
   E. Netgunning - Use of a helicopter to capture animals by deploying a capture net over the animal utilizing a specialized hand held net gun fired from the aircraft.
   F. Trapping - Use of a helicopter to capture animals by herding animals into a pen, net, trap, or set of corrals.

2. **Aircraft.** A helicopter (rotor wing), airplane (fixed wing) or unmanned aircraft system (UAS). See OPM-11 for policy concerning Unmanned Aircraft Systems.

3. **DOI Airport Directory.** (Currently under development) A list of authorized off airport sites and airports with modified requirements. Examples of modifications may be PPE requirements, pilot qualifications, or project aviation safety plan requirements. Authority to create and revise the Directory resides with the Bureau RAM/SAM.

4. **Helicopter External Loads.** (FAA definitions provided for clarification of FAA designated class A,B,C, and D loads only) (Belly Hook, Longline, Shorthaul, Rappel, and Hoist are designated special use operations that are examples of various external load operations.)
   A. Class A External Loads - Class A is a non-jettisonable external load that cannot move freely and does not extend below the landing gear. An example of a Class A operation is the carriage of supplies in an approved cargo rack, bin, or fixture affixed to the exterior of the rotorcraft. A cargo rack certification may or may not include a cargo envelope. The Federal Aviation Administration (FAA)-approved Rotorcraft Flight Manual Supplement (RFMS) required for the cargo rack installation specifies the approved configuration. If the cargo carried is within the envelope specified in the RFMS, the rotorcraft operator may operate in accordance with 14 CFR 91 or 135. Rotorcraft operators must conduct flight operations in accordance with 14 CFR 133 when the cargo rack certification does not include a cargo envelope or the cargo carried exceeds the specified envelope.

   B. Class B External Loads - Class B is a jettisonable external load, carried above or below the skids, suspended by a cargo hook or winch, which lifts free of land and/or water. An example of a Class B operation is a cargo net attached to the belly hook or a line off of the belly hook.

   C. Class C External Loads - Class C is a jettisonable external load where a portion of the load remains in contact with land or water. Examples of Class C operations are wire stringing, dragging a long pole, or towing a boat or barge.

   D. Class D External Loads - Class D is an external load other than Class A, B, or C approved on an individual basis with a special authorization. Class D allows the external carriage of a person other than a crewmember or a person who is essential to and directly connected with the external load operation. Requires a FAA-approved personnel lifting device and a
transport category multiengine helicopter. DOI Hoist, RADS, Rappel and Shorthaul missions generally are conducted as Public Aircraft Operations not as FAA Class D external loads.

5. **Level I SEAT Pilot.** Level I (journeyman) Single Engine Air Tanker pilots are permitted to fly missions in the fire traffic area with or without aerial supervision and to operate in a multiple tactical aircraft environment.

6. **Level II SEAT Pilot.** Level II (entry level) SEAT pilots are permitted to fly missions (1) without aerial supervision in the fire traffic area with the SEAT plus one other aircraft or (2) with aerial supervision in the fire environment airspace concurrently with multiple aircraft.