



United States Department of the Interior  
Office of Aviation Services  
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**DOI OPERATIONAL PROCEDURES MEMORANDUM (OPM) - 33**

**Subject:** Aerial Capture, Eradication and Tagging of Animals (ACETA)

**Effective Date:** January 1, 2024

**Last Updated:** January 1, 2019

**Expiration Date:** December 31, 2024

**1. Summary of Changes.**

No changes.

- 2. Purpose.** This OPM outlines Department of the Interior (DOI) aviation policies, procedures, qualifications, and equipment for Aerial Capture, Eradication and Tagging of Animals (ACETA). This OPM modifies Interior aviation policy (351 DM 2, 351 DM 3) and replaces the 1997 ACETA Handbook. OPM 32, ACETA Helicopter Performance has been replaced by this OPM and ACETA Helicopter Performance standards are now incorporated into Appendix 3 of this document. This OPM does not cover training of shooters or personnel handling the animals. This OPM applies to both DOI commercial aviation contracts and fleet operations.
- 3. Authority.** This policy is established by the Director, Department of the Interior, 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. General.** This policy covers ACETA activities under the operational control of the Department of Interior bureaus and offices. ACETA includes; Aerial Capture (net-gunning, darting, chemical immobilization, herding, trapping), Eradication (elimination by use of firearms), Tagging (use of paintball gun or similar device to mark an animal) where a helicopter is used as a shooting platform. It is not applicable to End Product/Service contracts (reference [OPM-35 Identification of End Product/Service and Flight Service Procurement](#)).
- 5. Policy.** Policy for the use of all aircraft within DOI is contained in departmental manuals 350-353 (DM's) and the associated OPM's.
  - A. Bureau specific policy covering ACETA operations shall be included within the respective bureau national aviation management plan in accordance with [OPM-06 Aviation Management Plans](#).
  - B. Bureaus conducting ACETA operations must possess a bureau ACETA Operations Plan approved by the bureau national aviation manager (NAM). Bureau ACETA Operations Plans must contain all elements listed in appendix 2 of this OPM.
  - C. All ACETA operations shall have a Project Aviation Safety Plan (PASP) containing, at a minimum, the elements listed in OPM-06 Appendix 2.

- D. All aircraft operations will be conducted within DOI aviation requirements and policy. Bureau plans may be more restrictive but may not be less restrictive than established DOI policy.
  - E. DOI employees shall be trained and qualified in accordance with their bureau ACETA Operations Plan and established DOI/bureau-specific policy, guidelines, procedures, and training requirements.
  - F. All ACETA gunners employing a firearm or capture device must be certified IAW firearm policy standards within each respective bureau exercising operational control.
  - G. All crew members are required to wear personal protective equipment (PPE) as specified in the [Interagency Aviation Life Support Equipment \(ALSE\) Handbook](#).
6. **Roles and Responsibilities.** The approval use and oversight of ACETA operations requires an effective and collaborative working relationship between OAS and the bureaus.
- A. OAS
    - 1) When requested, the OAS Training Branch will coordinate ACETA training with the requesting bureau.
    - 2) Issues approvals for aircraft and pilots.
    - 3) Maintain a list of ACETA subject matter experts for bureau training.
  - B. Bureau
    - 1) Develop and approve bureau ACETA Operations Plan.
    - 2) Complete, review, and approve PASP for ACETA missions.
    - 3) Coordinate all ACETA training needs with OAS Training Branch IAW 352 DM 1.9B.
7. **Aircraft - Pilot Approvals and Requirements.** Request for aircraft services must be in compliance with Bureau policy.
- A. Aircraft Approvals
    - 1) The contractor that is requested must be approved by OAS for the specific ACETA activity required for the project.
    - 2) Cooperator aircraft carrying DOI personnel on ACETA missions must be approved IAW 351 DM 4, Cooperator Operations.
    - 3) Aircraft Requirements - Aircraft provided for ACETA operations will meet the minimum requirements listed in Appendix 3 - ACETA Aircraft Requirements.
  - B. Pilot Approvals
    - 1) All ACETA pilots must pass a flight evaluation administered by a qualified OAS pilot inspector IAW the Interagency Helicopter Practical Test Standards.
8. **Personnel - Qualifications and Requirements.**
- A. Position Qualifications - All ACETA personnel will be qualified in the aviation position they are performing per Bureau policy and/or OPM-04.
  - B. For missions involving HAZMAT, all essential personnel aboard the aircraft must be

qualified as an Aircrew Member and successfully complete Aviation Transport of HAZMAT available at [www.iat.gov](http://www.iat.gov)

- C. Training Requirements - ACETA is a high risk, unique operation. Personnel shall have additional training as required in 352 DM 1.9B. Non-aviation training and qualification for ACETA operations will be conducted by Bureau designated ACETA specialists. Training, qualification and proficiency of ACETA personnel shall be documented by the bureau. All bureau personnel on ACETA missions shall meet bureau specific training requirements contained with their respective National Aviation Management Plan. Exceptions to bureau requirements will be granted from the Bureau Aviation Manager.
- D. STEP Training Requirements - Any operations that include helicopter Single-skid, Toe-in or hover Exit/entry Procedures (STEP) shall meet requirements set forth in OPM-40.
- E. Cooperators - All cooperator personnel engaged in ACETA missions under operational control of the DOI will meet all requirements of this OPM. An approved PASP is required IAW OPM-06.

**Note:** Bureaus may request a waiver through their respective National Aviation Manager (NAM). The NAM shall forward the request along with the justification to the OAS Director.

## **9. ACETA Equipment.**

- A. Personal Protective Equipment (PPE) - Project leaders and aircrew members shall ensure appropriate and adequate ALSE is properly used as directed in the ALSE Handbook. In addition to the seat belt, all gunners shall wear a secondary restraint during operations with doors off or open in accordance with ALSE Handbook, Chapter 2.4. Waivers to PPE requirements are covered in the ALSE Handbook. Exceptions to PPE requirements, not identified in the ALSE Handbook, must be processed IAW 350 DM1.10.
- B. Firearms and Capture Devices - All firearms and capture devices will be utilized IAW bureau policy. Aircrew Members involved with the loading and unloading of these devices are required to successfully complete Transportation of Hazardous Materials training (A-110) as per OPM-04. Only trained and certified individuals are allowed to handle firearms and capture devices.
- C. Rigging Requirements - ACETA Gunners are required to utilize secondary restraint equipment during flights with doors off or open. All rigging must be utilized in accordance with manufacturer specifications and bureau policy as described in the bureau ACETA Operations Plan. All ALSE rigging must meet requirements within the ALSE Handbook.

## **10. Operations.**

- A. Operational Requirements - All ACETA missions must meet the following requirements:
  - 1) Conducted IAW the respective bureau ACETA Operations Plan.
  - 2) Approved Project Aviation Safety Plan.
  - 3) Approved and carded aircraft and pilots.

B. Pre-Flight Operations - All ACETA missions will complete the following activities:

- 1) Pre-Mission Briefing - All personnel involved in the project shall review the entire PASP.
- 2) Multiple Aircraft - When missions require multiple aircraft, the primary focus in airspace coordination is safe aircraft separation. ACETA operations often require the pilot's attention to be outside of the aircraft towards the ground. This must be balanced with their primary responsibility to "see and avoid" other aircraft and obstructions. Other users of this airspace may have similar distractions. Adequate altitude separation and positive communication among all aircraft is paramount.
- 3) Weight and Balance / Load calculations must be completed IAW procurement documents and DOI Departmental Manuals. All aircraft limitations shall be adhered to during aircraft operations.
- 4) Pre-Flight Aircraft Briefing - The pilot must provide an aircraft orientation and an aircraft safety briefing to crewmembers, passengers, and ground personnel prior to flight.

C. Mission Duties - In Flight

- 1) Flight Planning and Flight Following - Will be conducted IAW Departmental and bureau policy.
- 2) Sterile cockpit procedures apply when actively engaged in ACETA operations. Communications should be limited to those required between the pilot and gunner/ACETA crewmember. "Limiting communications and actions within the cockpit to only those required for safe maneuvering and traffic separation". This means communications with Dispatch, ground personnel and other aircraft concerning non-essential mission information is prohibited.
- 3) Deviations from the PASP are only authorized if required for safety of flight or prior approval has been obtained.
- 4) Deviations from flight plans require immediate notification to flight following personnel.
- 5) Flight following personnel shall be provided a copy of the PASP and the mishap response plan.
- 6) A high-altitude reconnaissance of the project area must be completed prior to descending to a low level flight profile.

D. Post Flight Operations

- 1) Post Flight Briefing - All personnel involved in the project shall participate in the post mission review.
- 2) SAFECOMs shall be submitted to report unsafe conditions, actions, or incidents that affect the safety of mission operations per 352 DM 3.10.
- 3) Complete all payment documents.

**11. Mishap Response Procedures.**

- A. A current Aviation Mishap Response Plan must be developed for each location that conducts ACETA operations IAW with 352 DM 3.5.
- B. Reporting & Documentation - Aircraft operations involving the Department that are involved in an aviation mishap (damage or injury) or overdue aircraft suspected of being involved in a mishap shall be reported to OAS IAW 352 DM 3.4 (1-888-4MISHAP) immediately.

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Attachments:

Appendix 1: Definitions

Appendix 2: Required elements of ACETA Bureaus Operations Plan

Appendix 3: ACETA Aircraft Requirements

Appendix 4: Pilot Requirements

## Appendix 1

### Definitions

**ACETA Operations Plan** - A Bureau plan that gives direction regarding ACETA. This plan must be approved by the Bureau Aviation Manager and reviewed annually.

**ACETA Mission Plan** - A plan that is written for a specific ACETA mission that gives guidance to all aspects of the ACETA operation. This plan may also include a PASP specific to the mission.

**Air Crewmember** - Essential for the mission. Crewmembers, other than flight crewmembers, required to be on board the aircraft to ensure the successful outcome of the mission. Crewmembers who transport hazardous materials by air must receive training (A-110 Aviation Transportation of Hazardous Materials) on the requirements and conditions under the terms of the DOT Special Permit 9198.

**Aviation Mishap Response Plan** - A plan that gives direction to responders in case of an accident or missing aircraft. This plan should be specific to the area of operation and should be reviewed annually for accuracy.

**Cooperator** - an individual from another authority (tribe, state, etc.) who is to accomplish ACETA projects benefiting both DOI and their agency.

**Cooperator Aircraft** - An affiliated, military, or other Government agency aircraft.

**Hazard - Aviation Hazard** - Any condition, act, or set of circumstances that exposes an individual to unnecessary risk or harm during aviation operations.

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

**Mishap - Aviation Mishap** - Mishaps include aircraft accidents, incidents with potential, aircraft incidents, aviation hazards, and aircraft maintenance deficiencies.

**PASP** - Project Aviation Safety Plan is a document that provides specific guidance for aviation operations. It should include all of the elements as required by OPM-06 Appendix 2. This may be included as part of the bureau ACETA Operations Plan.

**SAFECOM** - Aviation Safety Communique (SAFECOM) is used to report any condition, observance, act, maintenance problem, or circumstance, which has the potential to cause an aviation-related mishap. A SAFECOM's sole purpose is for mishap prevention.

**Special Use Activities** - 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 OPM 29 Special Use Activities for Manned Aircraft) and which require special considerations due to additional equipment and/or the increased risks inherent in such operations. This may require deviation from normal operating practices where authorized by OAS. Special pilot qualification and techniques, special aircraft equipment, and personal protective equipment are required to enhance the safe transportation of personnel and property.

**Single-skid, Toe-in, and Hover Exit/Entry Procedures** - There are three separate STEP maneuvers (For the purpose of this document references to skids also apply to other helicopter landing gear configurations). As a result of rotorcraft flight manual or other aircraft limitations, some make/model helicopters cannot be used or may be unsuitable for one or more of the STEP maneuvers. OPM 40 STEP Operations establishes policy and operational procedures for training for the use of helicopter STEP.

- A. Single-skid: One skid or a portion of one skid is in contact with the surface while the other skid is not in contact with the surface.
- B. Toe-in: The toes (forward portion of the skids) are in contact with the surface, while the aft portion of the skids is not in contact with the surface.
- C. Hover: The helicopter remains in a hover above the surface, at a height allowing the aircrew members to exit or enter safely.

**Subject Matter Experts (SMEs)** - an individual with a deep understanding of a particular process, function, or type of equipment. (Veterinarian, Mugger/Handler, Net Gunning, Darting, Marking, Eradication)

## Appendix 2

### Required elements of bureau ACETA Operations Plan

**Instructions:** If an element listed in this appendix does not apply to a bureau then the bureau's plan will list that element as not applicable. For example, if a bureau does not conduct ACETA missions with Cooperators, then that section would be listed as "N/A". It is recommended that the format follow this template to provide consistency and familiarity across bureau plans.

- **ACETA Plan**
  - Purpose
  - Authorities
  - Roles & Responsibilities
  - Revision schedule
- **Aircraft & Pilot Approvals**
  - Aircraft Procurement
  - Pilot Approval & Requirements
- **ACETA Personnel**
  - Position Qualifications
  - Training and Proficiency Requirements
  - Documentation
  - Cooperators
- **Equipment**
  - PPE
  - Firearms & Capture Devices
  - Equipment Rigging and Management
  - Communication (Examples handheld VHF-AM, FM radios)
- **Mission Operations**
  - Operational Requirements
  - Pre and Post Flight Requirements
  - Mission Duties
- **Mishap Response Procedures**
  - Mishap Response Plan
  - Reporting and Documentation



## Appendix 3

### ACETA Aircraft Requirements

1. **General.** Aircraft used in ACETA operations must meet the minimum requirements set forth in 351 DM 2, this OPM, and any additional requirements identified in the procurement document.
2. **Certification.** All aircraft used for ACETA operations will have a Standard Airworthiness Certificate. The installation of any special equipment called for by this operation must be FAA-approved, except where so stated. All aircraft must be inspected by OAS prior to use. Upon satisfactory completion of the aircraft inspection by OAS, an Aircraft Data Card will be issued which will be carried in the aircraft at all times and made available upon request.
3. **Helicopters.** Helicopters provided for ACETA operations will have the following basic configuration and equipment:
  - A. **Free Air Temperature Gauge.**
  - B. **Shoulder Harness / Lap Belt.**
    - 1) **Front Seat Occupants.** Double-strap shoulder harness with self-locking inertia reel or locking reel and lap belt for pilot and aircrew member. Shoulder straps and lap belts will fasten with metal-to-metal, single-point, quick-release mechanism. When the gunner is shooting from the front seat, a rotary-type buckle, similar to Pacific Scientific "Saf-T-Matic", will be required on helicopters not equipped with an approved shooting window of door.
    - 2) **Rear Seat Occupants with Standard or Shooting Door Installed.** Helicopters shall have shoulder harnesses (either single-strap or double-strap) for each aft cabin occupant. Shoulder harness straps and lap belts must fasten with a single-point, metal-to-metal, quick release mechanism.
    - 3) **Rear Seat Occupants without Door.** Helicopters shall have shoulder harnesses (either single-strap or double-strap) for each aft cabin occupant. Shoulder harness straps and lap belts must fasten with a single-point, metal-to-metal, quick release mechanism. The gunner's safety harness, as identified in ACETA Equipment on page 3 of this document, shall be attached to the aircraft in a manner approved by OAS.
  - C. **VFR Equipment.** Equipment and instruments for VFR day in accordance with 14 CFR 91 and 135.
  - D. **Fire Extinguisher.** The fire extinguisher as required by 14 CFR 135 shall be a hand held bottle, minimum of 2-B:C, securely mounted and accessible to the flight crew.
  - E. **First Aid Survival Kits.** First-aid and survival kit are required in accordance with ALSE Handbook.
  - F. **Emergency Locator Transmitter (ELT).** Details are contained in the ALSE Handbook.
  - G. **Access Step.** Helicopters with high-skid landing gear installed will have personnel access steps to each door. External cargo racks may be used for step.
  - H. **Door Removal.** Helicopters not equipped with an approved shooting door or window shall be certified for flight with the door removed. The aircraft external registration number shall be displayed in such a manner as to not be compromised by this requirement.

- I. **Tundra/Snow Pads.** Tundra/snow pads are required if landings in deep snow or soft terrain are anticipated.
  - J. **Flight Hour Meter.** Details are contained in 351 DM 2.2G.
4. **Helicopter Performance.** Helicopters provided will meet the minimum performance in at least one of the following categories:
- A. Sea Level to 4,000 Feet Density Altitude (DA). Hover Out of Ground Effect (OGE) at 4,000 feet DA.
  - B. Above 4,000 to 7,000 Feet (DA). Hover Out of Ground Effect (OGE) at 7,000 feet DA.
  - C. Above 7,000 to 9,000 Feet (DA). Hover Out of Ground Effect (OGE) at 9,000 feet DA.
  - D. Above 9,000 Feet (DA). The aircraft must meet Hover Out of Ground Effect performance for the highest anticipated DA.

Minimum aircraft requirement: Three seats, one pilot and two passenger seats and 180 horsepower output.

**Note:** Bureaus may request a waiver through their respective National Aviation Manager (NAM). The NAM shall forward the request along with the justification to the OAS Technical Services Division Chief who will review each request on a case-by-case basis and forwarded for decision by the OAS Director.

In order to safely and successfully complete the mission, the helicopter must be capable of meeting the performance required. Payload, hover ceiling, airspeed, and fuel requirements need to be considered in selecting the proper aircraft. Use actual aircraft, pilot, passenger, cargo weights, and required fuel to determine if the aircraft meets the hover OGE performance.

5. **Avionics.** Aircraft provided for ACETA operations will have the following basic avionics configuration and equipment:
- A. **Transceiver.** One VHF-AM aeronautical transceiver, with a minimum of 760 channels covering 118.000 to 136.975 MHz. The transceiver must have channels selectable in no greater than 25 kHz increments and a minimum of 5 watts carrier output power. The transceiver's operational controls must be mounted so they are readily visible and accessible to the pilot.
  - B. **Satellite-based aircraft tracking.** One satellite-based aircraft tracking hardware compatible with the government's Automated Flight Following (AFF) Program (<https://www.aff.gov/>). Not all available satellite based tracking systems are compatible with the Government's AFF program, nor meet AFF requirements. The aircraft's hardware offered must be compatible with AFF. For questions about current compatibility requirements, visit the AFF website at: <https://www.aff.gov/>.

- C. **Satellite telephone system (Alaska Only).** Each aircraft must be equipped with one FAA approved Iridium-based SatPhone system. The SatPhone handset or remote dialer must be cockpit-mounted in a location convenient for use by both the pilot and copilot/observer (Sattalk or equivalent). The SatPhone must be permanently interfaced to the aircraft's audio control systems in such a manner that, although access to the handset/dialer may be limited to the cockpit occupants, it may be used via any of the four required positions in the aircraft in the same manner as the aircraft's radios. The SatPhone must include a "Speed Dial" capability, which may be pre-programmed with a minimum of six telephone numbers via the cockpit-mounted handset/dialer. The SatPhone must be equipped with a TSO-C129a L-band antenna mounted atop the fuselage in such a manner as to provide the greatest possible view of the overhead hemisphere. The SatPhone may be integrated into the AFF system above, either using the same Iridium communicator or having a separate Iridium communicator. If the SatPhone's communicator is also utilized for AFF, brief interruptions of AFF position reports are acceptable. In this case, it must be ensured that all flight crew personnel are instructed regarding the possible conflict.
- D. **Interphone.** An ICS shall be provided for the pilot and gunner. The system shall be equipped and designed for operation with 600-ohm earphones and carbon-equivalent, noise-canceling, boom-type microphones. Individual audio level controls shall be provided for pilot and gunner adjustment of earphone audio to a comfortable level. Interphone sidetone audio shall be provided for the earphones corresponding with the microphone in use. Microphone operation shall be via push-to-talk (PTT) switches, with the gunner's PTT switch mounted on the cord to the earphone/microphone connector. The gunner's PTT switch shall provide both momentary ("keyed") and locking ("hot mic") microphone activation. Voice-activated (VOX) interphone systems may be provided to satisfy the above "hot mic" requirement.
- E. **Audio Control.** An audio control system with controls for selection of multiple receiver audio outputs and transmitter microphone/PTT audio inputs shall be provided for the pilot. The pilot's radio transmit and interphone PTT switches shall be mounted on the flight controls. All transceivers installed in the aircraft shall be interfaced through this system to preclude in-flight connection/disconnection of transceivers and/or the use of radio-integral or hand-held microphones.

## Appendix 4 Pilot Requirements

### 1. **Minimum PIC time accumulated as follows:**

- A. 1,500 hours in helicopters.
- B. 100 hours in helicopters in previous 12 months.
- C. 100 hours in the weight class helicopter as offered. Defined as helicopter having a gross weight of "12,500 pounds or less" and "more than 12,500 pounds."
- D. 100 hours in turbine powered helicopters if turbine engine helicopter.
- E. 200 hours in reciprocating engine powered helicopters if reciprocating engine helicopter.
- F. 10 hours in the same make, model, and series as the contract helicopter in the last 12 months.
- G. Last 90 days, Compliance with 14 CFR 61.57 or 135.247 as appropriate.
- H. \*10 hours in designated mountainous areas in the same make and model as the contract helicopter.
- I. \*200 hours total mountain flight hours. Defined as experience in operating helicopters in mountainous terrain as identified in 14 CFR 95 Subpart B - Designated Mountainous Area. Operating includes maneuvering and numerous takeoffs and landings to ridgelines, pinnacles, and confined areas.
- J. 200 hours Pilot-in-command (PIC) in category in low-level operations including 10 hours over typical terrain within the last 12 months.
- K. \*\*10 hours total longline vertical reference (VTR) flight hours to include a minimum of 2 hours of VTR training within the last 12 months.

\* Applicable when ACETA operation is conducted in mountainous areas.

\*\* Applicable when ACETA operation requires transportation of wildlife by longline

**Note:** Pilots must be qualified for STEP per [OPM-40 Single-Skid, Toe-In, and Hover Exit/Entry Procedures \(STEP\) Operations](#)-as required by the PASP.

### 2. **Additional PIC requirements for identified ACETA special use activities:**

- A. *Herding:* 50 hours in classification, aerial animal herding, eradication, darting/marking, trapping or a combination thereof or 25 hours of ACETA training conducted by an OAS approved ACETA training pilot.
- B. *Eradication/Darting/Marking above 50 ft AGL:* 50 hours in classification, aerial animal herding, eradication, darting/marking, trapping, net gunning or a combination thereof or 25 hours of ACETA training conducted by an OAS approved ACETA training pilot.
- C. *Eradication/Darting/Marking below 50 ft. AGL:* 100 hours in aerial animal herding, eradication, or 50 hours marking/darting, trapping, net gunning or a combination thereof. Or 25 hours of ACETA training in Marking/Darting (below 50 ft. AGL) conducted by an OAS approved ACETA training pilot.
- D. *Trapping:* 100 hours in aerial animal herding, eradication, or 50 hours darting/marking, trapping, or net gunning or a combination thereof or 25 hours of ACETA training in trapping conducted by an OAS approved ACETA training pilot.

- E. *Net Gunning (Hand-held Netgun)*: 150 hours in aerial wildlife operations conducting marking, eradication, darting, or net gunning.
- 1) 50 of these hours PIC must have been in aerial live capture of wildlife utilizing net gunning and/or darting. The above 50-hour PIC requirement may be reduced to 25 hours PIC if the pilot provides evidence of satisfactory completion of a net gun manufacturer's training school.
  - 2) A minimum of 10 hours PIC in make and model conducting aerial live capture, net gun, or darting.

**Note:** The OAS Director may waive specific PIC flight time requirements for ACETA special use activities for fleet pilots. Bureaus may request a waiver through their National Aviation Manager. The waiver request must include a justification and a training plan for their pilot(s). All waiver requests will then be reviewed by OAS Tech Services and are recommended for approval on a case-by-case basis.