



United States Department of the Interior  
**Office of Aviation Services**  
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**DOI OPERATIONAL PROCEDURES MEMORANDUM (OPM) - 40**

Subject: Approval for Single-Skid, Toe-In, and Hover Exit/Entry

Effective Date: January 1, 2016

Supersedes: OPM-40 dated January 1, 2015

Distribution: A, B, & C

Expiration Date: December 31, 2016

1. **Purpose.** This OPM establishes policy and operational procedures for the use of helicopter single-skid, toe-in and hover step exit/entry. This policy applies to all DOI fleet, cooperators, and vendor flight activities involving government aircrew members. *Note: These standards will also be used to evaluate training plans required by procurement documents where the vendor is providing all personnel involved with the single-skid, toe-in and hover exit/entry.*

2. **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.

3. **General.** The use of single-skid, toe-in and/or hover step exit/entry maneuvers are driven by a variety of factors. These include; condition of the terrain, slope, obstacles, wind, snow depth and vegetation coverage. In addition to environmental considerations it is critical that the pilot performing these maneuvers be proficient.

“STEP” is defined as **S**ingle-skid, **T**oe-in and hover **E**xit/entry **P**rocedures. There are three separate STEP maneuvers to be conducted in this mission profile. (For the purpose of this document references to skids also apply to other helicopter landing gear configurations).

Note: As a result of flight manual limitations dealing with lateral weight and balance, some make/model helicopters cannot be used for one or more of the STEP activities.

A. Single-skid: One skid or a portion of one skid is in contact with the surface while the other skid is (due to terrain considerations) 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 section of the skids is not in contact with the surface.

C. Hover: The helicopter remains in a hover above the surface of the terrain with skid to ground clearance of no more than 24 inches.

4. **Policy.** DOI OAS is responsible for the approval of aircraft, pilots, users and training for the use of STEP maneuvers.

5. **Responsibilities.** The identification, approval, use, and oversight of STEP maneuvers requires an effective, collaborative working relationship between DOI OAS and the agencies.

**A. Bureau Responsibilities.**

**National Office:** Review and approve the operations plan and sign a letter of approval for the STEP request from the local unit.

**Field Offices:**

(1) Due to the hazardous nature of these types of landings, toe-in, single-skid, and step-out landings are to be used only when absolutely necessary and in compliance with procedures in (2) and (3) below.

(2) If a bureau identifies a need to perform these types of landings to accomplish a program requirement, they shall contact their DOI OAS Regional Office for assistance a minimum of 45 days prior to the mission. This request for assistance shall include an operations plan for the project as well as a risk assessment and the bureau aviation manager's signed letter of approval.

(3) In response to bureau requests for assistance with flight activities involving STEP activities, the OAS Regional Office will provide appropriate pilot approvals in support of specific project requirements. In addition, these DOI OAS offices will provide the required training for bureau personnel/passengers who will enter and exit helicopters during these types of landings or who will be approved instructors for this type activity.

(4) Bureaus will coordinate with their National Aviation Program Manager in nominating individuals to become STEP instructors.

**B. DOI Office of Aviation Services Responsibilities.**

**DOI Office of Aviation Services Regional Offices:**

(1) Receive and review the bureau's operations plan, risk assessment, and letter of approval from the Bureau Aviation Program Manager.

(2) Establish contact with the requesting unit to discuss scope of work and associated timeframes.

(3) Coordinate with other DOI OAS offices as appropriate.

(4) Issue approvals for aircraft, pilots.

(5) Provide training support to bureaus.

**C. Training:** Initial training is to include the following modules:

**Module I - Classroom**

STEP training, which includes hover exits & entries, one-skid, and toe-in's, requires that the pilot and crewmembers have a thorough understanding and knowledge of a number of issues before they shall be approved or conduct such maneuvers. Those issues include training in:

- (1) Review of unit's SOP and risk assessment
- (2) Make and model aircraft safety, doors on or off, seat belt use, storage and transfer of equipment, emergency procedures,
- (3) Standard communications: commands
- (4) Center-of-gravity (CG) concerns with weight transfer (such as walking skid forward)
- (5) Weight transfer: crewmember step from skid to ground.
- (6) Step-by-step exit and entry procedure.
- (7) Loading and unloading of gear, equipment.

**Module II - Mock-ups & Typical terrain maneuvers for pilots and participants**

- (1) Mock-ups for each make and model, and each type of procedure. Mock-ups, including litter loading if applicable, are to be completed until they are error free.
- (2) Actual flight training shall include specific STEP maneuvers requested by the agency. Each participant will conduct actual entries and exits in the maneuvers requested by the agency. One error free entry and exit are required per maneuver.

**D. Course Requirements:** Each participant will complete Module I and Module II requirements. A "Basic Aviation Safety" (B3) course is a prerequisite. This requirement can be accomplished online. Documentation is to be maintained by the local unit and entered on the Interagency Aviation Training (IAT) website. Participants shall include government and vendor/contractor pilots and personnel.

**E. Maintaining Currency:** If it has been sixty days since initial or prior currency training, participants shall perform a mock-up with rotors turning prior to the mission. This process may also be requested by government or vendor participants to enhance the safety of any mission at any time. (NOTE: If pilots or participants are not experienced in mission terrain, consider providing typical terrain experience prior to the mission). Participants must also meet the following:

- (1) have completed at least one operational STEP within the past 18 months (an operation includes 3 entries or exits) or,
- (2) have participated in annual training to include a refresher of module subjects and mock-ups, or
- (3) attend initial training if it has been more than three years since participating in STEP activities.