



**United States Department of the Interior**  
National Business Center  
Aviation Management  
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**DOI AM OPERATIONAL PROCEDURES (OPM) MEMORANDUM NO. 04-21**

Subject: Interagency Fire Helicopter Standards

Effective Date: March 30, 2004

Supersedes: OPM 03-21 dated January 1, 2004

Distribution: A, B, & C

Expiration: December 31, 2004

**.1 Purpose.** Appendix 1 of this OPM establishes policies and standards covering the present and future determination of equipment that constitutes an aircraft eligible for approval as an interagency fire helicopter; eligibility of pilots for approval as interagency fire helicopter pilots; and procedures for the conduct of interagency fire helicopter operations. Appendix 2 provides two (2) changes to the Interagency Helicopter Operations Guide (IHOG), which affects the length of long lines if used while conducting water bucket operations and establishes the requirement for pilots to be approved for vertical reference operations if long lines are used. Appendix 2 will be incorporated into the IHOG during the next publication of the entire manual. Appendix 3 establishes policy for the management of Type III helicopters operating on interagency fire missions. The Interagency Helicopter Operational Steering Committee will review these operations for inclusion in the 2005 revision to the *Interagency Helicopter Operations Guide*. Additional information regarding Interagency Fire Use of National Guard Helicopters is contained in OPM 41.

**.2 Authority.** Memorandum of Understanding between the United States Department of the Interior and the United States Department of Agriculture dated January 28, 1943, the Interagency Agreement dated November 25, 1985, and Secretarial Order 3250 dated September 30, 2003.

**.3 Policy.** This policy has been established pursuant to the "Interagency Fire Helicopter Standards" signed and dated by the Acting Director, Office of Aircraft Services, DOI and the Assistant Director, Fire & Aviation Management, U.S.D.A. Forest Service, on May 16, 2002. A copy of the standards is attached as Appendix 1.

/s/ Michael A. Martin

Associate Director

**AVIATION MANAGEMENT COUNCIL**  
**INTERAGENCY FIRE HELICOPTER STANDARDS**

I. PURPOSE

To establish and document standards covering the present and future determination of:

1. Equipment that constitutes an aircraft eligible for approval as an Interagency Fire Helicopter.
2. Pilots that are eligible for approval as Interagency Fire Helicopter Pilots.
3. How Interagency Fire Helicopter operations will be conducted.

II. AUTHORITY

MEMORANDUM OF UNDERSTANDING between the United States Department of the Interior and the United States Department of Agriculture, dated January 28, 1943 and INTERAGENCY AGREEMENT dated November 25, 1985.

III. HELICOPTER EQUIPMENT

A. Basic Aircraft Equipment

1. Hobbs/Flight Hour Meter observable from the cockpit
2. Free air temperature gauge
3. Seat belts for all seats
4. Double strap shoulder harness, single point release in all front seats
5. FAA approved fire extinguisher, 1.5 pounds minimum capacity
6. Dual controls (for flight checks only)
7. Lighting for night flight
8. White or red and white strobe light (white strobe may be in addition to other required anti-collision lighting)
9. High visibility marked rotor blades
10. High skid gear, if available
11. Convex mirror (not required for aircraft equipment for vertical reference operations)
12. Cargo hook
13. Personnel access step for aircraft with a floor height greater than 18 inches
14. Water/retardant bucket or tank
15. Collective mounted bucket/tank switch
16. Baggage compartment or cargo racks
17. Baggage compartment adequate for long handled tools
18. First aid kit
19. Survival kit
20. Standard three-pin connector for hand held IR or other equipment
21. Standard nine-pin connector for bucket/helitorch/remote hook

B. Avionics Equipment

1. Minimum, 720-channel VHF transceiver (760-channel effective 01/01/2005)
2. VHF-FM transceiver (wideband + narrowband, 10 watts, 32 CTCSS tones, 168.625 Mhz Guard)
3. Auxiliary FM provisions (10-pin connection to audio system, antenna w/BNC connector)
4. Dual audio systems for pilot and observer
5. 4-place ICS for pilot, observer/co-pilot, and two aft cabin exits
6. Hot Mic for pilot and observer/co-pilot
7. Push-to-talk (PTT) for radio + ICS for pilot (on cyclic) and observer/co-pilot (footswitch or cord-mounted), and ICS PTT (cord-mounted) for two aft exits
8. GPS (panel-mounted with external A/C antenna, hand held units prohibited)
9. ELT meeting 14 CFR 91.207, less section f. (TSO-C91a or TSO-C126 effective 01/01/2005)
10. U-92A/U audio connector jacks at all required positions
11. ATC transponder with altitude encoder

12. Pitot/static/altimeter and transponder/encoder maintained to IFR spec's

C. Fuel Service Vehicle (not required in Alaska)

1. Minimum capacity, eight hours fuel for assigned helicopter
2. 2 fire extinguishers each with a 20-B,C rating; one on each side of vehicle
3. Metered fuel dispensing
4. Placards in accordance with 49 CFR 172
5. Marked with fuel type
6. Sump with drain
7. Nozzle screen (splash refueling), nozzle dust protective device, nozzle bonding device
8. Bonding device, aircraft to fuel service vehicle
9. Fuel filtering system marked with filter change date
10. Spare filter
11. No smoking signs
12. Record for recording daily sump draining results as per procurement document
13. Spill containment material
14. Hoses compatible with aviation fuel being dispensed

IV. PILOT STANDARDS

A. Certification Standards

1. Commercial or Airline Transport Pilot Certificate with Rotorcraft/Helicopter rating
2. Class I or II FAA Medical Certificate
3. Contract/vendor pilots shall have a current FAA Form 8410-3 for passenger and internal cargo transport
4. Written evidence of authority to transport external loads

B. Experience Standards

- |   |            |
|---|------------|
| 1. Pilot in command, helicopters                            | 1500 hours |
| 2. Helicopter, preceding 12 months                          | 100 hours  |
| 3. Weight Class   | 100 hours  |
| 4. Turbine engine for turbine aircraft operations           | 100 hours  |
| 5. Reciprocating engine for reciprocating engine operations | 200 hours  |
| 6. Make and model   | 50 hours   |
| 7. Make, model and series, preceding 12 months              | 10 hours   |
| 8. Helicopter, last 60 days                                 | 10 hours   |
| 9. Mountainous terrain, for mountainous terrain operations  | 200 hours  |
| 10. Mountainous terrain make and model                      | 10 hours   |

C. Personal Protective Equipment

1. Aviator's protective helmet
2. Fire-resistant clothing
3. Personal floatation device
4. Leather boots
5. Fire-resistant gloves



**Subject: Helicopter Water Bucket Operations**

**.1 Purpose.** This appendix provides three (3) changes to the Interagency Helicopter Operations Guide (IHOG). This changes are; the length of long lines if used while conducting water bucket operations, if long lines are utilized then pilots must be approved for vertical reference operations, and an indicated airspeed limit during water bucket operations.

**.2 Authority.** The Memorandum of Understanding between the U.S. Department of the Interior (DOI) and the U.S. Department of Agriculture (USDA) dated January 28, 1943, and the Interagency Agreement dated November 25, 1985.

**.3 Policy.** This policy is established pursuant to the "Interagency Fire Helicopter Standards" signed and dated by the Acting Director, Office of Aircraft Services, DOI and the Assistant Director, Fire & Aviation Management, U.S.D.A. Forest Service, on May 16, 2002. Specifically, paragraph V. D. Operations of those standards states that Interagency Fire Helicopter operations will be conducted in accordance with the standards published in the IHOG. With the incorporation of these modifications, Interagency Fire Helicopter operations will continue to be conducted in accordance with the IHOG as amended by the following three (3) policy changes:

Contract helicopter operations utilizing varying lengths of extension lead lines attached to buckets have resulted in tail boom and/or tail rotor damage in recent aviation mishaps. This policy is being issued to mitigate known risks associated with water bucket operations using short extension and long lines.

Effective immediately:

A. If extension lines are utilized for water bucket operations then the lines ~~shall~~ be a minimum of 50 feet in length to reduce the risk of bucket or long line entanglement with the tail rotor or tail boom.

B. Pilots utilizing long lines with water buckets ~~must~~ be approved for vertical reference operations.

C. For other than tandem rotor helicopters, while conducting water bucket operations, airspeed shall be limited to 80 KIAS or the airspeed limitation established by the Rotorcraft Flight Manual ~~whichever is less.~~

This policy change will bring our helicopter water bucket operations in line with some manufacturers' recommended practices and safety warnings, without seriously degrading operational capability.

Each operator, pilot and helicopter manager shall review the manufacturers' bucket operator's manual and limitations for the applicable bucket prior to use.

The effect of this policy is that airspeed during water bucket operations is limited to 80 KIAS or below (for other than tandem rotor helicopters), "tag lines" of less than 50 feet are no longer authorized, and pilots that are not approved for vertical reference operations must attach the bucket directly to the belly hook during water bucket operations.

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Operations Guide and with the USDA/ Forest Service.

**Subject: Interagency Fire Helicopter Type III Staffing Requirements**

**.1 Purpose.** This appendix establishes policy for the management of Type III helicopters operating on interagency fire missions.

**.2 General.** The shortages of helicopter managers and crew personnel during the last several fire seasons have precipitated an on-going review of aviation policy. In order to not jeopardize safety, helicopter operational policies are continually examined and evaluated with risk management, efficiency, and costs taken into consideration.

Before considering any changes to helicopter management policies, Interagency and Forest Service helicopter experts are consulted. Based on their input and operational experience with current helicopter management policies, the following ~~interim~~ interim helicopter management policy changes are to be implemented Department-wide for interagency fire operations. Bureaus have the option to disapprove requests made under these interim changes.

The Interagency Helicopter Operational Steering Committee will review these operations for inclusion in the 2005 revision to the *Interagency Helicopter Operations Guide*.

**.3 Policy.** The following ~~interim~~ interim changes apply to the management of Type III helicopters on interagency fire operations:

- A. Allow standard category Type III helicopters to be temporarily designated and used as "limited use", thus negating the requirement for a helicopter module, and requiring only a Helicopter Manager; assuming compliance to the following operational restriction listed below:
  - The appropriate agency Aviation Manager at the State, Area, or Regional level must grant approval on a case-by-case basis.
- B. Allow Type III helicopters performing air attack, helicopter coordinator, plastic sphere dispenser, infrared and aerial mapping missions to be managed by a Helicopter Manager only, thus negating the requirement for a helicopter module, assuming compliance to the following operational restriction listed below.
  - The appropriate Aviation Manager at the State, Area, or Regional level must grant approval on a case-by-case basis.