

# United States Department of Agriculture Forest Service Aviation Safety Alert

No. 2003-04

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**Subject:** Helicopter Water Bucket Operations

**Area of Concern:** Helicopter Operations

**Distribution:** All Aviation and Fire Personnel

**Discussion:** Contract helicopter operations utilizing varying lengths of extension lead lines attached to buckets have resulted in tail boom and/or tail rotor damage in two recent mishaps. This safety alert is being issued to draw attention to this specific aviation safety hazard as well as to identify new policy developed to mitigate this problem.

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 two (2) changes.

1. If long lines are utilized for water bucket operations then the long 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.
2. Pilots utilizing long lines with water buckets must be approved for vertical reference operations

This policy change will bring our helicopter bucket operations in line with some bucket 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 "tag lines" of less than 50 feet are no longer authorized and pilots not approved for vertical reference operations must attach the bucket directly to the belly hook during water bucket operations.

This policy has been coordinated with all DOI bureaus that utilize the Interagency Helicopter Operations Guide and the USDA Forest Service.

*/s/ Ron Hanks*  
USFS National Aviation Safety and Training Manager