

**United States Department of Agriculture
Forest Service
Aviation Safety Alert**

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Subject: Helicopter bucket operations

Area of Concern: Helicopter Operations

Distribution: Aviation Operations

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 several mishaps.

Until further notice, pending manufacturers' instructions, helicopters under contract to the USDA Forest Service will be **limited to an airspeed of 80 knots** indicated airspeed or the airspeed limitation established by the rotorcraft flight manual, which ever is less. This applies to all helicopters OTHER THAN TANDEM ROTOR, while conducting external cargo suspension hook operations with a water bucket attached.

As in any external cargo operation, the pilot is responsible for monitoring the water bucket and its controllability/flight characteristics during all phases of flight. The pilot is responsible for determining the airspeed limit according to the load and line length. Airspeed with any external cargo is always limited by controllability. Caution should always be exercised when carrying any external cargo, as handling characteristics may be affected by the size and weight and shape of the cargo. The pilot should remember that an external load might exhibit different flight characteristics with different makes and models of helicopters.

Interagency Fire Helicopter operations will be conducted in accordance with the IHOG.

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

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

This Safety Alert has been coordinated with the DOI, National Business Center, Aviation Management. Note: supercedes Safety Alert 2003-04.

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