

**United States Department of Agriculture
Forest Service**

Aviation Safety Alert

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Subject: AS 350 Series Collective locking mechanism

Area of Concern: Aviation Operations

Distribution: USFS Aviation Operations

Discussion: There have been two USFS mishaps involving the collective pitch lever locking mechanism on the AS 350 helicopter. The hold-down stud, (Part # 350A-27 3455-20) may wear, allowing the locking device, (Part # 350A273107 26) to disengage during a cyclic hydraulic accumulator test, which imparts feedback forces to the collective. When the locking device disengages, the helicopter can become airborne with little or no hydraulic assist to the flight controls.

Recommendation:

1. Advise all AS 350 Series helicopter Pilots, Operators and Helicopter Managers of the potential for the collective pitch lever lock to become unlocked during the hydraulic test procedure due to cyclic feedback to the collective.
2. Pilots and Mechanics inspect the hold-down stud attached to the end of the collective for excessive wear and assure that the hold-down mechanism is adjusted properly to assure that all potential downward travel of the collective is eliminated while locked down.
3. Pilot Inspectors advise all pilots of this Series helicopter that inadvertent releases of the collective pitch lever, locking mechanism have occurred and that the guarding of the collective during the hydraulic accumulator test is recommended.

/s/ Ron Hanks - National Aviation Safety and Training Manager

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