

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

No. 2003-06

May 19, 2003

Page 1 of 1

Subject: AS 350 Series Collective locking mechanism

Area of Concern: Aviation Operations

Distribution: USFS Aviation Operations

Discussion: Last fall an accident identified a potential problem with the Collective pitch lever locking mechanism. Preliminary indications are that the hold-down stud, (Part # 350A-27 3455-20) was worn significantly on the top portion of it and subsequently the locking device, (Part # 350A273107 26) disengaged while the pilot was performing the cyclic hydraulic accumulator test, which imparts feedback forces to the collective. The helicopter became airborne with little or no hydraulic assist to the flight controls. The pilot was unable to maintain stable flight and the aircraft rotor system impacted the ground. The aircraft came to rest on it's right side approximately 50' from where it started.

Recommendation:

1. Advise all AS 350 Series helicopter Pilots and Operators of the potential for the collective pitch lever lock to become unlocked during the hydraulic test procedure due to cyclic feedback to the collective. The contractors shall advise all AS 350 pilots 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
2. Pilots and Mechanics inspect the hold-down stud attached to the end of collective for excessive wear.

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

/s/ Asher Williams - National Aviation Operations Officer