



U.S. Department
of Transportation
**Federal Aviation
Administration**

SAFO

Safety Alert for Operators

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Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo

A SAFO contains important safety information and may include recommended action. SAFO content should be especially valuable to air carriers in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest.

SUBJECT: Helicopter Pre-takeoff Checks.

PURPOSE: This SAFO promotes the use of operationally appropriate and effective pre-takeoff checklists for helicopter pilots.

BACKGROUND: Investigation of a recent incident involving a Eurocopter EC-135 helicopter, operated by an air carrier certificated under 14 CFR part 135, revealed that the pilot had attempted a takeoff with the cyclic stick control lock engaged. The pilot lifted off, and subsequently attempted to land at the helipad. The resulting hard landing damaged the aft landing cross-over tube and the aft underside of the fuselage. The FAA Approved Rotorcraft Flight Manual (RFM) requires the cyclic stick control lock to be unlocked after starting the first engine. Additional investigation revealed that the operator's checklist did not contain a reference to the cyclic stick control lock.

DISCUSSION: This event is one of several involving pilots taking off in helicopters without accomplishing the required pre-takeoff checks, or taking off in helicopters that were not in a condition or configuration appropriate for the takeoff maneuver. These other events (accidents and incidents) have also been related to pilots failing to properly prepare the aircraft for takeoff. Examples include pilots not ensuring all engine control levers are in the "fly" position, effectively resulting in a single engine takeoff and not accomplishing a required hydraulic or autoflight pre-takeoff check, resulting in subsequent reduction or loss of control.

The FAA requires part 135 certificate holders to provide crewmembers with appropriate checklists. These checklists are often truncated versions of checklists contained in FAA Approved RFMs. Operators are responsible for ensuring that flight critical items, including, but not limited to, aircraft tie-downs, control locks, required pre-takeoff checks, and system and power control configurations are included in their checklists.

RECOMMENDED ACTION: The FAA encourages operators to review their training programs and operational procedures (including checklists) to ensure that pilots have the knowledge and effective operational procedures to avoid performing a takeoff in a helicopter without performing the required pre-takeoff checks and/or performing a takeoff in a helicopter not in the appropriate condition or configuration for the takeoff maneuver.