

Airbus Helicopters recently took part in several investigations following incidents/accidents in which an aircraft took off with no action from the pilot while the aircraft was parked on the ground, with the rotor spinning at flight speed. These aircraft were equipped with parameter and/or video recorders enabling the analysis of the different sequences of those events.

These analyses led to the identification of the following elements:

- the collective was not secured after landing,
- the pilot released the controls (collective, cyclic and pedals) and was engaged in other activities,
- the collective stick moved up gradually and more or less quickly (this tendency can be normal due to the vibrations of the spinning rotor on the ground if friction is low or due to the loads in the controls if the cyclic control is operated),
- the pilot took abruptly control of the aircraft when the aircraft started to lift off or to be light on wheel.

In the analyzed events, the pilot was surprised by the aircraft reaction. Thus, the pilot took control of the aircraft in a rough / aggressive manner, causing a temporary loss of control which led to a hard landing or contacts of the main or tail rotor blades with surrounding elements.

Luckily, these incidents/accidents led only to material damages.

These events lead Airbus Helicopters to remind you that:

- the Flight Manual requires that the friction of the collective and cyclic stick is adjusted and sensed before take-off,
- the pilot must keep his hands on the controls when the aircraft is parked on the ground with the rotor spinning at flight speed (even more when the collective is not secured),
- the collective must be secured as soon as the aircraft is on the ground, when the pilot must release the controls for any reason, even for a short moment, or when the pilot performs activities not related to the aircraft monitoring,
- the collective balancing must be checked/adjusted, especially after any installation/removal operation of the double controls.

The aforementioned incidents/accidents occurred on Ecureuil aircraft but the general rules and related conditions also apply to all other aircraft.