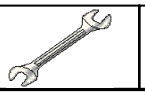
No. 3577-S-67

SAFETY INFORMATION NOTICE

SUBJECT: ROTOR FLIGHT CONTROLS

DUAL CONTROLS

For the attention of
 

AIRCRAFT CONCERNED	Version(s)	
	Civil	Military
EC120	B	
AS350	B, BA, BB, B1, B2, B3, D	L1
AS550		A2, C2, C3, U2
AS355	E, F, F1, F2, N, NP	
AS555		AF, AN, SN, UF, UN, AP
EC130	B4, T2	
SA341	G	B, C, D, E, F, H
SA342	J	L, L1, M, M1, Ma
ALOUETTE II	313B, 3130, 318B, 318C, 3180	
ALOUETTE III	316B, 316C, 3160, 319B	

Airbus Helicopters has been informed of a tragic event involving an aircraft in the Ecureuil range, which occurred following a “flight experience” type leisure flight, while the aircraft was on the ground with the rotor spinning.
The aircraft was carrying 6 persons positioned as follows:
- the pilot was in the right-hand front seat (pilot),
- a passenger was in the left-hand seat (co-pilot)
- the four additional passengers were on the back seat.

While the aircraft was stabilized on the ground in idle and a person was approaching the aircraft to help disembark the passengers, the passenger in the co-pilot seat accidentally acted on the co-pilot cyclic stick, causing the main rotor disc to tilt. Thus, the person who was approaching the aircraft was struck fatally by the main rotor blades.
This aircraft was equipped with dual controls as the co-pilot controls had not been removed on the occasion of this flight.
Numerous other incidents, generally with less tragic outcomes, show that even with passengers who have been warned it is difficult to completely eliminate the possibility of a passenger positioned in the co-pilot seat interfering with the flight controls if they are installed.

Regulations and recommendations of the certification/regulation organizations can differ on the subject between countries. Nevertheless, leaflet No. HE2 on the "HELICOPTER AIRMANSHIP" drafted by the European Helicopter Safety Team (EHEST), which is the European part of the International Helicopter Safety Team (IHST), clearly recommends removing the dual controls to prevent passenger interference (chapter 3.3 on the Passengers and Baggage: "Dual controls should be removed to prevent passenger interference".
Also, the content of this EHEST leaflet was included in SIN 2418-S-00 issued by Airbus Helicopters.

So, Airbus Helicopters recommends removing the dual controls from all aircraft fitted with removable dual controls, as this is the only safety barrier that can eliminate all risk of accidental passenger interference with the flight controls.

If this is not possible, and particularly for ad hoc flights with a passenger positioned in the co-pilot seat, Airbus Helicopters reminds that it is necessary to perform a clear and detailed pre-flight briefing on the safety measures and the necessary precautions to be adopted to avoid any risk of interference with the flight controls.

It has also been reported to us that certain pilots, in the context of their specific operational needs, have been required to perform this configuration change themselves by removing/installing dual controls as a line maintenance operation.
In this case, it is important to remember that on certain aircraft this removal/installation operation must be accompanied by adjustment/readjustment of the balance of the collective stick, as specified in the documentation (an equivalent adjustment can be required on the cyclic stick on certain aircraft if they are equipped with an automatic pilot).

If this adjustment is not performed, the resulting imbalance can lead to unforeseen movements of the collective stick that can surprise the pilot if he or she releases the stick for a moment.

Airbus Helicopters is conscious of the workload generated by the balancing of flight controls and the impact on operational activities that require frequent removals/installations of the dual controls.
In this regard, Airbus Helicopters informs you that an analysis is under way to simplify these operations and make them easily applicable during line maintenance by a single pilot (for now, this work has begun on aircraft in the Ecureuil range).