

Continuing Airworthiness Notice 52-001

Airbus Helicopters AS 350 Series Aft Cargo Hold Door - Opened in Flight

30 May 2023



Issued by the Civil Aviation Authority of New Zealand in the interests of aviation safety. A Continuing Airworthiness Notice (CAN) is intended to alert, educate, and make recommendations to the aviation community. A CAN contains information and guidance about an airworthiness concern that does not meet the criteria for an Airworthiness Directive (AD). The inspections and practices described in this CAN must still be carried out in accordance with the applicable NZCAR Parts 21, 43 and 91.

CAN numbering is by ATA Chapter followed by a sequential number for the next CAN in that ATA Chapter.

Applicability:

All AS 350 series helicopters.

Purpose:

CAA have been made aware of an incident where an aft cargo hold door on an AS 350 helicopter opened in flight. The door latch mechanism was confirmed to be serviceable at the time of the occurrence and CCTV footage confirmed that the door was properly closed at departure.

Note: The affected helicopter was in a pre-mod Airbus 074202 configuration, with the aft cargo door hinge located along the lower edge of the door, rather than at the forward edge.

Background:

On completion of a positioning flight the pilot of the affected AS 350 helicopter found that the aft cargo hold door had opened in flight and items of clothing were missing from the cargo hold. The tail rotor and tail boom were inspected, and both the cargo door and the door latch mechanisms were confirmed serviceable. Following a subsequent flight with the aft cargo hold empty the cargo door was again found open. The affected helicopter was configured for firefighting at the time, and both a belly tank and a cargo pod were fitted. It is considered possible that the aerodynamic interaction between the installed equipment and the structure of the helicopter caused the aft cargo hold door latches to open. However, this is yet to be confirmed.

Recommendation

Operators and maintenance providers are advised to be aware of potential adverse interactions between modifications installed on an aircraft. Modification approval holders will not necessarily have tested their product for interaction with other modifications embodied on the aircraft.

When a modification is embodied on an aircraft it is the installers responsibility to ensure that the modification does not adversely affect the safety of the aircraft, or any other modification embodied on the aircraft.

Operators are advised to consider the embodiment of Airbus modification 074202. This modification re-positions the aft cargo door hinges to the forward side of the door, so that the door will tend to be pushed closed with air loads rather than opened.

If any operators have experienced similar incidents with cargo hold doors please provide the relevant details to: warren.hadfield@caa.govt.nz