

Continuing Airworthiness Notice 72-006



AS350 Series Engine Anti-Ice System – Operation and Inspection

2 November 2022

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:

AS350 series helicopters fitted with an engine anti-ice system.

Purpose:

This Continuing Airworthiness Notice (CAN) is issued to draw attention to a safety concern which was recently reported to the CAA. An AS350 helicopter was found fitted with a non-functioning engine anti-ice system. The investigation revealed that an engine anti-ice valve was not installed on the affected helicopter.

Background:

The affected helicopter was modified by a STC which introduced an engine anti-ice system and included an instrument panel mounted switch and an indicator light for the engine anti-ice system. With the engine anti-ice system selected on the affected helicopter per the AFM requirements, the engine anti-ice light illuminated and because an anti-ice valve was not installed on the helicopter, no heated air was supplied to the engine as expected.

Fortunately, it appears that the helicopter had been operating in climates where an engine ice ingestion event was very unlikely, and therefore the operator was not adversely affected by the inoperative system.

The CAA has been unable to ascertain at what point in time the anti-ice valve was removed from the aircraft. It is possible that the aircraft was foreign registered at the time when the anti-ice valve was removed.

Recommendation:

Operators are advised to ensure that they are familiar with the helicopter AFM including applicable supplements, which in this case included a requirement to confirm activation of the anti-ice system by observing both an indication light and an increase in T4.

Maintainers are advised that any modification to an aircraft must be carried out in accordance with Acceptable Technical Data (ATD), and that the removal of all, or part of a system without reference to the ATD is not acceptable.