

Follow-up Action on Occurrence Report

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SERIOUS INCIDENT TO BOMBARDIER DHC-8-102, SX-BIO, NEAR BRISTOL AIRPORT ON 24 APRIL 2010

CAA FACTOR NUMBER : F4/2011
FACTOR PUBLICATION DATE : 31 August 2011
NATURE OF FLIGHT : Positioning
CAA OCCURRENCE NUMBER : 2010/03525
AAIB REPORT : Bulletin 6/2011

SYNOPSIS

From AAIB Report

After a base maintenance check at Exeter the aircraft was flown uneventfully to East Midlands to be repainted. During the return flight to Exeter the right engine suffered a significant oil leak and lost oil pressure, so the flight crew shut it down. Subsequently, the crew noticed the left engine also leaking oil, with a fluctuating oil pressure, so they initiated a diversion to Bristol, where they landed safely. The oil leaks were traced to damaged O-ring seals within the oil cooler fittings on both engines. Both oil coolers had been removed and refitted during the base maintenance check at Exeter. It was probably during re-installation that the O-ring seals were damaged. A number of factors led to this damage and to missed oil leak checks.

FOLLOW UP ACTION

The six Safety Recommendations made by the AAIB, following their investigations, are reproduced below, together with the CAA's responses.

Recommendation 2011-014

It is recommended that Flybe Aviation Services revise their practices and procedures to ensure that their repair instructions are adequately detailed and specify the necessary access and removal requirements.

CAA Response

This Recommendation is not addressed to the CAA.

CAA Status - Closed

Recommendation 2011-015

It is recommended that Bombardier Inc. amend the Aircraft Maintenance Manual for the DHC-8-100 series aircraft to emphasise the correct procedure for securing the inlet and outlet pipes to the engine oil coolers, including the method for tightening the associated knurled nuts.

CAA Response

This Recommendation is not addressed to the CAA.

CAA Status - Closed

Recommendation 2011-016

It is recommended that Flybe Aviation Services review their defect rectification processes to ensure that important safety checks, such as oil leak checks, are not omitted.

CAA Response

This Recommendation is not addressed to the CAA.

CAA Status - Closed

Recommendation 2011-017

It is recommended that Flybe Aviation Services remind all staff of the importance of investigating the source of every engine oil leak.

CAA Response

This Recommendation is not addressed to the CAA.

CAA Status - Closed

Recommendation 2011-018

It is recommended that the European Aviation Safety Agency expand the advisory or guidance material in Annex II (Part 145) of European Commission Regulation (EC) No. 2042/2003 on how approved maintenance organisations should manage and monitor the risk of maintenance engineer fatigue as part of their requirement to take human performance limitations into account.

CAA Response

This Recommendation is not addressed to the CAA.

CAA Status - Closed

Recommendation 2011-019

It is recommended that the Civil Aviation Authority include the following areas in their Part 145 audits of Flybe Aviation Services: practices and procedures for detailing repair instructions, identification of safety critical tasks, planning of defect rectification and management of maintenance engineer fatigue.

CAA Response

The CAA accepts this recommendation and has enhanced its oversight of Flybe Aviation Services, with particular focus on their practices and procedures for detailing repair instructions, identification of safety critical tasks and planning of defect rectification. A series of audits and product samples have been carried out to verify the adequacy of the Flybe Aviation Services procedures. This oversight will continue to be applied as Flybe Aviation Services continues its ongoing review and refinement of the task management process.

In the absence of a requirement for AMOs to manage maintenance engineer fatigue and pending any formal expansion of advisory and guidance material from EASA in Part 145 to explain how this should be accomplished (in response to Safety Recommendation 2011-018), the CAA will monitor the organisation's response to issues relating to shift working and potential impact on engineering staff through its audit of the Flybe Aviation Services' production and manpower planning processes.

CAA Status - Closed