
AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/A330/88 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Airbus Industrie A330 Series Aeroplanes

**AD/A330/88
Amdt 1**

**Intermediate Pressure Turbine
Overspeed Protection**

6/2009

Applicability: A330-243, -341, -342 and -343 models, all manufacturing serial numbers (MSN) except those on which Airbus modification 56722 has been embodied during production.

Requirement: Perform a reprogramming of Data Entry Plug on both engines to activate Intermediate Pressure Turbine Overspeed protection function in accordance with the instructions of Airbus SB A330-73-3049 Revision 01 dated 13 November 2008 or later revision approved by the European Aviation Safety Agency (EASA).

As the accomplishment of SB A330-73-3049 instructions has an operational consequence, the operator must contact Airbus to get the associated operational documentation.

Modification of an aeroplane, prior to the effective date of this Amendment, in accordance with the instructions of SB A330-73-3049 original issue dated 14 November 2007 is acceptable to comply with the requirements of this Amendment.

Note: EASA AD 2009-0075 refers.

Compliance: No later than 31 July 2009.

This Amendment becomes effective on 4 June 2009.

Background: An operator of an A330 aircraft fitted with RR Trent 772 B engines experienced an engine #1 uncontained multiple turbine blade failure. Investigations have shown that High Pressure/Intermediate Pressure (HP/IP) oil vent tubes are prone to be affected by carbon deposit or to be damaged by their outer heat shields leading to a fire inside or outside the vent tube and resulting into IP Turbine (IPT) disc drive arm fracture and thus IPT disc over speed.

If not corrected, IPT disc over speed could lead to an uncontained engine failure i.e. multiple turbine blade failure or HP/IP turbine disc burst, which would constitute an unsafe condition.

Airbus Industrie A330 Series Aeroplanes

AD/A330/88 Amdt 1 (continued)

In order to protect IPT from over speed, the original issue of this Directive required the activation of the IPTOS protection function by DEP reprogramming, which consists in limiting the IPT speed (Engine Thrust) when overheat is detected in IPT, for all A330 aircraft fitted with RR Trent 700 engines and equipped with Multi Mode Receiver.

The original issue of this AD had a limited applicability due to Flight Warning Computer compatibility issue with aircraft not equipped with Multi Mode Receivers. Airbus has now developed a new Flight Warning Computer standard T2 whose embodiment is also possible on A330 aeroplane fitted with RR Trent 700 engines not equipped with Multi Mode Receivers.

For these reasons, this Amendment retains the requirement of the original issue of this Directive and extends the applicability to all A330 aeroplanes fitted with RR Trent 700 engines. At the same time compliance is extended to 31 July 2009.

The original issue of this Directive became effective on 28 August 2008.



James Coyne
Delegate of the Civil Aviation Safety Authority

24 April 2009