
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (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/A330/108

Thales Pitot Probes

**11/2009
DM**

Applicability: Airbus A330-201, A330-202, A330-203, A330-223, A330-243, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342 and A330-343 aeroplanes, all serial numbers, if Thales part number (P/N) C16195AA are installed (at any position), or P/N C16195BA pitot probes are installed at positions 1 (Captain) and 3 (Stand by).

Requirement:

1. For aeroplanes with Thales Avionics P/N C16195AA pitot probes installed at any position - Replace the pitot probes in accordance with the instructions of Airbus Service Bulletin (SB) A330-34-3206 Revision 01 dated 12 November 2008 or Airbus SB A330-34-3231 dated 12 August 2009, as applicable to aeroplane model.
2. For aeroplanes with Thales Avionics P/N C16195BA pitot probes installed at positions 1 and 3 - Remove the P/N C16195BA pitot probes from positions 1 and 3 and install Goodrich P/N 0851HL pitot probes at positions 1 and 3, in accordance with the instructions of SB A330-34-3231.

The resulting configuration of the aeroplane after compliance with Requirement 1 or 2 must be that a Thales Avionics P/N C16195BA pitot probe is installed at position 2 and Goodrich P/N 0851HL pitot probes at positions 1 and 3.

Replacement of Thales Avionics P/N C16195BA pitot probes at all three positions with Goodrich P/N 0851HL pitot probes in accordance with the instructions of Airbus approved data is an alternative method to comply with the requirements of this Directive.

3. Thales Avionics P/N C16195AA pitot probe may not be installed at any position on an aeroplane.
4. Thales Avionics P/N C16195BA pitot probe may not be installed at position 1 or 3 on an aeroplane.

The use of later revisions of the above service bulletins approved by the European Aviation Safety Agency (EASA) is acceptable for compliance with the requirements of this Directive.

Note: EASA AD 2009-0195 refers.

Compliance: For Requirements 1 and 2 - Within the next four months after the effective date of this Directive

Airbus Industrie A330 Series Aeroplanes

AD/A330/108 (continued)

Directive.

For Requirements 3 and 4 - After 7 January 2010.

This Airworthiness Directive becomes effective on 7 September 2009.

Background: Occurrences have been reported on A330/340 family aeroplanes of airspeed indication discrepancies while flying at high altitudes in inclement weather conditions. Investigation results indicate that A330/A340 aeroplanes equipped with Thales Avionics pitot probes appear to have a greater susceptibility to adverse environmental conditions than aeroplanes equipped with Goodrich pitot probes.

A new Thales pitot probe P/N C16195BA has been designed which improves A320 aeroplane airspeed indication behaviour in heavy rain conditions. This same pitot probe standard has been made available as optional installation on A330/A340 aeroplanes and, although this has shown an improvement over the previous P/N C16195AA standard, it has not yet demonstrated the same level of robustness to withstand high-altitude ice crystals as the Goodrich P/N 0851HL probe. At this time, no other pitot probes are approved for installation on the A330/A340 family of aeroplanes.

Airspeed discrepancies may lead in particular to disconnection of the autopilot and / or auto-thrust functions, and reversion to Flight Control Alternate law. Depending on the prevailing aeroplane altitude and weather environment, this condition could result in increased difficulty for the crew to control the aeroplane.

Preliminary results of additional wind tunnel testing conducted with the C16195BA probe during August 2009 are consistent with the qualification data of the probe and have not identified any safety issue regarding the probe behaviour within the icing envelope as defined in Appendix C of EASA Certification Specification (CS) 25. However, for the reasons described above, this Directive is a precautionary measure and requires the removal from service of all Thales Avionics P/N C16195AA pitot probes, the replacement of Thales Avionics P/N C16195BA pitot probes at positions 1 (Captain) and 3 (Stand by) with Goodrich P/N 0851HL probes and the installation at position 2 (First Officer) of a Thales Avionics pitot probe P/N C16195BA. These actions are considered to be an interim measure and further rulemaking cannot be excluded.



James Coyne
Delegate of the Civil Aviation Safety Authority

2 September 2009