
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 39.1 (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.

Boeing 747 Series Aeroplanes

AD/B747/317 Inadvertent Commanded Shutdown of the 13/2004 Engine Bleed Air Systems

Applicability: Boeing Model 747-400, -400D and -400F series aircraft as listed in Boeing Service Bulletin (SB) 747-36A2136 Revision 2, dated 13 May 2004.

- Requirement:**
1. Perform the following modifications and functional tests of the wiring of the wire integration unit (WIU) and the air supply control test unit (ASCTU) of the engine bleed air distribution system in accordance with the Accomplishment Instructions of Boeing SB 747-36A2136, Revision 2:
 - (a) remove the existing ASCTU,
 - (b) do the wiring changes between the WIU and ASCTU and the wiring changes to the WIU,
 - (c) do the resistance tests, and
 - (d) install a new or reworked ASCTU.
 2. After accomplishing paragraphs 1(b), 1(c) and 1(d) of this AD perform the post-installation tests in accordance with SB 747-36A2136.

Note 1: Modifications and tests accomplished before the effective date of this AD in accordance with Boeing Alert Service Bulletin 747-36A2136, dated April 12, 2001; or Revision 1, dated January 17, 2002; are considered acceptable for compliance with the corresponding actions specified in Requirement 1 of this AD, provided the resistance tests were done with the ASCTU removed.

3. If the resistance tests were done with the ASCTU installed, perform the following actions in accordance with the Accomplishment Instructions of SB 747-36A2136, Revision 2.
 - (a) remove the existing ASCTU,
 - (b) do the resistance tests, and
 - (c) reinstall the ASCTU.

Boeing 747 Series Aeroplanes

AD/B747/317 (continued)

4. After accomplishing paragraph 3(c) of this AD perform the post-installation tests in accordance with SB 747-36A2136, Revision 2.
5. An ASCTU having a part number listed in the "Old Part Number" column in the table specified in paragraph 3.C. of the Accomplishment Instructions of Hamilton Sundstrand Service Bulletin 36-186, dated 30 March 2001, shall not be installed on any aircraft.

Note 2: FAA AD 2004-22-04 Amdt 39-13832 refers.

- Compliance:
- Requirement 1. Within 18 months after the effective date of this AD.
 - Requirement 2. Before further flight following completion of Requirement 1.
 - Requirement 3. Within 18 months after the effective date of this AD.
 - Requirement 4: Before further flight following completion of Requirement 3.
 - Requirement 5: From the effective date of this AD.

This Airworthiness Directive becomes effective on 23 December 2004.

Background: Boeing has advised that an engine configuration wiring fault could cause the ASCTU to erroneously identify the engine type fitted to the aircraft resulting in an inadvertent commanded shutdown of the engine bleed air distribution systems. This may cause depressurisation of the aircraft and ice build-up on the engine inlets during descent, which could result in ingestion of ice into the engine(s) and consequent loss of thrust on one or more engines.



James Coyne
Delegate of the Civil Aviation Safety Authority

11 November 2004