
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/B747/163 Amdt 3 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.

Boeing 747 Series Aeroplanes

**AD/B747/163
Amdt 4**

Fuselage Internal Structure

11/2009

Applicability: Model 747-100, -100B, -100B SUD, -200B, -300, 747SP, and 747SR series aircraft, identified in Boeing Alert Service Bulletin 747-53A2349 Revision 3, dated 2 October 2008, or later FAA approved revision.

Requirement: Acton in accordance with the technical requirements of FAA AD 2009-18-07 Amdt 39-16003.

Compliance: As specified in the Requirement document, with a revised effective date of 22 October 2009.

This Amendment becomes effective on 22 October 2009.

Background: The manufacturer conducted pressure fatigue tests that identified areas of the fuselage internal structure where fatigue cracking occurred. Such cracking, if not detected and repaired, could result in loss of structural integrity of the fuselage and rapid depressurisation of the aircraft.

Amendment 1 corrected compliance, and added an inspection area in accordance with Boeing Service Letter 747-SL-53-074.

Amendment 2 added new repetitive inspections for cracking of certain areas of the upper chord of the upper deck floor beams and, if necessary, repair.

Amendment 3 required repetitive inspections of additional areas of the fuselage internal structure, and related actions if necessary. The new FAA AD resulted from fatigue testing of the fuselage structure of a Model 747SR series aircraft.

Amendment 4 is issued in response to a new FAA AD, which results from fatigue tests and analysis by Boeing that identified areas of the fuselage where cracks can occur; and requires additional repetitive inspections for cracking of certain fuselage structure.



David Villiers
Delegate of the Civil Aviation Safety Authority

4 September 2009