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.

Boeing 747 Series Aeroplanes

AD/B747/324 Upper Deck Area Fuselage Frames 4/2005

Applicability: Model 747-200C, -200F, and -300 series aircraft, line numbers 1 through 685; and Model 747-200B series aircraft, line numbers 271, 276, 336, 344, 369, 389, 397, 474, 491, 518, 521, and 539.

Requirement: Accomplish an external detailed visual inspection for cracked skin or loose or missing fasteners of the body skin between BS 420 and BS 460 inclusive and between stringers S-8 and S-12 inclusive on the left and right sides of the aircraft, and accomplish any necessary corrective actions, in accordance with the technical requirements of FAA AD 2005-04-51.

Compliance: Before the accumulation of 8,000 total flight cycles, or within 10 flight cycles after receipt of this Directive, whichever occurs later. Inspect thereafter at intervals not to exceed 25 flight cycles.

This Airworthiness Directive becomes effective on 18 February 2005.

Background: The FAA received two recent reports of severed or nearly severed adjacent frames at body station (BS) 420 and BS 440 near stringer S-10A on Model 747-300 series aircraft. Both aircraft had been inspected in accordance with FAA AD 91-11-01. In both reports, missing fasteners common to the skin at frame shear tie flanges were detected in the vicinity of the cracks. One aircraft had accumulated 11,641 total flight cycles, and the other had accumulated 11,880 total flight cycles. Undetected and corrected fatigue cracking could lead to severed frames, and consequent rapid decompression and loss of structural integrity.

David Villiers
Delegate of the Civil Aviation Safety Authority

18 February 2005