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## AIRWORTHINESS DIRECTIVE

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For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/EMB-110/2 Amdt 8 and issues the following AD under subregulation 39.1 (1) of CAR 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.

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### Embraer EMB-110 (Bandeirante) Series Aeroplanes

**AD/EMB-110/2  
Amdt 9**

**Fatigue Life Limits**

**9/2002  
TX**

Applicability: All Model EMB-110 aircraft.

Requirement: Except for the variations noted below, retire from service before exceeding the service lives shown in the table the landing gear, fuselage and wing components listed in Section IV, Table A, "Life Limits", of Embraer Technical Manual No TP 110P2/145, EMB-110 Bandeirante "Maintenance Planning Guide", Original issue dated 12 July 1988, as revised by Change 16 dated 29 May 2002.

The Authority has approved a life increase, to 50,000 landings for main landing gear piston tubes part number 14333-000-01/02. The increased life is effective from 29 November 2000. The Authority has asked Embraer to change the MPG.

Change 15 to the MPG dated 30 March 2002, introduces a life limit of 21 000 hours TIS for the engine mounts, which had not previously been lifed. Because of the effect that this change will have on operators, Embraer have developed an implementation plan which will ensure that operators comply with the new life limit by 30 November 2002 (Embraer letter PCE-2157/2002 of 10 July 2002 refers). The Authority has accepted Embraer's implementation plan. Accordingly, aircraft with engine mounts which have accumulated more than 21 000 hours TIS are to have their engine mounts replaced by 30 November 2002 in accordance with the implementation plan contained in Embraer letter PCE-2157/2002 of 10 July 2002.

*Note 1: Whenever the MPG specifies the service life in both hours and landings for a component, that component shall be retired at the earlier of the two limits reached in each instance.*

*Note 2: Correct installation is critical to the durability of the improved design wing attachment fittings, part number 110-2111-00-78, 110-2211-00-78, 110-1231-50-41, and 110-1231-50-42. The lives in the MPG apply to fittings installed by either the aircraft manufacturer or Eastern Australia Airlines (EOs WIF 001, WIF 002). Operators of aircraft that have improved design fittings otherwise installed must contact the Authority for an individual fatigue assessment. TP 110/869 and TP 110/659 may refer.*

*Note 3: The Authority has given approval to two life extension options for the wing front spar lower cap; one involves reinforcement of the spar cap, and the other, regular eddy current inspections.*

## Embraer EMB-110 (Bandeirante) Series Aeroplanes

AD/EMB-110/2 Amdt 9 (continued)

Compliance: As specified in the Requirement part of this Directive and the Requirement document.

This amendment becomes effective on 18 July 2002.

Background: Some critical structural components are prone to fatigue, and must be withdrawn from service before the risk of failure becomes too high.

Amendment 6 reflected Change 2 to the MPG.

Amendment 7 reflected Change 5 to the MPG, and removed Requirement 2, following cancellation of Brazil AD 90-07-01R1 and inclusion of the requirement in the MPG.

Amendment 8 reflected changes to the main landing gear piston tubes and an update to the requirement document.

Amendment 9 is issued to reflect the latest revision of the requirement document, and to allow operators to take advantage of Embraer's implementation plan introducing the life limit on engine mounts.

Amendment 8 of this Airworthiness Directive became effective on 29 November 2000.

Amendment 7 of this Airworthiness Directive became effective on 6 March 1992.

The original issue of this Airworthiness Directive became effective on 31 October 1978.



David Alan Villiers  
Delegate of the Civil Aviation Safety Authority

17 July 2002