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 727 Series Aeroplanes

AD/B727/184 Autopilot Pitch Control Computer 8/2003

Applicability: Model 727-100 and 727-200 series aeroplanes, as listed in Boeing Alert Service Bulletin (ASB) 727-22A0093 dated 20 December 2000; excluding aeroplanes equipped with radio altimeter-based autopilots.

Requirement:

1. For any aeroplane on which autopilot coupled ILS approaches with time-based glideslope gain programming are used, revise the Limitations Section, under AUTOPILOT/FLIGHT DIRECTOR SYSTEM, of the Aircraft Flight Manual (AFM) by adding the following (this may be accomplished by inserting a copy of this AD into the AFM):

   Coupled ILS approaches are prohibited unless the autopilot has been modified in accordance with AD/B727/184.

   CAT II autopilot coupled ILS approach shall not be performed if the Middle Marker (ground or airborne system) is inoperative or nonexistent.

   Disconnect the autopilot at, or prior to, 80 ft. (above the runway's touchdown-zone elevation) during coupled ILS CAT II approaches.

2. Unless previously accomplished, modify the existing SP-50 or SP-150 single-channel autopilot in accordance with ASB 727-22A0093.

Note 1: Modification may have been previously carried out in accordance with Sperry Service Bulletin (SB) 21-1132-121, dated 23 November 1982 (for SP-50 autopilots); or SB 21-1132-122, dated 7 February 1983 (for SP-150 autopilots).

3. Perform a one-time test procedure of the modified autopilot, in accordance with Sperry SB 21-1132-121 or SB 21-1132-122, as applicable.

   Testing carried out before the effective date of this Directive in accordance with Component Maintenance Manual (CMM) test procedures is also acceptable, provided that the procedures implement all the CMM changes and test steps described in the applicable Sperry service bulletin. For autopilot units manufactured with the actions of the applicable Sperry service bulletin already incorporated, testing is not required.

Boeing 727 Series Aeroplanes

AD/B727/184 (continued)

4. Autopilot pitch control computers may not be installed on any aeroplane as a replacement part unless modified in accordance with this Directive.

Note 2: FAA AD 2003-11-19 Amdt 39-13178 refers.

Compliance: For Requirement 1 - Within 6 months after the effective date of this Directive.

For Requirement 2 - Within 18 months after the effective date of this Directive.

For Requirement 3 - Before reinstallation of the autopilot unit after the modification required by Requirement 2.

For Requirement 4 - After 7 February 2004.

This Airworthiness Directive becomes effective on 7 August 2003.

Background: This Directive requires, under certain conditions, replacement of the autopilot pitch control computer with a modified computer, testing of the modified system and revision of the AFM. These actions are intended to prevent undesirable and potentially dangerous pitch oscillations during coupled instrument landing system (ILS) approaches.

Jim Coyne
Delegate of the Civil Aviation Safety Authority

26 June 2003