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/B747/374 Korry Pushbutton Switches 4/2008

Applicability: Model 747-400, -400D and -400F series aeroplanes as identified in Boeing Alert Service Bulletin (ASB) 747-33A2280, Revision 1, dated 25 September 2003.

Requirement: 1. Either:

a. Carry out a general visual inspection of the switches identified for the panel assemblies specified in ASB 747-33A2280, Revision 1 to identify configuration `D' master modules and the part number (P/N) of the switch; or

b. Inspect the panel assemblies identified in ASB 747-33A2280, Revision 1 to determine the part number (P/N). If the P/N is identified as a new P/N in Appendix B of the service bulletin, no further action is required.

Note 1: For the purposes of this Directive, a general visual inspection is "A visual examination of a interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normal available lighting conditions such as daylight, hangar lighting, flashlight or drop-light and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked."

Note 2: ASB 747-33A2280, Revision 1 refers to Korry Service Bulletin (SB) 433-33-05, dated 23 July 2001, as an additional source of service information for finding configuration `D' switches, for replacing the switch master module with a configuration `D' master module, and for doing various operational tests after the replacement.

2. If, as a result of the Requirement 1.b. inspection, the P/N is not identified as a new P/N, the inspection required by Requirement 1.a. must be accomplished.

3. If, during any Requirement 1.a. inspection, any switch is found that does not have a configuration `D' switch master module and the switch P/N is not specified Table 1, carry out either of the following and do the part number revision in accordance with Requirement 3.c:

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a. Replace the switch with a switch specified in Table 1, in accordance with ASB 747-33A2280, Revision 1, except as provided by Requirement 4.

b. Replace the switch master module with a new configuration `D' master module in accordance with ASB 747-33A2280, Revision 1.

c. If all switches on a panel assembly have a configuration `D' master module or have a switch P/N specified Table 1 revise the P/N of the panel assembly in accordance with ASB 747-33A2280, Revision 1.

Table 1

Boeing P/N S231T290-4201 through -4325 inclusive, Korry P/N 4336731004-4201 through -4325 inclusive, or switches that have a configuration `D' master module.

Note 3: One-to-one switch correlation between the existing switches and the new part number switches can be found in Korry SB 433-33-06, dated 7 November 2001.

4. If, during any Requirement 1.a. inspection, a configuration `D' switch master module is found or the P/N is specified in Table 1 on all switches for a panel assembly, revise the part number of the panel assembly, in accordance with ASB 747-33A2280, Revision 1.

5. If any panel assemblies, switches or master modules are replaced during any action required by this Directive, carry out all applicable operational tests in accordance with ASB 747-33A2280, Revision 1, except as provided by Requirement 6.

6. Where paragraph 3.B.14.b.(3) of the Accomplishment Instructions of ASB 747-33A2280, Revision 1 specifies procedures to do a test of the engine ignition control/fuel jettison module assembly, this Directive requires that operators dry-motor the engine to remove the fuel from the tailpipe before doing the procedures in paragraph 3.B.14.b.(3). All fuel must be removed from the engine tailpipe before performing the test, because during the test the engine igniter will be energized.

Note 4: ASB 747-33A2280, Revision 1 refers to the Boeing component service bulletins specified in Table 2 of this Directive as additional sources of service information for replacing the switch or switch master module at critical locations, for doing operational tests after the replacement, and for identifying new panel part numbers.

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Table 2

Boeing Component Service Bulletin	Date	Critical Location
233U3201-30-04, Revision 1	25 September 2003	Rain Removal/Anti-ice Module
233U3202-24-02, Revision 1	25 September 2003	Electrical and Standby Power/Auxiliary Power Unit Start Module
233U3203-36-01, Revision 1	25 September 2003	Bleed Air Control Module
233U3206-28-01, Revision 1	25 September 2003	Engine Ignition Control/Fuel Jettison Module
233U3208-22-02, Revision 1	25 September 2003	Passenger Oxygen and Yaw Damper Module
233U3214-26-06, Revision 1	25 September 2003	Fire Control Module
257U0002-32-04, including Appendix A	19 December 2001	Landing Gear Actuator Control Lever Module Assembly

Actions accomplished before the effective date of this Directive in accordance with Boeing ASB 747-33A2280 dated 19 December 2001, are considered acceptable for compliance with the corresponding action specified in this Directive, provided that the actions specified in this Directive are done on the switches for the additional panel assemblies specified in Revision 1 of the service bulletin.

Later revisions of the above Boeing SBs, approved by the United States Federal Aviation Administration (FAA) as an Alternate Method of Compliance (AMOC) to FAA AD 2008-02-14, are considered acceptable for compliance with the equivalent Requirements of this Directive.

Note 5: FAA AD 2008-02-14 Amdt 39-15344 refers.

Compliance: For Requirements 1 and 2 - Within 60 months after the effective date of this Directive.

For Requirement 3, 4 and 5 - Before further flight after the Requirement 1.a. inspection.

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For Requirement 6 - Before carrying out a test of the engine ignition control/fuel jettison module assembly in accordance with Requirement 5.

This Airworthiness Directive becomes effective on 10 April 2008.

Background: The FAA has received a report indicating that the integrated drive generator failed in flight due to a possible switch malfunction. This Directive is issued to ensure that certain lighted pushbutton switches in the flight compartment do not malfunction and cause the flightcrew to be unable to control critical systems and continue safe operation of the aeroplane.

The Directive requires an inspection of certain lighted pushbutton switches in the flight compartment for configuration `D' master modules and part numbers together with any necessary corrective action. The Directive also provides an option to inspect panel assemblies for part numbers.

David Punshon
Delegate of the Civil Aviation Safety Authority

26 February 2008