
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.

Learjet 45 Series Aeroplanes

AD/LJ45/8

Engine Electrical Wire Bundles

**2/2006
DM**

Applicability: Learjet Model 45 aeroplanes, serial numbers (S/N) 45-005 through 45-273 inclusive and 45-2001 through 45-2029 inclusive.

Requirement:

1. Modify the electrical wire bundle for the alternator on the left- hand engine and perform a general visual inspection of the left and right engines to make sure that the proper clearances are maintained between all wiring harnesses and engine tubing. All actions are to be carried out in accordance with the Accomplishment Instructions of the applicable Bombardier Alert Service Bulletin (ASB) as follows:

Aeroplane S/N Range	ASB
45-2001 through 45-2029 inclusive	SB A40-71-01, dated 29 September 2005
45-005 through 45-273 inclusive	SB A45-71-4, dated 29 September 2005

Note 1: For the purposes of this Directive, a general visual inspection is defined as "A visual examination of an 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 normally available lighting conditions such as daylight, hangar lighting, flashlight or droplight 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."

2. Correct improper clearances detected during the Requirement 1 inspection in accordance with the applicable ASB.
3. For aeroplanes with serial numbers identified below, replace the fuses for the hydraulic shutoff valves with fuses having higher amperage in accordance with the Accomplishment Instructions of the following applicable Bombardier Service Bulletin (SB):

Aeroplane S/N Range	SB
45-2001 through 45-2015 inclusive	SB 40-24-01, dated 22 April 2005
45-005 through 45-254 inclusive	SB 45-24-6, dated 22 April 2005

Learjet 45 Series Aeroplanes

AD/LJ45/8 (continued)

Later revisions of the above SBs, approved by the United States Federal Aviation Administration (FAA) as an Alternate Method of Compliance (AMOC) to FAA AD 2005-24-13, are considered acceptable for compliance with the equivalent Requirements of this Directive.

Note 2: FAA AD 2005-24-13 Amdt 39-14393 refers.

Compliance: For Requirement 1 - Within 50 hours time in service after the effective date of this Directive.

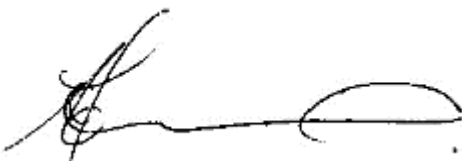
For Requirement 2 - Before further flight after completing the Requirement 1 inspection.

For Requirement 3 - Concurrent with or prior to completing Requirement 1.

This Airworthiness Directive becomes effective on 20 December 2005.

Background: The FAA has received a report of a fire in the left-hand engine nacelle. Investigation revealed that an electrical wire bundle for the engine alternator had chafed a hole in a hydraulic line. This condition, if not corrected, could result in a fire in the engine nacelle.

This Directive requires modification of the electrical wire bundle for the alternator on the left-hand engine, inspecting for clearance between wire harnesses and engine tubing for each engine together with any necessary corrective actions. The Directive also requires, on some aeroplanes, the replacement of the fuses for the hydraulic shutoff valves with fuses having higher amperage.



Charles Lenarcic
Delegate of the Civil Aviation Safety Authority

15 December 2005