
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.

Avions de Transport Regional ATR 42 Series Aeroplanes**AD/ATR 42/23****Rear Pressure Bulkhead Area - Electrical
Wire Chafing****6/2008
DM**

Applicability: ATR 42 model aeroplanes, all serial numbers, as follows

ATR 42-200, 42-300 and 42-320 that have embodied ATR modification (Mod) 00639, except aircraft which have received ATR Service Bulletin (SB) ATR42-92-0018 whilst in service.

ATR 42-400 and 42-500, except aeroplanes that have embodied ATR Mod 05780 during production or ATR SB ATR42-92-0018 whilst in service.

Note 1: Mod 00639 has been embodied on production aircraft Manufacturer Serial Number (MSN) 109 and MSN 113 and was factory-incorporated from MSN 116.

Note 2: Mod 05780 is now factory-incorporated on ATR 42-500 from MSN 667.

- Requirement:
1. Perform a one-time inspection of the electrical routing in the rear baggage zone in accordance with the accomplishment instructions of SB ATR42-92-0015, dated 11 February 2008.
 2. If ANY damage is found during the Requirement 1 inspection (chafing and/or contact between bundles of cables and the airframe structure):
 - a. Contact and report the finding(s) to ATR (by means of the accomplishment form enclosed in SB ATR42-92-0015) to obtain an approved repair solution and perform the repair in accordance with the ATR instructions, and
 - b. Modify the electrical routing and wire bundle protection in accordance with the accomplishment instruction of SB ATR42-92-0018, dated 11 February 2008.
 3. If damage is not found during the Requirement 1 inspection:
 - a. Report to ATR the result of inspection by using the form enclosed in SB ATR42-92-0015, and
 - b. Modify the electrical routing and wire bundle protection in accordance with the accomplishment instruction of SB ATR42-92-0018.

Avions de Transport Regional ATR 42 Series Aeroplanes

AD/ATR 42/23 (continued)

The use of later revisions of SB ATR42-92-0015 and SB ATR42-92-0018 approved by the European Aviation Safety Agency (EASA) is acceptable for compliance with the requirements of this Directive.

Note 3: EASA AD 2008-0062 refers.

Compliance: For Requirement 1 - Within the next 550 hours time in service (TIS) after the effective date of this Directive.

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

For Requirement 2.b. - Before further flight after any repairs accomplished in accordance with Requirement 2.a.

For Requirement 3.a. - Within 15 days after accomplishment of the Requirement 1 inspection.

For Requirement 3.b. - Within 5 000 hours TIS after the effective date of this Directive.

This Airworthiness Directive becomes effective on 18 April 2008.

Background: EASA has advised that an ATR operator reported some spurious "Pitch disconnect" warning and "AIL and R ELEV" Anti-Ice Horn Fault caution annunciations which precluded the use of the autopilot.

During the investigation, chafed wiring was found in the rear baggage zone, close to the forward side of the aft pressure bulkhead, due to contact with a structural securing screw. The concerned wiring harness includes rudder trim, pitch trim and stick pusher control wires. Damages on those wires might lead to the loss of fail safe criteria for those critical functions.

To address the unsafe condition, this Directive mandates a one-time inspection and a routing modification of the electrical wires in the bulkhead area.



James Coyne
Delegate of the Civil Aviation Safety Authority

15 April 2008