

AIRWORTHINESS DIRECTIVE

released by DIRECTION GENERALE DE L'AVIATION CIVILE

Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive.

Translation of 'Consigne de Navigabilité' ref. : 2002-221(B)
In case of any difficulty, reference should be made to the French original issue.

AIRBUS

A319, A320 and A321 aircraft

Wing fuel tank pumps wiring short-circuit (ATA 24, 28)

1. APPLICABILITY:

AIRBUS A319, A320 and A321 aircraft all certified all models, all serial numbers, except aircraft that have received both modifications AIRBUS No. 30861 and 31612 in production (or Service Bulletin AIRBUS A320-28-1093 in service).

2. REASONS:

Several cases of in-service wing fuel tank pumps (left and right hand sides) electrical wiring damage have been reported. The wiring is located in fairings on wing lower skin. Reported defects are not related to aging problem and consequently could also affect recently produced aircraft.

This damage can produce electrical arcing between electrical wiring conductive and fuel tank exterior skin, which could become eroded. Analysis has demonstrated an extremely remote risk of fuel vapor ignition during flight phases. Nevertheless, this risk must be considered during ground phases. In addition skin damages created by arcing could reduce wing structural integrity.

Airworthiness Directive (AD) 2000-419-154(B) was issued to limit the risk of electrical arcing between wing fuel tank boost pumps wiring and wing structural skin by revising the Limitations Section of the Airplane Flight Manual (AFM) and mandating an inspection in case of any wing fuel tank pump circuit breaker 1QA, 2QA, 7QA or 8QA being tripped.

This new AD restates the requirements of AD 2000-419-154(B) R1 required until the embodiment of a mandatory modification consisting of:

- redesigned underwing fairings
- improved cable protections measures
- a redesigned cable guide bracket.

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3. COMPLIANCE:

- 3.1.** Within 10 days after October 14, 2000 (the effective date of AD 2000-419-154(B) at the original issue), revise the Limitations Section of the Airplane Flight Manual (AFM) to include the following:

Quote**FUEL SYSTEM**

**In case any wing fuel tank pump circuit breaker 1QA, 2QA,
7QA or 8QA is tripped, do not re-engage**

Unquote

This may be accomplished by inserting a copy of this AD or of the revised AFM TR 2.04.00/31 into the AFM.

- 3.2.** In case any wing fuel tank pump circuit breaker 1QA, 2QA, 7QA or 8QA is tripped, in order to check that no damage has been generated by electrical arcing, remove the concerned fuel pump fairings to perform visual inspections.

However the aircraft can be dispatched without removing the fuel pump fairing providing that affected wing fuel tank pump circuit breaker is secured open in accordance with an approved or agreed MEL (based on associated approved MMEL 28-21) for a maximum of 10 days after which the following actions have to be accomplished:

- wing skin within fairing area:

If any damage to the wing structure is detected, prior to the next flight, repair the damaged structure in accordance with the aircraft Structural Repair Manual (SRM) or another approved method.

- fairing:

If any damage to the fairing is detected, prior to the next flight, replace the fairing with a new serviceable one using the appropriate installation and sealing procedures.

- electrical wiring:

If any damage to the wire is detected prior to the next flight, replace the wire with a new wire or repair it in accordance with the Aircraft Wiring Manual (AWM), Electrical Standard Practices Manual (ESPM), Chapter 20.

In the case of any damage (electrical wiring, fairing or structural) detected, within 10 days after accomplishment of the inspection, submit the report of the inspection finding to AIRBUS. The report must include a description of the damage found, the airplane serial number, the number of landings and flight hours and the last maintenance actions performed on fuel pumps/fairing/wiring.

CAUTION: To avoid causing damage to the wiring during fairing replacement, take care not to pinch the fuel pump wiring.

Note: Trouble shooting tasks following wing fuel tank pump circuit breaker trip are covered by aircraft Trouble Shooting Manual (TSM), chapter 28.

- 3.3.** Before April 30, 2004, modify the engine feed pump harness and underwing fairings, in accordance with Service Bulletin AIRBUS A320-28-1093.

This action renders void the requirements of above paragraphs 3.1. and 3.2.

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REF.: Flight Manual - Revision AFM TR 2.04.00/31
Service Bulletin AIRBUS A320-28-1093
Any later approved revision of this SB is acceptable.

This AD replaces AD 2000-419-154(B) which is cancelled.

EFFECTIVE DATE :

Upon receipt from APRIL 30, 2002