



CIVIL AVIATION AUTHORITY
CZECH REPUBLIC

*Airport Ruzyně, 160 08 Prague 6
Tel: 420 2 33320922, fax: 420 2 20562270*

AIRWORTHINESS DIRECTIVE

Number: CAA-AD-029/2003

Date of issue: March 13, 2003

AIRBUS

A300-600, A310

AIRCRAFT - AUTOTRIM - REPLACEMENT/INSTALATION

Applicability:

AIRBUS A300-600 aircraft without trim tank (installed by mod 4801) and with "Theta Trim" FAC standard (embodied by SB 22-6041)

AIRBUS A310-200 aircraft with "Theta Trim" FAC standard (embodied by SB 22-2052)

Effective date: April 17, 2003

Compliance: Required as indicated DGAC AD 2003-110(B).

Remarks: The compliance of this AD must be recorded in Aircraft Logbook, where applicable the requirements of this AD must be integrated into Aircraft Technical Documentation. Address inquiries concerning this AD to: Civil Aviation Authority, Airworthiness Division, Ruzyně Airport, 160 08 Prague 6, Czech Republic, tel.: 420 2 33320922, fax: 420 2 20562270.

Ing. Pavel MATOUŠEK
Director of Airworthiness Division
CAA CZ

TELEGRAPHIC AIRWORTHINESS DIRECTIVE RELEASED BY THE DIRECTION GENERALE DE L'AVIATION CIVILE (France).

THIS TEXT IS NOT SENT TO FOREIGN OPERATORS OF AICRAFT NON REGISTERED IN FRANCE. IT IS UP TO THE NATIONAL AUTHORITIES TO FORWARD IT TO THEM ON RECEIPT.

DGAC AD No.: 2003-110(B): AIRBUS - A 300-600 and A310 aircraft

SUBJECT: A300-600 AND A310 - LOSS OF AUTOTRIM FUNCTION

APPLICABILITY:

AIRBUS A300-600 aircraft without trim tank (installed by mod 4801) and with "Theta Trim" FAC standard (embodied by SB 22-6041)

AIRBUS A310-200 aircraft with "Theta Trim" FAC standard (embodied by SB 22-2052)

REASONS:

An A300-600 dispatched under MMEL condition with pitch trim 1 inoperative experienced an undetected slow pitch trim movement in the nose down direction after autopilot 2 engagement in level change/climb mode. This undetected pitch trim movement led to an out-of-trim condition and aircraft nose down attitude, resulting in aircraft acceleration to VMO. The crew engaged the vertical speed mode, leading to autothrust speed mode and subsequent thrust reduction with further nose down effect. The crew took over by disconnecting the autopilot and the autothrottle.

On ground, an open circuit was found in the connection responsible for transmitting autotrim signals between Flight Control Computer 2 (FCC2) and Flight Augmentation Computer 2 (FAC2). In this case the FAC does not receive the FCC signal leading to erroneous slow nose down autotrim orders by the FAC. Expertise of the current FAC software design has shown that the monitoring function that should have led to automatic disengagement of the autopilot in such a situation did not operate properly due to a software defect specific to these FAC part numbers (P/N B471ABM4 and P/N B471AAM7).

When in the flight condition where the autotrim monitoring function of the FAC is ineffective (clean configuration, Mach number higher or equal to 0,45) , an erroneous slow nose down autotrim order may lead to an out-of-trim situation. If this situation is not promptly detected and corrected by the crew, this may result in significant load factor increase and potential reduced controllability of the aircraft.

The aim of this Telegraphic Airworthiness Directive (TAD) is to ensure by a maintenance check the reliability of autotrim function on A300-600 and A310 fitted with FAC P/N B471ABM4 and P/N B471AAM7.

This is an interim action and a modification to restore the full capability of the trim monitoring function of the FAC will be mandated as soon as it is available.

COMPLIANCE:

Before next flight from the effective date of this TAD, unless already accomplished within less than one week, perform the check of integrity of the autotrim function for all possible combinations of autopilot and pitch trim as per paragraph 4.2 of AIRBUS AOT A300-22A6046 dated March 6, 2003 for A300-600 aircraft or AIRBUS AOT A310-22A2055 dated March 6, 2003 for A310 aircraft.

Repeat this check at intervals not exceeding one week.

In addition, perform this check before next flight:

- after replacement of either FAC or FCC,
- after removal/installation of either FAC or FCC for any maintenance or troubleshooting action,
- after removal/installation of either FAC or FCC for repair on the rack connectors of either FAC or FCC,
- after pitch trim MMEL dispatch condition.

NOTE:

For A310 aircraft, implementation of SB 22-2052 is rendered mandatory per CN 2001-463(B), requiring the replacement of both A310 FAC's not later than August 31, 2003.

For A300-600 aircraft, implementation of SB 22-6041 is rendered mandatory per CN 2001-017-329, requiring the replacement of both A300-600 FAC's not later than May 31, 2003.

REF:

AIRBUS AOT A300-22A6046 dated March 06, 2003

AIRBUS AOT A310-22A2055 dated March 06, 2003

For further information, please contact:

AIRBUS	- AI/EA-W	- J. COLBERG	Phone 33 (0)5 61 93 06 85
			Fax : 33 (0)5 61 93 45 80
DGAC-France	- SFACT/N	- T. LEVECQUE	Phone 33 (0)1 58 09 41 82
			Fax : 33 (0)1 58 09 42 20

EFFECTIVE DATE: UPON RECEIPT OF THIS TELEGRAPHIC AIRWORTHINESS DIRECTIVE FROM MARCH 7, 2003