	AIRWORTHINESS DIRECTIVE No F-2003-082 R1	Distribution: B	Issue date: March 31, 2004	Page : 1/2
Direction générale de l'aviation civile France	This Airworthiness Directive is published by the DGAC : <input checked="checked" type="checkbox"/> on behalf of EASA, the Primary Airworthiness Authority for the affected product. <input type="checkbox"/> as the Registration Airworthiness Authority for the affected aircraft..		<i>Translation of « Consigne de Navigabilité » of same number. In case of difficulty, reference should be made to the French issue.</i>	
GSAC publication	<p align="center">No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive, unless otherwise agreed with the Authority of the State of Registry.</p>			
Corresponding foreign Airworthiness Directive(s): Not applicable		Airworthiness Directive(s) replaced: 2003-082 originale issue		
Person in charge of airworthiness: AIRBUS		Type(s): A300, A310 and A300-600 aircraft		
Type certificate(s) No. 145 TCDS No 145				
ATA chapter: 24	Subject: Electrical power - Transformer rectifier units (TRU's)			

1. EFFECTIVITY:

AIRBUS aircraft:

- A300, A310 all certified models and all serial numbers except for aircraft on which AIRBUS Service Bulletin (SB) A300-24-0099 or A310-24-2088 (AIRBUS modification No. 12540) has been embodied.
- A300-600 all certified models and all serial numbers, except for aircraft on which AIRBUS modification No. 12540 has been embodied in production (or SB A300-24-6082 in service).

[...]

2. REASONS:

Following the in flight loss of the DC NORMAL BUS on an A310 on November, 1996, attributed to a double failure of transformers rectifiers (TRU) caused by an internal overheating, the manufacturer launched a design change of these TRU's, which aimed at lowering the temperature threshold of internal fan starting.


Airworthiness Directives (AD) 1999-435-296 rendered mandatory the installation of TRU PN F11QY3121 (in place of TRU P/N F11QB3121), before September 30, 2001, by embodiment of SB's A300-24-0089, A310-24-2077 and A300-24-6068 linked to AIRBUS Modification No. 11771.

On 2000 and 2001, despite this modification, a low reliability of TRU 'QY' was still observed. Additional manufacturer analysis and test pointed out the rectifier diodes PN F120N0018/19 as the main contributing factor to TRU 'QY' poor reliability.

A new modification was then launched which includes the followings improvements:

- temperature threshold of the internal fan modification,
- "C" diodes installation (in place of "A" and "B" diodes),
- new primary transformer filter capacitor,
- new location of above capacitor (less warm TRU area),
- change of secondary transformer filter.

In parallel, the operation of the aircraft was rendered more restrictive and a temporary revision of the Master Minimum Equipment List (MMEL) was issued and rendered mandatory by AD 2002-185 since April 2002.

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This new AD resumes the requirements of AD 2002-185 and renders mandatory the terminative action consisting in installing new certified THALES AES TRU's on aircraft (AIRBUS modification 12540).

Revision 1 of this AD aims at:

- introducing a clarification concerning applicable publications listed at paragraph 4 of this AD,
- excluding A300-600ST (BELUGA) aircraft which is dealt with by AD F-2004-041.

3. MANDATORY ACTION AND COMPLIANCE TIMES:

3.1. Operational restriction

From April 13, 2002 (effective date of AD 2002-185 at original issue), introduce the following manufacturer's MMEL temporary revision into the aircraft Minimum Equipment List (MEL):

- A300 TR No. 1-24/02F issue 01 approved by the DGAC on June 22, 2001,
- A310 TR No. 01-24/01J issue 02 approved by the DGAC on June 14, 2001,
- A300-600 TR No. 01-24-/01I issue 02 approved by the DGAC on June 14, 2001,
- [...]

and conform with these directives until accomplishment of actions in paragraph 3.2. below.

3.2. Terminative action

On April 30, 2006 at the latest, replace THALES AES TRU's PN F11QY3121 by THALES AES TRU's PN F11QY3714 in accordance with the instructions of SB A300-24-0099 or A310-24-2088 or A300-24-6082 as applicable.

4. REFERENCE PUBLICATIONS:

AIRBUS Service Bulletins:

A300-24-0099
A310-24-2088
A300-24-6082

[...]

Any later approved revision of these SB's is acceptable.

MMEL Temporary Revisions:

A300 TR No. 1-24/02F issue 01
310 TR No. 01-24/01J issue 02
300-600 TR No. 01-24-/01I issue 02

[...]

Any later approved revision of these MMEL is acceptable.

5. EFFECTIVE DATES:

Original issue : March 01, 2003

Revision 1 : April 10, 2004.

6. REMARK:

For questions concerning the technical contents of this AD's requirements, contact :

AIRBUS - Hubert Angelier - Facsimile : 33 5 61 93 45 80.

7. APPROVAL:

This AD Revision is approved under EASA reference No 2004-3055 dated March 23, 2004.