

	AIRWORTHINESS DIRECTIVE No F-2001-383 R3	Distribution: B	Issue date: September 15, 2004	Page : 1/2
	Direction générale de l'aviation civile France GSAC publication	This Airworthiness Directive is published by the DGAC on behalf of EASA, Airworthiness Authority of the State of Design for the affected product, part or appliance.		<i>Translation of « Consigne de Navigabilité » of same number. In case of difficulty, reference should be made to the French issue.</i>
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.				
Corresponding foreign Airworthiness Directive(s): Not applicable		Airworthiness Directive(s) replaced: 2001-383 R2		
Person in charge of airworthiness: AIRBUS SAS		Type(s): A330 aircraft		
Type certificate(s) No. A.004 TCDS No A.004				
ATA chapter: 71, 72, 73	Subject: Engine - ROLLS-ROYCE engine stall and shut down during acceleration from idle			

1. **EFFECTIVITY:**

AIRBUS A330 -243, -341, -342, and -343 aircraft series, all serial numbers, fitted with ROLLS-ROYCE (RR) T700 engines, except aircraft on which the both engines have either:

- AIRBUS modification 51972 embodied in production or AIRBUS Service Bulletin (SB) A330-71-3018 in-service (New high pressure compressor (HPC) "Birdmouth"),
- or,
- AIRBUS modification 51930 embodied in production or AIRBUS SB A330-73-3034 Revision 01 in-service (FADEC A11.4 or later standard).

2. **REASONS:**

Many occurrences of surges have been reported by A330 operators of RR T700 engine type when thrust power is rapidly increased from low idle to 76% HP rotor speed.

The origin of these surges is the higher than anticipated deterioration of the HPC tip clearance leading to a loss of engine surge margin.

This situation, if not corrected, could result in a thrust loss and risk of engine shut down when thrust power is rapidly increased from low idle.

Revision 1 of this Airworthiness Directive (AD) took into account Revision OCTOBER 2001 for the OEB AIRBUS 38/1. This revision deletes the requirement to take into account the "idle factors" for aircraft not fitted with flight management system FMS 2. Indeed, entering the "idle factors" into the FMS is a maintenance task instead of an operational procedure. Besides, taking the "idle factors" into account is not rendered mandatory by this AD since the aircraft manufacturer demonstrated in flight simulator that even with no correction (0 %) entered into the FMS, the aircraft is able to maintain its descent path with engine anti-ice ON.

Revision 2 of this AD aimed at introducing Revision 2 of OEB 38/1 AIRBUS, which becomes 38/2 dated April 2002, and to change AIRBUS INDUSTRIE name which becomes AIRBUS.



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The aim of this Revision 3 is to:

- take into account the issuance of the AFM TR which covers in-flight operational procedure mentioned in the AIRBUS OEB No. 38/4 and
- accept as terminating action to the AFM TR, the introduction of the FADEC A11.4 software standard or new HPC "birdmouth".

3. MANDATORY ACTIONS AND COMPLIANCE TIMES:

This AD is issued to introduce a new operational procedure for engines having accumulated more than 2000 cycles (engines exposed to this risk) or for engines that have accumulated more than 1000 cycles since HPC refurbishment.

• **DESCENT PREPARATION**

In order to increase the engine surge margin, select engine anti-ice "ON" before the descent and keep it "ON" until landing, in accordance with AFM TR 4.03.00/21 approved by DGAC on September 04, 2003.

Note 1: There will be no dispatch tolerance allowed with the Nacelle anti-icing valve locked closed, but it may be locked open in accordance with the MMEL.

Note 2: After landing the selection of engine anti-ice will be done according to the standard operational procedures.

4. REFERENCE PUBLICATIONS:

AFM TR AIRBUS 4.03.00/21
Bulletin Service AIRBUS A330-71-3018
Bulletin Service AIRBUS A330-73-3034 Revision 01
(Any later approved revision of these documents is acceptable).

5. EFFECTIVE DATES:

Original issue : Upon receipt from September 05, 2001
Revision 1 : December 22, 2001
Revision 2 : Upon receipt from April 17, 2002
Revision 3 : September 25, 2004.

6. REMARK:

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

AIRBUS SAS - EAL - Fax : 33 5 61 93 45 80.

7. APPROVAL:

This AD Revision is approved under EASA reference No 2004-9371 dated September 07, 2004.