	AIRWORTHINESS DIRECTIVE No F-2004-081	Distribution: B	Issue date: June 09, 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 style="text-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: None		
Person in charge of airworthiness: AIRBUS SAS		Type(s): A330 aircraft		
Type certificate(s) No. A.004 TCDS No A.004				
ATA chapter: 72	Subject: Engine - Icing conditions - Ground ice shedding procedure			

1. EFFECTIVITY:

AIRBUS A330 aircraft, models -243, -341, -342 and -343, all serial numbers.

2. REASONS:

Four cases of IPC stage 1 damage due to ice accumulation (1 in-flight and 3 during scheduled inspection) have been reported by operators on RR Trent 700 engine fleet. One in-flight case has caused an engine shut down and resulted in aircraft diversion. The three other cases resulted in two unplanned engine removals.

Investigations have revealed that the engines were damaged further to operation on ground in severe ice conditions like extended running times at idle in very low outside air temperature (OAT) and in presence of freezing fog. During the subsequent take-off, heat transfer combines with variable inlet guide vanes (VIGV) movements tend to remove ice which then impact and damage IPC stage 1 blades.


A new ground ice shedding procedure has been developed, in addition to the current procedure, to protect the core engine against severe ice accretion (low OAT accompanied by freezing fog during long taxi periods).

In order to avoid a risk of engine IPC damage and the risk of subsequent surge to the two engines, the Aircraft Flight Manual Temporary Revision (AFM TR) 4.03.00/24 is rendered mandatory by this Airworthiness Directive (AD).

3. MANDATORY ACTIONS AND COMPLIANCE TIME:

The following measures are rendered mandatory from the effective date of this AD:

Insert in the A330 Aircraft Flight Manual the AFM TR 4.03.00/24 "Icing Conditions- Ground Ice shedding procedure" and apply the associated procedure.

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Note 1: AFM TR 4.03.00/24 will be incorporated into next general revision of A330 AFM.

Note 2: The incorporation of this AFM TR (or any later approved revision) or of the associated procedure into the aircraft operations manual and its application by the flight crew allows conformity with this AD to be ensured.

4. REFERENCE PUBLICATION:

A330 Aircraft Flight Manual Temporary Revision 4.03.00/24
(Any further approved revision of this document or general AFM revision including this is acceptable).

5. EFFECTIVE DATE:

June 19, 2004.

6. REMARK:

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

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7. APPROVAL:

This AD is approved under EASA reference No 2004-5874 dated June 02, 2004.