EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2007 - 0215 **Date: 08 August 2007**

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.

Type Approval Holder's Name :	**Type/Model designation(s) :**
AIRBUS SAS	A330 aircraft

TCDS Number : EASA A.004

Foreign AD: Not applicable.

Supersedure : This AD supersedes EASA EAD 2006-0259-E which superseded EASA EAD 2006-0212-E

ATA 72	**Engine – Icing Conditions during Descent – Operational Procedure and Dispatch Restriction / Modification**
Manufacturer:	AIRBUS (formerly AIRBUS INDUSTRIE)
Applicability:	AIRBUS A330-201, -202, -203, -301, -302 and -303 aircraft, all serial numbers except those on which AIRBUS modification 56554 has been embodied in production or Airbus SB A330-73-3048 has been embodied in service.
Reason:	Several A330 aircraft equipped with General Electric (GE) CF6-80E1 engines experienced an engine flame out during descent, 2 to 3 seconds after engines acceleration upon aircraft altitude capture, under inclement weather conditions. In all cases, the engines restarted and then operated normally. The analysis has shown that at high altitude, an accretion of the conventional ice or ice crystals in the engine fan or booster stages during descent at low engine power can shed a significant amount of ice into the core inlet upon engine acceleration when the variable bleed valve doors close. This ice ingestion will then increase the water/air ratio, leading to flame smothering. This situation, if not corrected, can lead to the temporary loss of both engines thrust in flight which constitutes an unsafe condition. In order to mitigate the risk of a dual engine flame out in flight, Emergency Airworthiness Directive (EAD) 2006-0212-E mandated the operational procedure which increases the fuel/air ratio in the engine during the

	descent and under inclement weather conditions. EAD 2006-0259-E took over the requirements of Emergency AD 2006-0212-E and restricted the dispatch for aircraft operated under MMEL item 21-51-02 (from GO to GO IF). This new AD : - takes over the requirements of EAD 2006-0259-E and - mandates the terminating action of the operational procedure and dispatch restriction by installation of new FADEC Software version E1.O which incorporates inclement weather logic improvement with other minor modifications.
Effective Date:	22 August 2007
Compliance:	1. The following operational procedure is rendered mandatory from 14 July 2006 [original effective date of EAD 2006-0212-E]: **"ICING CONDITIONS EXPECTED DURING DESCENT** • If icing conditions (including ice crystals) are expected during descent : • At top of descent, or at the latest before entering the expected icing conditions: Select ENG ANTI ICE and WING ANTI ICE to ON. Select PACK FLOW at HI. • Below 10,000 feet : Resume normal operation." Note 1: This operational procedure is covered by the Temporary Revision (TR) of the Aircraft Flight Manual (AFM): A330 AFM TR 4.03.00/27. Inserting a copy of this AD or AFM TR 4.03.00/27 into the Aircraft Operations Manual (AOM) as well as into the AFM and application of this procedure by the flight crew constitutes compliance with this requirement. 2. The following operational limitation is rendered mandatory from 28 August 2006 [effective date of EAD 2006-0259-E]: Dispatch restriction: - Dispatch with the "Pack Flow Selection" inoperative (item numbered 21-51-02 in the associated MMEL) is prohibited when the aircraft is operated in icing conditions. Note 2: Inserting the above dispatch restriction or a copy of this AD into the AOM and strict adherence to above dispatch restriction by the crew constitutes compliance with this requirement. Note 3: All the other published dispatch conditions remain unaffected by this AD. In particular the MMEL items related to Air Conditioning Pack, Anti-Ice Protection and Bleed Air System are unchanged and remain valid.

	3. Not later than 31 January 2008, modify the FADEC Software of both engines in accordance with instructions defined in AIRBUS SB A330-73-3048. Accomplishment of AIRBUS SB A330-73-3048 on both engines cancels the requirements of this AD.
Ref. Publications:	AIRBUS A330 AFM TR 4.03.00/27 approved by EASA on 11 July 2006 or any later approved revision of this AFM TR or any general AFM revision including this procedure. AIRBUS Service Bulletin A330-73-3048, or later approved revisions.
Remarks :	1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods of Compliance (AMOCs) for this AD. 2. This AD was posted on 09 July 2007 as PAD 07-118 for consultation until 23 July 2007. No comments were received during the consultation period. 3. Enquiries regarding this Airworthiness Directive should be referred to the Airworthiness Directive Focal Point - Certification Directorate, EASA. E-mail: ADs@easa.europa.eu . 4. For any question concerning the technical content of the requirements in this AD, please contact AIRBUS SAS – Airworthiness Office - EAL Fax: +33 5 61 93 45 80.