	<b>AIRWORTHINESS DIRECTIVE</b> <b>No F-2005-166 R1</b>	Distribution: <b>B</b>	Issue date: <b>October 26, 2005</b>	Page : <b>1/2</b>
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>	
	<p style="text-align: center;"><b>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.</b></p>			
Corresponding foreign Airworthiness Directive(s): <b>Not applicable</b>		Airworthiness Directive(s) replaced: <b>UF-2005-166, F-2005-150 cancelled by its revision 1</b>		
Person in charge of airworthiness: <b>AIRBUS SAS</b>		Type(s): <b>A330 and A340 aircraft</b>		
Type certificate(s) No. <b>EASA.A.004, EASA.A.015</b> TCDS No <b>EASA.A.004, EASA.A.015</b>				
ATA chapter:  <b>31</b>	Subject: <b>Indicating/Recording systems - Periodic reset of display units</b>			

#### 1. **EFFECTIVITY:**

AIRBUS aircraft A330 and A340, all certified models, all serial numbers, equipped with:

- Electronic Instrument System EIS 2 software L4-1 installed through AIRBUS modification 51153 in production or AIRBUS Service Bulletin (SB) A330-31-3056 or A330-31-3057 or A340-31-5001 in service,

or,

- EIS 2 software L5 installed through modification 51974 in production or AIRBUS SB A330-31-3056 or A330-31-3069 or A340-31-4087 or A340-31-5012 in service.


#### 2. **REASONS:**

An operator reported the simultaneous blanking of three Electronic Instrument System (EIS) Display Units (DU) on A330 aircraft during flight. These DU's went blank and displayed the message "INVALID DISPLAY UNIT". The DU's were recovered automatically after approximately 40 seconds and the flight was continued normally.

The analysis of Display Management Computer (DMC) data confirmed the 3 DU's had undergone a simultaneous automatic reset followed by a power on selftest. The investigation shows that after a continuous power on of a DU for more than 6 days, an internal timer reaches a limit that provokes an automatic reset.

Situation where both the EIS DU's and standby instruments are simultaneously unavailable may have unsafe consequences in certain phases of flight.

The aim of this AD is to prevent automatic reset of several DU's in flight by performing a periodic switching off/switching on procedure whilst the aircraft is on the ground. This procedure will reinitialize the internal timer of all the DU's.

	<b>AIRWORTHINESS DIRECTIVE</b> <b>No F-2005-166 R1</b>	Distribution: <b>B</b>	Issue date: <b>October 26, 2005</b>	Page: <b>2/2</b>
---	---	---------------------------	--	---------------------

AD F-2005-150 covered this issue and asked for a periodic reset of DUs every four days at the maximum. In order to be more robust in the procedure, it has been decided to ask the flight crew to switch the DUs OFF during parking check-list before leaving the aircraft. Therefore following flight, crew will have to switch them ON ensuring correct reset on a regular basis.

The aim of this Revision 1 is to introduce the references of the temporary revisions of the aircraft flight manual, which covers this operational procedure, and to precise that the conformity with this AD is ensured by application of these AFM TRs by the flight crew.

### 3. **MANDATORY ACTIONS AND COMPLIANCE TIMES:**

From the effective date of this AD at original issue, apply the following operational procedure:

*"At each flight crew change, switch OFF all displays units before completing Parking Check-list."*

**Note 1:** As the flight crew will set all DU's back ON during the next preliminary cockpit preparation, an electrical cut off of more than 5 seconds is thus ensured, preventing automatic reset of DUs.

**Note 2:** This operational procedure is covered by the Temporary Revision (TR) of the Aircraft Flight Manual (AFM): A330 AFM TR 4.03.00/26 or A340 AFM TR 4.03.00/37.

The incorporation of this AFM TR (or any later approved revision) or insertion of this AD into the aircraft flight manual and application of this procedure by the flight crew allow conformity with this AD to be ensured.

This operational procedure has been published in Operations Engineering Bulletin (OEB) 59/1 or OEB 72/1.

**Note 3:** The All Operator Telex (AOT) A330-31A3092, A340-31A4102 and A340-31A5023 are cancelled.

**Note 4:** This AD replaces AD F-2005-150, cancelled by its Revision 1.

### 4. **REFERENCE PUBLICATIONS:**

AIRBUS A330 AFM TR 4.03.00/26 approved by EASA on October 11<sup>th</sup>, 2005

AIRBUS A340 AFM TR 4.03.00/37 approved by EASA on October 11<sup>th</sup>, 2005

(Any later approved revision of these documents or any general AFM revision including this procedure is acceptable).

### 5. **EFFECTIVE DATES:**

**Original issue :** Upon receipt of the emergency AD issued on September 23, 2005

**Revision 1 :** November 05, 2005.

### 6. **REMARKS:**

This AD at original issue has been the subject only of an emergency diffusion on September 23, 2005.

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

AIRBUS - Office of Airworthiness - EAL - Fax : 33 5 61 93 45 80 or 33 5 61 93 44 51.

### 7. **APPROVAL:**

This AD Revision is approved under EASA reference No 2005-6378 dated October 18, 2005.