AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Airbus Industrie A319, A320 and A321 Series Aeroplanes

AD/A320/154 Integrated Drive Generator Connector 8/2004 TX

Applicability: Airbus Industrie model aeroplanes, all serial numbers with IAE V2500 engines, as follows:

A319-131, -132 and -133
A320-231, -232 and -233
A321-131, -231 and -232

Requirement: Ensure the following operational procedures are incorporated in the Aircraft Flight Manual (AFM) either by inserting AFM Temporary Revision 4.02.00/20 or a copy of the following into the AFM:

INTERMITTENT ELECTRICAL POWER SUPPLY

If Sustained flickering of PFD, ND ECAM, MCDU and/or
If Warnings and/or Flags affecting ADR, AP, ELEC data are observed:
IDG Feeder pin/socket arcing can be suspected and then, the following procedures have to be applied:

CAUTION

- In case of dispatch with TR2 failure (MMEL 24-30-01) : If flickering is suspected (spurious flickering of display units) switch AC ESS FEED to NORM, to set the normal electrical configuration, before the application of the following procedures.

- In case of dispatch with EIS DMC switching to FO/3 following DMC2 failure (MMEL 31-63-02), occurrences may involve all DU’s if IDG1 affected. In such a case, switch GEN1 OFF.

- If occurrences involve one, or a combination, of the following equipment:
DMCI,
ECAM upper DU,
PFD1,
ND1,
MCDU1,
ADR1
GEN1................................................................................................................ OFF
Keep GEN1 OFF for the rest of the flight.
APU may be started (See APU in 4.03.00) and APU GEN if available may be used.

- If occurrences involve one, or a combination, of the following equipment:
  DMC2,
  ECAM lower DU,
  PFD2,
  ND2,
  MCDU2,
  ADR2
  GEN2 ............................................................................................................... OFF
  Keep GEN2 OFF for the rest of the flight.
  APU may be started (See APU in 4.03.00) and APU GEN if available may be used.

Note: DGAC AD F-2004-074 refers.

Compliance: As of the effective date of this Directive
This Airworthiness Directive becomes effective on 18 June 2004.

Background: The Direction Générale de l’Aviation Civile of France has advised that in service experience has shown a number of events of pin to socket arcing at the Integrated Drive Generator (IDG) feeder cable pylon/nacelle interface connector. The fretting corrosion phenomenon was identified to be the root cause of the pin to socket arcing.

Investigation has identified a non-optimised electrical harness installation as a contributing factor to this phenomenon that could lead to electrical arcs with possible electrical flickering.
These incidents may cause the following symptoms during flight:

- Intermittent flickering of display units (primary flight display, navigation dis.
- Transient disconnection of several systems (auto pilot, yaw damper, auto
  throttle), triggering of aircraft system warnings and/or flags.
- Loss of IDG power supply on the affected engine.
- Flickering of cabin lights.

This Directive introduces a revised operation procedure for these occurrences by
requiring amendment of the AFM.

James Coyne
Delegation of the Civil Aviation Safety Authority

15 June 2004