

# AIRWORTHINESS DIRECTIVE

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*Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive.*

Translation of 'Consigne de Navigabilité' ref. : 2002-458(B) R2  
In case of any difficulty, reference should be made to the French original issue.

## AIRBUS

### A319, A320 and A321 aircraft

THALES avionics DDRMI failure (ATA 34)

#### **1. APPLICABILITY:**

- AIRBUS A319 aircraft, all certified models, all serial numbers (MSN) from 0910 inclusive fitted with one of the here-below listed (see Note 3) PN THALES AVIONICS Digital Distance and Radio Magnetic Indicators (DDRMI).
- AIRBUS A320 aircraft, all certified models, all MSN from 0844 inclusive fitted with one of the here-below listed (see Note 3) PN of THALES AVIONICS DDRMI.
- AIRBUS A321 aircraft, all certified models, all MSN from 1012 inclusive fitted with one of the here-below listed (see Note 3) PN of THALES AVIONICS DDRMI.

and

- All other AIRBUS A319/A320/A321 aircraft fitted with one of the here-below listed (see Note 3) PN of THALES AVIONICS DDRMI and:

- with a THALES AVIONICS DDRMI Serial Number different from the one recorded in the Aircraft Inspection Report delivered from the production line,

or

- with a THALES AVIONICS DDRMI having been or to be repaired after May 1999.

**Note 1:** This Airworthiness Directive (AD) is not applicable to aircraft having received AIRBUS modification 32414 or 32415 or 32416 or 32417 (DDRMI PN 63540-041-3, 63543-150-4, 63543-250-3 and 63543-253-3) in production or AIRBUS Service Bulletin (SB) A320-34-1264 Revision 1 in service.

**Note 2:** THALES AVIONICS was formerly known as "SEXTANT" or "SEXTANT AVIONIQUE".

**Note 3:** List of affected DDRMI:

- DDRMI PN 63543-150-3
- DDRMI PN 63543-150-2
- DDRMI PN 63543-150-1
- DDRMI PN 63543-250-1
- DDRMI PN 63543-250-2
- DDRMI PN 63543-253-2
- DDRMI PN 63540-041-2

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**2. REASONS:**

Several operators have reported DDRMI circuit breaker tripping, followed by the loss of VOR and DME sources for navigation and displays.

Investigations showed that the DDRMI power transformer short-circuited itself, leading to leakage of 115 VAC to systems connected to DDRMI ARINC 429 input busses.

The computers that may be affected are: VOR 1/2, DME 1/2, ADF 1/2, DMC 1/2/3, CFDIU, CDU-ADIRS, ADIRS 1/3, FQIC, DMU, FAC 2, FMGC 2, BSCU, SEC 2, ELAC 2, MMR 1, SEC 3.

The consequence of such a situation could be the loss of data from those computers to other systems and to a degradation or total failure of those computers.

AD 2002-150(B) was issued in order to prevent possible loss of essential equipment due to a DDRMI failure in flight by means of a temporary deactivation of the DDRMI.

The aim of this AD is to extend the applicability of the DDRMI temporary deactivation to aircraft fitted with a DDRMI power transformer at amendment B which were previously excluded from the AD applicability.

A safety analysis carried out by AIRBUS demonstrates that all types of flight (including ETOPS) can be operated without time limitation, with a deactivated DDRMI.

This AD replaces AD 2002-150(B) which is cancelled.

Revision 1 of this AD corrects Note 1.

Revision 2 of this AD refers to SB A320-34-12364 Revision 1 that allows the reactivation of DDRMI PN 63540-041-3, 63543-150-4, 63543-250-3 or 63543-253-3 and the restoration of Master Minimum Equipment List MMEL ref. 34-22-02 a rectification interval.

**3. MANDATORY ACTION AND COMPLIANCE TIME:**

Unless already accomplished, within 7 days following the effective date of the AD at its original issue, perform a deactivation of the DDRMI in accordance with the instructions given in AIRBUS AOT A320-34A1262 Revision 01 paragraph 4.

Dispatch with an inoperative standby compass (Master Minimum Equipment List MMEL ref. 34-22-02 a) is limited to a "B" rectification interval.

**Note 4:** This AD supersedes the MMEL for the inoperative DDRMI dispatch condition (ref. 34-57-01). Therefore this AD may supersede any Minimum Equipment List (MEL) limitation concerning the DDRMI, in accordance with AIRBUS AOT A320-34A1262 Revision 01 paragraph 3.5.

**REF.:** AIRBUS All Operator Telex (AOT) A320-34A1262 Revision 01 dated August 21, 2002.  
AIRBUS Service Bulletin A320-34-1264 Revision 1  
(Any later approved revision of these documents is acceptable)

This Revision 2 replaces AD 2002-458(B) R1 issued on October 02, 2002.

**EFFECTIVE DATES :**

**Original AD and Revision 1 : Upon receipt of the Telegraphic  
AD from AUGUST 30, 2002**  
**Revision 2 : NOVEMBER 08, 2003**