

# 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. : 1999-165-077(B) R1  
In case of any difficulty, reference should be made to the French original issue.

## AEROSPATIALE MATRA ATR

### ATR 42 airplane

Severe icing conditions - Implement aircraft design enhancements (ATA 30)

#### 1. APPLICABILITY:

Airplane ATR 42, model -200, -300, -320, -400, -500.

#### 2. REASONS:

Accumulated experience on the worldwide fleet of commuter aircraft, and a recently reported in-flight incident, lead to recall that a prolonged exposure to severe icing conditions, outside the certification envelope, can lead to performance degradation and to stall.

The reason for prolonged exposures to such severe icing conditions are late detection of these conditions and/or non or late application of the AFM, which require the immediate exiting of the severe icing conditions as soon as detected.

Compliance with the previously mandated procedures is therefore essential for the safety of flight.

However, it is recognized that, even if the exit maneuver is initiated rapidly after detection, it may take a few minutes before the airplane is out of the severe icing conditions.

Consequently, DGAC acting as the primary authority for the ATR program, has mandated a first measure which has been to increase by 10kt the minimum maneuver/operating icing speeds when severe icing is detected. This was mandated by Airworthiness Directive (AD) No. 1999-014-076(B).

Furthermore, it has been recorded that, in several occurrences, crews have failed to activate the deicing boots, despite the fact that ice accretion had been detected by the Anti-icing Advisory System. This has led ATR to develop an enhancement of the alerting capability of the AAS system. The modification implementing this enhancement is mandated by this AD.

As part of its continual efforts to enhance safety, ATR has designed extended median boots which further enhance the aircraft's performance in case of prolonged severe icing encounters. In addition, since it is DGAC policy to avoid relying only on procedures to address safety issues, the modification implementing this design change is mandated by the present AD.

Revision 1 of this AD is issued in order to take into account revisions of references Service Bulletins without modifying the technical content of this AD.

**3. ACTIONS:**

**3.1.** Reinforce crew awareness and vigilance by embodying AEROSPATIALE modification No. 5008 "modification of the ICING light flashing logic" in accordance with Service Bulletin ATR 42-30-0065.

**3.2.** For airplanes on which AEROSPATIALE modifications No. 4993 and 4998 have not been accomplished : replace the median wing boots by extended boots and install boots on the metallic leading edge by embodying AEROSPATIALE modification No. 8209 and No. 8211 in accordance with Service Bulletin ATR42-30-0063 and ATR42-30-0064 both at revision 1.

**Note** : the requirements of paragraphs 3.1 and 3.2 can be accomplished separately.

**4. COMPLIANCE:**

The requirements of paragraphs 3.1 and 3.2 must be accomplished at the first opportunity and no later than September 30, 2001.

**Remark** : Inquiries regarding the technical content of this Airworthiness Directive should be made to DGAC/SFACT/N-AT, tel. : 33.1.41.09.48.79, fax : 33.1.41.09.43.19.

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**REF.** : Service Bulletin ATR42-30-0065  
Service Bulletin ATR42-30-0063 R1  
Service Bulletin ATR42-30-0064 R1  
Any further revision of these Service Bulletins is acceptable.

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Revision 1 of this AD replaces AD 1999-165-077(B) issued on April 21, 1999.

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**EFFECTIVE DATES:**

**Original AD** : MAY 1<sup>st</sup>, 1999  
**Revision 1** : JULY 22, 2000