Airworthiness Directive

AD No.: 2020-0177

Issued: 11 August 2020

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

ATR-GIE AVIONS de TRANSPORT RÉGIONAL

Type/Model designation(s):

ATR 42 and ATR 72 aeroplanes

Effective Date: 25 August 2020

TCDS Number(s): EASA.A.084

Foreign AD: Not applicable

Supersedure: None

ATA – Aircraft Flight Manual – Sections Limitations and Emergency Procedures – Amendment

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Manufacturer(s):

ATR-GIE Avions de Transport Régional, formerly EADS ATR - Alenia, Aerospatiale Matra ATR - ALENIA, Aerospatiale - Alenia, Aerospatiale – Aeritalia

Applicability:

ATR 42-200, ATR 42-300, ATR 42-320, ATR 42-400 and ATR 42-500 aeroplanes, all manufacturer serial numbers (MSN); and

ATR 72-101, ATR 72-102, ATR 72-201, ATR 72-202, ATR 72-211, ATR 72-212 and ATR 72-212A aeroplanes, all MSN.

Definitions:

For the purpose of this AD, the following definitions apply:

The AFM: ATR Aircraft Flight Manual (AFM).

Reason:

Accumulated experience on the worldwide fleet of commuter aeroplanes and reported in-flight incidents in the past indicate that an exposure to severe icing conditions, outside the certification envelope, could lead to aeroplane performance degradation and to stall. To minimize the hazards associated with inadvertent encounter of severe icing conditions, an increase in manoeuvring / operating speeds was deemed necessary. Reasons for prolonged exposure were late detection and/or improper or late application of the AFM procedures, which require monitoring for severe icing conditions and to leave them as soon as detected.

This condition, if not corrected, could, in case of severe icing conditions, result in loss of control of the aeroplane.

To address this potential unsafe condition, DGAC France published AD 1996-208-067(B) and AD 1996-207-031(B) (both later revised) to introduce an AFM change, providing instructions to detect severe icing condition, procedures to escape safely these conditions, and to require design changes. Prompted by further in-service experience, additional margins were introduced on the minimum operating speeds, if inadvertently encountering severe icing conditions. Consequently, DGAC France issued AD F-1999-014-076R2 and F-1999-015-040R2 to require another AFM update.

Since those ADs were issued, experience has shown that the minimum operating airspeeds in severe icing conditions, computed to provide adequate stall margins, as required by those ADs, do not provide sufficient margins to stall speeds at high bank angle while exiting severe icing conditions. Consequently, both limitations and emergency procedures sections of the AFM, as related to severe icing, have been enhanced by ATR to better reflect the latest in-service experience and account for the recommendations issued by the Upset Recovery Working Group.

For the reasons described above, this AD requires amendment of the AFM by implementing the applicable limitations and emergency procedures related to severe icing conditions, as published in the AFM at Revision 3.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

AFM Change:

(1) Within 6 months after the effective date of this AD, amend the AFM with the data as specified in Table 1 of this AD, inform all flight crews, and, thereafter, operate the aeroplane accordingly.

Table 1 – AFM Amendments – Revision 3

LIM-Limitations / 4-Operational Parameters / 4-Icing Conditions / 3-Severe Icing Conditions
LIM-Limitations / 5-Systems / 27-Flight Controls / 1-Flaps
LIM-Limitations / 5-Systems / 30-Ice and Rain Protection / 1- Ice and Rain Protection
PRO-Procedures / NNO Non Normal Operations / EMR-Emergency Procedure / 99-Miscellaneous / 8-Severe Icing

(2) Amending the AFM of an aeroplane by incorporating the AFM at Revision 3, or later revision, which includes the same content as the applicable sections of the AFM, is acceptable to comply with the requirements of paragraph (1) of this AD for that aeroplane.

(3) Compliance with this AD constitutes compliance with the requirements of paragraphs 1.1 and 1.2 of DGAC France AD 1996-208-067(B)R1 or AD 1996-207-031(B)R1, as applicable.

(4) Compliance with this AD constitutes compliance with the requirements of DGAC France AD F-1999-014-076(B)R2 or AD F-1999-015-040(B)R2, as applicable.

Ref. Publications:

ATR AFM Revision 3 dated July 2019.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. This AD was posted on 08 July 2020 as PAD 20-108 for consultation until 05 August 2020. No comments were received during the consultation period.

3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the EU aviation safety reporting system. This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.

5. For any question concerning the technical content of the requirements in this AD, please contact: ATR - GIE Avions de Transport Régional, Continued Airworthiness Service, Telephone: +33 (0)5 62 21 62 21, Fax: +33 (0) 5 62 21 67 18; E-mail: continued.airworthiness@atr-aircraft.com.