



Emergency Airworthiness Directive

AD No.: 2021-0120-E

Issued: 03 May 2021

Note: This Emergency 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 REGIONAL

Type/Model designation(s):

ATR 42 and ATR 72 aeroplanes

Effective Date: 05 May 2021

TCDS Number(s): EASA.A.084

Foreign AD: Not applicable

Supersedure: None

ATA 24 – Electrical Power – Cockpit Display Systems – Tests

ATA – Aircraft Flight Manual / Master Minimum Equipment List – Amendment

Manufacturer(s):

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

Applicability:

ATR 42-500 aeroplanes, all manufacturer serial numbers (MSN) on which ATR modification (mod) 05948 (commercially known as ‘-600 version’) has been embodied in production; and

ATR 72-212A aeroplanes, all MSN on which ATR mod 05948 (commercially known as ‘-600 version’) has been embodied in production.

Definitions:

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

The AOM: ATR Airworthiness Operators Message (AOM) 2021/05.

Groups: Group 1 aeroplanes are ATR 42-500 aeroplanes MSN 1416, 1419, 1601, 1602, 1604, 1606 and subsequent; and ATR 72-212A aeroplanes MSN 1542, 1556, 1561, 1565, 1566, 1570, 1573,



1575, 1594, 1596, 1598, 1600, 1620, 1623, 1627 to 1632, 1634, 1636 to 1644, 1646 to 1651, 1654, 1655 to 1660, and 1662 and subsequent.

Group 2 aeroplanes are ATR 42-500 and ATR 72-212A aeroplanes, all MSN that are not Group 1 aeroplanes.

Reason:

Two occurrences were reported of temporary loss of all display units and Integrated Electronic Standby Instrument (IESI).

The initial investigation results revealed that the battery toggle switch Functional Item Number (FIN) 7PA and the contactor FIN 1PA were two of the potential contributors to the reported cases. Investigation is still on-going to fully understand the root cause of both events.

This condition, if not detected and corrected, could lead to loss of control of the aeroplane.

To address this potential unsafe condition, ATR amended the Aircraft Flight Manual (AFM) and the Master Minimum Equipment List (MMEL), and issued the AOM to provide instructions for operational and electrical tests.

For the reasons described above, this AD requires temporary amendments of the applicable AFM and MMEL, an operational test of contactor FIN 1PA and, depending on findings, accomplishment of applicable corrective action(s), and, for the data gathering purposes only, an electrical test (impedance measurement) of the battery toggle switch FIN 7PA. This AD also requires reporting the results of both tests to ATR.

This AD is considered to be an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

AFM Amendment:

- (1) For Group 1 and Group 2 aeroplanes: Within 7 days after the effective date of this AD, amend the Systems Limitations section of the applicable AFM by inserting the AFM change as provided in Appendix 1 of this AD, inform all flight crews, and, thereafter, operate the aeroplane accordingly.

MMEL / Minimum Equipment List (MEL) Amendment:

- (2) For Group 1 and Group 2 aeroplanes: From 7 days after the effective date of this AD, ensure that no aeroplane will be dispatched with any of the equipment identified in Table 1 of this AD inoperative, which can be accomplished by marking these items as NO GO items. Amendment of the operator's MEL in accordance with the above instructions is considered as an acceptable method to comply with this requirement.

Concurrently with that action, inform all flight crews, and, thereafter, operate the aeroplane accordingly.



Table 1 – MMEL Item / Equipment

MMEL Item	Equipment
24-30-02	DC Transformer Rectifier Unit (TRU)
24-22-01	ACW Generation (Generator and (or) Related GCU)
24-22-03	ACW Generation Bus Tie Contactor (BTC)
24-22-02	ACW GEN FAULT Light

Operational Test:

- (3) For Group 2 aeroplanes: Within 30 days after the effective date of this AD, accomplish an operational test of contactor FIN 1PA in accordance with the instructions of the AOM.

Electrical Test:

- (4) For Group 2 aeroplanes: Within 2 months after the effective date of this AD, accomplish an electrical test on the battery toggle switch FIN 7PA in accordance with the instructions of the AOM.

Corrective Action(s):

- (5) If, during the operational test as required by paragraph (3) of this AD, discrepancies are detected, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the AOM.

Reporting:

- (6) For Group 2 aeroplanes: Within 10 days after accomplishment of the operational test as required by paragraph (3) of this AD, report the results (including no findings) to ATR. This can be accomplished in accordance with the instructions of the Appendix 2 of the AOM.
- (7) For Group 2 aeroplanes: Within 10 days after accomplishment of the electrical test as required by paragraph (4) of this AD, report the results (including no findings) to ATR. This can be accomplished in accordance with the instructions of the Appendix 4 of the AOM.

Ref. Publications:

ATR AOM 2021/05 Issue 1 dated 19 April 2021.

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. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.



3. Enquiries regarding this AD should be referred to the EASA Safety 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.



Appendix 1 – AFM amendment

24.2 Transformer Rectifier Unit (TRU)

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The TRU must be set to 'ON' during before taxi procedure application and must be set to 'OFF' during after landing procedure application.

