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| <b>EASA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>AIRWORTHINESS DIRECTIVE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p><b>AD No.: 2014-0075R1</b></p> <p><b>Date: 24 April 2014</b></p> <p>Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p>This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p><b>Design Approval Holder's Name:</b></p> <p>ATR-GIE AVIONS de TRANSPORT RÉGIONAL</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p><b>Type/Model designation(s):</b></p> <p>ATR 72 and ATR 42 aeroplanes</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p>TCDS Number: EASA.A.084</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>Foreign AD: Not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>Revision: This AD revises EASA AD 2014-0075 dated 25 March 2014.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ATA 28</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Fuel – Fuel Probes – Inspection / Replacement</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Manufacturer(s):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ATR-GIE Avions de Transport Régional (formerly Aerospatiale – Aeritalia, Aerospatiale – Alenia, Aerospatiale ATR – ALENIA, EADS ATR – Alenia).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Applicability:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>a) ATR 42 and ATR 72 aeroplanes, all certified models, all Manufacturer Serial Numbers (MSN) qualified for Extended range Twin OPERATION (ETOPS) in accordance with ATR Mod. 04711, or</p> <p>b) ATR 42 aeroplanes, all certified models, all MSN, except aeroplanes which are:</p> <ul style="list-style-type: none"> <li>- modified in accordance with ATR Mod 04650, or</li> <li>- retrofitted in accordance with ATR Service Bulletin (SB) ATR42-28-0033 or SB ATR42-28-0034, as applicable to the aeroplane model, or</li> </ul> <p>c) ATR 72 aeroplanes, all certified models, all MSN, except aeroplanes which are:</p> <ul style="list-style-type: none"> <li>- modified in accordance with ATR Mod 04686, or</li> <li>- retrofitted in accordance with ATR SB ATR72-28-1013, SB ATR72-28-1022 or SB ATR72-28-1023, as applicable to the aeroplane model.</li> </ul> |
| Reason:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>A significant number of fuel probes installed on ATR aeroplanes failed during production tests and several occurrences of fuel quantity indication malfunctions were recently reported on in-service aeroplanes.</p> <p>The subsequent investigation, conducted on the failed parts, confirmed a loss</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                                            | <p>of ground connection on the terminal block of the fuel probe, due to an incorrect application of wiring instructions in production during fuel probe manufacturing between June 2011 and August 2013. The investigation identified a batch of parts, suspected to be affected by this manufacturing defect. Some of these probes were delivered as spares, and operators may have installed these probes on their in-service aeroplanes.</p> <p>In case an affected fuel probe is installed on each wing of an aeroplane, being not equipped with an independent fuel low level measurement system or an aeroplane operated in accordance with ETOPS rules, the defected fuel probes could indicate a higher fuel quantity value than the real quantity of the on-board fuel.</p> <p>This condition, if not detected and corrected, could lead to an undetected fuel starvation and consequent dual engine in-flight flame out.</p> <p>For the reasons described above, this AD requires the identification and replacement of the affected fuel probes.</p> <p>This AD is revised to correct typographical errors.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Effective Date:                            | <p>Revision 1: 24 April 2014</p> <p>Original issue: 08 April 2014</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Required Action(s) and Compliance Time(s): | <p>Required as indicated, unless accomplished previously:</p> <p>(1) Within 5 000 flight hours or 24 months, whichever occurs first after 08 April 2014 [the effective date of this AD at original issue], accomplish the following actions:</p> <p>(1.1) Identify the Part Number (P/N) and serial number (S/N) of the fuel probes installed on the aeroplane in accordance with the instructions of ATR Aircraft Maintenance Manual (AMM) Job Instruction Card (JIC) 28-42-72 RAI 10000.</p> <p>A review of aeroplane maintenance records is acceptable to make the identification as required by paragraph (1.1) of this AD, provided those maintenance records can be relied upon for that purpose, and the P/N and S/N of the fuel probes can be conclusively identified from that review.</p> <p>(1.2) Following the identification required by paragraph (1.1) of this AD, replace any fuel probe, having a P/N and S/N as listed in Table 1 of this AD, with a serviceable part in accordance with the instructions of ATR AMM JIC 28-42-72 RAI 10000.</p> <p>Note: For the purpose of this AD, a serviceable fuel probe is a part which is either:</p> <ul style="list-style-type: none"> <li>- not listed in Table 1 of this AD, or</li> <li>- listed in Table 1 of this AD, but having control tag "C" marked on the part identification plate, as specified in Zodiac Aerospace Services Europe Service Bulletin (SB) 766983-28-002.</li> </ul> <p>(2) From 08 April 2014 [the effective date of this AD at original issue], installation of fuel probe with a P/N and S/N listed in Table 1 of this AD on an aeroplane is allowed, only provided that the control tag "C" is marked on the fuel probe identification plate, as specified in Zodiac Aerospace Services Europe SB 766983-28-002.</p> |

|                                | <table><tr><th colspan="3">Table 1 – Affected Fuel Probes</th></tr><tr><th>Affected aeroplanes</th><th>P/N</th><th>S/N</th></tr><tr><td rowspan="5">ATR 42</td><td>766-046-2</td><td>1046 to 1083</td></tr><tr><td>766-047-2</td><td>1154 to 1214</td></tr><tr><td>766-048-2</td><td>1150 to 1197</td></tr><tr><td>768-055</td><td>1156 to 1227</td></tr><tr><td>798-038</td><td>1150 to 1238</td></tr><tr><td rowspan="6">ATR 72</td><td>766-793-1</td><td>1469 to 1826</td></tr><tr><td>766-795-2</td><td>1661 to 2093</td></tr><tr><td>766-796-2</td><td>1722 to 2152</td></tr><tr><td>766-797-2</td><td>1663 to 2051</td></tr><tr><td>766-983-1</td><td>2200 to 2652</td></tr><tr><td>768-100</td><td>1511 to 1876</td></tr></table>                                                                                                                                                                             | Table 1 – Affected Fuel Probes |  |  | Affected aeroplanes | P/N | S/N | ATR 42 | 766-046-2 | 1046 to 1083 | 766-047-2 | 1154 to 1214 | 766-048-2 | 1150 to 1197 | 768-055 | 1156 to 1227 | 798-038 | 1150 to 1238 | ATR 72 | 766-793-1 | 1469 to 1826 | 766-795-2 | 1661 to 2093 | 766-796-2 | 1722 to 2152 | 766-797-2 | 1663 to 2051 | 766-983-1 | 2200 to 2652 | 768-100 | 1511 to 1876 |
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| Table 1 – Affected Fuel Probes |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
| Affected aeroplanes            | P/N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | S/N                            |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
| ATR 42                         | 766-046-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1046 to 1083                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
|                                | 766-047-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1154 to 1214                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
|                                | 766-048-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1150 to 1197                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
|                                | 768-055                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1156 to 1227                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
|                                | 798-038                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1150 to 1238                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
| ATR 72                         | 766-793-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1469 to 1826                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
|                                | 766-795-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1661 to 2093                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
|                                | 766-796-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1722 to 2152                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
|                                | 766-797-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1663 to 2051                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
|                                | 766-983-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2200 to 2652                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
|                                | 768-100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1511 to 1876                   |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
| Ref. Publications:             | <p>Zodiac Aerospace Services Europe SB 766983-28-002, dated 15 October 2013.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p> <p>ATR42/72 AMM JIC 28-42-72 RAI 10000.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |
| Remarks:                       | <p>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</p> <p>2. The original issue of this AD was posted on 19 February 2014 as PAD 14-041 for consultation until 19 March 2014. The Comment Response Document can be found at <a href="http://ad.easa.europa.eu">http://ad.easa.europa.eu</a>.</p> <p>3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</p> <p>4. For any question concerning the technical content of the requirements in this AD, please contact:<br/>ATR - GIE Avions de Transport Régional, Continued Airworthiness Service,<br/>Tel.: +33 (0)5 62 21 62 21 - Fax: +33 (0) 5 62 21 67 18;<br/>E-mail: <a href="mailto:continued.airworthiness@atr.fr">continued.airworthiness@atr.fr</a>.</p> |                                |  |  |                     |     |     |        |           |              |           |              |           |              |         |              |         |              |        |           |              |           |              |           |              |           |              |           |              |         |              |