| EASA | EMERGENCY AIRWORTHINESS DIRECTIVE |
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| | **AD No.: 2009-0159-E**<br><br>**Date: 20 July 2009**<br><br>Note: This Emergency 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 |

This AD is issued in accordance with EC 1702/2003, Part 21A.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].

| **Type Approval Holder's Name :** | **Type/Model designation(s) :** |
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| ATR - GIE Avions de Transport Régional | ATR 42 and ATR 72 aeroplanes |

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| TCDS Number : | EASA.A.084 |
| Foreign AD : | Not applicable |
| Supersedure : | None |

| **ATA 56** | **Windows - Cockpit Forward Side Windows - Inspections / Replacement** |
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| Manufacturer(s): | ATR - GIE Avions de Transport Régional (formerly AEROSPATIALE – AERITALIA, AEROSPATIALE – ALENIA, AEROSPATIALE ATR– ALENIA, EADS ATR – ALENIA) |
| Applicability: | Model ATR 42-200, 42-300, 42-320, 42-400 and 42-500 aeroplanes, and Model ATR 72-101, 72-102, 72-201, 72-202, 72-211, 72-212 and 72-212A aeroplanes that are equipped with PPG Aerospace cockpit forward side glass windows part number (p/n) NP158862-1 and/or p/n NP158862-2. |
| Reason: | A recent event occurred during which the LH forward side glass window of an ATR 72-212 aeroplane blew out while performing a ground pressure test.<br><br>The investigation revealed some anomalies on the forward side window at the level of the z-bar on the windows external side and at the level of the inner retainer on the windows internal side. These anomalies are considered as precursors of this failure.<br><br>Air or water leakages between the z-bar and the outer glass ply, or between the inner retainer and inner glass ply indicates the presence of deteriorating structural components in the window.<br><br>It must also be noticed that neither ATR nor PPG Aerospace authorizes repairs on the window Z-bar / Z-bar sealant.<br><br>Any attempted repairs on these forward side window Z-bars/Z-bar |

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| | sealants could lead to a similar event that has originated this AD.<br><br>An in-flight loss of a forward side window could have catastrophic consequences for the aeroplane and/or cause injuries to people on the ground. The loss of the forward side window while the aeroplane is on the ground with a positive differential cabin pressure could also cause injuries to people inside or around the aeroplane.<br><br>Accordingly, this AD mandates initial and repetitive inspections of LH and RH cockpit forward side glass windows and in case of discrepancies, the replacement of the window(s).<br><br>Remark: Acrylic-based cockpit forward side windows are not concerned by this AD. |
| Effective Date: | 22 July 2009 |
| Required action(s) and Compliance Time(s): | (1) Required as indicated,<br><br>(a) Within 10 days after accumulation of 2 000 Total Flight Cycles (FC) on a given cockpit forward side window, or<br><br>(b) Within 10 days after the effective date of this AD for cockpit forward side windows which have accumulated, at the effective date of this AD, 2 000 Total FC or more,<br><br>Inspect for damage/absence of repair the cockpit forward side windows in accordance with the accomplishment instructions of PPG Aerospace service bulletin NP-158862-001 original issue (thereafter named: the service bulletin).<br><br>In the event an operator is unable to establish the accumulated FC on a given cockpit forward side window installed on an aeroplane, the total FC accumulated on the aeroplane must be used in the determination of the initial inspection time for the cockpit forward side window.<br><br>(1.1) If any discrepant condition, as defined in the service bulletin, is found: replace the window before further pressurised flight or within 10 days after the inspection, whichever occurs first.<br><br>Note 1: For the replacement of the windows, refer to ATR42/72 Job Instruction Card AMM JIC 56-12-00 RAI 10000.<br><br>Note 2: For unpressurized flight conditions and limitations, refer to ATR Master Minimum Equipment List (MMEL) 21-30-1 and Dispatch Deviation Guide (DDG) 21-30-1.<br><br>(1.2) If one of the following conditions is found:<br><br>- sealant separation between the Z-bar and the outer glass ply, with depth less than 4mm (.160 in) or<br><br>- sealant separation between inboard retainer and inner glass ply, with depth less than 7.5mm (.300 in) and cumulative length less than 300mm (12.000 in), or<br><br>- window showing both sealant separation between the Z-bar and the outer ply, and separation between inboard retainer and inner glass ply, common to the same holes location with a length less than 225mm (8.860 in), and not covering the entire arc of a window corner;<br><br>(1.2.1) Re-inspect at intervals not to exceed 50 FC or 7 days, whichever occurs later, the cockpit forward side windows in accordance with the accomplishment instructions of the service bulletin. |

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| | (1.2.2) When any discrepant condition, as defined in the service bulletin, is found: replace the window before further pressurised flight or within 10 days after the inspection, whichever occurs first.<br><br>(1.3) If no discrepancy is found: re-inspect at intervals not to exceed 550 Flight Hours the cockpit forward side windows in accordance with the accomplishment instructions of the service bulletin.<br><br>When any discrepant condition, as defined in the service bulletin, is found: replace the window before further pressurised flight or within 10 days after the inspection, whichever occurs first.<br><br>(2) Within 30 days after any inspections when a damage/discrepancy is found, submit a detailed report of the findings to ATR. |
| Ref. Publications: | PPG Aerospace Service Bulletin NP-158862-001 original issue dated 8 July 2009;<br><br>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.<br><br>ATR42/72 Job Instruction Card AMM JIC 56-12-00 RAI 10000. |
| Remarks : | 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.<br><br>2. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification.<br><br>3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu.<br><br>4. For any questions concerning the technical content of the requirements in this AD, please contact:<br><br>ATR - GIE Avions de Transport Régional<br>Continued Airworthiness Service<br>Tel.: +33 (0)5 62 21 62 21 - Fax: +33 (0) 5 62 21 67 18<br>E-mail: continued.airworthiness@atr.fr |