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| <b>EASA</b>  | <b>AIRWORTHINESS DIRECTIVE</b> |   |
|   | <b>AD No.: 2012-0078R1</b>     |   |
|  | <b>Date: 26 February 2013</b>  |   |
| <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>   |                                |   |
| <b>Design Approval Holder's Name :</b><br>AIRBUS   |                                | <b>Type/Model designation(s) :</b><br>A380 aeroplanes |
| TCDS Number: EASA.A.110  |                                |   |
| Foreign AD: Not applicable   |                                |   |
| Revision: This AD revises EASA AD 2012-0078 dated 07 May 2012.   |                                |   |
| <b>ATA 54</b>  |                                |   |
| <b>Nacelles / Pylons – Finger Seals at the Interface with Nacelle – Inspection / Replacement / Modification</b>  |                                |   |
| Manufacturer(s): Airbus  |                                |   |
| Applicability: Airbus A380-841, A380-842, and A380-861 aeroplanes, all manufacturer serial numbers, except aeroplanes on which Airbus modification (mod.) 70343 or Airbus mod. 70344 has been embodied in production.  |                                |   |
| Reason: <p>In-service finding has been reported, describing damaged finger seals at the interface of the nacelle Inner Fixed Structure (IFS) trailing edge with the Aft Pylon lower Fairing (APF).</p> <p>Investigations identified that installation beyond tolerances or stiffness of finger seal foot could cause hard contact between rear edge of IFS wear plates and pylon finger seals.</p> <p>This condition, if not detected and corrected, could lead to damages to some APF finger seals. The finger seals are composed of two overlapping rows of seals and are part of fire barrier of the core zone. In case of significant damages on these finger seals, if an engine fire event occurs, the engine fire protection means may be compromised, which would affect the aeroplane safe flight.</p> <p>To address this potential unsafe condition, EASA issued AD 2012-0078 to require repetitive detailed visual inspections (DVI) of the lower fairing finger seal plates for each pylon, and depending on findings, the accomplishment of the applicable corrective actions.</p> <p>In addition, Airbus developed a reinforced APF with improved structural integrity, which is embodied in production through Airbus mod 70343 or Airbus mod 70344, and in-service through associated Airbus Service Bulletin (SB) A380-54-8016 or Airbus SB A380-54-8017, as applicable to aeroplane model.</p> |                                |   |

|  | For the reasons described above, this AD is revised to introduce the in-service installation of reinforced APF as an optional terminating action for the repetitive inspections required by this AD.   |                                     |                                  |                                     |                       |   |          |          |   |        |                                |                 |   |                    |  |              |
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| Effective Date:                                | Revision 1: 05 March 2013<br>Original Issue: 21 May 2012   |                                     |                                  |                                     |                       |   |          |          |   |        |                                |                 |   |                    |  |              |
| Required Action(s) and Compliance Time(s):     | <p>Required as indicated, unless already accomplished:</p> <p>(1) Within the threshold indicated in Table 1 of this AD, as applicable to aeroplane model, or within 50 Flight Cycle (FC) after 21 May 2012 [the effective date of the original issue of this AD], whichever occurs later, and thereafter, at intervals not to exceed the values indicated in Table 1 of this AD, perform a DVI of the finger seal plates for each pylon in accordance with the instructions of Airbus SB A380-54-8024 or SB A380-54-8025, as applicable to aeroplane model.</p> <p style="text-align: center;"><b>Table 1</b></p> <table><tr><th>Aeroplane Model</th><th>Threshold for initial inspection</th><th>Interval for repetitive inspections</th></tr><tr><td>A380-841 and A380-842</td><td>Within 1 250 FC since first APF installation on an aeroplane, or since last inspection performed in accordance with Airbus SB A380-54-8014, as applicable</td><td>1 250 FC</td></tr><tr><td>A380-861</td><td>Within 500 FC since first APF installation on an aeroplane, or since last inspection performed in accordance with Airbus SB A380-54-8014, as applicable</td><td>500 FC</td></tr></table> <p>(2) If, during any of the inspections required by paragraph (1) of this AD, the number of missing finger seals is greater than or equivalent to a through hole of 3 finger seals, within the compliance time indicated in Table 2 of this AD, replace the affected finger seal plate with a serviceable part in accordance with the instructions of Airbus SB A380-54-8024 or Airbus SB A380-54-8025, as applicable to aeroplane model.</p> <p style="text-align: center;"><b>Table 2</b></p> <table><tr><th>Number of missing finger seals</th><th>Compliance Time</th></tr><tr><td>greater than a through hole of 3 finger seals</td><td>Before next flight</td></tr><tr><td>equivalent to a through hole of 3 finger seals</td><td>Within 10 FC</td></tr></table> <p><b>Note :</b> As finger seals are made of two layers, a through hole of 3 finger seals is equivalent to 6 missing finger seals.</p> <p>(3) Replacement of finger seal plate as required by paragraph (2) of this AD does not constitute terminating action for the repetitive inspection required by paragraph (1) of this AD.</p> <p>(4) Modification of an aeroplane by replacement of all APF with improved design (reinforced APF) in accordance with the instructions of Airbus SB A380-54-8016 or SB A380-54-8017, as applicable to aeroplane model,</p> | Aeroplane Model                     | Threshold for initial inspection | Interval for repetitive inspections | A380-841 and A380-842 | Within 1 250 FC since first APF installation on an aeroplane, or since last inspection performed in accordance with Airbus SB A380-54-8014, as applicable | 1 250 FC | A380-861 | Within 500 FC since first APF installation on an aeroplane, or since last inspection performed in accordance with Airbus SB A380-54-8014, as applicable | 500 FC | Number of missing finger seals | Compliance Time | greater than a through hole of 3 finger seals | Before next flight | equivalent to a through hole of 3 finger seals | Within 10 FC |
| Aeroplane Model                                | Threshold for initial inspection   | Interval for repetitive inspections |                                  |                                     |                       |   |          |          |   |        |                                |                 |   |                    |  |              |
| A380-841 and A380-842                          | Within 1 250 FC since first APF installation on an aeroplane, or since last inspection performed in accordance with Airbus SB A380-54-8014, as applicable  | 1 250 FC                            |                                  |                                     |                       |   |          |          |   |        |                                |                 |   |                    |  |              |
| A380-861                                       | Within 500 FC since first APF installation on an aeroplane, or since last inspection performed in accordance with Airbus SB A380-54-8014, as applicable  | 500 FC                              |                                  |                                     |                       |   |          |          |   |        |                                |                 |   |                    |  |              |
| Number of missing finger seals                 | Compliance Time  |                                     |                                  |                                     |                       |   |          |          |   |        |                                |                 |   |                    |  |              |
| greater than a through hole of 3 finger seals  | Before next flight   |                                     |                                  |                                     |                       |   |          |          |   |        |                                |                 |   |                    |  |              |
| equivalent to a through hole of 3 finger seals | Within 10 FC   |                                     |                                  |                                     |                       |   |          |          |   |        |                                |                 |   |                    |  |              |

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|                    | constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.  |
| Ref. Publications: | <p>Airbus SB A380-54-8014 original issue dated 30 July 2010.</p> <p>Airbus SB A380-54-8024 original issue dated 26 March 2012.</p> <p>Airbus SB A380-54-8025 original issue dated 26 March 2012.</p> <p>Airbus SB A380-54-8016 Original issue dated 12 October 2012.</p> <p>Airbus SB A380-54-8017 Original issue dated 15 November 2012.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p>   |
| Remarks:           | <ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> <li>2. The required actions and the risk allowance have granted the issuance of a Final AD with Request for Comments, postponing the public consultation process after publication.</li> <li>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>.</li> <li>4. For any question concerning the technical content of the requirements in this AD, please contact:<br/> AIRBUS SAS - EIANA (Airworthiness Office),<br/> Telephone: +33 562110253 ; Fax: +33 562 110 307.<br/> E-mail: <a href="mailto:account.airworth.A380@airbus.com">account.airworth.A380@airbus.com</a></li> </ol> |

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