


| EASA                                                                                                                                                                                                                                  | AIRWORTHINESS DIRECTIVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
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|                                                                                                                                                      | <p><b>AD No.: 2006 – 0304</b></p> <p><b>Date: 13 October 2006</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <p>No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| <p><b>Type Approval Holder's Name :</b></p> <p>Rolls-Royce Deutschland Ltd. &amp; Co. KG.</p>                                                                                                                                         | <p><b>Type/Model designation(s) :</b></p> <p>BR700-715A1-30, BR700-715B1-30,<br/>BR700-715C1-30</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| <p>TCDS Number : LBA 6336</p>                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| <p>Foreign AD:Not applicable.</p>                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| <p>Supersedure: LBA AD LTA 2003-235</p>                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| <p><b>ATA 73</b></p>                                                                                                                                                                                                                  | <p><b>Engine Fuel &amp; Control – Engine Electronic Controller – Condition Monitoring</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <p>Manufacturer:</p>                                                                                                                                                                                                                  | <p>Rolls-Royce Deutschland Ltd. &amp; Co. KG.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <p>Applicability:</p>                                                                                                                                                                                                                 | <p>BR700-715A1-30, BR700-715B1-30 and BR700-715C1-30 engines, known to be installed on, but not limited to, McDonnell Douglas (Boeing) 717-200 series aircraft.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| <p>Reason:</p>                                                                                                                                                                                                                        | <p>There have been in-flight shut down events in 2002 on the BR715 engines, which were caused by decreased health level of both lanes of the Engine Electronic Controller/Full Authority Digital Engine Control (EEC / FADEC) system. In order to prevent in-flight shut down events a condition monitoring of the EEC/FADEC system is required by Part 1 of this Airworthiness Directive.</p> <p>To improve the reliability of the EEC, which is installed on BR700-715 engines, Rolls-Royce Deutschland (RRD) and the EEC manufacturer, BAE SYSTEMS Controls, have worked together to identify the main causes of in service rejections and the root causes for the 2002 in-flight shut down events. A number of inspections and modifications to isolate, remove and replace EEC components before they fail in service have been introduced. It is required by Part 2 of this Airworthiness Directive to introduce a package of modifications and inspections to BR700-715 engine operator EEC's to improve the engine reliability, the aircraft dispatchability and in particular to address the root causes for the 2002 in-flight shut down events.</p> |  |

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|                    | <p>This AD supersedes the original LBA AD (LTA) 2003-235 to make clear that:</p> <ol style="list-style-type: none"> <li>1. When the affected EEC's have been modified, the monitoring is no longer required; and</li> <li>2. The installation of an EEC unit as replacement part is only allowed when the unit has been modified in accordance with the requirements of this directive.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Effective Date:    | 27 October 2006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Compliance:        | <p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> <li>1. From 15 October 2003 (the effective date of LBA AD 2003-235), the instruction in RRD Service Bulletin SB-BR700-73-900334 Revision 1 or Revision 2 to readout the maintenance messages of the EEC / FADEC must be accomplished on engines with EEC's installed, having a Serial Number below LHBR0351, which do not have Service Bulletin SB-BR700-73-900316 Initial Issue or Revision 1 or Revision 2 implemented as instructed by paragraph 2 of this Airworthiness Directive.</li> <li>2. Not later than 31 December 2004 (the original compliance date of LBA AD 2003-235), the necessary improvements of the EEC's according to RRD SB-BR700-73-900316 Revision 2 must be accomplished.</li> <li>3. After the effective date of this directive, no person may install an EEC unit as replacement part in an aircraft unless that unit has been modified in accordance with RRD SB-BR700-73-900316 Revision 2.</li> </ol> |
| Ref. Publications: | <p>Rolls-Royce Deutschland SB-BR700-73-900316 Revision 2 or SB-BR700-73-900316 Revision 3 or a later approved revision; and</p> <p>Rolls-Royce Deutschland SB-BR700-73-900334 Revision 1 or SB-BR700-73-900334 Revision 2 or a later approved revision.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Remarks :          | <ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods of Compliance (AMOCs) for this AD.</li> <li>2. This AD was posted as PAD 06-210 for consultation on 09 August 2006 with a closing date for comments on 08 September 2006. No comments were received during the consultation period.</li> <li>3. Enquiries regarding this Airworthiness Directive should be referred to the AD Focal Point - Certification Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a></li> <li>4. For any questions concerning the technical content of the requirements in this AD, please contact Rolls-Royce Deutschland Ltd &amp; Co KG Service Engineering, Eschenweg 11, D-15827 Blankenfelde-Mahlow - Germany, Fax +49 (0) 33-708-63615</li> </ol>                                                                                                                      |