EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2014-0086R1 **Date: 16 May 2014** 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.

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].

Design Approval Holder's Name:	**Type/Model designation(s):**
ROLLS-ROYCE plc	RB211 Trent 500 engines

TCDS Number:	E.060
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2014-0086 dated 11 April 2014.

ATA 73	**Engine Fuel and Control – Engine Electronic Controller – Modification / Replacement**

Manufacturer(s):	Rolls-Royce plc (RR)
Applicability:	RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61 and 560A2-61 engines, all serial numbers. These engines are known to be installed on, but not limited to, Airbus A340 series aeroplanes.
Reason:	Investigation carried out by RR has identified the risk of fan flutter during ground maintenance running, which indicated the need to introduce a fan flutter Keep Out Zone (KOZ). In addition, following Intermediate Pressure (IP) turbine overspeed events experienced on other Trent series engines, the need to introduce a protection against IP shaft failures in the event of an internal engine fire was identified. Fan flutter may result in multiple fan blade failures and consequent release of uncontained high energy debris. An unprotected IP shaft failure may result in IP turbine overspeed, IP turbine burst and, ultimately, release of uncontained high energy debris. These conditions, if not corrected, could result in damage to, and reduced control of, the aeroplane. To address these potentially unsafe conditions, RR developed improved Engine Electronic Controller (EEC) software that provides a fan flutter KOZ as well as a protection against IP shaft failures. For the reasons described above, EASA issued AD 2014-0086 to require introduction of the improved EEC software, either by modification (software upload) of the current EEC, or replacement with an EEC that contains the improved software.

	This AD is revised to allow installation of an unmodified engine or unmodified EEC unit on an aeroplane, provided the engine/EEC is modified before next flight after installation of the engine or EEC, as applicable.
Effective Date:	Revision 1: 16 May 2014 Original issue: 18 April 2014
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within 3 months or 200 flight cycles, whichever occurs first after 18 April 2014 [the effective date of the original issue of this AD], modify the engine by installing software standard L6.1.2 in the EEC, or by replacing the EEC with a unit that contains software standard L6.1.2, in accordance with the instructions of Section 3 of RR Service Bulletin (SB) RB.211-73-AH531. (2) From the effective date of this AD, installation of a pre-mod 73-AH531 engine on an aeroplane, or a pre-mod 73-AH531 EEC on an installed engine, is allowed, provided that, within the compliance time of paragraph (1) or this AD, or before next flight of the aeroplane, whichever occurs later, the engine/EEC is modified in accordance with the instructions of Section 3 of RR SB RB.211-73-AH531. (3) Installation on an engine or on an EEC of a later software standard, approved by EASA, or approved under RR DOA, is an acceptable method of compliance with the requirements of this AD.
Ref. Publications:	RR SB RB.211-73-AH531 original issue, dated 15 January 2014, or Revision 1 dated 7 March 2014. The use of later approved revisions of this 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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact your designated Rolls-Royce representative, or download the publication from your Aeromanager account at www.aeromanager.com. If you do not have a designated representative or Aeromanager account, please contact **Corporate Communications** at **Rolls-Royce plc**, P.O. Box 31, Derby, DE24 8BJ, United Kingdom. Telephone: +44 (0)1332 242424, or email from http://www.rolls-royce.com/contact/civil_team.jsp identifying the correspondence as being related to **Airworthiness Directives**.