

EASA	NOTIFICATION OF A PROPOSAL TO ISSUE AN AIRWORTHINESS DIRECTIVE
	PAD No.: 13-090 Date: 02 July 2013 Note: This Proposed Airworthiness Directive (PAD) 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.
In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below. All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation closing date indicated.	
Design Approval Holder's Name: ROLLS-ROYCE plc	Type/Model designation(s): RB211 Trent 700 engines
TCDS Number:	EASA.E.042
Foreign AD:	Not applicable
Supersedure:	None
ATA 73	Engine Fuel & Control – Engine Electronic Control – Software Update
Manufacturer(s):	Rolls-Royce plc (RR)
Applicability:	RB211 Trent 768-60, 772-60, 772B-60 and 772C-60 engines, all serial numbers. These engines are known to be installed on, but not limited to, Airbus A330 aeroplanes.
Reason:	An operator of an A330 aeroplane fitted with RR Trent 772B engines experienced an engine uncontained multiple turbine blade failure. Investigation results showed that High Pressure/Intermediate Pressure (HP/IP) oil vent tubes are prone to be affected by carbon deposit and may also be damaged by their outer heat shields, which in this case led to combustion inside the tube. The consequent chain of events resulted in an engine internal fire which caused the failure of the IP Turbine (IPT) disc drive arm. This condition, if not corrected, could lead to uncontained multiple turbine blade failures or an HP/IP turbine disc burst, possibly resulting in damage to, and reduced control of, the aeroplane. Prompted by these findings, an Intermediate Pressure Turbine Overspeed System (IPTOS) protection scheme was introduced, and subsequently required by EASA AD 2009-0075 for Airbus A330 aeroplanes. Since that AD was issued, following further engineering evaluation, some limitations have been identified and modifications have been developed to improve the effectiveness of the IPTOS protection scheme within the Engine Electronic Control (EEC).

	For the reasons described above, this AD requires introduction of the enhanced IPTOS protection function by installation of a reprogrammed EEC, which shuts down the engine when shaft failure is detected.
Effective Date:	[TBD: 14 days after Final AD issue date]
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Not later than 31 December 2018, modify the engine by installing an EEC incorporating EEC software standard A14.1.3 in accordance with the instructions of Rolls-Royce Alert Service Bulletin (ASB) RB.211-73-AG829. (2) The modification as required by paragraph (1) of this AD does not affect the aeroplane modifications as required by EASA AD 2009-0075. After installation on an aeroplane of Trent 700 engines, modified as required by paragraph (1) of this AD, that aeroplane remains compliant with EASA AD 2009-0075. (3) Installation of an EEC incorporating a later standard of EEC software is acceptable to comply with the requirement of this AD. (4) After modification of an engine as required by paragraph (1) of this AD, do not install any EEC unit on that engine, unless the software standard is A14.1.3 or higher.
Ref. Publications:	Rolls-Royce ASB RB.211-73-AG829 dated 18 April 2012. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.
Remarks:	1. This Proposed AD will be closed for consultation on 30 July 2013. 2. Enquiries regarding this PAD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 3. For any question concerning the technical content of the requirements in this PAD, 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, The 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.