EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2006 – 0239 R2 **Date: 13 October 2006**

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.

Type Approval Holder's Name:	**Type/Model designation(s)**
Rolls-Royce plc	RB211 Trent 800 series Engines

TCDS Number: UK CAA 1051

Foreign AD: Not applicable

Revision/Supersedure: This AD revises EASA AD 2006-0239 R1 dated 24 August 2006. The original issue of this AD superseded CAA UK Airworthiness Directive 002-08-2002.

ATA 05	**Time Limits - HP Compressor Stage 5-6 Rotor Disc Cyclic Life**
Manufacturer:	Rolls-Royce plc
Applicability:	RB211 Trent 895-17, 892-17, 892B-17, 884-17, 884B-17, 877-17 and 875-17, known to be installed on Boeing 777 series aeroplanes.
Reason:	Rolls-Royce Service Bulletin RB 211-72-AE082 was initially issued in 2002 and was made mandatory by CAA Airworthiness Directive 002-08-2002. The Service Bulletin addressed cracking in Trent 800 HP Compressor stage 5-6 rotor disc stage 5 and 6 loading slots. A cyclic life limit lower than that declared in the Time Limits manual was applied to the disc. The cyclic life was a function of engine thrust rating and model with a lower life being applied to the higher thrust rating models. Later revisions (2 & 3) introduced further life reductions and a rework solution to restore component life. Rolls-Royce have now introduced a new Multiple Flight Profile Monitoring methodology for life limited parts in which the published lives are in the form of Standard Duty Cycles. The Standard Duty Cycles life is then factored according to the flight profile group which is applicable to the fleet (the Beta factor), in order to obtain the life in normal flight cycles. A separate flight profile (called "Heavy") is also introduced and is based on normal flight cycles. Rolls-Royce has therefore re-issued Service Bulletin RB 211-72-AE082 to account for this new methodology. As this is a significant revision to the original Service Bulletin affecting compliance methodology, it is deemed necessary to issue this Airworthiness Directive, which supersedes CAA Airworthiness Directive 002-08-2002.

	Revision 2 of this Airworthiness Directive is necessary due to a delay in the introduction of the new Multiple Flight Profile Monitoring methodology which has affected the dates quoted in the Compliance section. The 16 October 2006 initial compliance date has been replaced by 31 January 2007. Failure to comply with the Trent 800 HP Compressor stage 5-6 disc cyclic life could result in an uncontained engine failure with resultant potential unsafe condition.
Effective Date:	16 October 2006
Compliance:	The following HP Compressor stage 5-6 rotor disc cyclic lives become applicable: 1) Up to and including 31 January 2007: Part number FK 25230 and FK 27899 a. Trent 875-17, 877-17, 884-17, 884B-17, 892-17 and 892B-17 ratings, no component to exceed 7500 flight Cycles. b. Trent 895-17 rating, no component may exceed 7370 Flight Cycles. 2) After 31 January 2007 to 31 May 2009: Part number FK 25230 and FK 27899 Aircraft operating within Multiple Flight Profile Monitoring (other than "Heavy") as defined in the Aircraft Maintenance Manual 70-01-10, no component may exceed 7500 Standard Duty Cycles. 3) After 31 January 2007 to 31 May 2009: Part Number FK 25230 Aircraft operating in the "Heavy" Flight Profile as defined in the Aircraft Maintenance Manual 70-01-10, no component may exceed 6530 Flight Cycles. 4) After 31 January 2007 to 31 May 2009: Part Number FK 27899 Aircraft operating in the "Heavy" Flight Profile as defined in the Aircraft Maintenance Manual 70-01-10, no component may exceed 7400 Flight Cycles. 5) After 31 May 2009: Part Number FK 25230 and FK 27899 Aircraft operating within Multiple Flight Profile Monitoring or the "Heavy" Flight Profile as defined in the Aircraft Maintenance Manual 70-01-10, no component may exceed 5000 Standard Duty Cycles or 5000 Flight Cycles respectively.
Ref. Publications:	Rolls-Royce RB211 Propulsion System Non Modification Service Bulletin Alert RB211-72-AE082 Revision 4 or later approved revisions.
Remarks:	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. 2. This AD was posted as PAD 06-179 for consultation on 07 July 2006 with a comment period until 07 August 2006. No comment was raised during consultation period. 3. Enquiries regarding this Airworthiness Directive should be referred to Mr. M. Capaccio, Airworthiness Directive Focal Point - Certification Directorate, EASA. E-mail: ADs@easa.europa.eu 4. For any questions concerning the technical content of the requirements in this AD, please contact Rolls-Royce plc. PO Box 31, Derby, DE24 8BJ, United Kingdom; Telephone +44 (0)1332-242424; Facsimile +44 (0)1332-249936.