


EASA	NOTIFICATION OF A PROPOSAL TO ISSUE AN AIRWORTHINESS DIRECTIVE	
	PAD No.: 10-093	
	Date: 31 August 2010	
<p>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.</p>		
<p>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.</p>		
Type Approval Holder's Name : ROLLS-ROYCE TURBOMECA Ltd		Type/Model designation(s) : RTM 322-01/9 and RTM 322-01/9A turboshaft engines
TCDS Number : EASA.E.009		
Foreign AD : Not applicable		
Supersedure : This AD supersedes EASA AD 2010-0041-E dated 12 March 2010		
ATA 75	Air System - P2.5 Air Tube and High Pressure Turbine (HPT) Interduct - Inspection	
Manufacturer(s):	Rolls-Royce Turbomeca Ltd	
Applicability:	RTM 322-01/9 and RTM 322-01/9A turboshaft engines, all serial numbers. These engines are known to be installed on, but not limited to, NH Industries NH90 (military) helicopters.	
Reason:	<p>A Merlin Mk1 helicopter equipped with three RTM322-01/8 Mk100 engines suffered an uncontained failure of the No.1 engine. The initial symptom was the release of first stage power turbine (PT1) blades from the engine casing, some of which punctured the No.1 engine bay firewall and cowling, passed through the No.2 engine intake and were then ingested by the No.2 engine.</p> <p>Subsequent investigation showed that the turbine blades had been released radially from the PT1 Disc. The PT1 Disc had been significantly softened as a result of overheating, which had resulted in sufficient disc growth to allow not only the PT1 blade release but also separation of the PT1 and PT2 discs. There was evidence of a fire within the inner air passages of the HPT interduct, which is the engine static structure between the high pressure and power turbine sections. The most likely source of fuel for the fire is thought to be oil. The P2.5 buffering and cooling air supply tube through the interduct, the inner walls of the interduct, the combustion chamber outer casing and the three oil supply tubes that also traverse the interduct and their associated adapters and</p>	

	<p>gaskets showed signs of significant oil leakage and/or lacquering. Although the investigation is on-going, there is sufficient evidence at this stage to point to an oil leak as the root cause of the event and to justify immediate mitigating action.</p> <p>The RTM 322-01/9 and RTM 322-01/9A engines have similar architecture to the non-civil certified RTM 322-01/8 engine and are susceptible to the same condition that resulted in the uncontained failure. This condition, if not corrected, could lead to release of hazardous debris, fire or loss of power in flight.</p> <p>EASA AD 2010-0041-E required repetitive inspections of engines for oil leakage in the vicinity of the P2.5 air tube and interduct, and immediate withdrawal from service of any engine exhibiting signs of oil leakage in these areas.</p> <p>This AD, which supersedes EASA AD 2010-0041-E partially retaining its requirements, redefines the repetitive inspection requirements and the relevant compliance time. Additionally, this AD defines new criteria for operating the engine following an inspection.</p>
Effective Date:	[TBD: 14 days after final AD issue date]
Required action(s) and Compliance Time(s):	<p>Required as indicated:</p> <ol style="list-style-type: none"> (1) Within 1 month or 25 flight hours after 14 March 2010 [effective date of EASA AD 2010-0041-E], whichever occurs first, inspect the P2.5 air tube and HPT interduct in accordance with the Accomplishment Instructions of Rolls Royce Turbomeca Emergency Mandatory Service Bulletin (SB) SBP-M3-A-75-09-00-01A-A-A. (2) Repeat the inspection required by paragraph (1) of this at intervals not exceeding 200 flight hours or 6 months from the previous inspection, whichever occurs first, in accordance with the accomplishment instructions of Rolls-Royce Turbomeca Mandatory SB SBP-M3-A-75-09-00-02A-A-A. (3) If evidence of any oil leakage is found, as defined in paragraphs 1.2.3.2, 1.2.3.3, 1.2.3.4 and 1.2.3.5 of the SB SBP-M3-A-75-09-00-01A-A-A Accomplishment Instructions or in paragraphs 2.2.3.3, 2.2.3.4, 2.2.4.4 and 2.2.5.4 of the SB SBP-M3-A-75-09-00-02A-A-A Accomplishment Instructions, engine operation is not allowed. (4) After the effective date of this AD, do not install any affected engine on a helicopter unless in compliance with the requirements of this AD.
Ref. Publications:	<p>Rolls Royce Turbomeca SB SBP-M3-A-75-09-00-01A-A-A.</p> <p>Rolls-Royce Turbomeca SB SBP-M3-A-75-09-00-02A-A-A.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p>
Remarks :	<ol style="list-style-type: none"> 1. This Proposed AD will be closed for consultation on 28 September 2010. 2. Enquiries regarding this PAD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu. 3. For any questions concerning the technical content of the requirements in this PAD, please contact: your usual or nearest TURBOMECA technical representative (refer to http://www.turbomeca-support.com).