	<b>AIRWORTHINESS DIRECTIVE</b> <b>No F-2005-162</b>	Distribution: <b>A</b>	Issue date: <b>September 28, 2005</b>	Page : <b>1/2</b>
	Direction générale de l'aviation civile France GSAC publication	This Airworthiness Directive is published by the DGAC on behalf of EASA, Airworthiness Authority of the State of Design for the affected product, part or appliance.		<i>Translation of « Consigne de Navigabilité » of same number.          In case of difficulty, reference should be made to the French issue.</i>
<b>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.</b>				
Corresponding foreign Airworthiness Directive(s): <b>Not applicable</b>		Airworthiness Directive(s) replaced: <b>None</b>		
Person in charge of airworthiness: <b>TURBOMECA</b>		Type(s): <b>ARRIEL 2 turboshaft engines</b>		
Type certificate(s) No. <b>EASA.E.001</b> TCDS No <b>EASA.E.001</b>				
ATA chapter: <b>72</b>	Subject: <b>Engine - Inspection of free turbine containment shields</b>			

### 1. **EFFECTIVITY:**

This Airworthiness Directive (AD) applies to pre-mod TU 22 ARRIEL 2B and 2B1 engines which respectively equip AS 350 B3 and EC 130 helicopters.

### 2. **REASONS:**

On several pre-mod TU 22 ARRIEL 2 engines, large circular cracks have been observed on the free turbine shield at the blending radius between the containment shield and the rear flange.

Under the effects of maneuvering loads, such cracks may potentially cause a loss of alignment of the engine and lead to its shutdown.

The inspection of cracks is made compulsory to reduce the probability of an uncommanded engine in flight shutdown.


TU 22 modification reduces the capability of cracks originating at the level of the blending radius. To day available data allow such modified parts to be exempted from this compulsory check.

### 3. **MANDATORY ACTIONS AND COMPLIANCE TIMES:**

Visual inspection of the free turbine shield must be carried out in compliance with paragraph 2 of TURBOMECA Mandatory Service Bulletin No 292 72 2821, from the effective date of this AD:

- within 10 operating hours,
- thereafter at a frequency dependent on the results of the inspection (500 cycles Gas Generator N1, or 100 cycles Gas Generator N1, or daily).

The free turbine shield must be removed if the length or position of the crack(s) exceed(s) the criteria laid down in paragraph 2 of TURBOMECA Mandatory Service Bulletin No. 292 72 2821.

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**4. REFERENCE PUBLICATION:**

TURBOMECA Mandatory Service Bulletin no. 292 72 2821  
(original issue or approved subsequent revision).

**5. EFFECTIVE DATE:**

October 08, 2005.

**6. REMARK:**

For any questions concerning the technical content of the requirements in this AD, please contact :

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**7. APPROVAL:**

This AD is approved under EASA reference No 2005-6251 dated September 20, 2005.