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## AIRWORTHINESS DIRECTIVE

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For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

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### Eurocopter AS 332 (Super Puma) Series Helicopters

#### AD/S-PUMA/77      CPI 503 Crash Position Indicator Components      8/2008 TX

**Applicability:** AS 332 L1 and AS332 L2 helicopters, all serial numbers, if equipped with CPI 503 Crash Position Indicator (CPI) beacon components, as listed in paragraph 1.A of Eurocopter Alert Service Bulletin (ASB) AS332 No. 25.01.97, dated 26 May 2008, or later revision approved by the European Aviation Safety Agency (EASA), and fitted with either removable or fixed parts of hoist and sling installations.

**Requirement:**

1. **For helicopters fitted with a hoist or a sling** (ie the removable parts of the hoist or the sling installations) - Identify the affected CPI beacon components, as listed by serial number in paragraph 1.A of Eurocopter ASB AS332 No. 25.01.97 or later revision approved by the EASA (the referenced Eurocopter ASB), whose serial numbers are not followed by a letter "C", and measure the bonding of affected CPI Beacon components in accordance with the instructions of paragraph 2.B.2 of the referenced Eurocopter ASB.

*Note 1: H.R. Smith Service Bulletin (SB) HRS170407-2, dated 20 March 2007, is attached as Appendix 1 to the referenced Eurocopter ASB and contains the detailed instructions to accomplish the bonding measurements.*

2. If the result of the Requirement 1 bonding measurement meets the criteria specified in paragraph 3 of H.R. Smith SB HRS170407-2, mark the letter "C" after the serial number of the checked CPI beacon components and no further action is required by this Directive.
3. If the bonding measurement result does not meet the requirements specified in paragraph 3 of H.R. Smith SB HRS170407-2, accomplish the following actions:
  - a. Disengage the hoist circuit-breakers in accordance with paragraph 2.B.4.a of the referenced Eurocopter ASB or disengage the sling circuit-breakers in accordance with paragraph 2.B.4.b of the referenced Eurocopter ASB and install a placard in full view of the flight crew in accordance with paragraph 2.B.4.c of the referenced Eurocopter ASB.
  - b. Until replacement of the affected components with serviceable parts, operation of the hoist and the sling is PROHIBITED.
  - c. Replace the affected CPI beacon components with serviceable parts.

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4. **For helicopters fitted only with fixed parts of hoist or sling installations as structural provisions** - Identify the affected CPI beacon components, as listed by serial number in paragraph 1.A of the referenced Eurocopter ASB whose serial numbers are not followed by a letter "C", and measure the bonding of affected CPI Beacon components in accordance with the instructions of paragraph 2.B.2 of the referenced Eurocopter ASB.
5. If the result of the Requirement 4 bonding measurement meets the criteria specified in paragraph 3 of H.R. Smith SB HRS170407-2, mark the letter "C" after the serial number of the checked CPI beacon components and no further action is required by this Directive.
6. If the Requirement 4 bonding measurement result does not meet the requirements specified in paragraph 3 of H.R. Smith SB HRS170407-2, replace the affected CPI beacon components with serviceable parts.
7. Spare CPI beacon components, as listed by serial number in paragraph 1.A of the referenced Eurocopter ASB and which does not have its serial number marked with the letter "C", may not be installed on any helicopter as replacement part, unless the electrical bonding of that component is checked to meet the criteria specified in paragraph 3 of H.R. Smith SB HRS170407-2 and the letter "C" is marked after the serial number of that component.

*Note 2: EASA Emergency AD 2008-0096-E refers.*

Compliance: For Requirement 1 - Within 15 hours time in service after the effective date of this Directive.

For Requirement 2 - Immediately following the Requirement 1 bonding measurement.

For Requirement 3.a. - Before the next flight following the Requirement 1 bonding measurement.

For Requirement 3.b. - Immediately following compliance with Requirement 3.a.

For Requirement 3.c. - Within three months after the effective date of this Directive.

For Requirement 4 - Prior to installation of the hoist or the sling (ie the removable part as applicable) or within 1 month, whichever occurs first, after the effective date of this Directive.

For Requirement 5 - Immediately following the Requirement 4 bonding measurement.

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For Requirement 6 - Prior to installation of the hoist or the sling (ie removable part as applicable) or within 3 months, whichever occurs first, after the effective date of this Directive.

For Requirement 7 - After the effective date of this Directive.

This Airworthiness Directive becomes effective on 29 May 2008.

**Background:** Eurocopter has received several reports where the CPI 503 beacon deployed on the ground, without having been activated by the crew. Such CPI beacon deployments are due to insufficient electrical bonding between the components of the CPI beacon and the structure of the helicopter that makes the system sensitive to electro-magnetic interference.

Uncontrolled CPI beacon deployment creates a risk of injury for persons on the ground and in particular during hoisting or sling operation where electrostatic discharges may occur when the cable makes contact with the ground.

For the reasons described above, this Directive requires, only for those helicopters configured for hoisting or sling operations:

- identification of the affected CPI 503 beacon components;
- inspection of the affected components by measurement of their electrical bonding feature, and
- replacement of any components that fail the bonding requirements.



James Coyne  
Delegate of the Civil Aviation Safety Authority

28 May 2008