



## Airworthiness Directive

**AD No.:** 2017-0201

**Issued:** 11 October 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

### Design Approval Holder's Name:

AIRBUS HELICOPTERS

### Type/Model designation(s):

EC 155 helicopters

**Effective Date:** 25 October 2017

**TCDS Number(s):** EASA.R.105

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 34 – Navigation – Flight / Ground Logic – Modification

#### Manufacturer(s):

Airbus Helicopters (formerly Eurocopter)

#### Applicability:

EC 155 B and EC 155 B1 helicopters, all serial numbers on which Airbus Helicopters modification 0722B51 has been embodied in production.

#### Reason:

Airbus Helicopters (AH) identified that both Attitude Heading and Reference Systems (hereafter referred as AHRS1 and AHRS2) installed on EC 155 helicopters use the same FLIGHT/GROUND signal in deviation from the approved design specification, which indicates that the AHRS1 and AHRS2 must be supplied by independent signals to ensure their redundancy. If both AHRS1 and AHRS2 receive in flight a wrong GROUND status, as a result of a single failure, this will generate, during helicopter manoeuvres, a consistent error in computation of the attitudes and vertical speed, and consequently provide incorrect indications on both primary displays to the flight crew.

This condition, if not corrected, could lead to erroneous attitude and vertical speed indications, resulting in increased workload for the flight crew when the upper modes of Automatic Flight Control System are not engaged, possibly leading to reduced control of the helicopter during flight in instrumental meteorological conditions.



To address this potential unsafe condition, AH issued Alert Service Bulletin (ASB) EC155-34A033 to provide modification instructions to ensure independent FLIGHT/GROUND signal supply to each AHRS.

For the reasons described above, this AD requires a modification to the connection and/or wiring of connector 11 ALPHA.

**Required Action(s) and Compliance Time(s):**

Required as indicated, unless accomplished previously:

**Modification:**

Within 12 months after the effective date of this AD, determine the configuration of the helicopter and accomplish the action(s) as specified in Table 1 of this AD, as applicable, in accordance with the instructions of AH ASB EC155-34A033.

Configuration	Required Action(s)
Pre-mod 0731B89	Modify the connection to connector 11 ALPHA
Post-mod 0731B89	Modify the connection and the wiring to connector 11 ALPHA

**Ref. Publications:**

AH ASB EC155-34A033 original issue dated 19 July 2017.

The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.

**Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 22 August 2017 as PAD 17-116 for consultation until 19 September 2017. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters Technical Support Department, Aéroport de Marseille Provence 13725 Marignane Cedex, France, Telephone +33 (0)4 42 85 97 97, Fax +33 (0)4 42 85 99 66, web portal: <https://keycopter.airbushelicopters.com>> Technical Request Management.

