EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2011-0239 **Date: 15 December 2011** Note: This Airworthiness Directive (AD) 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.

This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Approval Holder's Name :	**Type/Model designation(s) :**
SMS (trading as Cobham Avionics)	IND201 Radio Altimeter Indicators

Approval Number :	France JTSO Authorisation F.O.051
Foreign AD :	Not applicable
Supersedure :	None

ATA 34	**Navigation– Radio Altimeter Indicator– Modification**
Manufacturer(s):	SMS (trading as Cobham Avionics), formerly NEC AERO.
Applicability:	Radio altimeter indicator IND201, Part Number (P/N) 102-2100, all serial numbers. The affected radio altimeter indicators are known to be installed on, but not limited to, Eurocopter (formerly Eurocopter France, Aerospatiale) EC 120 B, AS 350 B2, AS 350 B3 and AS 355 NP helicopters. It is also possible that the radio altimeter indicator is installed on fixed wing aircraft.
Reason:	A technical occurrence report has been transmitted to EASA by SMS regarding an erroneous indication of altitude in meters. The altitude displayed in feet is valid. However, the indicator systematically over-estimates the altitude in meters measured by the connected radio altimeter at a value 6.3% higher than the measured value. A wrong coefficient (0.324) for feet to meters conversion is used by IND201, where it should be 0.3048. The accuracy in meters exceeds the tolerances specified in EUROCAE ED-30 §3.2.1.1 in meters. Examples:

Actual Altitude	Altitude indicated	Error
100 feet = 30.48 meters (m)	32.4 m	+2 m
2 000 feet = 609.6 m	648 m	+38.4 m

This condition, if not detected and corrected, could adversely affect obstacle clearance capabilities, leading the flight crew to over-estimate the available height margins, which could – under reduced visibility conditions – possibly result in controlled flight into terrain.

	For the reasons described above, this AD requires verification of the display setting of the radio altimeter indicator IND201 and, if found to display in meters, modification of the installation to restrict usage of the radio altimeter indicator to feet display mode only.
Effective Date:	29 December 2011
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within 6 months after the effective date of this AD, verify that the display setting of the radio altimeter indicator is in feet. The selection of the indication unit in meters or feet is performed via pin programming. (2) If the indicator displays the altitude in meters, within 12 months after the effective date of this AD, modify the installation to set up the indicator in feet (the interface cable) in accordance with approved aircraft modification instructions or, to continue displaying the altitude in meters, replace the indicator with another approved indicator (different P/N) in accordance with approved aircraft modification instructions. Note: SMS (trading as Cobham Avionics) Service Iinformation Letter (SIL) 102-2100-34-001, Revision 01 dated 13 July 2011, provides additional information concerning this subject. SMS (trading as Cobham Avionics) Service Bulletin (SB) 102-2100-34-002, dated 10 November 2011, contains the modification instructions for the radio altimeter. (3) After modification of an aircraft as required by paragraph (2) of this AD, do not install a radio altimeter indicator IND201, P/N 102-2100, on that aircraft, unless the indicator has been modified in accordance with the instructions of SMS SB 102-2100-34-002. (4) From 12 months after the effective date of this AD, do not install on any aircraft a radio altimeter indicator IND201, P/N 102-2100, unless the indicator has been modified in accordance with the instructions of SMS SB 102-2100-34-002.
Ref. Publications:	Cobham Avionics (SMS) SIL 102-2100-34-001 Revision 01, dated 13 July 2011. Cobham Avionics (SMS) SB 102-2100-34-002 dated 10 November 2011. The use of later approved revisions of these documents 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 01 July 2011 as PAD 11-064 for consultation until 12 August 2011 and republished on 26 September 2011 as PAD 11-064R1 for additional consultation until 24 October 2011. The Comment Response Documents can be found at http://ad.easa.europa.eu/. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: SMS support, attn. Mrs. Hélène EDIAR, 174-178 quai de Jemmapes, 75010 Paris, France, Telephone: +33 (0)1 49 78 66 38, Fax: +33 (0)1 42 00 67 83. Email: helene.ediar@cobham.com.