EASA



EMERGENCY AIRWORTHINESS DIRECTIVE

AD No.: 2014-0135-E

Date: 27 May 2014

Note: This Emergency 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 EU 748/2012, Part 21.A.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].

Design Approval Holder's Name:	
AIRBUS HELICOPTERS	

Not applicable

Type/Model designation(s): AS 355 helicopters

TCDS Number: EASA.R.146

Foreign AD:

Supersedure: None

ATA 21	Air Conditioning – Cabin Ventilation Air Scoop Drainage – Inspection

Manufacturer(s):	Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale)
Applicability:	AS 355 E, F, F1, F2, N and NP helicopters, all serial numbers.
Reason:	During flight, the pilot of an AS355 helicopter was splashed with water while the source of the water could not be identified. Immediately after, the display on the Vehicle and Engine Multifunction Display (VEMD) was affected. A few days after this incident, a total loss of the electrical power system in-flight was reported and after landing it was not possible to stop the engines with the dedicated selectors. The engines were stopped using the fuel shut-off controls.
	Further analysis determined that the loss of the electrical power supply was probably due to water ingress, affecting the electrical connectors of the instrument panel equipment items. This was likely caused by a partially obstructed or blocked drain of the cabin ventilation air scoop. Depending on the flight parameters (speed, attitude, rain, etc.), the water inside this scoop may ingress inside the cabin and can affect various avionics and vehicle systems.
	This condition, if not detected and corrected, could lead to a total loss of the electrical power system in-flight, which in Instrumental Meteorological Condition (IMC) can result in loss of the helicopter.
	For the reasons described above, this AD requires a temporary amendment of the applicable Rotorcraft Flight Manual (RFM) and installation of a placard to prohibit flight in IMC. This AD also requires repetitive inspections of the inside of the ventilation air scoop, hydraulic tests of the drainage and, depending on findings, repair of the ventilation air scoop drain.
	A modification that would terminate the need for the repetitive actions required

	by this AD is currently under investigation by Airbus Helicopters. Therefore, this AD is considered a temporary measure and further AD action may follow.
Effective Date:	29 May 2014
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously:
	(1) Before next flight after the effective date of this AD accomplish the actions, as specified in paragraphs (1.1) and (1.2) of this AD, concurrently. Thereafter, inform all flight crews and operate the helicopter accordingly.
	(1.1) Install a placard "FLIGHTS IN IMC ARE PROHIBITED" next to the control panel, in full view of the pilot.
	(1.2) Amend the applicable RFM as follows:
	FLIGHTS IN IMC ARE PROHIBITED
	This can be accomplished by inserting a copy of this AD into the Limitations Section of the RFM.
	(2) Within 165 flight hours (FH) after the effective date of this AD and, thereafter, at intervals not exceeding 165 FH, inspect the ventilation air scoop and perform a hydraulic test of the drainage in accordance with the instructions of paragraph 3.B.1.a and 3.B.1.b of Airbus Helicopters Alert Service Bulletin (ASB) AS355-05.00.68.
	(3) If, during any inspection as required by paragraph (2) of this AD, a deficiency in the drain capacity is detected, before next flight, accomplish a repair in accordance with the instructions of paragraph 3.B.1.c of Airbus Helicopters ASB AS355-05.00.68.
	(4) After passing the first inspection and the hydraulic test of the drainage as required by paragraph (2) of this AD, or after accomplishment of the repair of an helicopter as required by paragraph (3) of this AD, the RFM amendment and the placard as required by paragraph (1) of this AD can be removed from that helicopter.
	(5) Repair of a helicopter as required by paragraph (3) of this AD does not constitute terminating action for the repetitive inspections and the hydraulic tests of the drainage as required by paragraph (2) of this AD for that helicopter.
Ref. Publications:	Airbus Helicopters ASB No. AS355-05.00.68 dated 19 May 2014.
	The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.
Remarks:	 If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
	 The results of the safety assessment have indicated the need for immediate publication and notification, without the full public consultation process.
	 Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <u>ADs@easa.europa.eu</u>.
	 For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters – Aéroport de Marseille Provence, 13725 Marignane Cedex, France; telephone +33 (4) 12 85 97 97; facsimile +33 (4) 85 99 66; E-mail: <u>Directive.technical-support@eurocopter.com</u>.