EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2012-0216 **Date: 18 October 2012** 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 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:	**Type/Model designation(s)**:
EUROCOPTER DEUTSCHLAND GmbH	MBB-BK 117 C-2 helicopters

TCDS Number:	EASA.R.010
Foreign AD:	not applicable
Supersedure:	None

ATA 22	**Auto Flight – Autopilot – Dispatch Restriction**
Manufacturer(s):	Eurocopter Deutschland GmbH (ECD), (formerly Messerschmitt-Bölkow-Blohm GmbH, Eurocopter Hubschrauber GmbH), American Eurocopter
Applicability:	MBB-BK 117 C-2 helicopters, all serial numbers.
Reason:	In a recent incident, the autopilot (AP) of a MBB-BK 117 C-2 helicopter failed in flight with messages "ACTUATOR" and "BACKUP SAS" appearing on the Caution and Advisory Display (CAD), Red AP on warning unit (WU) and Y (Yaw actuator) and P (pitch actuator) on the Primary Flight Display (PFD). With the AP switched off, cautions "YAW SAS" and "BACKUP SAS" appeared on the CAD. When the AP was selected ON again, "YAW SAS" caution extinguished while "BACKUP SAS" was still indicated. The initial results of the investigation appear to indicate that an internal short cut on the yaw SEMA (Smart Electro-Mechanical Actuator) "ACTIV" input to ground led to the seizure of all five SEMA units. This condition, if not corrected, combined with an inoperative Autotrim in Pitch or Roll, or combined with an inoperative Autotrim in Cyclic and Yaw axis, could significantly reduce the pilot's reaction time to stabilize the helicopter, possibly resulting in loss of control of the helicopter. This scenario is valid when operating under Instrument Flight Rules (IFR) or Night Visual Flight Rules (VFR). For the reasons described above, this AD prohibits dispatch of a helicopter with an inoperative Autotrim in Pitch or Roll, or dispatch with a combined inoperative Autotrim in Cyclic and Yaw axis, when operating under IFR or Night VFR. For operators using a Minimum Equipment List (MEL) based on the existing ECD Master MEL, this AD requires revision of the MMEL and changes to the operator's MEL accordingly.

Effective Date:	22 October 2012
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: Within 25 flight cycles or 30 days, whichever occurs first after the effective date of this AD, amend the Rotorcraft Flight Manual (RFM) and operator's MEL, as applicable, by implementing the following dispatch restriction for all IFR and Night VFR operations in accordance with the instructions of ECD Alert Service Bulletin (ASB) MBB-BK117 C-2-22A-013, inform all flight crews and thereafter operate the helicopter accordingly: **Dispatch under IFR or Night VFR with the Autotrim inoperative in Pitch or Roll or a combined inoperative Autotrim in Cyclic and Yaw axis is PROHIBITED** Note 1: This limitation is related to ECD MMEL BK117 C-2 (EC145) Series, items 22 1.5, 22 1.6 and 22 1.8. Note 2: Incorporation of an appropriate revision of the MMEL into the operator's MEL, or inserting a copy of this AD into the RFM is acceptable to comply with the requirements of this AD.
Ref. Publications:	ECD ASB MBB-BK117 C-2-22A-013, dated 12 October 2012. ECD MMEL BK117 C-2 (EC145) Series, original issue, dated 12 March 2012, or Revision 1 (to be published). 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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication. 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: Eurocopter Deutschland GmbH, Industriestrasse 4, 86607 Donauwörth, Federal Republic of Germany Telephone: + 49 (0)151-1422 8976, Fax: + 49 (0)906-71 4111.