

# **Safety and operational directive - Airbus Helicopters EC225 LP and AS332 L2 - Limitations of Operations due to a Fatal Accident in Norway on 29 April 2016**

Hjemmel: Fastsatt av Luftfartstilsynet 20. juli 2017 med hjemmel i lov 11. juni 1993 nr. 101 om luftfart § 4-1 og 9-1, jf. delegeringsvedtak 10. desember 1999 nr. 1273.

**This Safety and Operational Directive contains mandatory action that is required to restore an acceptable level of safety. It is issued under paragraphs 4-1 and 9-1 of the Aviation Act (luftfartsloven), cf. delegation of authority 10 December 1999 No 1273.**

## **1 Introduction**

- 1.1 This Safety and Operational Directive contains mandatory action that is required to establish an acceptable level of safety. It is issued under paragraphs 4-1 and 9-1 of the Aviation Act (luftfartsloven) and in accordance with, Regulation (EC) No 216/2008 Article 14.1.
- 1.2 Operators of Airbus Helicopters EC225 LP and AS332 L2 must ensure that this Directive is copied to all members of their staff who need to take appropriate action or who may have an interest in the information, including any "in-house" or contracted maintenance organisation and relevant outside contractors.
- 1.3 This Safety and Operational Directive supersedes and revokes Safety and Operational Directive 1 June 2016 No 548 and contains measures to enable the affected helicopters to return to service subject to certain conditions specified in Section 2.

## **2 Compliance/Action to be Taken**

- 2.1 The Norwegian Civil Aviation Authority (CAA-N), in exercise of its powers under paragraphs 4-1 and 9-1, and subject to, and in accordance with, Regulation (EC) No. 216/2008 Article 14.1, directs operators of any Airbus Helicopters EC225 LP or AS332 L2 helicopter which is:
  - a) registered in the Kingdom of Norway; or
  - b) flying in the Kingdom of Norway or in the neighbourhood of an offshore location,to comply with the requirements set out in paragraph 2.2.
- 2.2 Operators must not conduct any flight with an Airbus Helicopters EC225 LP or AS332 L2 helicopter unless:
  - a) the helicopter is in compliance with European Aviation Safety Agency (EASA) Airworthiness Directive (AD) No. 2017-0111 dated 23 June 2017 (as amended); and
  - b) an EASA approved Full Flow Magnetic Plug (FFMP) device, to support the inspection of Main Gearbox (MGB) oil system particle detection, is installed.
- 2.3 All operators (AOC holders, SPO and NCC), in addition to compliance with paragraph 2.2, must ensure that they establish and implement a comprehensive Return to Service plan. This plan should include the provision of a return to service safety case, including

revisions to the applicable rotorcraft maintenance programmes and cover both maintainer and flight crew training requirements. This information should be produced in accordance with the operator's management system procedures and be approved by CAA-N.

- 2.4 In this Directive, 'offshore location' means a facility intended to be used for helicopter operations on either:
- a) an offshore installation as defined in Regulation 26 October 2007 No 1181; or
  - b) floating structures or vessels as defined in Regulation 26 October 2007 No 1181.

### **3 Reason**

- 3.1 This Safety and Operational Directive is made in the interest of assuring safe operations following a fatal accident in Norway with an Airbus Helicopters EC225 LP on 29 April 2016. It contains requirements that when implemented permit a controlled return to operations.
- 3.2 As a result of the preliminary report from Accident Investigation Board Norway (AIBN) issued on the 1 June 2016, with an urgent safety recommendation addressed to the European Safety Agency (EASA), and contact between the Norwegian Civil Aviation Authority (CAA-N) and UK Civil Aviation Authority (CAA) on 1 June 2016, it was agreed by both National Aviation Authorities to extend the scope of their Airbus Helicopters EC225LP and AS332L2 Safety Directives to all operations, including SAR operations.
- 3.3 The Accident Investigation Board Norway (AIBN) continues to investigate the circumstances surrounding the accident and will report fully in due course. However, following extensive investigations and liaison with all parties, Airbus Helicopters have issued several revised Alert Service Bulletins and these have been reflected in the latest EASA AD (2017-0111). This incorporates requirements for the replacement of certain gears, improved particle detection, revised gearbox monitoring and overhaul procedures, and the fitment of new chip detectors on the EC225LP. As a result of the close collaboration between regulators and the manufacturer, the CAA-N and the CAA have now determined that with this latest level of airworthiness oversight and with careful return to service plans, operations with the EC225LP and AS332L2 may recommence.
- 3.4 The embodiment of the Full Flow Magnetic Plug (FFMP) device modification provides for the collection of particles in the main gearbox oil system upstream of the oil cooler. This modification enables the check of the MGB oil filter and oil cooler to be cancelled thereby reducing maintenance and human factor risks associated with repetitive inspections and dismantling of sections of the transmission areas.
- 3.5 In parallel with this activity, the CAA-N and CAA will continue to support and work closely with Accident Investigators, EASA and Airbus Helicopters to attempt to establish the root cause of the accident and to identify new methods/techniques to further improve impending failure detection capability and minimise maintenance burden.

### **4 Queries**

- 4.1 Any queries or requests for further guidance from AOC holders as a result of this communication should be addressed to the assigned Flight Operations Inspector in the first instance.

- 4.2 Otherwise, queries should be addressed to the Civil Aviation Authority (Luftfartstilsynet) at the following e-mail address: [postmottak@caa.no](mailto:postmottak@caa.no), referring to Case 16/05616.

## **5 Revocation and Commencement**

- 5.1 This Directive will enter into force 20 July 2017 12:00 hrs local time and will remain in force until revoked by the Norwegian Civil Aviation Authority.
- 5.2 Safety and Operational Directive 1 June 2016 No 548 Limitation of all operations in the Kingdom of Norway due to fatal accident on the 29<sup>th</sup> of April 2016, is revoked.