



Civil Aviation Authority

SAFETY AND OPERATIONAL DIRECTIVE

Number: SD-2017/002



Issued: 31 July 2017

Airbus Helicopters EC225LP and AS332L2 Limitations of Operations due to a Fatal Accident in Norway on 29 April 2016 and Return to Service Requirements

This Safety and Operational Directive contains mandatory action that is required to restore an acceptable level of safety. It is issued in accordance with articles 17(1) and 248 of the Air Navigation Order 2016.

Applicability:	
Aerodromes:	Not primarily affected
Air Traffic:	Not primarily affected
Airspace:	Not primarily affected
Airworthiness:	All Continued Airworthiness Management and Maintenance Organisations
Flight Operations:	All Operators and Pilots of Airbus Helicopters EC225LP and AS332L2 Helicopters
Licensed Personnel:	All Pilots of Airbus Helicopters EC225LP and AS332L2 Helicopters

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 articles 17(1) and 248 of the Air Navigation Order 2016 and subject to, and in accordance with, Regulation (EC) No. 216/2008, Article 14.1.
- 1.2 Applicable recipients 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 SD-2017/001 and contains measures to enable the affected helicopters to return to service subject to certain conditions specified in Section 2; and has been issued to take account of EASA AD 2017-0134, which supersedes EASA AD 2017-0111.

2 Compliance/Action to be Taken

- 2.1 The Civil Aviation Authority (CAA), in exercise of its powers under article 17(1) and 248 of the Air Navigation Order 2016, and subject to, and in accordance with, Regulation (EC) No. 216/2008, Article 14.1, directs operators of any Airbus Helicopters EC225LP helicopter or AS332L2 helicopter which is:
- a) registered in the United Kingdom; or
 - b) flying in the United Kingdom or in the neighbourhood of an offshore location,
- to comply with the requirements set out in paragraph 2.2.
- 2.2 Operators and pilots must not conduct any flight with an Airbus Helicopters EC225LP helicopter or AS332L2 helicopter, unless:
- a) the helicopter is in compliance with the European Aviation Safety Agency (EASA) Airworthiness Directive (AD) Number 2017-0134 dated 27 July 2017 (as amended); and
 - b) an EASA approved Full Flow Magnetic Plug (FFMP) device, to support the inspection of the Main Gearbox (MGB) oil system particle detection, is installed.
- 2.3 Operators who have been affected by SD 2016/003, in addition to compliance with paragraph 2.2, should 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, for Commercial Air Transport (CAT) operators, be agreed with the relevant Competent Authority.
- 2.4 In this Directive, 'Offshore location' means a facility intended to be used for helicopter operations on either:
- a) an offshore installation or a renewable energy installation, as defined in paragraph 6(5) and (9) of Schedule 13 of the Civil Aviation Act 1982 (as amended by the Energy Act 2004); or
 - b) floating structures or vessels; and
 - c) 'in the neighbourhood' of an installation includes anywhere within 500 metres of that installation¹.

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 EC225LP 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 EASA, and contact between the UK CAA and Norwegian Civil Aviation Authority (CAA-N) 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 Search and Rescue operations.

¹ Paragraph 6(8) of Schedule 13 of the Civil Aviation Act 1982 (as amended by the Energy Act 2004).

- 3.3 The 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 (2017-0134). 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 and AS332L2. As a result of the close collaboration between regulators and the manufacturer, the CAA and the CAA-N 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 and CAA-N 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 Flight Operations Policy at the following e-mail address: ISPTechnicalSupportTeam@caa.co.uk.

5 Revocation and Commencement

- 5.1 Safety and Operational Directive SD-2017/001 dated 20 July 2016 is revoked from 31 July 2017 at 23:00 hours UTC².
- 5.2 This Directive comes into force on 31 July 2017 at 23:00 hours UTC and will remain in force until revoked by the CAA.

² UTC: Co-ordinated Universal Time.