



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0215; Product Identifier 2018-SW-088-AD; Amendment 39-21181; AD 2020-15-18]**

**RIN 2120-AA64**

**Airworthiness Directives; Leonardo S.p.A. Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Leonardo S.p.A. (Leonardo) Model AB139, AW139, AW169, and AW189 helicopters. This AD was prompted by reports of uncommanded deployment of the emergency flotation system (EFS) due to improper accomplishment of the reset procedure of the shape memory alloy (SMA) inflation system actuation device. This AD requires removal of affected SMA inflation systems and installation of serviceable SMA inflation systems.

The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://www.leonardocompany.com/en/home>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0215.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0215; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Kristi Bradley, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5485; email [Kristin.Bradley@faa.gov](mailto:Kristin.Bradley@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Leonardo Model AB139, AW139, AW169, and AW189 helicopters. The NPRM published in the *Federal Register* on April 14, 2020 (85 FR 20618). The NPRM was prompted by reports of uncommanded deployment of the EFS due to improper accomplishment of the reset procedure of the SMA inflation system actuation device. The NPRM proposed to require removal of affected SMA inflation systems and installation of serviceable SMA inflation systems. The FAA is issuing this AD to address uncommanded EFS deployment, which could result in reduced control of the helicopter.

The European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0208, dated September 20, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Leonardo Model AB139, AW139, AW169, and AW189 helicopters. You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0215.

### **Comments**

The FAA gave the public the opportunity to participate in developing this final rule. After the NPRM was published, the FAA received a comment from one commenter. However, the comment addressed neither the proposed actions nor the determination of the cost to the public. Therefore, the FAA has made no changes based on this comment.

## **Conclusion**

The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes.

The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

## **Related Service Information under 1 CFR Part 51**

Leonardo Helicopters has issued Alert Service Bulletin (ASB) No. 139-533, dated August 30, 2018; ASB No. 169-099, dated August 30, 2018; and ASB No. 189-195, dated August 30, 2018. This service information describes procedures for removal of affected SMA inflation systems and installation of serviceable SMA inflation systems (including correcting the SMA inflation system by performing a reset procedure). These documents are distinct since they apply to different helicopter models.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **Costs of Compliance**

The FAA estimates that this AD affects 138 helicopters of U.S. registry. The FAA estimates the following costs to comply with this AD:

### Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 7 work-hours X \$85 per hour = Up to \$595	\$*	Up to \$595*	Up to \$82,110*

\*The FAA has received no definitive data that would enable the FAA to provide parts cost estimates for the actions specified in this AD.

#### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

#### Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2020-15-18 Leonardo S.p.A.:** Amendment 39-21181; Docket No. FAA-2020-0215; Product Identifier 2018-SW-088-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the Leonardo S.p.A. helicopters identified in paragraphs (c)(1) through (3) of this AD, certificated in any category.

(1) Model AB139 and AW139 helicopters, all serial numbers, equipped with an emergency flotation system (EFS) float assembly having part number (P/N) 3G9560V00332, 3G9560V00432, 3G9560V01432, or 3G9560V01532.

(2) Model AW169 helicopters, all serial numbers, equipped with an EFS float assembly having any part number.

(3) Model AW189 helicopters, all serial numbers, equipped with an EFS float assembly having P/N 8G9560V00331 or 8G9560V00431.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code 3212, Emergency Flotation Section.

**(e) Reason**

This AD was prompted by reports of uncommanded deployment of the EFS due to improper accomplishment of the reset procedure of the shape memory alloy (SMA) inflation system actuation device. The FAA is issuing this AD to address uncommanded EFS deployment, which could result in reduced control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Definitions**

(1) An “affected part” is an SMA inflation system having P/N 3G9560V01052 (Model AB139 and AW139 helicopters), P/N 6F9560V00551 (Model AW169 helicopters), or P/N 8G9560V01751 (Model AW189 helicopters), as applicable, with a

serial number specified in Figure 1 to paragraph (g)(1) of this AD except those which have been corrected in accordance with the Accomplishment Instructions of Leonardo Helicopters Alert Service Bulletin (ASB) No. 139-533, dated August 30, 2018 (ASB-139-153) ; Leonardo Helicopters ASB No. 169-099, dated August 30, 2018 (ASB 169-099); or Leonardo Helicopters ASB No. 189-195, dated August 30, 2018 (ASB 189-195); as applicable.

**Figure 1 to Paragraph (g)(1) – *Affected parts***

<b>Helicopter Model</b>	<b>Affected part serial numbers (s/n)</b>
AB139 and AW139	Up to s/n 1801 inclusive, except s/n 1783 and s/n 1784
AW169	Up to s/n 67 inclusive
AW189	Up to s/n 182 inclusive, except s/n 117

(2) A “serviceable part” is an affected part that has been corrected in accordance with the Accomplishment Instructions of ASB 139-533; ASB 169-099; or ASB 189-195; as applicable; or a part that is not affected.

**(h) Removal and Installation**

At the applicable compliance time specified in Figure 2 to paragraph (h) of this AD, remove each affected part from the helicopter and install a serviceable part. This may be done in accordance with the Accomplishment Instructions of ASB 139-533; ASB 169-099; or ASB 189-195; as applicable.

**Figure 2 to Paragraph (h) – *Removal and installation compliance times***

<b>Helicopter Model</b>	<b>Compliance time (after the effective date of this AD)</b>
AB139 and AW139	100 hours time-in-service (TIS)
AW169	45 hours TIS
AW189	

**(i) Parts Installation Prohibition**

As of the effective date of this AD, no person may install an affected part on any helicopter.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Kristi Bradley, Aerospace Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, notify your principal inspector or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(k) Related Information**

(1) The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD 2018-0208, dated September 20, 2018. This EASA AD may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0215.

(2) For more information about this AD, contact Kristi Bradley, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101

Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5485; email  
Kristin.Bradley@faa.gov.

**(I) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Leonardo Helicopters Alert Service Bulletin No. 139-533, dated August 30, 2018.

(ii) Leonardo Helicopters Alert Service Bulletin No. 169-099, dated August 30, 2018.

(iii) Leonardo Helicopters Alert Service Bulletin No. 189-195, dated August 30, 2018.

(3) For service information identified in this AD, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://www.leonardocompany.com/en/home>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on July 16, 2020.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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