DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
14 CFR Part 39

[Docket No. FAA-2021-0697; Project Identifier MCAI-2020-01540-R]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Leonardo S.p.a. Model A109E helicopters. This proposed AD was prompted by reports of cracking in the center fuselage frame assembly in the intersection of the lateral pylon and floor spar at station (STA) 1815 on the left- and right-hand sides. This proposed AD would require repetitive inspections of the intersection of the lateral pylon and floor spar at STA 1815 for cracking and, depending on the findings, repair, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: (202) 493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
For EASA material that is proposed for IBR in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this IBR material on the EASA website at https://ad.easa.europa.eu. You may view this material 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. The EASA material is also available at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0697.

Examining the AD Docket

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0697; 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 NPRM, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0697; Project Identifier MCAI-2020-01540” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any
personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

**Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

**Background**


This proposed AD was prompted by reports of cracking in the center fuselage frame assembly in the intersection of the lateral pylon and floor spar at STA 1815 on the left- and right-hand sides. The FAA is proposing this AD to address cracking in the center fuselage frame assembly in the intersection of the lateral pylon and floor spar at STA 1815 on the left- and right-hand sides, which, if not addressed, could affect the structural integrity of the helicopter. See EASA AD 2020-0256 for additional background information.
Related Service Information Under 1 CFR Part 51

EASA AD 2020-0256 requires repetitive inspections of STA 1815 for cracking, fluorescent liquid penetrant inspections of any cracking to determine the extent of the cracking, and repair if necessary. For both the left- and right-hand side repair, the actions include removing equipment and furnishings to gain access to the work area; testing the flight control system for correct travel of the flight controls; performing an operational test of the cockpit and passenger doors caution system; installing a new forward cap; installing a new angle, butt strap, and web; installing new cotter pins; and re-installing the removed equipment and furnishings when the repair is complete.

For the left-hand side repair, the actions also include replacing the nut plates with new nut plates, and an operational test of the collective control system and tail rotor control system. For the right-hand side repair, the actions include an operational test of the cyclic control system.

This material 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.

FAA’s Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2020-0256, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under “Differences Between this Proposed AD and the MCAI.”
Differences Between this Proposed AD and the MCAI

EASA AD 2020-0256 specifies to accomplish corrective actions if “any crack is detected in an affected area” during a required inspection. Figure 1 of the service information referenced in EASA AD 2020-0256 depicts the affected area, but the FWD bulkhead is mislabeled as AFT. This proposed AD includes an exception to clarify the correct location of the FWD bulkhead depicted in Figure 1.

Explanation of Required Compliance Information

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2020-0256 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2020-0256 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2020-0256 does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in EASA AD 2020-0256. Service information referenced in EASA AD 2020-0256 for compliance will be available at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0697 after the FAA final rule is published.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 70 helicopters of U.S. Registry. The FAA estimates the following costs to comply with this proposed AD:
### Estimated costs

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection</td>
<td>6 work-hours X $85 per hour = $510 per inspection cycle</td>
<td>$0</td>
<td>$510 per inspection cycle</td>
<td>$35,700 per inspection cycle</td>
</tr>
</tbody>
</table>

The FAA estimates the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. The agency has no way of determining the number of helicopters that might need these repairs:

### On-condition costs

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repair left-hand side</td>
<td>120 work-hours X $85 per hour = $10,200</td>
<td>$6,600</td>
<td>$16,800</td>
</tr>
<tr>
<td>Repair right-hand side</td>
<td>120 work-hour X $85 per hour = $10,200</td>
<td>$5,200</td>
<td>$15,400</td>
</tr>
</tbody>
</table>

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators.

### 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

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,
(2) Would not affect intrastate aviation in Alaska, and
(3) Would 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.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

   Leonardo S.p.a.: Docket No. FAA-2021-0697; Project Identifier MCAI-2020-01540-R.

   (a) Comments Due Date

   The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

   (b) Affected ADs

   None.
(c) Applicability

This AD applies to Leonardo S.p.a. Model A109E helicopters, certificated in any category, as identified in European Union Aviation Safety Agency (EASA) AD 2020-0256, dated November 17, 2020 (EASA AD 2020-0256).

(d) Subject

Joint Aircraft Service Component (JASC) Code: 5300, Fuselage Structure.

(e) Unsafe Condition

This AD was prompted by reports of cracking in the center fuselage frame assembly in the intersection of the lateral pylon and floor spar at station (STA) 1815 on the left- and right-hand sides. The FAA is issuing this AD to address cracking in the intersection of the lateral pylon and floor spar at STA 1815 on the left- and right-hand sides, which, if not addressed, could affect the structural integrity of the helicopter.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2020-0256.

(h) Exceptions to EASA AD 2020-0256

(1) Where EASA AD 2020-0256 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(2) Where EASA AD 2020-0256 AD refers to its effective date, this AD requires using the effective date of this AD.

(3) Where Figure 1 of the service information referenced in EASA AD 2020-0256 depicts the AFT bulkhead twice, for clarification, the FWD bulkhead is mislabeled as AFT and depicted on the left side of Figure 1, below 109-0320-96 POST ASSY (REF) and above FWD CAP.

(4) Where the service information referenced in EASA AD 2020-0256 specifies discarding parts, this AD requires removing those parts from service.

(5) Where paragraph (2) of EASA AD 2020-0256 or the service information referenced in EASA AD 2020-0256 specifies to contact the manufacturer for repair
information, for this AD: Before further flight, do the repair using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Leonardo S.p.a.’s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(6) This AD does not require the “Remarks” section of EASA AD 2020-0256.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2020-0256 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For EASA AD 2020-0256, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may view this material 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. This material may be found in the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0697.

(2) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance &