



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0327; Product Identifier 2018-CE-001-AD]

RIN 2120-AA64

Airworthiness Directives; Learjet, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Learjet, Inc. Models 28, 29, 31, 31A, 35, 35A, 36, 36A, 55, 55B, 55C, and 60 airplanes. This proposed AD was prompted by fatigue cracks initiating in the flap support structure due to repetitive flap loads, which has caused flap nose roller support bracket failure. This proposed AD would require replacement of the flap nose roller fitting, nose roller support bracket, and adjacent rib support structure with more robust components. We are proposing this AD to address the unsafe condition on these products.

DATES: We 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 <http://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 service information identified in this NPRM, contact Learjet, Inc., One Learjet Way, Wichita, Kansas 67209; telephone: 316-946-2000; email: ac.ict@aero.bombardier.com; Internet: <https://www.bombardier.com>. You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0327; 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 regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Tara Shawn, Aerospace Engineer, Wichita ACO Branch, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4141; fax: (316) 946-4107; email: tara.shawn@faa.gov or Wichita-COS@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0327; Product Identifier 2018-CE-001-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory,

economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

We received a report of skewed flap and aileron binding due to fatigue cracks in the flap support structure caused by repetitive flap loads on a Learjet, Inc. Model 31A. As of June 2017, cracks in the flap support structure were reported (due to Alert Service Bulletins published in March 2017) on Models 31, 31A, 35A, 55, and 60 airplanes. Repetitive flap loads occur on all models identified by this proposed AD. Failure of the flap nose roller support bracket allows skewed flap and aileron binding, which can cause loss of roll control on approach. This condition, if not addressed, could result in loss of control.

Although there have been no reports of cracks on the Models 28, 29, 35, 36, 36A, 55B, and 55C airplanes, these airplanes do incorporate the same design flap support structure.

Related Service Information under 1 CFR part 51

We reviewed Bombardier Learjet 28/29 Service Bulletin (SB) 28/29-27-31 Recommended, dated September 11, 2017; Bombardier Learjet 31 SB 31-27-35 Recommended, dated September 11, 2017; Bombardier Learjet 35/36 SB 35/36 -27-50 Recommended, dated September 11, 2017; Bombardier Learjet 55 SB 55-27-41 Recommended, dated September 11, 2017; and Bombardier Learjet 60 SB 60-27-39 Recommended, Revision 1, dated January 15, 2018. For the applicable models, the

service information describes procedures for replacement of the flap nose roller fitting, nose roller support bracket, and adjacent rib support structure with improved components. The service information also contains instructions to ensure correct flap alignment. 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.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously.

Differences Between this Proposed AD and the Service Information

The published service information does not list Models 31A, 35A, 36A, 55B, or 55C as affected models. However, the serial numbers in the service information does reflect these models. The serial numbers in the service information (except for Models 28/29) does not start with -001, but the effectivity in this AD starts with -001 for all models. The service information for all models also specifies to submit a compliance response form to the manufacturer; however, this AD does not require that action.

Costs of Compliance

We estimate that this proposed AD affects 706 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost*	Cost per product	Cost on U.S. operators
Replacement of flap nose roller fitting, nose roller support bracket, and adjacent rib support structure with improved components	188 work-hours X \$85 per hour = \$15,980	\$12,213	\$28,193	\$19,904,258

*Parts cost is an average of the composite costs for replacement of all of the kits per airplane. Not all airplanes will need all kits, as credit is allowed for some previous installations.

Individual Parts Cost*

Kit Number (K/N)	Part cost
K/N 2381000-802	\$827
K/N 2381000-804	\$822
K/N 2381000-806	\$780
K/N 2381000-808	\$793
K/N 2381000-809	\$1,358
K/N 2381000-810	\$1,358
K/N 2381000-811	\$1,822
K/N 2381000-817	\$1,674
K/N 2381000-818	\$1,432
K/N 2381000-819	\$1,415
K/N 2381000-820	\$1,912
K/N 2381000-821	\$1,912

*Parts required for replacement may vary for different models and different airplanes.

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.

We are 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes, gliders, balloons, airships, domestic business jet transport airplanes, and associated appliances to the Director of the Policy and Innovation Division.

Regulatory Findings

We 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) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) 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.

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 (AD):

Learjet, Inc.: Docket No. FAA-2018-0327; Product Identifier 2018-CE-001-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to the following Learjet, Inc. model airplanes that are certificated in any category:

Table 1 to paragraph (c) of this AD – Affected Models and Serial Numbers

Model	Serial Numbers (S/N)
Learjet Model 28	28-001 through 28-005
Learjet Model 29	29-001 through 29-004
Learjet Model 31	31-001 through 31-034
Learjet Model 31A	31-035 through 31-194
Learjet Model 35	35-001 through 35-059 that has been modified by SSK 0934, "Replacement of Wing Flap Assemblies"; and 35-060 through 35-066
Learjet Model 35A	35-067 through 35-676
Learjet Model 36	36-001 through 36-017 that has been modified by SSK 0934, "Replacement of Wing Flap Assemblies"
Learjet Model 36A	36-018 through 36-063
Learjet Model 55	55-001 through 55-126
Learjet Model 55B	55-127 through 55-134
Learjet Model 55C	55-135 through 55-147
Learjet Model 60	60-001 through 60-179

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 2750, TE Flap Control System.

(e) Unsafe Condition

This AD was prompted by reports of fatigue cracks initiating in the flap support structure due to repetitive flap loads. We are issuing this AD to require replacement of the flap nose roller fitting, nose roller support bracket, and adjacent rib support structure with more robust components. The unsafe condition, if not addressed, could cause flap nose roller support bracket failure and allow skewed flap and aileron binding, which could result in loss of roll control on approach with consequent loss of control.

(f) Compliance

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

(g) Corrective Action

(1) For Models 28 and 29 airplanes: (i) Within the next 24 months after the effective date of this AD or within the next 400 landings after the effective date of this AD, whichever occurs first, replace the nose roller fitting, nose roller support bracket, and adjacent rib support structure with replacement parts following the Accomplishment Instructions in Bombardier Learjet 28/29 Service Bulletin (SB) 28/29-27-31 Recommended, dated September 11, 2017.

(ii) Paragraph 3.B.(1) of the applicable SB for these models that have modified flap roller assemblies requires the operator to contact Learjet Inc. for repair instructions, and after receiving the repair instructions from Learjet, the operator will need to request an AMOC as specified in paragraph (j) of this AD in order to use the repair.

(2) For Models 31 and 31A airplanes: Within the next 24 months after the effective date of this AD or within the next 400 landings after the effective date of this AD, whichever occurs first, replace the nose roller fitting, nose roller support bracket and adjacent rib support structure with replacement parts following the Accomplishment Instructions in Bombardier Learjet 31 SB 31-27-35 Recommended, dated September 11, 2017.

(3) For Models 35, 35A, 36, and 36A airplanes: Within the next 24 months after the effective date of this AD or within the next 400 landings after the effective date of this AD, whichever occurs first, replace the nose roller fitting, nose roller support bracket and adjacent rib support structure with replacement parts following the Accomplishment Instructions in Bombardier Learjet 35/36 SB 35/36-27-50 Recommended, dated September 11, 2017.

(4) For Models 55, 55B, and 55C airplanes: Within the next 24 months after the effective date of this AD or within the next 400 landings after the effective date of this AD, whichever occurs first, replace the nose roller fitting, nose roller support bracket,

and adjacent rib support structure with replacement parts following the Accomplishment Instructions in Bombardier Learjet 55 SB 55-27-41 Recommended, dated September 11, 2017.

(5) For Model 60 airplanes: Within the next 12 months after the effective date of this AD or within the next 200 landings after the effective date of this AD, whichever occurs first, replace the nose roller fitting, nose roller support bracket, and adjacent rib support structure with replacement parts following the Accomplishment Instructions in Bombardier Learjet 60 SB 60-27-39 Recommended, Revision 1, dated January 15, 2018.

(6) For all airplanes: The compliance times in this AD are presented in landings. If you do not keep a record of the total number of landings, then use a 1-to-1 conversion for hours time-in-service (TIS) to landings. Example: 20 hours TIS = 20 landings.

(7) For Models 31, 31A, 35, 35A, 36, 36A, 55, 55B, 55C, and 60 airplanes: Paragraph 3.B.(2) of the applicable SBs for these models that have modified flap roller assemblies requires the operator to contact Learjet Inc. for repair instructions, and after receiving the repair instructions from Learjet, the operator will need to request an alternative method of compliance (AMOC) as specified in paragraph (j) of this AD in order to use the repair.

(h) Credit for Previous Actions

For Model 60 airplanes: This AD allows credit for actions required in paragraph (g)(5) of this AD if done before the effective date of this AD following Bombardier Learjet 60 SB 60-27-39 Recommended, Basic Issue, dated September 11, 2017.

(i) No Reporting Requirement

Although Bombardier Learjet 28/29 SB 28/29-27-31 Recommended, dated September 11, 2017; Bombardier Learjet 31 SB 31-27-35 Recommended, dated September 11, 2017; Bombardier Learjet 35/36 SB 35/36 -27-50 Recommended, dated September 11, 2017; Bombardier Learjet 55 SB 55-27-41 Recommended, dated September 11, 2017; and Bombardier Learjet 60 SB 60-27-39 Recommended, Revision 1, dated January 15, 2018, all specify to submit a compliance response form to the manufacturer per paragraph 3.E., this AD does not require that action.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita ACO 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 certification office, send it to the attention of the person identified in paragraph (k)(1) of this AD.

(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 more information about this AD, contact Tara Shawn, Aerospace Engineer, Wichita ACO Branch, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4141; fax: (316) 946-4107; email: tara.shawn@faa.gov or Wichita-COS@faa.gov.

(2) For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, Kansas 67209; telephone: 316-946-2000; email: ac.ict@aero.bombardier.com; Internet: <https://www.bombardier.com>. You may review this referenced service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on April 30, 2018.

Melvin J. Johnson,
Deputy Director, Policy & Innovation Division,
Aircraft Certification Service.

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