

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0327; Product Identifier 2018-CE-001-AD; Amendment 39-19404; AD 2018-19-04]

RIN 2120-AA64

Airworthiness Directives; Learjet, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting 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 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 AD requires replacement of the flap nose roller fitting, nose roller support bracket, and adjacent rib support structure with improved components. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective October 23, 2018.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 23, 2018.

ADDRESSES: For service information identified in this final rule, 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. It is also available on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0327.

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 final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is Docket Operations, 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: 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:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Learjet, Inc. Models 28, 29, 31, 31A, 35, 35A, 36, 36A, 55, 55B, 55C, and 60 airplanes. The NPRM published in the Federal Register on May 8, 2018 (83 FR 20740). The NPRM was prompted by a report that a skewed flap and aileron became bound on a Model 31A airplane, which was later found to have fatigue cracks in the flap support structure due to repetitive flap loads. Fatigue cracks in the flap support structure caused by repetitive flap loads can result in failure of the flap nose roller support bracket. Repetitive flap loads occur on all models identified by this AD. The NPRM proposed to require replacement of the flap nose roller fitting, nose roller support bracket, and adjacent rib support structure with improved components. This condition, if not addressed, could result in loss of roll control on approach with consequent loss of control of the airplane. We are issuing this AD to address the unsafe condition on these products.

Comments

We gave the public the opportunity to participate in developing this final rule. We received no comments on the NPRM or on the determination of the cost to the public.

Clarification of Repair Method

We have revised this action to clarify that operators are not required to obtain repair instructions from Learjet. Instead, operators must use a repair method approved by the Manager, Wichita ACO Branch, FAA.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed except for the changes described previously and other minor editorial changes. We have determined that these 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

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.

Costs of Compliance

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

We estimate the following costs to comply with this 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 × \$85 per hour = \$15,980	\$12,213	\$28,193	\$19,904,258

* Parts cost is an average of the combined 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

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) Is not a “significant rule” under 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.

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):



2018-19-04 Learjet, Inc.: Amendment 39-19404; Docket No. FAA-2018-0327; Product Identifier 2018-CE-001-AD.

(a) Effective Date

This AD is effective October 23, 2018.

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to the Learjet, Inc. model airplanes that are certificated in any category, as listed in table 1 to paragraph (c) of this AD.

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 improved components. The unsafe

condition, if not addressed, could cause failure of the flap nose roller support bracket and lead to loss of roll control on approach with consequent loss of control of the airplane.

(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 24 months after October 23, 2018 (the effective date of this AD) or within 400 landings after October 23, 2018 (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 by following the Accomplishment Instructions in Bombardier Learjet 28/29 Service Bulletin SB 28/29-27-31 Recommended, dated September 11, 2017.

(ii) Although 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, this AD requires that you do the repair using a method approved by the Manager, Wichita ACO Branch, FAA. For a repair method to be approved by the Manager, Wichita ACO Branch, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

(2) For Models 31 and 31A airplanes: Within 24 months after October 23, 2018 (the effective date of this AD) or within 400 landings after October 23, 2018 (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 by 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 24 months after October 23, 2018 (the effective date of this AD) or within 400 landings after October 23, 2018 (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 by 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 24 months after October 23, 2018 (the effective date of this AD) or within 400 landings after October 23, 2018 (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 by following the Accomplishment Instructions in Bombardier Learjet 55 SB 55-27-41 Recommended, dated September 11, 2017.

(5) For Model 60 airplanes: Within 12 months after October 23, 2018 (the effective date of this AD) or within 200 landings after October 23, 2018 (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 by following the Accomplishment Instructions in Bombardier Learjet 60 SB 60-27-39 Recommended, Revision 1, dated January 15, 2018.

(6) For all airplanes: Some 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: Although Paragraph 3.B.(2) of the applicable SB for these models that have modified flap roller assemblies requires the operator to contact Learjet Inc. for repair instructions, this AD requires you do the repair using a method approved by the Manager, Wichita ACO Branch, FAA. For a repair method to be approved by the Manager, Wichita ACO Branch, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

(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

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.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference 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 the AD specifies otherwise.

(i) Bombardier Learjet 28/29 Service Bulletin (SB) 28/29-27-31 Recommended, dated September 11, 2017;

(ii) Bombardier Learjet 31 SB 31-27-35 Recommended, dated September 11, 2017;

(iii) Bombardier Learjet 35/36 SB 35/36 -27-50 Recommended, dated September 11, 2017;

(iv) Bombardier Learjet 55 SB 55-27-41 Recommended, dated September 11, 2017; and

(v) Bombardier Learjet 60 SB 60-27-39 Recommended, Revision 1, dated January 15, 2018.

(3) 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>.

(4) 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. In addition, you can access this service information on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1078.

(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, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri, on August 31, 2018.
Melvin J. Johnson,
Deputy Director, Policy & Innovation Division,
Aircraft Certification Service.