

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0691; Directorate Identifier 2012-NM-170-AD; Amendment 39-17678; AD 2013-24-04]

RIN 2120-AA64

Airworthiness Directives; Learjet Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 2003-19-11 for certain Learjet Inc. Model 60 airplanes. AD 2003-19-11 required determining if a certain fuel crossflow tube is installed; and follow-on/corrective actions, as applicable. This new AD requires retaining all actions in AD 2003-19-11, and it also requires determining if a certain fuel crossflow tube is installed, performing repetitive measurements of the fuel crossflow tube and surrounding valves and cables, and doing corrective actions if necessary. In addition, this new AD expands the applicability of AD 2003-19-11. This AD was prompted by a report that airplanes produced since 2003 might also be subject to the unsafe condition; and that the minimum allowable clearance is not established in the airplane maintenance information. We are issuing this AD to prevent chafing and consequent failure of the fuel crossflow tube due to inadequate clearance between the tube and the flight control cables, which could result in loss of fuel from one fuel tank during normal operating conditions or loss of fuel from both main fuel tanks during fuel cross-feeding operations.

DATES: This AD is effective March 14, 2014.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD

as of November 3, 2003 (68 FR 55812, September 29, 2003).

ADDRESSES: For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209-2942; telephone 316-946-2000; fax 316-946-2220; email ac.ict@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov/#/docketBrowser;rpp=25;po=0;D=FAA-2013-0691>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, 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: Jeff Janusz, Aerospace Engineer, Propulsion Branch, ACE-116W, FAA, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Wichita, KS 67209; phone: 316-946-4148; fax: 316-946-4107; email: jeff.janusz@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2003-19-11, Amendment 39-13314 (68 FR 55812, September 29, 2003). AD 2003-19-11 applied to certain Learjet Inc. Model 60 airplanes. The NPRM published in the **Federal Register** on August 13, 2013 (78 FR 49232). The NPRM was prompted by a report that airplanes produced since

2003 might also be subject to the unsafe condition; and that the minimum allowable clearance is not established in the airplane maintenance information. The NPRM proposed to continue to require determining if a certain fuel crossflow tube is installed; and follow-on/corrective actions, as applicable. The NPRM also proposed to require determining if a certain fuel crossflow tube is installed, performing repetitive measurements of the fuel crossflow tube and surrounding valves and cables, and doing corrective actions if necessary. In addition, the NPRM proposed to expand the applicability of AD 2003-19-11. We are issuing this AD to prevent chafing and consequent failure of the fuel crossflow tube due to inadequate clearance between the tube and the flight control cables, which could result in loss of fuel from one fuel tank during normal operating conditions or loss of fuel from both main fuel tanks during fuel cross-feeding operations.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (78 FR 49232, August 13, 2013) or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (78 FR 49232, August 13, 2013) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 49232, August 13, 2013).

Costs of Compliance

We estimate that this AD affects 264 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
Inspection [retained actions from AD 2003-19-11, Amendment 39-13314 (68 FR 55812, September 29, 2003)].	2 work-hours × \$85 per hour = \$170	\$2	\$172	\$45,408

We estimate the following costs to do any necessary replacement that would

be required based on the results of the inspection. We have no way of

determining the number of aircraft that might need this replacement:

ON-CONDITION COSTS

Action	Labor cost	Parts cost	Cost per product
Replacement	4 work-hours × \$85 per hour = \$340	\$20	\$360

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120–0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave. SW., Washington, DC 20591. ATTN: Information Collection Clearance Officer, AES–200.

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.

Regulatory Findings

We have determined that 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 removing Airworthiness Directive (AD) 2003–19–11, Amendment 39–13314 (68 FR 55812, September 29, 2003), and adding the following new AD:

2013–24–04 Learjet Inc.: Amendment 39–17678; Docket No. FAA–2013–0691; Directorate Identifier 2012–NM–170–AD.

(a) Effective Date

This AD is effective March 14, 2014.

(b) Affected ADs

This AD supersedes AD 2003–19–11, Amendment 39–13314 (68 FR 55812, September 29, 2003).

(c) Applicability

This AD applies to Learjet Inc. Model 60 airplanes, certificated in any category, serial numbers 60–001 through 60–409 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Unsafe Condition

This AD was prompted by a report that airplanes produced since 2003 might also be subject to the unsafe condition; and that the minimum allowable clearance is not established in the airplane maintenance information. We are issuing this AD to prevent chafing and consequent failure of the fuel crossflow tube due to inadequate clearance between the tube and the flight control cables, which could result in loss of fuel from one fuel tank during normal operating conditions or loss of fuel from both main fuel tanks during fuel cross-feeding operations.

(f) Compliance

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

(g) Retained Part Identification for Airplanes Having Serial Numbers 60–001 Through 60–145 Inclusive

This paragraph restates the part identification required by paragraph (a) of AD 2003–19–11, Amendment 39–13314 (68 FR 55812, September 29, 2003). For airplanes having serial numbers 60–001 through 60–145 inclusive: Within 25 flight hours after November 3, 2003 (the effective date of AD 2003–19–11), inspect the fuel crossflow tube to determine whether part number (P/N) 6026020–005 is installed. Instead of inspecting the tube, a review of airplane maintenance records is acceptable if the part number of the tube can be positively determined from that review.

(h) Retained Clearance Measurement and Corrective Action for Airplanes Having Serial Numbers 60–001 Through 60–145 Inclusive, With Revised Repair Language

This paragraph restates the clearance measurement and corrective action required by paragraph (b) of AD 2003–19–11, Amendment 39–13314 (68 FR 55812, September 29, 2003), with revised repair language. For airplanes having serial numbers 60–001 through 60–145 inclusive: If P/N 6026020–005 is found installed during the review or inspection required by paragraph (g) of this AD, before further flight, measure the clearance between the fuel crossflow tube and the flight control cables to determine if it is at least 0.35 inch, per paragraph 2.B.(8) of the Accomplishment Instructions of Bombardier Alert Service Bulletin A60–28–3, Revision 2, dated October 26, 1998.

(1) If the clearance is 0.35 inch or more, no further action is required by this paragraph.

(2) If the clearance is less than 0.35 inch, before further flight, repair in accordance with a method approved by the Manager, Wichita Aircraft Certification Office (ACO), FAA. For a repair method to be approved by the Manager, Wichita ACO, as required by

this paragraph, the Manager's approval letter must specifically refer to this AD.

Note 1 to paragraphs (h) and (j) of this AD: Bombardier Alert Service Bulletin A60-28-3, Revision 2, dated October 26, 1998, Figure 1, Detail D, incorrectly identifies the fuel crossflow tube to be installed as P/N 6026020-001. The manufacturer is aware of this error and stated it plans to correct the part number in the next revision of the service information.

(i) Retained Part Replacement, Measurement, and Repair for Airplanes Having Serial Numbers 60-001 Through 60-055 Inclusive, With Revised Repair Language

This paragraph restates the part replacement, clearance measurement, and corrective action required by paragraph (c) of AD 2003-19-11, Amendment 39-13314 (68 FR 55812, September 29, 2003), with revised repair language. For airplanes having serial numbers 60-001 through 60-055 inclusive: If P/N 6026020-005 is not found installed during the review or inspection required by paragraph (g) of this AD, within 90 days after accomplishing the review or inspection, replace the existing fuel crossflow tube with a new fuel crossflow tube having P/N 6026020-005, and measure the clearance between the newly installed fuel crossflow tube and the flight control cables, per paragraph 2.A. of the Accomplishment Instructions of Bombardier Service Bulletin 60-28-4, Revision 2, dated August 22, 2001.

(1) If the clearance is 0.35 inch or more, no further action is required by this paragraph.

(2) If the clearance is less than 0.35 inch, before further flight, repair in accordance with a method approved by the Manager, Wichita ACO, FAA. For a repair method to be approved by the Manager, Wichita ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

(j) Retained Part Replacement, Measurement, and Repair for Airplanes Having Serial Numbers 60-056 Through 60-145 Inclusive, With Revised Repair Language

This paragraph restates the part replacement, clearance measurement, and corrective action required by paragraph (d) of AD 2003-19-11, Amendment 39-13314 (68 FR 55812, September 29, 2003), with revised repair language. For airplanes having serial numbers 60-056 through 60-145 inclusive: If P/N 6026020-005 is not found installed during the review or inspection required by paragraph (g) of this AD, within 90 days after accomplishing the review or inspection, replace the existing fuel crossflow tube with a new fuel crossflow tube having P/N 6026020-005, and measure the clearance between the newly installed fuel crossflow tube and the flight control cables to determine if the clearance is at least 0.35 inch, per paragraph 2.B. of the Accomplishment Instructions of Bombardier Alert Service Bulletin A60-28-3, Revision 2, dated October 26, 1998.

(1) If the clearance is 0.35 inch or more, no further action is required by this paragraph.

(2) If the clearance is less than 0.35 inch, before further flight, repair in accordance

with a method approved by the Manager, Wichita ACO, FAA. For a repair method to be approved by the Manager, Wichita ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

(k) New Part Identification

For airplanes having serial numbers 60-001 through 60-409 inclusive: Within 25 flight hours after the effective date of this AD, inspect the fuel crossflow tube to determine whether P/N 6026020-005 is installed. In lieu of inspecting the tube, a review of airplane maintenance records is acceptable if the part number of the tube can be positively determined from that review.

(l) New Clearance Measurement

If P/N 6026020-005 is found installed during the inspection required by paragraph (k) of this AD, before further flight, measure the clearance between the fuel crossflow tube and both elevator control cables to determine if it is 0.35 inch or more, in accordance with paragraph 2.A.(9) of the Accomplishment Instructions of Bombardier Service Bulletin 60-28-4, Revision 2, dated August 22, 2001.

(1) If the clearance is 0.35 inch or more, no further action is required by this paragraph.

(2) If the clearance is less than 0.35 inch, before further flight, adjust the fit of the P/N 6026020-005 tube to provide 0.35 inch or more clearance to both elevator control cables, in accordance with paragraph 2.A.(9) of the Accomplishment Instructions of Bombardier Service Bulletin 60-28-4, Revision 2, dated August 22, 2001. If the tube shows any indication of chafing from the control cables, before further flight, replace the fuel crossflow tube with a new fuel crossflow tube, in accordance with paragraph 2.A.(9) of the Accomplishment Instructions of Bombardier Service Bulletin 60-28-4, Revision 2, dated August 22, 2001.

(m) New Repetitive Measurements

For all airplanes: As of the effective date of this AD and after accomplishing the inspection required by paragraph (g) or (k) of this AD, as applicable: Before further flight after removal, replacement, or adjustment of any crossflow tube, fuel crossflow drain valve, fuel crossflow valve or related plumbing and fittings, and elevator control cable, measure the clearance between the fuel crossflow tube and the flight control cables, in accordance with paragraph 2.A.(9) of the Accomplishment Instructions of Bombardier Service Bulletin 60-28-4, Revision 2, dated August 22, 2001.

(1) If the clearance is 0.35 inch or more, no further action is required by this paragraph.

(2) If the clearance is less than 0.35 inch, before further flight, adjust the fit of the P/N 6026020-005 tube to provide 0.35 inch or more clearance to both elevator control cables, in accordance with paragraph 2.A.(9) of the Accomplishment Instructions of Bombardier Service Bulletin 60-28-4, Revision 2, dated August 22, 2001.

(n) Reporting Requirement

Submit a report of the findings of the initial measurement required by paragraph (l) of this AD to the Wichita Manufacturing Inspection District Office, 2204 South Tyler

Road, Wichita, KS 67209-3001, at the applicable time specified in paragraph (n)(1) or (n)(2) of this AD. The report must include the airplane registration, serial number, the total time in service, and the measured clearance found between the fuel crossflow tube and the elevator control cables after the initial inspection.

(1) If the inspection was done on or after the effective date of this AD: Submit the report within 30 days after the inspection.

(2) If the inspection was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

(o) Part Installation Prohibition

As of the effective date of AD, only fuel crossflow tubes having P/N 6026020-005 may be installed on any airplane.

(p) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(q) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita ACO, 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 ACO, send it to the attention of the person identified in paragraph (r) 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.

(r) Related Information

For more information about this AD, contact Jeff Janusz, Aerospace Engineer, Propulsion Branch, ACE-116W, FAA, Wichita ACO, 1801 Airport Road, Room 100, Wichita, KS 67209; phone: 316-946-4148; fax: 316-946-4107; email: jeff.janusz@faa.gov.

(s) 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 the AD specifies otherwise.

(3) The following service information was approved for IBR on November 3, 2003 (68 FR 55812, September 29, 2003).

(i) Bombardier Alert Service Bulletin A60–28–3, Revision 2, dated October 26, 1998.

(ii) Bombardier Service Bulletin 60–28–4, Revision 2, dated August 22, 2001.

(4) For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209–2942; telephone 316–946–2000; fax 316–946–2220; email ac.ict@aero.bombardier.com; Internet <http://www.bombardier.com>.

(5) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425–227–1221.

(6) 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 Renton, Washington, on December 27, 2013.

Jeffrey E. Duven,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2014–02464 Filed 2–6–14; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2013–0538; Directorate Identifier 2012–NM–212–AD; Amendment 39–17728; AD 2014–01–05]

RIN 2120–AA64

Airworthiness Directives; the Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain the Boeing Company Model 737–100, –200, –200C, –300, –400, and –500 series airplanes. This AD was prompted by a report of cracks in stringer splices at body station STA 360 and STA 908, between stringer (S) S–10L and S–10R; cracks in butt straps between S–5L and S–3L, and S–3R and S–5R; vertical chem-mill fuselage skin cracks at certain butt joints; and an instance of cracking that occurred in all those three structural

elements on one airplane. This AD requires repetitive inspections for any cracking of stringer splices and butt straps, and related corrective and investigative actions if necessary. We are issuing this AD to detect and correct cracking in the three structural elements, which could result in the airplane not being able to sustain limit load requirements and possibly result in uncontrolled decompression.

DATES: This AD is effective March 14, 2014.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 14, 2014.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H–65, Seattle, WA 98124–2207; telephone 206–544–5000, extension 1; fax 206–766–5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425–227–1221.

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–2013–0538; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800–647–5527) is Docket Management Facility, 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: Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057–3356; phone: (425) 917–6447; fax: (425) 917–6590; email: wayne.lockett@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 The Boeing Company Model 737–100, –200, –200C, –300, –400, and –500 series airplanes. The

NPRM published in the **Federal Register** on June 27, 2013 (78 FR 38608). The NPRM was prompted by a report of cracks in stringer splices at body station STA 360 and STA 908, between stringer (S) S–10L and S–10R; cracks in butt straps between S–5L and S–3L, and S–3R and S–5R; vertical chem-mill fuselage skin cracks at certain butt joints; and an instance of cracking that occurred in all those three structural elements on one airplane. The NPRM proposed to require repetitive inspections for any cracking of stringer splices and butt straps, and related corrective and investigative actions if necessary. We are issuing this AD to detect and correct cracking in the three structural elements, which could result in the airplane not being able to sustain limit load requirements and possibly result in uncontrolled decompression.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (78 FR 38608, June 27, 2013) and the FAA's response to each comment.

Request to Clarify That Post-Repair Inspections Are Not Required by This Final Rule

Boeing requested clarification that Table 11, “Stringer Splice Post Repair Inspection,” in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737–53A1322, dated November 5, 2012, is not required by paragraph (h) of the NPRM (78 FR 38608, June 27, 2013). Boeing suggested that paragraph (h) of the NPRM be revised to include an exception phrase that references paragraph (i) of the NPRM. Boeing stated that the inspections specified in Table 11, “Stringer Splice Post Repair Inspection,” in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737–53A1322, dated November 5, 2012, are required to support operating requirements for complying with section 121.1109(c)(2) or 129.109(b)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2)). Boeing also stated that the way the sentences of paragraph (h) of the NPRM are arranged, the sentences for doing corrective actions and repeating inspections seem to link the corrective actions and the repetitive inspections and imply that Table 11, “Stringer Splice Post Repair Inspection,” in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737–53A1322, dated November 5, 2012, is required by both the NPRM and the Federal Aviation Regulations.