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[Page 29410-29414]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0181; Directorate Identifier 2007-NM-180-AD; Amendment 39-15524; AD 2008-11-02]

RIN 2120-AA64

Airworthiness Directives; Lockheed Model L-1011 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Lockheed Model L-1011 series airplanes. This AD requires revising the FAA-approved maintenance program by incorporating new airworthiness limitations for fuel tank systems to satisfy Special Federal Aviation Regulation No. 88 requirements. This AD also requires the accomplishment of certain fuel system modifications, the initial inspections of certain repetitive fuel system limitations to phase in those inspections, and repair if necessary. This AD results from a design review of the fuel tank systems. We are issuing this AD to prevent the potential for ignition sources inside fuel tanks caused by latent failures, alterations, repairs, or maintenance actions, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

DATES: This AD is effective June 25, 2008.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of June 25, 2008.

ADDRESSES: For service information identified in this AD, contact Lockheed Continued Airworthiness Project Office, Attention: Airworthiness, 86 South Cobb Drive, Marietta, Georgia 30063-0567.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; 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 (telephone 800-647-5527) is the Document

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: Robert A. Bosak, Aerospace Engineer, Propulsion and Services Branch, ACE-118A, FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia 30349; telephone (770) 703-6094; fax (770) 703-6097.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to all Lockheed Model L-1011 series airplanes. That NPRM was published in the Federal Register on February 20, 2008 (73 FR 9235). That NPRM proposed to require revising the FAA-approved maintenance program by incorporating new airworthiness limitations (AWLs) for fuel tank systems to satisfy Special Federal Aviation Regulation No. 88 ("SFAR 88") requirements. That NPRM also proposed to require the accomplishment of certain fuel system modifications, the initial inspections of certain repetitive fuel system limitations (FSLs) to phase in those inspections, and repair if necessary.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comments received from the one commenter.

Request To Supersede AD 2001-08-21, Amendment 39-12198

ATA Airlines requests that we revise the NPRM by removing the proposed requirement to accomplish the FSL specified in paragraph 2.B.(1)(d) of Lockheed Service Bulletin 093-28-098, Revision 1, dated January 22, 2008. (Lockheed Service Bulletin 093-28-098, Revision 1, refers to Lockheed Service Bulletin 093-28-094, Revision 1, dated June 23, 2006, for accomplishing that FSL.) The commenter further requests that we instead issue a separate rulemaking action to supersede AD 2001-08-21 (66 FR 21072, April 27, 2001) to require the accomplishment of Revision 1 of Lockheed Service Bulletin 093-28-094. (As stated in the NPRM, AD 2001-08-21 requires the accomplishment of the original issue of Lockheed Service Bulletin 093-28-094, dated March 3, 2000, but more work is necessary for Revision 1 of the service bulletin.)

We agree that it is more appropriate to require the accomplishment of Revision 1 of Lockheed Service Bulletin 093-28-094 by superseding AD 2001-08-21. Our current policy specifies that, whenever a "substantive change" is made to an existing AD that imposes a new burden, we must supersede the AD. "Substantive changes" are those made to any instruction or reference that affects the substance of the AD. Substantive changes include part numbers, service bulletin and manual references, compliance times, applicability, methods of compliance, corrective action, inspection requirements, and effective dates. We consider the changes in Revision 1 of the service bulletin to be substantive. Therefore, we have revised paragraphs (h) and (i) and Table 2 of this AD by removing references to paragraph 2.B.(1)(d) and Lockheed Service Bulletin 093-28-094. Further, we will consider superseding AD 2001-08-21 with a separate rulemaking action.

Request To Extend the Compliance Time for Certain Actions

ATA Airlines requests that we extend the compliance time for accomplishing the FSLs in paragraphs 2.B.(1)(d), 2.B.(1)(e), 2.B.(1)(f), and 2.B.(1)(g) of Lockheed Service Bulletin 093-28-098,

Revision 1, dated January 22, 2008, to the following: on or before the next heavy maintenance inspection after the effective date of the AD, but not to exceed 60 months after the effective date of the AD. The commenter recommends revising the compliance time by either adding a compliance time, initial threshold, and grace period to Table 2 of the NPRM, or removing Table 2 from the NPRM and issuing separate rulemaking actions to address those FSLs. The commenter also requests that we include a note in the AD to define a heavy maintenance inspection as equivalent to a "D" check and similar to the definition in the Lockheed L-1011 Maintenance Review Board Report, dated March 1, 1998.

As justification for its request, the commenter states that the NPRM is inconsistent with other rulemaking actions addressing other airplane models. The commenter also states that those other rulemaking actions are consistent with the guidance in FAA Policy Memorandum PS-ANM112-05-001, "Policy Statement on Process for Developing SFAR 88-Related Instructions for Maintenance and Inspection of Fuel Tank Systems," dated October 6, 2004. In support of its position, the commenter refers to paragraphs 3.D, 3.D.1, and 4 of that policy memorandum, and to the "Four-Element Unsafe Condition Evaluation Criteria" section of FAA Policy Memorandum PS-ANM100-2003-112-15, "SFAR 88-Mandatory Action Design Criteria," dated February 25, 2003. The commenter contends that each identified unsafe condition and the AWL changes should be issued as separate rulemaking actions.

The commenter also contends that it would be unduly and disproportionately impacted by the proposed requirements of the NPRM. The commenter states that, for other airplane models, we have issued separate rulemaking actions to address design changes and the incorporation of AWLs for fuel tank systems into the FAA-approved maintenance program. The commenter also states that, in some instances, we have provided a compliance time of up to 5 years for accomplishing the design changes. The commenter, therefore, asserts that requiring the accomplishment of the design changes identified in Table 2 of the NPRM by December 16, 2008, is a substantial, immediate burden.

The commenter also asserts that paragraph (h) of the NPRM effectively makes the service bulletins identified in Table 2 of the NPRM retroactively applicable. The commenter notes that Table 2 does not include the compliance times recommended in those service bulletins. ATA Airlines believes that, as written, the NPRM would effectively make the compliance recommendation of up to 2-year-old service documents rule. As an example, the commenter points to Lockheed Service Bulletin 093-28-096, dated June 8, 2004, which recommends doing the initial inspection of the wiring harnesses of the No. 1 and No. 3 engine tank valves on or before the next heavy maintenance inspection, but not to exceed 5 years from the date of the service bulletin. That service bulletin also recommends revising the maintenance planning documentation to require repeating the inspection at intervals not to exceed 10 years from the date of the last inspection. The commenter states that, upon issuance of the final rule, an operator is at risk of non-compliance, since it is possible for an airplane to have undergone a heavy maintenance inspection between publication of the service bulletin and the effective date of the AD without having accomplished the actions specified in the service bulletin.

We agree to extend the compliance time for accomplishing the design changes identified in paragraphs 2.B.(1)(d), 2.B.(1)(e), 2.B.(1)(f), and 2.B.(1)(g) of Lockheed Service Bulletin 093-28-098, Revision 1. We have added a new paragraph (h)(2) specifying that the FSLs in paragraphs 2.B.(1)(e), 2.B.(1)(f), and 2.B.(1)(g) must be done within 60 months after the effective date of this AD. As stated previously, we have removed the requirement to accomplish the FSL in paragraph 2.B.(1)(d) of Lockheed Service Bulletin 093-28-098, Revision 1.

However, we disagree with issuing separate ADs to address the other design changes identified in Table 2 of this AD. The policy memorandum to which the commenter refers to does not specify that the design changes must be addressed by separate rulemaking actions. We also point out that when the compliance time in an AD differs from the recommended compliance time in a service bulletin, operators are required to comply with the compliance time specified in the AD, not the service bulletin. We have not changed this AD in this regard.

Request To Extend the Compliance Time of Paragraph (g)

ATA Airlines requests that we extend the compliance time by 1 year to December 16, 2009 in paragraph (g) of the NPRM. The commenter states that the airplane manufacturers of other airplane models have provided comprehensive data to support operators in complying with a compliance date of December 16, 2008. As an example, the commenter refers to Docket Nos. FAA-2006-26710, FAA-2007-28383, and FAA-2007-28384 published on the Internet at <http://www.regulations.gov>. The commenter states that those NPRMs all refer to comprehensive maintenance planning documents provided by the airplane manufacturer, and that those NPRMs provide explicit thresholds and grace periods for accomplishing many of the AWLs for fuel tank systems. The commenter also states that the airplane manufacturer either has or is providing comprehensive revisions to the AWLs section of the Instructions for Continued Airworthiness (ICA) to address critical design configuration control limitations (CDCCLs) and other SFAR 88 findings. The commenter asserts that Lockheed has not provided the same level of support, which substantially increases the burden on operators. The commenter believes that, as a result of the manner and timeliness of the data provided for the Model L-1011 series airplanes, it is appropriate and justifiable to provide a 12-month grace period for operators to amend their maintenance programs.

We disagree with extending the compliance time for paragraph (g) of this AD. We have determined that Lockheed has met the minimum requirements for supporting operators in complying with the SFAR 88 requirements. Further, in other similar NPRMs for other airplane models, we have not provided a grace period for revising the FAA-approved maintenance program or the AWLs section of ICA, as applicable, to incorporate AWLs for fuel tank systems. As stated in the preambles of those NPRMs, we have already issued regulations that require operators to revise their maintenance/inspection programs to address fuel tank safety issues. The compliance date for these regulations is December 16, 2008. To provide for efficient and coordinated implementation of these regulations and those NPRMs, we are using this same compliance date. We have not changed this AD in this regard.

Request To Extend the Comment Period

ATA Airlines requests that we extend the comment period for a minimum of 30 days. As justification, the commenter states that Lockheed Service Bulletin 093-28-098, Revision 1, dated January 22, 2008, was not available to operators until 9 days after the NPRM was published in the Federal Register.

We disagree with extending the comment period. We have attempted to contact this commenter to better understand its needs and rationale with regard to extending the comment period. However, we have been unable to reach the commenter after numerous attempts. To further delay this action would be inappropriate, since we have determined that an unsafe condition exists and it must be addressed to ensure continued safety.

Request To Revise Paragraph (b)

ATA Airlines notes that paragraph (b) of the NPRM specifies that no other airworthiness directives are affected by the NPRM. The commenter believes that this is incorrect because Lockheed Service Bulletin 093-28-098, Revision 1, dated January 22, 2008, refers to AD 80-25-04, amendment 39-3983 (45 FR 79011, November 28, 1980); AD 99-24-12, amendment 39-11436 (64 FR 66756, November 30, 1999); and AD 2001-08-21. (AD 80-25-04 requires accomplishing the actions specified in Lockheed Service Bulletin 093-28-062, Revision 1, dated August 20, 1980. AD 99-24-12 requires accomplishing the actions specified in Lockheed Service Bulletin 093-28-093, Revision 1, dated February 8, 1999. AD 2001-08-21 requires accomplishing the actions specified in Lockheed Service Bulletin 093-28-094, dated March 3, 2000.) The commenter states that AD 2001-08-21

should be identified as a superseded AD, according to paragraph 121.b. of Section 12 of the "Airworthiness Directives Manual," FAA-IR-M-8040.1A.

We infer the commenter requests that we revise paragraph (b) of this AD to specify that this AD is related to AD 80-25-04 and AD 99-24-12, and that it supersedes AD 2001-08-21. We disagree with revising paragraph (b) of this AD. Paragraph (b) of an AD is reserved for referencing any previously issued AD that is revised or superseded by a new AD. As stated previously, we will consider superseding AD 2001-08-21 with a separate rulemaking action. No change to this AD is necessary in this regard.

Change Made to This AD

We have revised paragraph (g) of this AD to require revising the FAA-approved maintenance program to incorporate the FSLs and CDCCLs specified in Lockheed Service Bulletin 093-28-098, Revision 1, except as provided by paragraphs (g)(1), (g)(2), and (h) of this AD. In the NPRM, we inadvertently omitted reference to paragraph (h).

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We also determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Costs of Compliance

There are about 108 airplanes of the affected design in the worldwide fleet. The following table provides the estimated costs, at an average labor rate of \$80 per work hour, for U.S. operators to comply with this AD.

Estimated Costs

Action	Work hours	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Maintenance program revision to incorporate FSLs and CDCCLs	4	None	\$320	63	\$20,160
Removal of auxiliary fuel tank No. 4, if applicable	40	None	\$3,200	8	\$25,600
Modification and inspection of the wiring harnesses of the fuel level control switch	19	\$974	\$2,494	63	\$157,122
Inspection of the airplane fuel tanks, vent boxes, and bonding jumpers, and the addition of bonding jumpers to the fuel/vent tube fittings	370	\$18,491	\$48,091	63	\$3,029,733
Identification and inspection of the FQIS wiring harnesses	4	\$336	\$656	63	\$41,328

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

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), 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.

You can find our regulatory evaluation and the estimated costs of compliance in the AD Docket.

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.

[[Page 29413]]

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:



2008-11-02 Lockheed: Amendment 39-15524. Docket No. FAA-2008-0181; Directorate Identifier 2007-NM-180-AD.

Effective Date

- (a) This airworthiness directive (AD) is effective June 25, 2008.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to all Lockheed Model L-1011 series airplanes, certificated in any category.

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance (AMOC) in accordance with paragraph (k) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

Unsafe Condition

(d) This AD results from a design review of the fuel tank systems. We are issuing this AD to prevent the potential for ignition sources inside fuel tanks caused by latent failures, alterations, repairs, or maintenance actions, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Service Bulletin Reference

(f) The term "service bulletin," as used in this AD, means the Accomplishment Instructions of Lockheed Service Bulletin 093-28-098, Revision 1, dated January 22, 2008.

Maintenance Program Revision

(g) Before December 16, 2008, revise the FAA-approved maintenance program to incorporate the fuel system limitations (FSLs) specified in paragraphs 2.B.(1)(b), 2.B.(1)(e), 2.B.(1)(f), and 2.B.(1)(g) of the service bulletin, and the critical design configuration control limitations (CDCCLs)

specified in paragraph 2.C. of the service bulletin; except as provided by paragraphs (g)(1), (g)(2), and (h) of this AD.

(1) Where the FSLs specify to inspect, this AD would require doing a general visual inspection.

Note 2: For the purposes of this AD, a general visual inspection is: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

(2) For the CDCCLs specified in paragraphs 2.C.(2)(c), 2.C.(2)(d), and 2.C.(15)(a) of the service bulletin, do the applicable actions using a method approved in accordance with the procedures specified in paragraph (k) of this AD. The applicable service information listed in Table 1 of this AD is one approved method.

Table 1.—Approved Methods for Certain CDCCLs

For the CDCCL identified in the service bulletin in paragraph -	One Approved Method is -	For -
2.C.(2)(c)	Hamilton Sundstrand Overhaul Manual 28-24-03, Revision 14, dated May 15, 2000	Overhauling and repairing the electrically-operated fuel boost pumps.
2.C.(2)(d)	Lockheed L-1011 Service Information Letter 28-12, dated March 17, 1998	Keeping the electrical conduit for the electrically-operated fuel boost pumps open and unplugged at the wing rear spar.
2.C.(15)(a)	Lockheed Drawing 1527514, Revision D, dated September 26, 1981	Installing the fuel tank valves, auxiliary power unit pump, sight gauges, fuel quantity indicating system tank units, over-wing filler cap adapter ring, boost pump mounting plate, and access doors for the boost pump, vent box, vent valve, and fuel level control switch.

Initial Accomplishment of FSLs and Repair if Necessary

(h) At the applicable compliance time specified in paragraph (h)(1) or (h)(2) of this AD, do the applicable FSLs specified in paragraphs 2.B.(1)(b), 2.B.(1)(e), 2.B.(1)(f), and 2.B.(1)(g) of the service bulletin and repair any discrepancy, in accordance with the service bulletin. Any repair must be done before further flight.

(1) For the FSL identified in paragraph 2.B.(1)(b) of the service bulletin, do the FSL before December 16, 2008.

(2) For the FSLs identified in paragraphs 2.B.(1)(e), 2.B.(1)(f), and 2.B.(1)(g) of the service bulletin, do the applicable FSLs within 60 months after the effective date of this AD.

Note 3: The service bulletin refers to the service information listed in Table 2 of this AD as additional sources of service information for doing the FSLs and repair.

Table 2.—Additional Sources of Service Information for Certain FSLs

The FSL identified in the service bulletin in paragraph -	Refers to Lockheed Service Bulletin -	For -
2.B.(1)(b)	093-28-089, Revision 3, dated October 4, 2006 (or later)	Removing auxiliary fuel tank No. 4, if applicable.
2.B.(1)(e)	093-28-095, dated September 13, 2006 (or later)	Inspecting the airplane fuel tanks and vent boxes for cleanliness and evidence of deteriorated or damaged fuel/vent tubes and components; inspecting bonding jumpers for proper installation, corrosion, frayed or broken strands, and the condition of the environmental sealing or bonding clamps and hardware; correcting any discrepant conditions; adding bonding jumpers to the fuel/vent tube fittings; and inspecting the bonding jumpers on the fuel/vent tube fittings.
2.B.(1)(f)	093-28-096, Revision 2, dated June 23, 2006 (or later)	Inspecting the wiring harnesses of the No. 1 and No. 3 engine tank valves for evidence of damage and fuel contamination; replacing any damaged wire with new wire; and repairing or replacing any contaminated wires as applicable.
2.B.(1)(g)	093-28-097, dated August 3, 2006 (or later)	Identifying the wiring harnesses for the fuel quantity indicator system (FQIS); inspecting the FQIS wiring harnesses for any visible damage, wear, chafing, or indications of electrical arcing; and replacing or repairing any damaged wires as applicable.

No Reporting Requirement

(i) Although Lockheed Service Bulletin 093-28-095, dated September 13, 2006; Lockheed Service Bulletin 093-28-096, Revision 2, dated June 23, 2006; and Lockheed Service Bulletin 093-28-097, dated August 3, 2006; specify to notify Lockheed of any discrepancies found during inspection or any evidence of damage or wire replacement, this AD does not require that action.

No Alternative Inspections, Inspection Intervals, or CDCCLs

(j) After accomplishing the actions specified in paragraphs (g) and (h) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or CDCCLs are part of a later revision of the service bulletin that is approved by the Manager, Atlanta Aircraft Certification Office (ACO), FAA; or unless the inspections, intervals, or CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (k) of this AD.

Alternative Methods of Compliance (AMOCs)

(k)(1) The Manager, Atlanta ACO, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

Material Incorporated by Reference

(1) You must use Lockheed Service Bulletin 093-28-098, Revision 1, dated January 22, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Lockheed Continued Airworthiness Project Office, Attention: Airworthiness, 86 South Cobb Drive, Marietta, Georgia 30063-0567.

(3) You may review copies of the service information incorporated by reference at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or 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/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on May 8, 2008.

Michael J. Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E8-10975 Filed 5-20-08; 8:45 am]