

account for the aggregate industry investment in research and development required to produce compliant products at each efficiency level.

The GRIM uses this information in conjunction with inputs from other analyses including manufacturer production costs from the engineering analysis, and shipments and price trends from the NIA to model industry annual cash flows from the base year through the end of the analysis period. The primary quantitative output of this model is the industry net present value (INPV), which DOE calculates as the sum of industry cash flows, discounted to the present day using industry specific weighted average costs of capital.

Standards can affect INPV in several ways including increasing the cost of production and impacting manufacturer markups, as well as requiring upfront investments in manufacturing capital and product development. Under potential standards for set-top boxes, DOE expects that manufacturers and video programming distributors may lose a portion of the INPV, which is calculated as the difference between INPV in the base-case (absent new energy conservation standards) and in the standards-case (with new energy conservation standards in effect). DOE examines a range of possible impacts on industry by modeling scenarios with various standard levels and pricing strategies.

In addition to INPV, the MIA also calculates the manufacturer markups, which are applied to the engineering cost estimates to arrive at the manufacturer selling price. For efficiency levels that require extensive software development, DOE calibrated the manufacturer markups to allow for the recovery of this upfront cost by amortizing the investment over the units shipped in the first three years of the analysis period. Due to the complexities of video programming distributor pricing models, DOE simplified its assumption regarding markups from the video programming distributor to the consumer by assuming that the incremental cost of a more efficient set-top box is directly passed on to the consumer. The resulting selling prices are then used in the LCC and PBP analyses, as well as in the NIA.

#### *C. Life-Cycle Cost and Payback Period Analyses*

The LCC and PBP analyses determine the economic impact of potential standards on individual consumers. The LCC is the total cost of purchasing, installing and operating a set-top box

over the course of its lifetime. The LCC analysis compares the LCC of a set-top box designed to meet possible energy conservation standards with the LCC of a set-top box likely to be installed in the absence of standards. DOE determines LCCs by considering: (1) Total installed cost to the consumer (which consists of manufacturer selling price, distribution chain markups, and sales taxes); (2) the range of annual energy consumption of set-top boxes that meet each of the efficiency levels considered as they are used in the field; (3) the operating cost of set-top boxes (e.g., energy cost); (4) set-top box lifetime; and (5) a discount rate that reflects the real consumer cost of capital and puts the LCC in present-value terms. The PBP represents the number of years needed to recover the increase in purchase price of higher-efficiency set-top boxes through savings in the operating cost. PBP is calculated by dividing the incremental increase in installed cost of the higher efficiency product, compared to the baseline product, by the annual savings in operating costs.

For set-top boxes, DOE determined the range in annual energy consumption using outputs from the engineering analysis (power consumption at each efficiency level) and from a representative field-metered sample of television usage (both live broadcast and DVR viewing). Total installed costs at each CSL are outputs from the MIA. Recognizing that several inputs to the determination of consumer LCC and PBP are either variable or uncertain (e.g., annual energy consumption, product lifetime, electricity price, discount rate), DOE conducts the LCC and PBP analysis by modeling both the uncertainty and variability in the inputs using Monte Carlo simulation and probability distributions.

The primary outputs of the LCC and PBP analyses are: (1) Average LCCs; (2) median PBPs; and (3) the percentage of households that experience a net benefit, have no impact, or have a net cost for each potential set-top box grouping and efficiency level. The average annual energy consumption derived in the LCC analysis is used as an input in the NIA.

#### *D. National Impact Analysis*

The NIA estimates the national energy savings (NES) and the net present value (NPV) of total consumer costs and savings expected to result from potential new standards at each CSL. DOE calculated NES and NPV for each CSL as the difference between a base-case forecast (without new standards) and the standards-case forecast (with standards). Cumulative energy savings

are the sum of the annual NES determined for the lifetime of set-top boxes shipped during the analysis period. Energy savings include the full-fuel cycle energy savings (i.e., the energy needed to extract, process, and deliver primary fuel sources such as coal and natural gas, and the conversion and distribution losses of generating electricity from those fuel sources). The NPV is the sum over time of the discounted net savings each year, which consists of the difference between total operating cost savings and increases in total installed costs. NPV results are reported for discount rates of 3%, 5%, and 7%.

To calculate the NES and NPV, DOE projected future shipments and efficiency distributions (for each CSL) for each potential set-top box grouping. DOE recognizes the uncertainty in projecting shipments and efficiency distributions, and as a result the NIA includes several different scenarios for each. Other inputs to the NIA include the estimated set-top box lifetime used in the LCC analysis, manufacturer selling prices from the MIA, and average annual energy consumption from the LCC.

The purpose of this NODA is to notify industry, manufacturers, consumer groups, efficiency advocates, government agencies, and other stakeholders of the publication of the initial analysis of potential energy conservation standards for set-top boxes. Stakeholders should contact DOE for any additional information pertaining to the analyses performed for this NODA.

Issued in Washington, DC, on February 28, 2013.

**Kathleen B. Hogan,**

*Deputy Assistant Secretary for Energy Efficiency, Energy Efficiency and Renewable Energy.*

[FR Doc. 2013-05344 Filed 3-6-13; 8:45 am]

**BILLING CODE 6450-01-P**

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

[Docket No. FAA-2013-0205; Directorate Identifier 2012-NM-226-AD]

**RIN 2120-AA64**

#### **Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 747SP series airplanes, and certain The Boeing Company Model 747-100B SUD and 747-300 series airplanes. This proposed AD was prompted by an evaluation by the design approval holder (DAH) indicating that the fuselage skin just above certain lap splice locations is subject to widespread fatigue damage (WFD). This proposed AD would require repetitive inspections for cracking of the fuselage skin above certain lap splice locations, and repair if necessary. We are proposing this AD to detect and correct fatigue cracking of the fuselage skin, which could result in reduced structural integrity of the airplane and sudden loss of cabin pressure.

**DATES:** We must receive comments on this proposed AD by April 22, 2013.

**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 proposed 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 review copies of the 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>; 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 proposed AD, the regulatory evaluation, any comments received, and other information. The

street address for the Docket Office (phone: 800-647-5527) is in the

**ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

#### FOR FURTHER INFORMATION CONTACT:

Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6428; fax: 425-917-6590; email:

*Nathan.P.Weigand@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-2013-0205; Directorate Identifier 2012-NM-226-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD 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 proposed AD.

##### Discussion

Structural fatigue damage is progressive. It begins as minute cracks, and those cracks grow under the action of repeated stresses. This can happen because of normal operational conditions and design attributes, or because of isolated situations or incidents such as material defects, poor fabrication quality, or corrosion pits, dings, or scratches. Fatigue damage can occur locally, in small areas or structural design details, or globally. Global fatigue damage is general degradation of large areas of structure with similar structural details and stress levels. Multiple-site damage is global damage that occurs in a large structural element such as a single rivet line of a lap splice joining two large skin panels. Global damage can also occur in multiple elements such as adjacent frames or stringers. Multiple-site-damage and multiple-element-damage cracks are typically too small initially to be reliably detected with normal inspection methods. Without intervention, these cracks will grow, and eventually compromise the

structural integrity of the airplane, in a condition known as widespread fatigue damage (WFD). As an airplane ages, WFD will likely occur, and will certainly occur if the airplane is operated long enough without any intervention.

The FAA's WFD final rule (75 FR 69746, November 15, 2010) became effective on January 14, 2011. The WFD rule requires certain actions to prevent catastrophic failure due to WFD throughout the operational life of certain existing transport category airplanes and all of these airplanes that will be certificated in the future. For existing and future airplanes subject to the WFD rule, the rule requires that DAHs establish a limit of validity (LOV) of the engineering data that support the structural maintenance program. Operators affected by the WFD rule may not fly an airplane beyond its LOV, unless an extended LOV is approved.

The WFD rule (75 FR 69746, November 15, 2010) does not require identifying and developing maintenance actions if the DAHs can show that such actions are not necessary to prevent WFD before the airplane reaches the LOV. Many LOVs, however, do depend on accomplishment of future maintenance actions. As stated in the WFD rule, any maintenance actions necessary to reach the LOV will be mandated by airworthiness directives through separate rulemaking actions.

We recognize that the WFD rule (75 FR 69746, November 15, 2010) is unusual in that it might depend on future rulemaking to fully achieve its safety objectives. In the context of WFD, this approach is necessary to enable DAHs to propose LOVs that allow operators the longest operational lives for their airplanes, and still ensure that WFD will not occur. This approach allows for an implementation strategy that provides flexibility to DAHs in determining the timing of service information development (with FAA approval), while providing operators with certainty regarding the LOV applicable to their airplanes.

Two operators of Model 757 airplanes have reported cracking on two airplanes that initiated at multiple locations on the inboard surface of the skin, along the edge of the chem-milled step just above the skin lap splice (which was addressed by AD 2011-01-15, Amendment 39-16572 (76 FR 1351, January 10, 2011)). No cracking of this kind has been reported on Model 747 airplanes, but analysis has determined that the Model 747 fuselage skin in certain areas might be susceptible to similar cracking. Such fatigue cracking of the fuselage skin could result in

reduced structural integrity of the airplane and sudden loss of cabin pressure. The skin at the edge of chem-milled steps above certain skin lap splices has been determined to be structure that is susceptible to WFD.

#### Relevant Service Information

We reviewed Boeing Alert Service Bulletin 747–53A2854, dated September 17, 2012. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for Docket No. FAA–2013–0205.

#### 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, except as discussed under “Differences Between the Proposed AD and the Service Information.”

The phrase “related investigative actions” might be used in this proposed AD. “Related investigative actions” are follow-on actions that: (1) are related to the primary actions, and (2) are actions that further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

In addition, the phrase “corrective actions” might be used in this proposed AD. “Corrective actions” are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

#### Differences Between the Proposed AD and the Service Information

Boeing Alert Service Bulletin 747–53A2854, dated September 17, 2012, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

#### Costs of Compliance

We estimate that this proposed AD affects 4 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
Inspection .....	Up to 57 work-hours × \$85 per hour = \$4,845, per inspection cycle.	\$0	Up to \$4,845, per inspection cycle	Up to \$19,380, per inspection cycle.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

#### 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 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):

**The Boeing Company:** Docket No. FAA–2013–0205; Directorate Identifier 2012–NM–226–AD.

#### (a) Comments Due Date

We must receive comments by April 22, 2013.

#### (b) Affected ADs

None.

#### (c) Applicability

This AD applies to The Boeing Company airplanes, certificated in any category, identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD.

- (1) All Model 747SP airplanes.
- (2) Model 747–100B SUD airplanes, line numbers 636 and 655.
- (3) Model 747–300 airplanes, line numbers 692 through 695 inclusive.

#### (d) Subject

Joint Aircraft System Component (JASC)/ Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by an evaluation by the design approval holder (DAH) indicating that the fuselage skin just above certain lap splice locations is subject to widespread fatigue damage (WFD). We are issuing this AD to detect and correct fatigue cracking of the fuselage skin, which could result in reduced structural integrity of the airplane and sudden loss of cabin pressure.

**(f) Compliance**

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

**(g) Repetitive Inspection**

Perform external sliding probe eddy current inspections of the fuselage skin for cracking, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2854, dated September 17, 2012, except where this service bulletin specifies to contact Boeing for inspection instructions, this AD requires doing the inspection using a method approved in accordance with the procedures specified in paragraph (h) of this AD. Do the inspection at the applicable initial compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2854, dated September 17, 2012, except where this service bulletin specifies a compliance time after the "original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(1) If no cracking is found during any inspection required by paragraph (g) of this AD, repeat the inspection thereafter at the applicable compliance time intervals specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2854, dated September 17, 2012.

(2) If any cracking is found during any inspection required by paragraph (g) of this AD: Before further flight, repair the cracking using a method approved in accordance with the procedures specified in paragraph (h) of this AD.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (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 the Related Information section of this AD. Information may be emailed to: [9-ANM-Seattle-ACO-AMOC-Requests@faa.gov](mailto:9-ANM-Seattle-ACO-AMOC-Requests@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.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization

Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(i) Related Information**

(1) For more information about this AD, contact Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6428; fax: 425-917-6590; email:

[Nathan.P.Weigand@faa.gov](mailto:Nathan.P.Weigand@faa.gov).

(2) 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 review copies of the 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.

Issued in Renton, Washington, on February 20, 2013.

**Jeffrey E. Duven,**

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 2013-05191 Filed 3-6-13; 8:45 am]

**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

**[Docket No. FAA-2008-0618; Directorate Identifier 2007-NM-355-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

**SUMMARY:** We are revising an earlier proposed airworthiness directive (AD) for all The Boeing Company Model 777 airplanes. That NPRM proposed to require performing repetitive operational tests of the engine fuel suction feed of the fuel system, and other related testing if necessary. That NPRM was prompted by reports of two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. This action revises that NPRM by proposing

to revise the maintenance program to incorporate a revision to the Airworthiness Limitations Section of the maintenance planning data (MPD) document. We are proposing this supplemental NPRM to detect and correct failure of the engine fuel suction feed of the fuel system, which, in the event of total loss of the fuel boost pumps, could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane. Since these actions impose an additional burden over that proposed in the previous NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

**DATES:** We must receive comments on this supplemental NPRM by April 22, 2013.

**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:** U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed 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 review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. 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>; 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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the