

[Federal Register Volume 85, Number 35 (Friday, February 21, 2020)]

[Rules and Regulations]

[Pages 10036-10042]

From the Federal Register Online via the Government Publishing Office [www.gpo.gov]

[FR Doc No: 2020-03427]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2019-0399; Product Identifier 2018-NM-149-AD; Amendment 39-19823; AD 2020-03-10]**

**RIN 2120-AA64**

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

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for The Boeing Company Model 737 series airplanes, except for Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This AD was prompted by reports of separation of the lower aft wing-to-body fairing panel 194E (“fairing panel 194E”) during flight, due to worn or damaged nutplates on the support structure. This AD requires repetitive inspections for discrepancies of fairing panel 194E, wheel well panel 193D, and support structure, and related investigative and corrective actions if necessary. This AD also requires rework of the panels and support structure, which terminates the repetitive inspections. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective March 27, 2020.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 27, 2020.

**ADDRESSES:** For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0399.

#### **Examining the AD Docket**

You may examine the AD docket on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0399; 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 is 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:** Michael Bumbaugh, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3522; email: michael.bumbaugh@faa.gov.

**SUPPLEMENTARY INFORMATION:**  
**Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to The Boeing Company Model 737 series airplanes, except for Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. The NPRM published in the Federal Register on June 19, 2019 (84 FR 28429). The NPRM was prompted by reports of separation of the lower aft wing-to-body fairing panel 194E (“fairing panel 194E”) during flight, due to worn or damaged nutplates on the support structure. In the NPRM, the FAA proposed to require repetitive inspections of fairing panel 194E, wheel well panel 193D, and support structure for discrepancies, and required related investigative and corrective actions if necessary. The NPRM also proposed to require rework of the panels and support structure, which would terminate the repetitive inspections.

The FAA is issuing this AD to address separation of fairing panel 194E.

**Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

**Support for the NPRM**

One individual and United Airlines (United) stated support for the NPRM. United, commenting that they had no records of the unsafe condition, also concurred with the intent of the NPRM. In a subsequent comment submission, United also requested several changes, which are addressed later in this comment disposition.

**Effect of Winglets on Accomplishment of the Proposed Actions**

Aviation Partners Boeing stated that accomplishing the Supplemental Type Certificate (STC) ST00830SE, the installation of blended or split scimitar winglets, does not affect the ability to accomplish the actions specified in the NPRM, which affect the lower aft wing-to-body area.

The FAA agrees with the commenter. The FAA has added paragraph (c)(2) to this AD to state that installation of STC ST00830SE does not affect the ability to accomplish the actions required by this final rule. Therefore, for airplanes on which STC ST00830SE is installed, a “change in product” alternative method of compliance (AMOC) approval request, per 14 CFR 39.17, is not necessary to comply with the requirements of this AD.

**Request To Delay Issuance of Final Rule Until Service Information Is Revised**

Southwest Airlines (SWA) and Delta Airlines (DAL) asked that the final rule not be issued until a revision of the Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, has been issued.

SWA stated that the referenced service information should be revised and released to include clarification on the fastener and hardware installation requirements to prevent the potential of overtorquing the fasteners and causing additional damage to the panels and the support structure. SWA noted that the referenced service information provides minimum and maximum torque values, but added that an Aircraft Maintenance Manual (AMM) referenced in the service information provides different torque values, including a higher maximum torque value. SWA added that the referenced service information does not provide an installation torque for the fasteners and nutplate, but stated that Boeing told it to use 29 to 31 in-lb.

The FAA notes that the torque values specified in Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, must, as a result of this AD, be complied with. When those values contradict the values specified in the AMM referenced in the service information, the torque minimum and maximum specified in Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, must be used, since it is now mandatory.

SWA also stated that the guidance currently provided in the referenced service information does not include provisions to address the open rivet holes after the removal of the existing nutplates. SWA added that the referenced service information provides guidance for repair of the fairing panel support structure in accordance with structural repair manual (SRM) 53-60-71, but that SRM 53-60-71, Repair 2, specifies installing a repair strap at the damaged nutplate location, which SWA states would interfere with the ability to install the support/plate assemblies at the nutplate locations specified in the referenced service information. SWA concluded that the referenced service information cannot be accomplished without multiple deviations, and requested clarification whether these deviations would require an AMOC.

DAL also stated that paragraph (g)(1) of the proposed AD would require doing a general visual inspection for discrepancies of fairing panel 194E, wheel well panel 193D, and support structure, in accordance with Part 1 and Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012; however, Part 1 of the referenced service information does not provide any instructions to inspect or repair the 193D panel, so it would be necessary to request an AMOC.

Regarding DAL's suggestion that the referenced service information does not provide any instructions to inspect or repair the 193D panel, the FAA notes that the torque check specified in figure 1, step 1 of the referenced service information is an inspection of the 193D panel. If any repairs are needed that are not addressed in the referenced service information, operators will need to request an AMOC.

DAL also stated that it has already performed the actions specified in Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, on three Model C-40A (737-700C military variant) airplanes and found that previous installation of repair parts per SRM 53-60-71 for damage at the nutplates will interfere with parts installed using the instructions provided in the referenced service information. DAL also stated that the referenced service information does not currently take into account that existing repairs on the fairing support structure may inhibit compliance with the service information as written, which will drive the need for AMOCs.

Regarding DAL's comment that the referenced service information does not take into account existing repairs, the FAA notes that an AD cannot predict every change in product that is different than type design; therefore DAL would need to request an AMOC if an existing repair prevented it from accomplishing the actions required by this AD.

The FAA acknowledges the commenters' concerns regarding the need to clarify the service information for the specific scenarios raised and is working with Boeing to address these concerns as soon as possible. If this effort culminates in a global AMOC that is approved by the FAA before the 24-month compliance time for the inspection has passed, and that AMOC addresses all the necessary deviations, commenters and other affected operators would not need to seek a separate AMOC. Therefore, the FAA has added paragraph (j)(1) to this AD to provide operators with information regarding how to address any actions in the service information that cannot be accomplished.

In light of the critical nature of the identified unsafe condition (i.e., the possible separation of the lower aft wing-to-body fairing panel during flight) and the scope of affected airplanes, the FAA does not consider it warranted to delay the issuance of this final rule. If Boeing provides a revision to Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, the FAA will review it in consideration of an AMOC to this AD or may consider future rulemaking action.

### **Request To Specify Applicability of a Note in the Service Information**

DAL noted that figure 5, sheet 5, of the referenced service information includes note (b), which specifies procedures for installing a panel but is not referenced in the instructions for figure 5, and DAL does not know where that note should be applied.

The FAA clarifies that note (b) in figure 5, sheet 5 applies to steps 8 and 10 of figure 5 in Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012. The FAA has added paragraph (j)(2) of this AD to include this information.

### **Request To Clarify Cleaning Procedures**

SWA and DAL requested that the cleaning procedures in Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, be clarified. The commenters stated that although the referenced service information refers to cleaning procedures "CM3" and "CM5" in standard wiring practices manual (SWPM) 20-20-00, those procedures do not exist. SWA added that SWPM 20-20-00, as revised on June 1, 2015, lists what SWA considers to be corresponding cleaning procedures in paragraphs 2.E and 2.C. DAL suggested allowing operators to use standard cleaning procedures.

The FAA does not agree that any standard cleaning procedure would be acceptable, however the FAA agrees to clarify the acceptable cleaning procedures. The FAA has added paragraph (j)(3) to this AD to clarify that where note (a) to figure 5 of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012 specifies to clean "per abrasive cleaning method CM5" and refers to "SWPM 20-20-00," for this AD operators must use "cleaning procedure 3" and refer to "SWPM 20-20-00." The FAA has also added paragraph (j)(4) to this AD to clarify that where note (a) to figure 5 of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, specifies to clean "per solvent cleaning method CM3," and refers to "SWPM 20-20-00," for this AD operators must use "cleaning procedure 5" and refer to "SWPM 20-20-00."

### **Request To Limit Inspection Area for Certain Airplanes**

SWA requested that the FAA revise paragraph (g)(2) of the proposed AD such that for line numbers 3533 and subsequent that have not altered the type design since the original airworthiness certificate, the inspection should be limited to an external visual inspection of the panels only. SWA noted that, for those airplanes, the rework to the support structure can be verified based upon the number of attachments on the panels.

The FAA agrees with the commenter's request because, for those airplanes, an equivalent change to the support structure and panels was made in production, and this change can be verified by an external visual inspection. The FAA has revised paragraphs (g)(1) and (2) of the proposed AD and added paragraph (g)(3) to specify that, for airplanes having line numbers 3533 and subsequent that have not altered the type design since the issuance of an original airworthiness certificate or an original export certificate of airworthiness, an external visual inspection of fairing panel 194E and wheel well panel 193D may be used to verify the correct panel configuration, provided it can be determined that fairing panel 194E, wheel well panel 193D, and the support structure have the number and type of attachments specified in the post-reworked configuration of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012.

## **Request To Clarify Repairs That Require an AMOC**

SWA and DAL commented on the need for an AMOC for repairs to the panel and substructure interface, which are classified as secondary structure.

SWA stated that the subject structure is classified as secondary, non-FCBS (fatigue critical baseline structure) in 737NG SRM 51-00-04, and repairs to the panel and substructure that do not adversely alter the panel to the substructure interface should not require an AMOC to the AD (i.e., as long as the required number and type of fasteners attaching the panel to the substructure remain the same). SWA added that requiring an AMOC would necessitate the original equipment manufacturer (OEM) to generate an FAA Form 8100-9 for a minor repair, which is in conflict with FAA Order 8100-17B and Boeing Service Letter 737-SL-51-041-E.

DAL stated that repairs to AD-related secondary structure per SRM 51-70 are minor repairs (SRM 51-00-04) and should not require an AMOC or additional approvals for any deviations to the SRM repairs. DAL added that repairs to the panel or substructure that do not adversely affect or inhibit the intended function of the modification of the panel-to-substructure interface should continue to be done in accordance with approved data or data that is acceptable to the Administrator with no additional approval or AMOC required.

The FAA acknowledges the commenters' concerns and infers that the commenters are requesting that the agency clarify the requirements of paragraph (g) of this AD regarding the need for AMOCs. The FAA agrees to clarify this paragraph. Repairs or alterations to the panel that do not interfere with the requirements of this AD will not require an AMOC. The FAA has added paragraph (g)(4) of this AD to specify that repairs that do not affect the number or type of fasteners necessary for the post-reworked configuration may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining an AMOC.

## **Request To Clarify Certain Procedures in the Referenced Service Information**

SWA and DAL asked that Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, be clarified to define the procedures for panels 194E and 193D that have not been reworked.

SWA stated that the proposed AD does not allow fairing panel 194E or wheel well panel 193D to be installed on any airplane after the effective date of the AD, if the panels have not been reworked. SWA noted that this would prohibit normal maintenance of the panels prior to implementing the terminating action. SWA requested that the proposed AD be revised to add a grace period for normal maintenance of unmodified panels prior to accomplishment of the terminating action. SWA added that the referenced service information does not provide part numbers for the reworked panels, and should be revised in order to control the part number of the modified panels.

DAL stated that the referenced service information should be revised because it does not identify a post-service bulletin part number in order to track and maintain the fairing panel configuration. DAL recommended that it be revised before issuance of the final rule to ensure a separate part number is created for tracking of the attachment configuration. DAL noted that as the proposed AD is currently written, any panel installed after the effective date of the AD will drive immediate full incorporation of the referenced service information. DAL believes that paragraph (i) of the proposed AD would force immediate compliance in the event of non-routine maintenance action or just accomplishment of paragraph (g)(1) of the proposed AD, either of which may not be associated with the identified unsafe condition, although the proposed compliance time for the terminating action is 72 months. The proposed AD would have, at paragraph (i), prohibited installation of fairing panel 194E “unless fairing panel 194E, wheel well panel 193D, and the support structure have the number and type of attachments specified in the post-reworked configuration of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012.” DAL suggested that paragraph (i) be changed to prohibit installation of fairing panel 194E “unless a general visual inspection for

discrepancies has been accomplished on fairing panel 194E, wheel well panel 193D, and the support structure, within the compliance times specified in SB 737-53-1307 Paragraph 1.E.”

The FAA agrees that some clarification is necessary. Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, already provides a method of identifying modified panels in figure 5, step 9. The FAA has revised paragraph (i) of this AD to include separate requirements for airplanes with an original airworthiness certificate or an original export certificate of airworthiness dated after the effective date of this AD, for airplanes with an original airworthiness certificate or an original export certificate of airworthiness dated before the effective date of this AD, and for airplanes on which the terminating action has been done.

### **Request To Define Final Configuration of the Panel-to-Substructure**

SWA asked that the final configuration of the panel-to-substructure interface be defined in the subject of the proposed AD, rather than referenced in Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, in its entirety, by the individual configuration of the discrepant panels, or the associated substructure. SWA noted that the subject structure is classified as secondary, non-FCBS in 737NG SRM 51-00-04; therefore, typical repairs given in 737NG SRM 51-70 apply to the panel and the associated substructure. SWA stated that as there is no specific section in the published SRM for the discrepant structure, these typical SRM repairs can be accomplished with no additional approval from the operator or the applicable regulatory body. SWA and DAL both noted that there are no provisions to alert the mechanic that the structure is subject to an AD.

The FAA acknowledges the commenter's concern; however, the agency relies on the referenced service information to define the modification, and operators must ensure that they are meeting all the requirements of any applicable AD. As noted in prior comments, there are a significant number of other SRM repairs or modifications that can be present and alter the final configuration of the support structure or panel. It would be difficult if not impossible to address all possible individual configurations in this AD. Under the provisions of paragraph (k) of this AD, the FAA will consider requests for approval of other SRM repairs or modifications if sufficient data are submitted to substantiate that the change would provide an acceptable level of safety. The AD has not been changed in this regard.

### **Request To Revise Compliance Time for the Inspections**

SWA, DAL, and United asked that the compliance time for the inspections be extended.

United stated that the proposed compliance time of 24 months for the initial general visual inspection, with a repetitive interval of 1,000 flight cycles thereafter, would require operators performing both the inspection and the terminating action in a line environment. United asked that the FAA and Boeing to consider revising the AD and service information to allow an initial detailed visual inspection within 36 months and the repeat inspections every 4,000 flight cycles thereafter, in lieu of the proposed inspection method and compliance times. United noted that this would allow more time to properly schedule the airplanes in a heavy check environment where both the inspection and rework per the referenced service information can be easily accomplished.

DAL stated that a 36-month compliance time for the initial inspection would provide a better opportunity to catch the initial inspection at a C-check (a type of heavy check) and not drive special visits. DAL noted that waiting on approvals if damage is found would cause significant delays.

The FAA does not agree with the commenters' requests to extend the compliance time for the initial and repetitive inspections. In developing an appropriate compliance time for this action, the FAA considered not only the safety implications of the identified unsafe condition, but also the average utilization rate of the affected fleet, the availability of required parts, and the practical aspect of accomplishing the required inspections within a period of time that corresponds to the normal scheduled maintenance for most affected operators. Further, United did not provide substantiation in

support of its request to increase inspection intervals with a detailed visual inspection. The FAA has not changed this AD in this regard.

SWA stated that the inspection specified in paragraph (g) and the terminating action specified in paragraph (h) of the proposed AD require compliance within a calendar time of 24 months and 72 months of the AD effective date, respectively; however, due to the unknown return-to-service (RTS) dates of the Boeing Model 737-8 and -9 (MAX) airplanes, SWA is awaiting delivery of several airplanes. SWA recommended the compliance thresholds be defined based upon total flight cycles, in order to alleviate the concerns regarding the MAX airplanes' RTS.

The FAA does not agree to define the compliance thresholds based on total flight cycles. Consistent with 14 CFR 39.7, no person will be in violation of this AD because the MAX airplanes are not currently operated. The actions required by this AD can be accomplished before the airplanes' RTS. In addition, the actions required by this AD will be accomplished on all new MAX airplanes before delivery. Therefore, this AD has not been changed in this regard.

### **Request To Change Applicability**

Boeing and United asked that the applicability in the proposed AD be changed.

Boeing noted that there is a difference between Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, and the proposed AD in capturing airplane effectivity. Boeing stated that there may be some instances where operators are rotating parts outside of type design, beyond effectivity limits, or having "pre-mod" panels installed on airplane configurations where service bulletins and design changes have already been incorporated. Boeing noted that it understands the FAA's concerns with the possibility of parts being rotated outside the effectivity contained in the referenced service information, and would like to seek an alternative solution to address these FAA concerns. Boeing recommended that it and the FAA collaborate with the company's airline partners, other OEMs, and other Civil Aviation Authorities (CAAs) to develop an action to implement safe, fair, and consistent policy to address the company's concerns on rotatable parts for the industry. Boeing concluded that the applicability of the proposed AD extends beyond that specified in the referenced service information, and suggested that rotatable parts be addressed separately.

United stated that the proposed airplane effectivity range in the proposed AD falls outside of the effectivity specified in Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012. United added that the specified action is to add airplanes with the new panels already incorporated at the OEM to the current effectivity range given in the referenced service information, for a one-time inspection verification. (The range is for line numbers (L/Ns) 3533 and subsequent with an original airworthiness certificate or an original export certificate of airworthiness dated on or before the effective date of this AD.) United noted that the reason for the inspection verification is that the FAA believes that since these parts are rotatable, there is a possibility the older parts could be installed on future airplanes. United respectfully disagreed on this action and requested that the FAA revisit this matter and keep the effectivity range limited to those airplanes identified in the referenced service information. United disagreed with the FAA because even though the subject parts are rotatable, United controls and maintains all its interchangeability and installation of these panels through production drawings and aircraft manuals, such as the illustrated parts catalog (IPC), which have always shown the latest up-to-date panels affected for L/Ns 3533 and subsequent. United concluded that to this day, it has never had a parts-departing-airplane (PDA) incident with the subject panels 193D and 194E on any of its Model 737-NG airplanes.

The FAA does not agree to change the applicability. The affected parts are rotatable parts, and the FAA has determined that, regardless of operator diligence, these parts could later be installed on airplanes that were initially delivered with acceptable parts, thereby subjecting those airplanes to the unsafe condition. The FAA has not changed this AD in this regard.

## **Request To Allow the Use of Later Revisions of the Service Information**

An individual asked the FAA to modify the AD to allow later revisions of the referenced service information. He said this would ensure that operators are promptly in compliance with obligations and all maintenance is certified to the latest approved version of the maintenance data. The commenter also stated that this would remove the requirement for the proposed AD to be revised to reflect changes in revised service information, and to eliminate the need to request an AMOC to approve the use of the revised service information, again reducing the delay in implementing a revision and reducing the maintenance costs associated with the issuance of an AMOC. The commenter added that the European Union Aviation Safety Agency (EASA) already incorporates the “or later revision” statement in any EASA AD. The commenter noted that this would demonstrate a further harmonization of regulatory control.

The FAA does not agree to change the AD to allow the use of later revisions of the service information. The FAA may not require compliance with a document that does not yet exist. In general terms, the FAA is required by Office of the Federal Register (OFR) regulations for approval of materials incorporated by reference, as specified in 1 CFR 51.1(f), to either publish the service document contents as part of the actual AD language; or submit the service documents to the OFR for approval as referenced material, in which case the FAA may only refer to such material in the text of an AD. The AD may refer to the service document only if the OFR approved it for incorporation by reference. See 1 CFR part 51. To allow operators to use later revisions of the referenced document (issued after publication of the final rule), either the FAA must revise the AD to reference specific later revisions, or operators must request approval to use later revisions as an AMOC with this AD under the provisions of paragraph (k) of this AD. The AD has not been changed regarding this issue.

## **Conclusion**

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. The FAA has determined that these minor 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.

The FAA also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

## **Related Service Information Under 1 CFR Part 51**

The FAA reviewed Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012. This service information describes procedures for repetitive inspections of fairing panel 194E, wheel well panel 193D, and support structure for discrepancies (including incorrect torque at the fasteners and worn and damaged nutplates and fastener holes) and corrective actions (including repair and replacement of nutplates and fasteners). This service information also describes procedures for rework of the panels and support structure, including related investigative actions (general visual inspection of the panel and support structure for damage) and repair, which together would eliminate the need for the repetitive inspections. 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**

The FAA estimates that this AD affects 983 airplanes of U.S. registry. The agency estimates the following costs to comply with this AD:



### Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	8 work-hours × \$85 per hour = \$680 per inspection cycle	\$0	\$680 per inspection cycle	Up to \$668,440 per inspection cycle.
Rework	25 work-hours × \$85 per hour = \$2,125	0	\$2,125	Up to \$2,088,875.

The FAA has received no definitive data that would enable the agency to provide cost estimates for the on-condition repairs specified in this 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.

The FAA is 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) Will not affect intrastate aviation in Alaska, 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.

#### 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):



**2020-03-10 The Boeing Company:** Amendment 39-19835; Docket No. FAA-2019-0399; Product Identifier 2018-NM-149-AD.

**(a) Effective Date**

This AD is effective March 27, 2020.

**(b) Affected ADs**

None.

**(c) Applicability**

(1) This AD applies to all The Boeing Company Model 737 series airplanes, certificated in any category, except for Model 737-100, -200, -200C, -300, -400, and -500 series airplanes.

(2) Installation of Supplemental Type Certificate (STC) ST00830SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE is installed, a “change in product” alternative method of compliance (AMOC) approval request, per 14 CFR 39.17, is not necessary to comply with the requirements of this AD.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports of separation of lower aft wing-to-body fairing panel 194E (“fairing panel 194E”) during flight, due to worn or damaged nutplates on wheel well panel 193D and support structure. The FAA is issuing this AD to address separation of fairing panel 194E.

**(f) Compliance**

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

**(g) Repetitive Inspections and Corrective Actions**

(1) For airplanes with an original airworthiness certificate or an original export certificate of airworthiness dated on or before the effective date of this AD, except as specified in paragraph (g)(2) of this AD: Within 24 months after the effective date of this AD, do a general visual inspection for discrepancies of fairing panel 194E, wheel well panel 193D, and support structure, and do all applicable related investigative and corrective actions, in accordance with Part 1 and Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012. All applicable related investigative and corrective actions must be done before further flight. Repeat the inspection thereafter at intervals not to exceed 1,000 flight cycles.

(2) For airplanes having line numbers 3533 and subsequent that have not altered the type design since the issuance of an original airworthiness certificate or an original export certificate of airworthiness, an external visual inspection of fairing panel 194E and wheel well panel 193D may be used to verify the correct panel configuration, provided it can be determined that fairing panel 194E, wheel well panel 193D, and the support structure have the number and type of attachments specified in the post-reworked configuration of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012. If the external inspection shows that fairing panel 194E, wheel well panel 193D, and the support structure have the number and type of attachments specified in the post-reworked configuration of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, then the repetitive inspections required by paragraph (g)(1) of this AD are terminated.

(3) For airplanes having line numbers 3533 and subsequent with an original airworthiness certificate or an original export certificate of airworthiness dated on or before the effective date of this AD: If the initial inspection required by paragraph (g)(1) of this AD shows that fairing panel 194E, wheel well panel 193D, and the support structure have the number and type of attachments specified in the post-reworked configuration of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, then the repetitive inspections required by paragraph (g)(1) of this AD are terminated. The requirements of paragraph (i) of this AD continue to apply.

(4) Repairs to fairing panel 194E, wheel well panel 193D, or the support structure that do not affect the number or type of fasteners necessary for the post-reworked configuration may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the remaining requirements can be done and the airplane can be put back in an airworthy condition.

#### **(h) Terminating Action**

For airplanes with an original airworthiness certificate or an original export certificate of airworthiness dated on or before the effective date of this AD: Within 72 months after the effective date of this AD, do the actions required by paragraph (h)(1) or (2) of this AD, as applicable. Accomplishing the actions in paragraph (h)(1) or (2) of this AD terminates the repetitive inspections required by paragraph (g)(1) of this AD. The requirements of paragraph (i) of this AD continue to apply.

(1) Rework fairing panel 194E, wheel well panel 193D, and the support structure, including accomplishment of all applicable related investigative actions and repair, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012. All applicable related investigative actions and repairs must be done before further flight.

(2) Verify that fairing panel 194E, wheel well panel 193D, and the support structure have the number and type of attachments specified in the post-reworked configuration of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012.

#### **(i) Parts Installation Limitations**

(1) For airplanes with an original airworthiness certificate or an original export certificate of airworthiness dated after the effective date of this AD: As of the effective date of this AD, no person may install a fairing panel 194E on any airplane identified in paragraph (c) of this AD, unless fairing panel 194E, wheel well panel 193D, and the support structure have the number and type of attachments specified in the post-reworked configuration of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012.

(2) For airplanes with an original airworthiness certificate or an original export certificate of airworthiness dated on or before the effective date of this AD: As of the effective date of this AD, a fairing panel 194E with or without the post-reworked configuration may be installed on any airplane,

provided that the repetitive inspections and all applicable related investigative and corrective actions required by paragraph (g)(1) of this AD are accomplished.

(3) For airplanes on which the terminating action required by paragraph (h) of this AD has been done: As of the effective date of this AD, no person may install a fairing panel 194E on any airplane identified in paragraph (c) of this AD unless fairing panel 194E, wheel well panel 193D and the support structure have the number and type of attachments specified in the post-reworked configuration of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012.

#### **(j) Exceptions to Service Information Specifications**

(1) If any action(s) in Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, cannot be accomplished as specified therein, those action(s) must be accomplished using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(2) Where figure 5 of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, includes note (b), but does not specify what steps that note applies to, for this AD, apply note (b) to steps 8 and 10 of figure 5 of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012.

(3) Where note (a) to figure 5 of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, specifies to clean “per abrasive cleaning method CM5” and refers to “SWPM 20-20-00,” for this AD use “cleaning procedure 3” and refer to “SWPM 20-20-00.”

(4) Where note (a) to figure 5 of Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012, specifies to clean “per solvent cleaning method CM3,” and refers to “SWPM 20-20-00,” for this AD use “cleaning procedure 5” and refer to “SWPM 20-20-00.”

#### **(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle 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 (l) of this AD. Information may be emailed to: 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, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

#### **(l) Related Information**

For more information about this AD, contact Michael Bumbaugh, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3522; email: michael.bumbaugh@faa.gov.

#### **(m) 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.

(i) Boeing Special Attention Service Bulletin 737-53-1307, dated January 12, 2012.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on February 4, 2020.

Lance T. Gant,  
Director, Compliance & Airworthiness Division,  
Aircraft Certification Service.