DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 2014–20–04, which applies to all Airbus SAS Model A318 series airplanes; Airbus SAS Model A319 series airplanes; Airbus SAS Model A320–111, –112, –113, –212, –213, –231, and –232 airplanes; and Airbus SAS Model A321–111, –112, –212, –213, –231, and –232 airplanes. AD 2014–20–04 requires repetitive inspections for cracking of the four titanium angles between the belly fairing and the keel beam side panel, an inspection for cracking of the open holes if any cracking is found in the titanium angles, and repair or replacement if necessary. This proposed AD would also continue to require repetitive inspections for cracking of the four titanium angles between the belly fairing and the keel beam side panel, an inspection for cracking of the open holes if any cracking is found in the titanium angles, and repair or replacement if necessary. This proposed AD would also revise the applicability by adding Model A320–216 airplanes. This proposed AD would also require a detailed inspection for and replacement of certain rivets (including a rotating probe test for cracks in the open holes), and corrective actions if necessary. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by November 1, 2018.

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.


• 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 NPRM, contact Airbus SAS, Airworthiness Office—EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: account.airworth-eas@airbus.com; internet: http://www.airbus.com. You may view this referenced 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.

Examining the AD Docket

You may examine the AD docket on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA–2018–0795; 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 NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800–647–5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT:
Sanjay Raithan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 50318; phone and fax 206–231–3223.

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–2018–0795; Product Identifier 2018–NM–076–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 based on 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

We issued AD 2014–20–04, Amendment 9–17977 (79 FR 59636,
October 3, 2014) ("AD 2014–20–04"), for all Airbus SAS Model A318 series airplanes; Airbus SAS Model A319 series airplanes; Airbus SAS Model A320–211, –212, –214, –231, –232, and –233 airplanes; and Airbus SAS Model A321–111, –112, –131, –211, –212, –213, –231, and –232 airplanes. AD 2014–20–04 requires repetitive inspections for cracking of the four titanium angles between the belly fairing and the keel beam side panel, an inspection for cracking of the open holes if any cracking is found in the titanium angles, and repair or replacement if necessary. AD 2014–20–04 resulted from reports of cracks at the lower riveting of the four titanium angles that connect the belly fairing to the keel beam side panels on both sides of the fuselage. We issued AD 2014–20–04 to address cracking of the titanium angles that connect the belly fairing to the keel beam side panels on both sides of the fuselage, which could affect the structural integrity of the airplane.

Actions Since AD 2014–20–04 Was Issued


During the fatigue test campaign of the A320 family type design, cracks were found at the lower riveting of the four titanium angles which connect the belly fairing to the keel beam side panels between frames FR40 and FR42, on both sides of the fuselage. This condition, if not detected and corrected, could affect the structural integrity of the aeroplane.

To address this potential unsafe condition, Airbus issued Service Bulletin (SB) A320–53–1014, and DGAC [Direction Générale de l’Aviation Civile] France issued AD 92–201–030 (which corresponds to FAA AD 94–12–03, Amendment 39–8930 (59 FR 28763, June 3, 1994) ("AD 94–12–03")] to require reinforcement of the belly fairing structure. Following new investigation which showed that these measures addressed only part of the unsafe condition, Airbus published SB A320–53–1259 and EASA issued AD 2013–0122 [which corresponds to FAA AD 2014–20–04], retaining the requirements of DGAC France AD 92–201–030, which was superseded, and requiring repetitive detailed inspections (DIT) of the affected titanium angles and, depending on findings, repair or replacement of parts. After that [EASA] AD was issued, Airbus published Revision (Rev.) 01 and Rev. 02 of SB A320–53–1259. [Airbus SB A320–53–1259] Rev. 02 provided incorrect instructions to use Part Number (P/N) EN6081D4 rivets for the titanium angles installation, instead of P/N EN6081D5 rivets. Consequently, Airbus SB A320–53–1259 was updated (now at Rev. 03) including reference to the proper rivets. For the reason described above, this [EASA] AD retains the requirements of EASA AD 2013–0122, which is superseded, and requires additional work [a detailed inspection for and replacement of certain rivets, and applicable corrective actions] for aeroplanes on which Airbus SB A320–53–1259 at Rev. 02 was embodied.


Model A320–216 Airplanes

The Airbus SAS Model A320–216 was type certified on December 19, 2016. Before that date, any EASA ADs that affected Model A320–216 airplanes were included on the Required Airworthiness Actions List (RAAL). One or more Model A320–216 airplanes have subsequently been placed on the U.S. Register, and will now be included in FAA AD actions. For Model A320–216 airplanes, the requirements that correspond to AD 2014–20–04 were mandated by the MCAI via the RAAL. Although that RAAL requirement is still in effect, for continuity and clarity we have identified Model A320–216 airplanes in paragraph (c) of this AD; the restated requirements of paragraphs (h) through (n) in this proposed AD would therefore apply to those airplanes.

Related Service Information Under 1 CFR Part 51

Airbus SAS has issued Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. This service information describes procedures for repetitive inspections for cracking of the four titanium angles between the belly fairing and the keel beam side panel, an inspection for cracking of the open holes if any cracking is found in the titanium angles, repair or replacement if necessary, and a detailed inspection for and replacement of certain rivets (including a rotating probe test for cracks in the open holes).

Airbus also issued Service Bulletin A320–53–1014, Revision 2, dated September 1, 1994. This service information describes procedures for reinforcement (modification) of the belly fairing structure.

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.

FAA’s Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. 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 on other products of the same type design.

Proposed Requirements of This NPRM

This proposed AD would retain all requirements of AD 2014–20–04. This proposed AD would also require accomplishing the actions specified in the service information described previously.

Costs of Compliance

We estimate that this proposed AD affects 1,250 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

**Estimated Costs**

<table>
<thead>
<tr>
<th>Description</th>
<th>Labor Cost</th>
<th>Parts Cost</th>
<th>Cost per Product</th>
<th>Cost on U.S. Operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>295 work-hours × $85 per hour = $25,075 (Old actions of AD 2014–20–04) Up to 168 work-hours × $85 per hour = Up to $14,280 (New actions of this AD)</td>
<td>$1,045</td>
<td>$26,120</td>
<td>Up to $32,650,000.</td>
<td>$26,120</td>
</tr>
</tbody>
</table>
We estimate the following costs to do any necessary replacement that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this replacement:

**Estimated Costs of On-Condition Actions**

<table>
<thead>
<tr>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>168 work-hours × $85 per hour = $14,280</td>
<td>$0</td>
<td>$14,280</td>
</tr>
</tbody>
</table>

*We have received no definitive data that would enable us to provide cost estimates for the on-condition parts costs.*

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

**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:

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Authority: 49 U.S.C. 106(g), 40113, 44701.

§39.13 [Amended]
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- 2. The FAA amends §39.13 by removing Airworthiness Directive (AD) 2014–20–04, Amendment 39–17977 (79 FR 59636, October 3, 2014), and adding the following new AD:

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(a) Comments Due Date

We must receive comments by November 1, 2018.

(b) Affected ADs


(c) Applicability

This AD applies to the Airbus SAS airplanes specified in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.


(d) Subject

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

(e) Reason

This AD was prompted by reports of cracks at the lower riveting of the four titanium angles that connect the belly fairing to the keel beam side panels on both sides of the fuselage. We are issuing this AD to detect and correct cracking of the titanium angles that could affect the structural integrity of the airplane.

(f) Compliance

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

(g) Retained Modification, With No Changes

This paragraph restates the requirements of paragraph (g) of AD 2014–20–04, with no changes. For Model A320–111, –211, and –231 series airplanes, manufacturer serial numbers 003 through 092 inclusive: Prior to the accumulation of 12,000 total landings on the airplane, or within 300 days after January 10, 1994 (the effective date of AD 93–24–11, Amendment 39–8760 (58 FR 64875, December 10, 1993)), whichever occurs later, modify the belly fairing structure, in accordance with the Accomplishment Instructions of an Airbus service bulletin specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD. As of the effective date of this AD, use only the Airbus service bulletin specified in paragraph (g)(3) of this AD.


(h) Retained Repetitive Inspection, With Updated Service Information

This paragraph restates the requirements of paragraph (h) of AD 2014–20–04, with updated service information. At the latest of the compliance times specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD: Do a detailed inspection for cracking of the four titanium angles between the belly fairing and the keel beam side panels, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, dated November 6, 2012; or Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. After the effective date of this AD only Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017, may be used.
(1) Before the accumulation of 30,000 total flight cycles or 60,000 total flight hours, whichever occurs first after first flight of the airplane.

(2) Within 30,000 flight cycles or 60,000 flight hours, whichever occurs first after modification of the airplane as required by paragraph (g) of this AD, or after installation of new titanium angles, provided that, prior to installation, a rototest for cracking on the open holes has been accomplished with no crack findings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, dated November 6, 2012; or Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017, may be used.

(3) Within 3,000 flight cycles or 6,000 flight hours, whichever occurs first after the effective date of this AD.

(i) Retained Post-Inspection Actions for No Crack Findings, With Updated Service Information

This paragraph restates the requirements of paragraph (i) of AD 2014–20–04, with updated service information. If, during any inspection required by paragraph (h) of this AD, there is no crack finding, accomplish the actions specified in either paragraph (i)(1) or (i)(2) of this AD.

(1) Repeat the inspection required by paragraph (h) of this AD at intervals not to exceed 5,000 flight cycles or 10,000 flight hours, whichever occurs first.

(2) Before further flight after the inspection required by paragraph (h) of this AD, remove all inspected titanium angles, accomplish a rototest for cracking on the open holes and, provided no cracks are found, install new titanium angles, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, dated November 6, 2012; or Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017, may be used.

(j) Retained Post-Inspection Actions for Any Crack Findings, With Updated Service Information

This paragraph restates the requirements of paragraph (j) of AD 2014–20–04, with updated service information. If, during any inspection required by paragraph (h) of this AD, there is any crack finding: Before further flight, remove the affected titanium angle(s), accomplish a rototest for cracking on the open holes and, provided no cracks are found, install new titanium angles, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, dated November 6, 2012; or Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017, may be used.

(k) Retained Post-Installation Repetitive Inspections, With Updated Service Information

This paragraph restates the requirements of paragraph (k) of AD 2014–20–04, with updated service information. For airplanes on which new titanium angles were installed as specified in paragraph (k)(1) or (k)(2) of this AD: Within 30,000 flight cycles or 60,000 flight hours, whichever occurs first after the installation, accomplish a detailed inspection for cracking of the four titanium angles between the belly fairing and the keel beam side panel, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, dated November 6, 2012; or Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017, may be used.

(1) Repeat the inspection thereafter at intervals not to exceed 5,000 flight cycles or 10,000 flight hours, whichever occurs first.

(l) Retained Post-Inspection Actions for Any Crack Findings During Post-Installation Inspections, With Updated Service Information

This paragraph restates the requirements of paragraph (l) of AD 2014–20–04, with updated service information. If, during any inspection as required by paragraph (k) of this AD, there is any crack finding: Before further flight, remove the affected titanium angles, accomplish a rototest for cracking on the open holes and, provided no cracks are found, install new titanium angles, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, dated November 6, 2012; or Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017, may be used.

(m) Retained Corrective Action for Rototest Crack Finding, With Updated Contact Information

This paragraph restates the requirements of paragraph (m) of AD 2014–20–04, with updated contact information. If, during any rototest as required by paragraph (i), (j), or (l) of this AD, any crack is found: Before further flight, repair using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS’s EASA DOA; and accomplish the corrective actions within the compliance time specified therein. If approved by the DOA, the approval must include the DOA-authorized signature.

(1) Replace part number EN6081D4 series rivets and do a rotating probe test of the open holes for cracks, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. If any crack is found during any inspection required by this paragraph, before further flight, obtain corrective actions approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS’s EASA DOA; and accomplish the corrective actions within the compliance time specified therein. If approved by the DOA, the approval must include the DOA-authorized signature.

(2) Replace part number EN6081D4 series rivets with part number EN6081D5 series rivets in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017.

(q) Other FAA AD Provisions

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards 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 International Section, send it to the attention of the person identified in paragraph (o)(2) of this AD. Information may be emailed to: 9-AMM-116-AMOC-REQUESTS@faa.gov.

(i) 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.

November 6, 2012: At the earlier of the times specified in paragraphs (o)(1) and (o)(2) of this AD, do a detailed inspection of the rivet installation in the belly fairing shear walls and the titanium angles for part number EN6081D4 series rivets in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. A review of the airplane maintenance records is acceptable to comply with the requirements this paragraph for that airplane, provided it can be determined that no titanium angles have been installed on that airplane in accordance with the Accomplishment Instructions of Revision 02 of Airbus Service Bulletin A320–53–1259, or if only rivets part number EN6081D5 have been used to install the titanium angles on that airplane.

(1) Within 2,000 flight cycles or 4,000 flight hours, whichever occurs first after the effective date of this AD.

(2) Before exceeding 5,000 flight cycles or 10,000 flight hours, whichever occurs first after accomplishment of the last inspection specified in paragraph (h) of this AD.

(p) New Requirements of This AD: Replacement of Certain Rivets

If any part number EN6081D4 series rivet is found during any inspection required by paragraph (o) of this AD, before further flight, do the actions specified in paragraphs (p)(1) and (p)(2) of this AD.

(1) Remove the part number EN6081D4 series rivets and do a rotating probe test of the open holes for cracks, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017. If any crack is found during any inspection required by this paragraph, before further flight, obtain corrective actions approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS’s EASA DOA; and accomplish the corrective actions within the compliance time specified therein. If approved by the DOA, the approval must include the DOA-authorized signature.

(2) Replace part number EN6081D4 series rivets with part number EN6081D5 series rivets in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–53–1259, Revision 03, dated November 30, 2017.

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards 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 International Section, send it to the attention of the person identified in paragraph (o)(2) of this AD. Information may be emailed to: 9-AMM-116-AMOC-REQUESTS@faa.gov.

(i) 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.
(ii) AMOCs approved previously for AD 2014–20–04, Amendment 39–17977 (79 FR 59636, October 3, 2014), are approved as AMOCs for the corresponding provisions of paragraphs (o) and (p) of this AD.

(2) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS’s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC 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 procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(r) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018–0091, dated April 20, 2018, for related information. This MCAI may be found in the AD docket on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA–2018–0795.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax 206–231–3223.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office—EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: account.airworth-eias@airbus.com; internet: http://www.airbus.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.

Issued in Des Moines, Washington, on August 29, 2018.

Jeffrey E. Duven,
Director, System Oversight Division, Aircraft Certification Service.

[FR Doc. 2018–19932 Filed 9–14–18; 8:45 am]