



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-0996; Project Identifier AD-2023-00365-A,Q,R,T;
Amendment 39-22917; AD 2024-26-02]

RIN 2120-AA64

Airworthiness Directives; Various Airplanes and Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2021-07-13 for certain Pacific Scientific Company rotary buckle assemblies (buckles). AD 2021-07-13 required inspecting each specified buckle including its buckle handle vane and prohibited installing affected buckles. This AD was prompted by the publication of an updated service bulletin, which revises the applicability based on date of manufacture of the affected buckles. This AD retains certain requirements of AD 2021-07-13, reduces the applicability, and requires performing corrective actions by complying with certain portions of the updated service bulletin. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0996; 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, 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.

Material Incorporated by Reference:

- For Parker Meggitt material identified in this AD, contact Parker Meggitt Services, 1785 Voyager Avenue, Simi Valley, CA 93063; phone: (877) 666-0712; email: TechSupport@meggitt.com.

- You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call: (817) 222-5110.

Other Related Material: For other related Parker Meggitt material identified in this AD, contact Parker Meggitt Services, at the Parker Meggitt Services contact information under *Material Incorporated by Reference* above.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (303) 342-1080; email: hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-07-13, Amendment 39-21490 (86 FR 17703, April 6, 2021) (AD 2021-07-13). AD 2021-07-13 applied to Pacific Scientific Company buckles part numbers 1111430 and 1111475, all dash numbers, installed on but not limited to Bombardier Inc., Learjet Inc., Mitsubishi Heavy Industries, Ltd., Textron Aviation, Inc. (type certificate (TC) previously held by Cessna Aircraft Company), and Viking Air Limited (TC previously held by de Havilland, Inc.) model airplanes and Airbus Helicopters (TC previously held by Eurocopter France) model helicopters. The NPRM published in the *Federal Register* on April 9, 2024 (89 FR 24742). The NPRM was prompted by a manufacturer determination that the cracking on the buckle handle was caused by a material process issue and stated that the issue was resolved in 2007. Accordingly, the manufacturer published revised material to revise the applicability by date of manufacture and clarify procedures. In the NPRM, the FAA proposed to require

revising the applicability to plastic buckles with a date of manufacture on or before May 31, 2007, or buckles whose date of manufacture cannot be determined, except not those buckles repaired with the installation of an airworthy buckle handle after May 31, 2007, and marked with a BLUE logo on the center button. In the NPRM, the FAA also proposed to clarify that the unsafe condition could result in occupants not being able to release the buckle in certain emergency landing conditions. Furthermore, the FAA proposed to require using the revised service bulletin to accomplish its requirements and add a special flight permit limitation.

Lastly, the NPRM updated the contact information to obtain related material, and the FAA proposed to move and update the contents of Note 1 in AD 2021-07-13 to the preamble of this AD.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from seven commenters. The commenters were Air Wisconsin Airlines, American Airlines (AAL), All Nippon Airways (ANA), Delta Air Lines, Inc., Horizon Air, Southwest Airlines, and United Airlines (UAL). The following presents the comments received on the NPRM and the FAA's response to each comment.

Requests to Correct the Date of the Related Material

Delta Air Lines, Inc. and Horizon Air requested the FAA revise Note 1 to paragraph (c)(1) of the Applicability paragraph to update the date for Meggitt Service Information Letter SIL Restraint-25-002-2023, dated January 24, 2023. The commenters stated the updated publication date of this related material is September 25, 2023, and not January 24, 2023.

The FAA agrees and has revised the citations of that service information letter in Note 1 to paragraph (c)(1) of this AD, as well as the Other Related Material section in this final rule.

Request to Exclude Newly Manufactured Aircraft

Delta Airlines, Inc. stated that it is receiving newly-manufactured airplanes with the restraint systems provided in the related material. Delta Airlines, Inc. further commented that Meggitt information specifies that buckles produced after May 2007 do

not have the safety concern and are considered airworthy. Accordingly, Delta Airlines, Inc. requested the FAA revise paragraph (c)(1) of the proposed AD to exclude these aircraft that are new into service as these aircraft will have brand new buckles installed after 2007.

The FAA disagrees. The FAA determined because Meggitt is the Technical Standard Order Authorization (TSOA) holder and does not hold an approval for installation of the restraints, it is not responsible for recording or controlling which aircraft airframes the applicable restraint systems are installed on. Individual operators may request an alternative method of compliance (AMOC) under the provisions of paragraph (j) of this AD if they believe that the installed buckle on their aircraft's restraint system is airworthy.

Requests to Exclude Buckles with a Metal Handle or BLUE Logo

Delta Airlines, Inc. requested the FAA revise paragraphs (c) and (g)(3) of the proposed AD to exclude buckles having a metal handle. AAL and UAL requested the FAA confirm that buckles with a BLUE logo, regardless of the date of manufacturer or the date of repair, are compliant.

The FAA partially agrees. The FAA agrees that buckles with a metal handle or a BLUE logo on the center button are not subject to this AD. The FAA disagrees with specifically stating in paragraphs (c) and (g)(3) of this AD that buckles with a metal handle are excluded from the AD because the additional wording is not necessary since the text already specifies that applicable handles are plastic. However, for clarification, the FAA has added a note to paragraph (c)(1) of this AD specifying that this AD does not apply to metal buckles or buckles with a BLUE logo on the center button.

Request to Exclude Buckles with a Yellow or Gold Logo and Missing Date of Manufacture

Southwest Airlines stated that AD 2021-07-13 allowed "yellow/gold" logo buttons with compliant plastic handles. Southwest Airlines requests the FAA allow the option to continue the use of buckles that were previously inspected and compliant per AD 2021-07-13 that have a yellow or gold logo button but are missing the date of manufacturer due to premature wear.

The FAA disagrees. AD 2021-07-13 did not reference buckles having a yellow or gold logo on the center button. Therefore, the FAA has made no changes to this final rule based on that comment.

Comment Regarding Allowable Buckle Vane Handle Thickness

ANA requested clarification regarding paragraph (g)(2) of the proposed AD, which specifies that a buckle vane handle thickness of 0.125 inch or greater is unacceptable, whereas Meggitt Service Bulletin SB 25-1111432, Revision 002, states that a thickness (less than or) equal to 0.125 inch is acceptable.

The FAA acknowledges this comment and has revised paragraph (g)(2) of this AD to require corrective action only if the buckle handle vane thickness is greater than 0.125 inch and paragraph (g)(3) of this AD to prohibit installing a buckle with a buckle handle vane thickness greater than 0.125 inch.

Comments Regarding Credit for Previous Actions

AAL and Horizon Air requested the FAA revise paragraph (h) of the proposed AD to allow credit for paragraph (g)(1) of the proposed AD if those actions were previously accomplished in accordance with previously issued related material.

The FAA agrees to allow credit for paragraph (g)(1) of this AD if the inspection of the buckle handle for a crack was previously accomplished in accordance with Pacific Scientific Service Bulletin SB 25-1111432, dated May 22, 2007 (SB 25-1111432); or Meggitt Service Bulletin SB 25-1111432, Revision 001, dated May 20, 2021 (SB 25-1111432 Rev 001). The FAA has revised paragraph (h) of this AD accordingly.

Air Wisconsin Airlines and Southwest Airlines requested the FAA revise paragraph (h) of the proposed AD to allow credit for paragraph (g)(1) of the proposed AD, if the buckle handle inspection was completed in accordance with AD 2021-07-13.

The FAA acknowledges these comments and infers concern that some buckles may be inspected for a crack twice unnecessarily, once as required by AD 2021-07-13 and again as required by this AD. Instead of revising paragraph (h) of this AD for this credit, the FAA has revised paragraph (g)(1) of this AD to clarify the requirement to inspect for a crack, unless already done.

UAL stated the proposed AD allows credit for previous actions if the thickness of the vane was measured using previous service bulletin revisions. UAL requested the FAA clarify that measurement of the buckle handle vane thickness or replacement of the buckle as required in paragraph (g)(2) of the proposed AD would be credit for previous actions.

The FAA agrees. The FAA is allowing credit for accomplishing the procedures to measure the buckle handle vane thickness by following SB 25-111432 or SB 25-111432 Rev 001 if done before the effective date of this AD, and the FAA is allowing credit for the resultant measurement and, if required the replacement based on the buckle vane thickness.

Delta Airlines stated the FAA AMOC approval letter AIR-730-21-207 allowed to first inspect the buckle for a BLUE logo or a metal configuration, and if there was a BLUE logo or the buckle was metal, no further inspections were required. Delta Airlines further stated that Parker Meggitt material specified that buckles produced or repaired after 2007 are marked with a BLUE logo on the center button, and these buckles along with metal buckles are compliant per the previously described AMOC. Accordingly, Delta Airlines requested the FAA revise paragraph (h) of the proposed AD to include credit for paragraphs (g)(1) and (g)(2) of the proposed AD if the inspection was accomplished using FAA AMOC approval letter AIR-730-21-207, dated June 29, 2021.

The FAA disagrees. The applicability of this AD already limits the applicability to plastic buckles and exempts buckles marked with a BLUE logo on the center button, therefore this AD does not apply to metal buckles and buckles marked with a BLUE logo on the center button. To clarify this, the FAA has revised this AD by adding a note to the applicability which specifies that this AD does not apply to metal buckles or buckles with a BLUE logo on the center button. Additionally, as proposed in the NPRM and as adopted in paragraph (j)(3) of this AD, AMOCs approved for AD 2021-07-13 are approved as AMOCs for the corresponding requirements of this AD. Therefore, the FAA has made no changes to this final rule's requirements based on that comment.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting the AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Material Incorporated by Reference under 1 CFR Part 51

The FAA reviewed Parker Meggitt Service Bulletin SB 25-1111432, Revision 002, dated September 12, 2023 (SB 25-1111432 Rev 002), which specifies procedures for inspecting certain buckles for a crack, and measuring each buckle handle vane for correct thickness. SB 25-1111432 Rev 002 also specifies procedures for corrective actions, including but not limited to, removing and returning the buckle assembly or restraint assembly to Parker Meggitt for overhaul or replacement; and removing the buckle assembly or restraint assembly and replacing them with spare, new, or repaired assemblies. An applicable buckle may be included as a component of a different part-numbered restraint system assembly. Table 1 of SB 25-1111432 Rev 002 identifies restraint system P/Ns that may be affected.

This material 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.

Other Related Material

The FAA also reviewed Meggitt Service Information Letter SIL Restraint-25-002-2023, dated September 25, 2023, which specifies procedures for locating the date of manufacture on various buckles.

Differences Between This AD and the Related Material

Where the related material specifies sending affected parts to the manufacturer, this AD does not require that action. The related material does not specify a compliance time to inspect for a crack or measure for thickness, whereas this AD requires inspecting

the buckle handle for a crack within 6 months and measuring the buckle handle vane thickness within 12 months.

Costs of Compliance

The FAA estimates that this AD affects up to 1,435 restraint systems installed on aircraft of U.S. registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Inspecting a buckle handle for a crack and measuring thickness will take a minimal amount of time for a nominal cost.

If required, replacing a buckle will take 0.5 work-hour and parts will cost \$636 for an estimated cost of \$679 per buckle replacement. As an option, replacing a restraint system will take 0.5 work-hour and parts will cost \$1,031 for an estimated cost of \$1,074 per restraint system replacement.

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.

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:

a. Removing Airworthiness Directive 2021-07-13, Amendment 39-21490 (86 FR 17703, April 6, 2021); and

b. Adding the following new airworthiness directive:

2024-26-02 Various Airplanes and Helicopters: Amendment 39-22917; Docket No. FAA-2024-0996; Project Identifier AD-2023-00365-A,Q,R,T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-07-13, Amendment 39-21490 (86 FR 17703, April 6, 2021) (AD 2021-07-13).

(c) Applicability

(1) This AD applies to all airplanes and helicopters, certificated in any category, with a restraint system with a Pacific Scientific Company plastic rotary buckle assembly (buckle) part number (P/N) 1111430 or P/N 1111475 (all dash numbers) installed having

a date of manufacture on or before May 31, 2007, or an unknown date of manufacture, except not those buckles repaired with the installation of an airworthy buckle handle after May 31, 2007, and marked with a BLUE logo on the center button.

Note 1 to paragraph (c)(1): Information about the location of the date of manufacture can be found in Meggitt Service Information Letter SIL Restraint-25-002-2023, dated September 25, 2023.

Note 2 to paragraph (c)(1): This AD does not apply to buckles made of metal or to buckles with a BLUE logo on the center button.

(2) The buckles identified in paragraph (c)(1) of this AD may be installed on, but not limited to, The Boeing Company, Bombardier Inc., Learjet Inc., Mitsubishi Heavy Industries, Ltd., Textron Aviation, Inc. (type certificate (TC) previously held by Cessna Aircraft Company), and Viking Air Limited (TC previously held by de Havilland, Inc.) model airplanes and Airbus Helicopters (TC previously held by Eurocopter France) model helicopters, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code: 2500, Cabin Equipment/Furnishings.

(e) Unsafe Condition

This AD was prompted by reports of cracked buckle handles and updated manufacturer material. The FAA is issuing this AD to inspect for cracks and thickness of the buckle handle. The unsafe condition, if not addressed, could prevent a strap from releasing when the buckle is rotated, which could result in occupants not being able to release the buckle in certain emergency landing conditions.

(f) Compliance

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

(g) Required Actions

(1) Within 6 months after the effective date of this AD, unless already done, inspect the buckle handle for a crack. If there is any crack, before further flight, remove

the buckle from service and replace it with an airworthy buckle, or remove the restraint system from service and replace it with an airworthy restraint system.

(2) Within 12 months after the effective date of this AD, measure the thickness of the buckle handle vane as depicted in Figures 3 and 4 of Parker Meggitt Service Bulletin SB 25-1111432, Revision 002, dated September 12, 2023 (SB 25-1111432 Rev 002). If the buckle handle vane thickness is greater than 0.125 inch, before further flight, remove the buckle from service and replace it with an airworthy buckle, or remove the restraint system from service and replace it with an airworthy restraint system.

Note 3 to paragraph (g)(2): SB 25-1111432 Rev 002 refers to a buckle as both a buckle and buckle assembly, interchangeably. Buckles with a buckle handle vane thickness equal to or less than 0.125 inch are considered airworthy.

(3) As of the effective date of this AD, do not install any plastic buckle P/N 1111430 or P/N 1111475 (all dash numbers), with a buckle handle vane thickness greater than 0.125 inch, or any restraint system with a buckle P/N 1111430 or 1111475 (all dash numbers), with a buckle handle vane thickness greater than 0.125 inch installed, with the buckle having a date of manufacture on or before May 31, 2007, or if the date of manufacture cannot be determined, on any airplane or helicopter, unless the buckle has been repaired with the installation of an airworthy buckle handle after May 31, 2007, and is marked with a BLUE logo on the center button.

(h) Credit for Previous Actions

(1) If you inspected the buckle handle for a crack as required by paragraph (g)(1) of this AD before the effective date of this AD using Pacific Scientific Service Bulletin SB 25-1111432, dated May 22, 2007 (SB 25-1111432), or using Meggitt Service Bulletin SB 25-1111432, Revision 001, dated May 20, 2021 (SB 25-1111432 Rev 001), you have met that requirement.

(2) If you measured the thickness of the buckle handle vane and replaced an affected buckle as required by paragraph (g)(2) of this AD before the effective date of this AD using SB 25-1111432 or SB 25-1111432 Rev 001, you have met that requirement.

(i) Special Flight Permits

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199, provided that there are no passengers onboard.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, West Certification 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 West Certification Branch, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: AMOC@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) AMOCs approved for AD 2021-07-13 are approved as AMOCs for the corresponding requirements of this AD.

(k) Related Information

(1) For more information about this AD, contact Hal Jensen, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (303) 342-1080; email: hal.jensen@faa.gov.

(2) Meggitt and Pacific Scientific material identified in this AD that are not incorporated by reference can be available at the contact information specified in paragraph (l)(3) of this AD.

(l) Material Incorporated by Reference

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

(2) You must use this material as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Parker Meggitt Service Bulletin SB 25-1111432, Revision 002, dated September 12, 2023.

(ii) [Reserved]

(3) For material identified in this AD, contact Parker Meggitt Services, 1785 Voyager Avenue, Simi Valley, CA 93063; phone: (877) 666-0712; email: TechSupport@meggitt.com.

(4) You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call: (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email: fr.inspection@nara.gov.

Issued on December 18, 2024.

Victor Wicklund,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2025-02051 Filed: 1/30/2025 8:45 am; Publication Date: 1/31/2025]