



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2024-0230; Project Identifier AD-2023-01064-A,Q,T]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Various Airplanes**

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

**ACTION:** Supplemental notice of proposed rulemaking (SNPRM).

**SUMMARY:** The FAA is revising a notice of proposed rulemaking (NPRM) that applied to all airplanes with certain Pacific Scientific Company rotary buckle assemblies (buckles) installed. This action revises the NPRM by expanding the applicability and updating the referenced material. As an option to the actions proposed by this SNPRM, this SNPRM would allow removing the male side from the lap of the restraint system assembly and installing a placard stating that use of the seat is prohibited; use of that crewmember seat or passenger seat would then be prohibited until the actions proposed by this SNPRM are accomplished and the male side from the lap of the restraint system assembly is reinstalled. The NPRM was prompted by a report of a manufacturing defect in the screws used inside the buckle; this SNPRM is prompted by the discovery that additional screws are affected by the unsafe condition. The FAA is proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since these actions would impose an additional burden over that in the NPRM, the FAA is requesting comments on this SNPRM.

**DATES:** The FAA must receive comments on this SNPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**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 [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0230; 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 SNPRM, any comments received, and other information. The street address for Docket Operations is listed above.

*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](mailto:TechSupport@meggitt.com); website: [meggitt.com/services\\_and\\_support/customer\\_experience/update-on-buckle-assembly-service-bulletins](https://www.meggitt.com/services_and_support/customer_experience/update-on-buckle-assembly-service-bulletins).

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0230.

**FOR FURTHER INFORMATION CONTACT:** David Kim, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: 562-627-5274; email: David.Kim@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites 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-2024-0230; Project Identifier AD 2023-01064-A,Q,T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may again revise this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

**Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this SNPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this SNPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public

docket of this SNPRM. Submissions containing CBI should be sent to David Kim, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: 562-627-5274; email: David.Kim@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

The FAA issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to all airplanes with a Pacific Scientific Company buckle part number (P/N) 1111475 (all dash numbers) or P/N 1111548-01 installed, if the buckle was manufactured between January 2012 and September 2012 inclusive or has an unknown date of manufacture (DOM). The NPRM published in the *Federal Register* on February 29, 2024 (89 FR 14783). The NPRM was prompted by a report of a 2012 manufacturing defect in the screws used inside Pacific Scientific Company buckle P/N 1111475 (all dash numbers) and P/N 1111548-01. The screws used to fasten the load plate to the body of the buckle were found to be susceptible to hydrogen embrittlement due to improper baking during the electroplating process. This condition leads the screwhead to separate from the body of the screw when under load, which could result in the buckle failing to restrain the occupant to the seat. This condition was identified in screw Lots 348601-A and 348994-A, which were manufactured between January 2012 and September 2012, and were the first two lots of screws received by Pacific Scientific Company from a new supplier.

In the NPRM for airplanes with the identified buckle, the FAA proposed to require inspecting each buckle screw for cracked, loose, and missing screw heads and, depending on the results, replacing the buckle or inspecting each screw to determine if any screw has a Torx head. Depending on the results of that screw inspection, the NPRM proposed to require reassembling the buckle (if necessary) and reidentifying it with “INS.

A” or replacing each Torx head screw with a hex head screw, reassembling the buckle, and reidentifying the buckle with “MOD. A.” If a screw head broke off during disassembly, the NPRM proposed to require replacing the buckle with an airworthy buckle. Lastly, the NPRM proposed to prohibit installing an identified buckle unless it was marked with “MOD. A” or “INS. A.”

### **Actions Since the NPRM was Issued**

Since the FAA issued the NPRM, further review by the manufacturer revealed that an additional lot of screws, Lot 358764-A, is also affected by the same unsafe condition, which expands the DOM to April 2013 inclusive. These same part-numbered buckles may also be installed in helicopters; the FAA published separate rulemaking, AD 2024-20-04, Amendment 39-22863 (89 FR 85040, October 25, 2024) (AD 2024-20-04), to address all helicopters with a Pacific Scientific Company buckle P/N 1111475 (all dash numbers) or P/N 1111548-01 having a DOM between January 2012 and April 2013 inclusive, or an unknown DOM installed.

Parker Meggitt also revised Service Bulletin (SB) 1111475-25-001-2023 and SB 1111548-25-001-2023, each Revision 001 and dated December 1, 2023 (SB 1111475-25-001-2023 Rev 001 and SB 1111548-25-001-2023 Rev 001), to SB 1111475-25-001-2023 and SB 1111548-25-001-2023, each Revision 002 and dated April 1, 2024 (SB 1111475-25-001-2023 Rev 002 and SB 1111548-25-001-2023 Rev 002). SB 1111475-25-001-2023 Rev 002 and SB 1111548-25-001-2023 Rev 002 specify the same procedures as SB 1111475-25-001-2023 Rev 001 and SB 1111548-25-001-2023 Rev 001, except SB 1111475-25-001-2023 Rev 002 and SB 1111548-25-001-2023 Rev 002 expand the applicability, update material and tooling information, add and clarify certain Accomplishment Instructions procedures, and update figures. A paragraph was added to this proposed AD to provide credit if certain actions were accomplished using SB 1111475-25-001-2023 Rev 001 and SB 1111548-25-001-2023 Rev 001.

The subject matter has been updated to reflect both the Air Transport Association (ATA) and Joint Aircraft System Component (JASC) Codes.

Additionally, based on comments received on AD 2024-01-11 questioning if the AD was a rotorcraft or appliance AD, the FAA has updated the project ID by adding the letters “A” and “T” to show the project types for this proposed action as small airplane and transport airplane in addition to the letter “Q” which signifies that the product type is appliance.

The FAA is proposing this AD to address the unsafe condition on these products.

### **Comments to the NPRM**

The FAA received comments from nine commenters, including Air Canada, Airbus Atlantic, Airbus SAS, American Airlines, Boeing, Collins Aerospace, Delta Air Lines, Inc., Qatar Airways, and Southwest Airlines. The following presents the comments received on the NPRM and the FAA’s response to each relevant comment.

### **Request for Clarification of the Applicability and Compliance Time**

Air Canada, Collins Aerospace, and Qatar Airways requested clarification regarding the applicability and proposed AD compliance time. Commenters requested clarification regarding the proposed inspections and if the AD would require inspecting all buckles despite the DOM and if compliance with this AD would start with checking the applicability or by inspecting the screws.

The FAA acknowledges these comments and infers concern that some buckles may be repaired or replaced unnecessarily due to the date of manufacture not being legible. Applicable part-numbered buckles with an illegible or missing DOM, including those that may have never been marked, are considered as having an unknown DOM for the purposes of this proposed AD and would be required to comply with the proposed AD requirements. Additionally, the proposed compliance time to accomplish the inspections is within 12 months after the AD’s effective date; only if, as a result of the

inspections, it is determined that a Torx head screw is installed, is replacing each Torx head screw is required before further flight. The DOM marking was added to buckle P/N 1111475 (all dash numbers) after the initial 2012 investigation while buckle P/N 1111548-01 has always been marked with the DOM. Additionally, part marking preservation and reidentification is the responsibility of operators. As regards to if the applicability applies to all buckles, the proposed AD has limited the applicability to certain buckles with a DOM between January 2012 and April 2013 or if the DOM is not legible.

### **Requests Regarding the Magnet Used for the Magnet Test**

Southwest Airlines stated that the magnetism strength of the magnet is the representative physical quantity to determine if each screw has a Torx head or hex head in the magnet test. Airbus Atlantic and Southwest Airlines asked if Meggitt would provide more precise information concerning the magnet, particularly its magnetism strength. In addition, Airbus Atlantic requested that Meggitt specify the magnet as a special tool within the applicable Service Bulletin and provide the magnet to operators. Southwest Airlines commented that different magnets could lead to erroneous results.

The FAA agrees that information regarding the magnet used for the magnet test is beneficial for accomplishing the proposed inspections. Since the NPRM was issued, SB 1111475-25-001-2023 Rev 001 has been revised to Rev 002, to incorporate various changes, including the addition of a website link to magnet P/N 5862K104 under the Material Information, paragraph G. – Special Tooling. The website at this link provides various magnet specification information. SB 1111475-25-001-2023 Rev 002 also recommends certain magnet dimensions and explains that a magnet that is strong enough to not slip off the buckle suffices for the purposes of the magnet test. The FAA does not agree that the use of different magnets could lead to erroneous results. If a magnet is not strong enough, the procedures require that a different inspection method is used. Regarding the request for Meggitt to provide a magnet, the FAA does not have the

authority to require a manufacturer to send any tooling to an operator.

### **Request for Clarification for Using the Magnet**

Airbus SAS requested additional guidance for using the magnet and commented that during the magnet test to inspect for the type of screw, the magnet must be in the hands of the person in charge of the inspection at all times and not in proximity of any aircraft system.

The FAA agrees that a magnet should not be in proximity to any aircraft system because magnets can cause damage to those systems. This is reasonably understood to be standard maintenance practice. We disagree with the statement that the magnet needs to always be in the hands of the person performing the inspections. No changes are made to this SNPRM as a result of this comment.

### **Request for Clarification of the Torque Values and Tools Required**

Airbus SAS requested clarification of the tools and the specified torque values required to complete the proposed actions. Airbus SAS state that torque values and dimensions of the thin metal stock should be provided.

The FAA agrees and SB 1111475-25-001-2023 Rev 001, as well as SB 1111548-25-001-2023 Rev 001, were revised to Rev 002, to incorporate various changes, including the torque values, dimensions of the thin metal stock, and magnet specifications. The FAA has updated this SNPRM to reference revision 002 of the service bulletins.

### **Request for Clarification of the Disassembly Inspection**

Airbus SAS states a concern with foreign object debris inside the flight deck and proposes that any opening of the rotational buckle be done outside of the aircraft, in-shop, or in any facility approved by the supplier for this task.

The FAA disagrees that the task must be performed outside the aircraft. These comments do not correct any proposed actions in the NPRM, and it is reasonably

understood to be standard maintenance practices to maintain a clean workspace and proper tool containment to prevent foreign object debris. No changes were made to this SNPRM.

### **Request for Clarification of the Visual Inspection**

Airbus SAS commented that the risk of operator error in determining the screw head type based on the method described in the SB can be questioned due to limited visual access to the screws. Therefore, the proposed AD should emphasize that in case of any doubt, the operator shall confirm head types using either method #1 or method #3 (outside aircraft only).

The FAA disagrees with this comment. The FAA concluded the methods described in the SBs are appropriate for inspection of the screws. No changes are made in this SNPRM.

### **Request for Clarification of the Applicability**

American Airlines requested clarification regarding affected parts. They asked whether the FAA thinks there is a concern that any buckle with the applicable P/Ns may have had affected screws installed during repair and therefore all buckles with the affected part numbers must be inspected for screw installation and not DOM. American Airlines further states that they repair their associated restraint assemblies and they believe there may be a possibility of affected screws being installed on belts manufactured before or after the DOM provided in the applicability of the proposed AD and service information, though Parker Meggitt communicated to American Airlines that none of the lots of screws were shipped out individually as subcomponent spares orders and that screw replacement is uncommon.

The FAA is not aware of any non-conforming screws installed in any buckle assemblies other than those identified in the applicability of this SNPRM. Accordingly, the FAA determines there is insufficient data at this time to support further expanding the

applicability above what is proposed in this SNPRM. However, should additional information reveal otherwise, the FAA may consider further rulemaking to expand the applicability.

#### **Request to Reidentify Buckles with “INS A”**

American Airlines commented that in the NPRM, paragraph 2.(g)(2)(ii) does not offer the same options as paragraph 2.(g)(1)(ii)(A) and (B) to determine if there are Torx head screws and reassemble the buckle if there are none. American Airlines requests that instructions similar to paragraph 2.(g)(1)(ii)(A) and (B) be added to paragraph 2.(g)(2)(ii) to allow the buckle to be reassembled and reidentified with “INS. A” if no Torx head screws are discovered. Parker Meggitt has communicated that SB 1111548-25-001-2023 will be revised with instructions to reidentify the buckle with “INS. A” if no Torx head screws are discovered.

The FAA agrees, SB 1111548-25-001-2023 was revised to include additional steps to mark the buckle with “INS A” if the correct screws were installed and the FAA has revised this SNPRM accordingly.

#### **Request to Use Later-Approved Service Bulletins**

American Airlines requests that the use of future revisions of the service bulletin to comply with the proposed AD be allowed.

The FAA disagrees with the commenter’s request. The FAA may not refer to any document that does not yet exist in an AD. 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 document 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.

To allow operators to use later revisions of the referenced document (issued after publication of the AD), the FAA must either supersede the AD to reference specific later revisions, or operators must request approval to use later revisions as an alternative method of compliance (AMOC) under the provisions of paragraph (j) of this proposed AD. No changes are made in this SNPRM.

### **Request to Clarify Spare Parts**

American Airlines stated that there are no actions for spare parts except that no affected parts should be installed after the effective date of the proposed AD. American Airlines requests that the FAA clarify if it was intentional that spare parts owned by the airline do not require inspection by the effective date.

The FAA position is that spare buckles that have not been inspected or repaired are considered unairworthy and must not be installed on aircraft. Paragraph (h) of this proposed AD prohibits installing any affected buckle unless it is inspected or modified and the 12 month compliance time does not apply to spare parts. To the extent that spare parts may not be available to replace parts that fail the inspection requirements of this proposed AD, the FAA cannot base AD actions on parts availability. While every effort is made to avoid grounding aircraft, the FAA must address the unsafe condition. No changes are made in this SNPRM.

### **Request to Change the Buckle Part Number**

Airbus Atlantic, American Airlines, and Southwest Airlines requested that the design approval holder change the P/N of the buckle after completing the inspection or repair. The three commenters requested that newly-manufactured buckles be marked with a new P/N, "INS.A", or a secondary method of marking to easily distinguish between potentially suspect buckles with Torx head and AD-compliant parts that have stainless steel hex heads. The commenters are concerned that lack of a differentiating P/N to suspect buckles will drive higher compliance risk to the operators. In addition, the

commenters request changing to a more durable label on the P/N 1111475 series buckles because the current label with the part number and DOM wears prematurely, making the markings unreadable, and potentially increasing the number of inspections.

The FAA acknowledges that the manufacturer introducing a new P/N for newly-manufactured parts is ideal; however, the FAA cannot mandate a company to change a P/N for an article. Applicable part-numbered buckles with an illegible or missing DOM, including those that may have never been marked, are considered as having an unknown DOM for the purposes of this proposed AD and would be required to comply with the proposed AD actions. The DOM marking was added to buckle P/N 1111475 (all dash numbers) after the initial 2012 investigation while buckle P/N 1111548-01 has always been marked with the DOM. Additionally, part marking preservation and reidentification is the responsibility of operators. No changes are made in this SNPRM.

#### **Request to Clarify the Proposed AD's Applicability**

Boeing requested that the proposed AD's applicability include the DOM. Boeing states that, as written, paragraph (g) of the proposed AD could be confused to mean that all part-numbered buckles, regardless of DOM, would require an in-depth inspection and repair, or replacement.

The FAA disagrees with this request because the applicability, as written, clearly specifies that AD applies to airplanes with specific part-numbered buckles with specific dates of manufacture or an unknown DOM; this SNPRM contains no changes in regard to the comment.

#### **Request to Clarify the Installation Prohibition**

Boeing requested the applicability be changed to account for buckles installed on airplanes manufactured after the date specified in the applicability. Boeing requested that airplanes with an original manufacture date after issuance of this proposed AD be exempt from the proposed required actions but still be required to comply with installation

prohibition; Boeing stated that these airplanes would not have the suspected buckles installed.

The FAA agrees, this proposed AD is for all airplanes with a certain buckle installed. Aircraft manufactured after April 2013 might not have the affected buckles installed, but an affected buckle might have been installed after delivery. Therefore, all aircraft must comply with the installation prohibition paragraph and not install an affected buckle. No changes are made in this SNPRM.

### **Request to a Define Airworthy**

Collins Aerospace requested a definition be added to the proposed AD to define an “airworthy” buckle as a buckle with a known DOM to be outside of DOM or repaired buckle that is within the DOM and includes the “MOD. A” etching.

The FAA disagrees that a definition of airworthy is needed and made no changes to this SNPRM in that regard.

### **Request to a Clarify Repairing a Buckle**

Collins Aerospace and Delta Air Lines both requested that the FAA specify where a buckle can be repaired and questioned whether the buckle can be repaired instead of replaced. Delta Air Lines also requested that the statement “except you are not required to return any parts to Parker Meggitt” in paragraph (g)(1)(B) of the proposed AD be similarly added to paragraph (g)(1)(i) and (g)(2)(i) of the proposed AD.

The FAA determination is that a repaired buckle is an airworthy buckle. The Differences Between this Proposed AD and the Referenced Material section also clarifies that this proposed AD would not require returning the buckle to Parker Meggitt. Although the service information requires returning buckles to Parker Meggitt, this proposed AD would not have this requirement because the FAA does not have the authority to direct operators to return defective components to the manufacturer in this proposed AD. If an operator chooses to return a damaged buckle to Parker Meggitt for

repair as the proposed AD would not prohibit an operator from doing so. Operators may also request approval of any specific actions, including any specific corrective actions, as an AMOC under the provisions of paragraph (j) of this proposed AD. No changes in this regard are made in this SNPRM.

#### **Request to Update the Number of Affected Buckles and Date of Manufacture**

Collins Aerospace requested that the number of affected buckles be updated in the Cost of Compliance and the DOM be changed in the applicability because the DOM has increased from September 2012 to April 2013.

The FAA agrees and has included an updated number for the affected population and has changed DOM in the applicability from September 2012 to April 2013.

#### **Request to Include Link to Service Bulletin in Required Actions**

Collins Aerospace requested a link to the service bulletin be provided in the required actions if a bulletin is referenced.

The FAA disagrees as links to referenced material are not provided in the required actions. The ADDRESSES section, as well as paragraph (l) of this AD, Material Incorporated by Reference, provide availability information for the service bulletins, including the website requested by Collins Aerospace. This material is also available to interested parties through their normal course of business. No changes are made in this SNPRM.

#### **Request to Extend the Compliance Time**

American Airlines, Delta Air Lines, and Qatar Airways requested an extension of the compliance time ranging from 18-36 months due to spare lead times, maintenance program intervals, and fleet size.

The FAA disagrees; the proposed 12-month compliance time was determined after factoring an estimated 12-month processing time before issuance of the final rule of this proposed AD and evaluating risks. According to the manufacturer, an ample number

of spare parts and screws are in stock and will be available to modify the U.S. fleet within the proposed compliance time. To the extent that spare parts may not be available to replace parts that fail the inspection requirements of this proposed AD, the FAA cannot base AD actions on parts availability. While every effort is made to avoid grounding aircraft, the FAA must address the unsafe condition. The FAA did not make any changes to this SNPRM as a result of this comment.

### **Request to Replace the Buckle Instead of Complying with the AD**

American Airlines, Delta Air Lines, and Southwest Airlines requested an option to replace the buckle with an airworthy buckle instead of inspecting and repairing it. Southwest Airlines requested clarification of the FAA's position regarding deactivating non-operational seats per their approved MEL (Minimum Equipment List).

The FAA agrees to clarify. It is understood that when an affected buckle is replaced with an airworthy buckle the AD no longer applies per the applicability paragraph. The FAA infers that Southwest Airlines is requesting the FAA change the AD to allow deactivating and placarding observer and flight attendant seats with affected parts as "inoperative". The FAA agrees with the commenter's request and has added an optional action for the proposed AD requirements. This AD would allow, for a crewmember seat or passenger seat with a restraint system with an affected buckle installed, removing the male side from the lap of the restraint system assembly and fabricating and installing a placard on the seat stating that use of the seat is prohibited. Use of that crewmember seat or passenger seat would then be prohibited until the actions proposed by this SNPRM are accomplished and the male side from the lap of the restraint system assembly is reinstalled.

### **FAA's Determination**

The FAA is proposing this AD after determining the unsafe condition described previously is likely to exist or develop in other products of the same type design. Certain

changes described above expand the scope of the NPRM. As a result, it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

### **Material Incorporated by Reference under 1 CFR Part 51**

The FAA reviewed SB 1111475-25-001-2023 Rev 002 for buckle P/N 1111475 and SB 1111548-25-001-2023 Rev 002 for buckle P/N 1111548-01. This material specifies procedures for inspecting the buckle for any missing or loose screw heads and, depending on the results, replacing the buckle and sending the removed buckle to Parker Meggitt for repair or replacement. If after that first inspection, all of the screw heads are intact, this material specifies procedures for inspecting the buckle for any Torx head screws (alloy steel) and, depending on the results, allowing the buckle assembly to remain in-service temporarily, replacing any Torx head screws (alloy steel) with new hex head screws (stainless steel), and checking the functionality of the buckle. This material also specifies procedures for removing a buckle from a restraint system, installing a buckle on a restraint system, and returning buckles to Parker Meggitt. If the buckle passes the specified inspections or is modified by replacing Torx head screws (alloy steel) with new hex head screws (stainless steel) screws, this material specifies procedures for reidentifying the back of the buckle.

The buckle may be included as a component of a different part-numbered restraint system assembly. This material identifies known affected restraint system assembly P/Ns.

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.

## **Proposed AD Requirements in this SNPRM**

This proposed AD would require accomplishing the actions specified in the material described previously, except as discussed under “Differences Between this SNPRM and the Referenced Material.”

## **Differences Between this SNPRM and the Referenced Material**

The material proposed for incorporation by reference does not specify any compliance times, whereas this proposed AD would require accomplishing the required actions within twelve months. This proposed AD would also prohibit installing an affected buckle on any airplane unless the buckle includes “MOD A” or “INS A” on the buckle as of the effective date of this AD.

The material proposed for incorporation by reference specifies sending any damaged buckles to Parker Meggitt for repair or replacement, and this proposed AD would not. Instead, this proposed AD would require replacing the buckle with an airworthy buckle.

The material proposed for incorporation by reference allows buckles with a Torx head (alloy steel) screw to remain in service temporarily and be replaced at a time convenient to the operator, and this proposed AD would not. If a buckle has any number of Torx head (alloy steel) screws installed, this proposed AD would require replacing all four screws with hex head screws before further flight.

If a screw head breaks off during disassembly of a buckle or if reassembly of a buckle is not possible, the material proposed for incorporation by reference specifies returning the buckle to Parker Meggitt, whereas this proposed AD would not. If a screw head breaks off during disassembly, this proposed AD would require replacing the buckle with an airworthy buckle. If reassembly of a buckle is not possible, then the buckle is not airworthy.

This proposed AD has the optional action, for a crewmember seat or passenger seat with a restraint system with an affected buckle installed, within 12 months after the effective date, of removing the male side from the lap of the restraint system assembly and fabricating and installing a placard on the seat stating that use of the seat is prohibited. Use of that crewmember seat or passenger seat would then be prohibited until the actions required by this proposed AD are accomplished and the male side from the lap of the restraint system assembly is reinstalled. The material proposed for incorporation by reference does not include this optional action.

**Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 21,313 buckles installed on restraint systems in aircraft worldwide. The FAA has no way of knowing the number of airplanes of U.S. Registry that may have a restraint system with an affected buckle installed. The estimated costs on U.S. operators reflects the maximum possible costs based on affected buckles installed on restraint systems in aircraft worldwide. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD:

**Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per buckle</b>	<b>Cost on U.S. operators</b>
Inspecting a buckle	.1 work-hour X \$85 per hour = \$9	\$0	\$9	Up to \$191,817

**Estimated costs for optional actions**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Removing male side of lap belt and placarding seat inoperative	1.5 work-hours X \$85 per hour = \$128	nominal	\$128

The FAA estimates the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. The agency has no way of determining the number of buckles that might need this repair:

**On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per buckle</b>
Replacing a set of screws (four)	.5 work-hour X \$85 per hour = \$43	nominal	\$43
Replacing a buckle	.5 work-hour X \$85 per hour = \$43	\$740	\$783
Reidentifying a buckle	minimal	nominal	nominal

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators.

**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**

The FAA 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) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

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

#### **§ 39.13 [Amended]**

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

**Various Airplanes:** Docket No. FAA-2024-0230; Project Identifier AD-2023-01064-A,T,Q.

**(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all airplanes, certificated in any category, with a restraint system with a Pacific Scientific Company rotary buckle assembly (buckle) part number (P/N) 1111475 (all dash numbers) or P/N 1111548-01 installed having a date of manufacture (DOM) between January 2012 and April 2013 inclusive, or an unknown DOM. These buckles may be installed on, but not limited to, The Boeing Company model airplanes.

**Note 1 to paragraph (c):** The buckle may be included as a component of a different part-numbered restraint system assembly.

**Note 2 to paragraph (c):** These buckles may also be installed on helicopters; however, the FAA determined that a shorter compliance time to accomplish the required actions is required for buckles installed on helicopters. Accordingly, the FAA published a separate AD (AD 2024-20-04, Amendment 39-22863 (89 FR 85040, October 25, 2024)) to address all helicopters with an affected buckle installed.

**(d) Subject**

Air Transport Association (ATA) of America Code: 25, Equipment Furnishing or Joint Aircraft System Component (JASC) Code 2500, Cabin Equipment/Furnishing; and 2510, Flight Compartment Equipment.

**(e) Unsafe Condition**

This AD was prompted by reports of a manufacturing defect in the screws used inside the buckle. The FAA is issuing this AD to prevent cracking and missing screw heads when under load. The unsafe condition, if not addressed, could result in a failure of the buckle to restrain the occupant.

**(f) Compliance**

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

**(g) Required Actions**

(1) For airplanes with buckle P/N 1111475 (all dash numbers), within 12 months after the effective date of this AD, inspect each buckle screw for cracked, loose, and missing screw heads by following the Accomplishment Instructions, paragraphs B.(1) and (2), of Parker Meggitt Service Bulletin (SB) 1111475-25-001-2023, Revision 002, dated April 1, 2024 (SB 1111475-25-001-2023 Rev 002).

(i) If any screw has a cracked, loose, or missing screw head, before further flight, replace the buckle with an airworthy buckle.

(ii) If none of the four screw heads are cracked, loose, or missing, before further flight, inspect each screw to determine if any screw has a Torx head by using one of the following methods in the Accomplishment Instructions of SB 1111475-25-001-2023 Rev 002: paragraph B.(4)(a) (Magnet Test); paragraph B.(4)(b) (Inspection); or paragraphs C.(2) through (4) (removing the buckle from the restraint system) and paragraphs D.(1)(a) through (d) (disassembling the buckle).

(A) If none of the four screws have a Torx head, before further flight, reassemble the buckle (if necessary) by following the Accomplishment Instructions, paragraphs D.(1)(f) through (l), of SB 1111475-25-001-2023 Rev 002, and reidentify the buckle with “INS. A” by following the Accomplishment Instructions, paragraph B.(6), of SB 1111475-25-001-2023 Rev 002.

(B) If at least one of the four screws has a Torx head, before further flight, with the buckle removed, replace each Torx head screw with a hex head screw, reassemble the buckle, and reidentify the buckle with “MOD. A” by following the Accomplishment Instructions, paragraphs D.(1)(e) through (m), of SB 1111475-25-001-2023 Rev 002, except you are not required to return any parts to Parker Meggitt. If a screw head breaks off during disassembly, before further flight, replace the buckle with an airworthy buckle.

**Note 3 to paragraph (g)(1):** SB 1111475-25-001-2023 Rev 002 refers to a magnifying glass as an “eye loupe.”

(2) For airplanes with buckle P/N 1111548-01, within 12 months after the effective date of this AD, inspect each buckle screw for cracked, loose, and missing screw heads by following the Accomplishment Instructions, paragraph B.(1), of Parker Meggitt SB 1111548-25-001-2023, Revision 002, dated April 1, 2024 (SB 1111548-25-001-2023 Rev 002).

(i) If any screw has a cracked, loose, or missing screw head, before further flight, replace the buckle with an airworthy buckle.

(ii) If none of the four screw heads are cracked, loose, or missing, before further flight, inspect each screw to determine which screws have a Torx head by using one of the following methods in the Accomplishment Instructions of SB 1111548-25-001-2023 Rev 002: paragraph B.(3)(a) (Inspection); or paragraph C. (removing the buckle from the restraint system) and paragraphs D.(1)(a) through (c) (disassembling the buckle).

(A) If none of the four screws have a Torx head, before further flight, reassemble the buckle (if necessary) by following the Accomplishment Instructions, paragraphs D.(1)(e) through (l), of SB 1111548-25-001-2023 Rev 002, and reidentify the buckle with “INS. A” by following the Accomplishment Instructions, paragraph B.(5), of SB 1111548-25-001-2023 Rev 002.

(B) If at least one of the four screws has a Torx head, before further flight, with the buckle removed, replace each Torx head screw with a hex head screw, reassemble the buckle, and reidentify the buckle with “MOD. A” by following the Accomplishment Instructions, paragraphs D.(1)(d) through (m), of SB 1111548-25-001-2023 Rev 002, except you are not required to return any parts to Parker Meggitt. If a screw head breaks off during disassembly, before further flight, replace the buckle with an airworthy buckle.

**Note 4 to paragraph (g)(2):** SB 1111548-25-001-2023 Rev 002 refers to a magnifying glass as an “eye loupe.”

(3) For a crewmember seat or passenger seat with a restraint system with a buckle identified in paragraph (c) of this AD installed, as an option for the actions required by paragraph (g)(1) or (2) of this AD, as applicable, within 12 months after the effective date of this AD:

(i) Remove the male side from the lap of the restraint system assembly.

(ii) Fabricate a placard using at least 1/8 inch letters with the words “USE OF THIS SEAT IS PROHIBITED” on it and install the placard on the seat within the crewmember or passenger’s clear view. The seat is then inoperative until the actions required by paragraph (g)(1) or (2) of this AD, as applicable, are accomplished and the male side from the lap of the restraint system assembly is reinstalled.

**(h) Parts Installation Prohibition**

As of the effective date of this AD, do not install a buckle identified in paragraph (c) of this AD on any airplane unless the buckle is marked with “MOD. A” or “INS. A.”

**(i) Credit for Previous Actions**

You may take credit for actions required by paragraph (g)(1) or (2) of this AD, as applicable, if the corresponding actions were performed before the effective date of this AD using Parker Meggitt SB 1111475-25-001-2023, Revision 001, dated December 1, 2023, or Parker Meggitt SB 1111548-25-001-2023, Revision 001, dated December 1,

2023, as applicable, and provided torque of 15 to 25 in-lbs (1.69 to 2.82 N-m) was applied on the four hex head screws (P/N 0901101-149) during any repair of the buckle.

**(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) of this AD. Information may be emailed to: [AMOC@faa.gov](mailto: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.

**(k) Additional Information**

For more information about this AD, contact David Kim, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: 562-627-5274; email: [David.Kim@faa.gov](mailto:David.Kim@faa.gov).

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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 1111475-25-001-2023, Revision 002, dated April 1, 2024.

(ii) Parker Meggitt Service Bulletin 1111548-25-001-2023, Revision 002, dated April 1, 2024.

(3) 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; website: meggitt.com/services\_and\_support/customer\_experience/update-on-buckle-assembly-service-bulletins.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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](http://www.archives.gov/federal-register/cfr/ibr-locations) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov).

Issued on January 30, 2025.

Victor Wicklund,  
Deputy Director, Compliance & Airworthiness Division,  
Aircraft Certification Service.  
[FR Doc. 2025-02239 Filed: 2/10/2025 8:45 am; Publication Date: 2/11/2025]