

[Federal Register: June 19, 2009 (Volume 74, Number 117)]  
[Rules and Regulations]  
[Page 29118-29121]  
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[DOCID:fr19jn09-4]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2009-0218; Directorate Identifier 2009-CE-006-AD; Amendment 39-15944; AD 2009-13-06]**

**RIN 2120-AA64**

**Airworthiness Directives; Piper Aircraft, Inc. PA-23, PA-31, and PA-42 Series Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Piper Aircraft, Inc. (Piper) PA-23 series airplanes and all PA-31 and PA-42 series airplanes. This AD establishes life limits for safety-critical nose baggage door components. This AD also requires you to replace those safety-critical nose baggage door components and repetitively inspect and lubricate the nose baggage door latching mechanism and lock assembly. This AD results from several incidents and accidents, including fatal accidents, where the nose baggage door opening in flight was listed as a causal factor. We are issuing this AD to detect and correct damaged, worn, corroded, or non-conforming nose baggage door components, which could result in the nose baggage door opening in flight. The door opening in flight could significantly affect the handling and performance of the aircraft. It could also allow baggage to be ejected from the nose baggage compartment and strike the propeller. This failure could lead to loss of control.

**DATES:** This AD becomes effective on July 24, 2009.

On July 24, 2009, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

**ADDRESSES:** To get the service information identified in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567-4361; fax: (772) 978-6573; Internet: <http://www.newpiper.com/company/publications.asp>.

To view the AD docket, go to U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, or on the Internet at <http://www.regulations.gov>. The docket number is FAA-2009-0218; Directorate Identifier 2009-CE-006-AD.

**FOR FURTHER INFORMATION CONTACT:** Gregory K. Noles, Aerospace Engineer, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6085; fax: (770) 703-6097.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On March 3, 2009, we issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Piper PA-23 series airplanes and all PA-31 and PA-42 series airplanes. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on March 10, 2009 (74 FR 10195). The NPRM proposed to establish life limits for safety-critical nose baggage door components. The NPRM also proposed to require replacement of those safety-critical nose baggage door components and repetitively inspect and lubricate the nose baggage door latching mechanism and lock assembly.

### **Comments**

We provided the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and FAA's response to each comment:

#### **Comment Issue No. 1: Require the Installation of a Secondary Forward Baggage Door Latch**

Iliamna Air Taxi, Inc. and others request the AD incorporate a secondary forward baggage door latch per supplemental type certificate (STC) number SA02331AK as part of the solution. The recommendations range from making the STC latch an additional action to this AD to having the STC latch as a terminating action for this AD. The commenters suggest the STC latch provides a cost-effective option that provides additional or improved safety to the AD action. One commenter questioned the validity of the AD action by referencing incidents/accidents that occurred after the FAA addressed National Transportation Safety Board (NTSB) safety recommendation A-78-004 from a related accident. The commenter also states that Piper has released two previous service bulletins that have not been effective in preventing incidents/accidents and believes this AD will also be ineffective.

The FAA disagrees. A properly inspected, maintained, and latched nose baggage door latch does not have an unsafe condition. The intent of this AD is to assure the nose baggage door latches properly and to alert the pilot to check that the door is properly latched. The STC latch, and other similar latches, do not directly infringe on the actions or intent of the AD and could, therefore, be installed at owner/operator discretion. The STC latch could potentially add another level of safety to the operation of the nose baggage door. However, no formal evidence exists that it could be considered a replacement or fail-safe system to the existing type design. Even if the STC latch were validated for a backup or fail-safe purpose, it is only approved for a limited number of the aircraft models affected by this AD and would not provide a comprehensive solution. For these reasons, the STC will remain an optional installation.

The FAA is not aware of any incidents or accidents that have been attributed to a latch when it is installed per the type design, maintained per the Instructions for Continued Airworthiness, and operated per required procedures. The NPRM and Piper Aircraft, Inc. Service Bulletin No. 1194A, dated November 10, 2008, are a valid solution. They highlight the importance of these measures, provide a detailed inspection program, and add life-limits to critical latch components. These steps are beyond any previous actions taken to provide the required level of safety.

We will not change the final rule AD action based on this comment.

## Comment Issue No. 2: Allow a Smaller Nose Baggage Door Placard

An anonymous commenter requests that we allow use of a smaller nose baggage door placard because the placard supplied in the piper part number 88451-002 kit is unnecessarily large for the application and “unsightly.”

The FAA agrees. A smaller placard can be considered for the application. We will change the AD to allow the use of a smaller placard provided the size of the letters is a minimum of 1/8-inch.

## Comment Issue No. 3: Revise the Emergency Procedures in the Pilot Operating Handbook (POH) To Add Procedures for the Nose Baggage Door Opening In-Flight

The NTSB commented that they support the AD and encourage dissemination to flight-related publications likely to be read by operators. However, they also commented that the AD should add emergency procedures to the POH for affected airplanes, indicating how pilots should respond to a nose baggage door inadvertently opening in-flight.

The FAA disagrees. Operation with the baggage door open is not permitted and evaluation of handling qualities with the baggage door open is not a regulatory requirement. Therefore, data for emergency procedures is not available because a configuration with the baggage door open has never been tested. Without test data, specific emergency procedures can not be recommended.

We will not change the final rule AD action based on this comment.

### Conclusion

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for the changes previously discussed and minor editorial corrections. We have determined that these minor corrections:

Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and

Do not add any additional burden upon the public than was already proposed in the NPRM.

### Costs of Compliance

We estimate that this AD affects 8,000 airplanes in the U.S. registry.

We estimate the following costs to do the inspection and parts replacement:

Labor Cost	Parts Cost	Total Cost Per Airplane	Total Cost on U.S. Operators
4 work-hours X \$80 per hour = \$ 320	\$190	\$510	\$4,080,000

### 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 AD.

## **Regulatory Findings**

We have determined that 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. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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.

We prepared a summary of the costs to comply with this AD (and other information as included in the Regulatory Evaluation) and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "Docket No. FAA-2009-0218; Directorate Identifier 2009-CE-006-AD" in your request.

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

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

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator,

[[Page 29120]]

the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. FAA amends § 39.13 by adding a new AD to read as follows:



**2009-13-06 Piper Aircraft, Inc.:** Amendment 39-15944; Docket No. FAA-2009-0218; Directorate Identifier 2009-CE-006-AD.

**Effective Date**

- (a) This AD becomes effective on July 24, 2009.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Models PA-23, PA-23-160, PA-23-235, PA-23-250, PA-23-250 (Navy UO-1), PA-E23-250, PA-31, PA-31-300, PA-31-325, PA-31-350, PA-31P, PA-31P-350, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-42, PA-42-720, and PA-42-1000 airplanes, all serial numbers, that are:

- (1) Certificated in any category; and
- (2) Equipped with a baggage door in the fuselage nose section (a nose baggage door).

**Unsafe Condition**

(d) This AD results from several incidents and accidents, including some fatal accidents, where the nose baggage door opening in flight was listed as a causal factor. We are issuing this AD to detect and correct damaged, worn, corroded, or non-conforming nose baggage door components, which could result in the nose baggage door opening in flight. The door opening in flight could significantly affect the handling and performance of the aircraft. It could also allow baggage to be ejected from the nose baggage compartment and strike the propeller. This failure could lead to loss of control.

## Compliance

(e) To address this problem, you must do the following, unless already done:

Actions	Compliance	Procedures
<p>(1) For all aircraft:</p> <p>(i) inspect the nose baggage door assembly for damaged, worn, corroded, or non-conforming components;</p> <p>(ii) replace life-limited components specified in the service information; and</p> <p>(iii) install or inspect, as applicable, the nose baggage placard following the service information.</p>	<p>(A) <u>Initially</u>: within 1,000 hours time-in-service (TIS) since all life-limited components were installed new following Piper Aircraft, Inc. Service Bulletin No. 1194A, dated November 10, 2008, or within the next 100 hours TIS after July 24, 2009 (the effective date of this AD), whichever occurs later; and</p> <p>(B) <u>Repetitively thereafter</u>: at intervals not to exceed 1,000 hours TIS.</p>	<p>Follow INSTRUCTIONS: PART I of Piper Aircraft, Inc. Service Bulletin No. 1194A, dated November 10, 2008. As an alternative to using part number 100700-079 placard, you may fabricate a placard (using at least 1/8-inch letters) with the words in figure 1 of this AD and install the placard directly above the nose baggage door handle.</p>
<p>(2) For all aircraft:</p> <p>(i) lubricate and inspect all nose baggage door latching and locking components for damaged, worn, corroded, or non-conforming components; and</p> <p>(ii) verify the key can only be removed from the lock assembly in the locked position in accordance with the service instructions.</p>	<p>(A) <u>Initially</u>: within 100 hours TIS after July 24, 2009 (the effective date of this AD); and</p> <p>(B) <u>Repetitively thereafter</u>: at intervals not to exceed 100 hours TIS.</p>	<p>Follow INSTRUCTIONS: PART II of Piper Aircraft, Inc. Service Bulletin No. 1194A, dated November 10, 2008.</p>
<p>(3) For all aircraft with damaged, worn, corroded, or non-conforming components: repair/replace any damaged, worn, corroded, or non-conforming components.</p>	<p>Before further flight after any inspection required in paragraphs (e)(1) and (e)(2) of this AD where any evidence of damaged, worn, or corroded components was found.</p>	<p>Follow Piper Aircraft, Inc. Service Bulletin No. 1194A, dated November 10, 2008.</p>

# CLOSE AND LOCK NOSE BAGGAGE DOOR BEFORE FLIGHT

1. CLOSE DOOR FULLY AGAINST DOOR FRAME
2. PRESS DOOR HANDLE FLUSH WITH SKIN,  
AND ROTATE KEY INTO LOCKED POSITION
3. REMOVE KEY
4. PUSH ON FORWARD END OF DOOR HANDLE,  
TO CONFIRM THAT HANDLE IS LOCKED AND  
SECURE

Figure 1. – Nose Baggage Door Placard.

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

(f) The Manager, Atlanta Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Gregory K. Noles, Aerospace Engineer, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6085; fax: (770) 703-6097. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

## **Material Incorporated by Reference**

(g) You must use Piper Aircraft, Inc. Service Bulletin No. 1194A, dated November 10, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567-4361; fax: (772) 978-6573; Internet: <http://www.newpiper.com/company/publications.asp>.

(3) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri, on June 12, 2009.

Scott A. Horn,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. E9-14307 Filed 6-18-09; 8:45 am]