

Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-2142; Project Identifier AD-2024-00033-A]

RIN 2120-AA64

Airworthiness Directives; Piper Aircraft, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2020-26-16, which applies to certain Piper Aircraft, Inc. (Piper) Model PA-28-151, PA-28-161, PA-28-181, PA-28-235, PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, PA-28RT-201T, PA-32-260, PA-32-300, PA-32R-300, PA-32RT-300, and PA-32RT-300T airplanes. AD 2020-26-16 requires calculating the factored service hours (FSH) for each main wing spar to determine when an inspection is required, inspecting the lower main wing spar bolt holes for crack(s), and replacing any cracked main wing spar. Since the FAA issued AD 2020-26-16, the FAA evaluated the reports required by AD 2020-26-16 and determined that repetitive inspections of the lower main wing spar bolt holes for crack(s) and non-crack damage (including deep scratches, gouges, and thread marks) and replacement or modification of the main wing spar should be required, calculated service hours (CSH) should be used instead of FSH to determine times for required actions for each main wing spar, and that certain airplanes should be removed from the applicability and a new airplane model added to the applicability. This proposed AD would require calculating the CSH for each main wing spar; repetitively inspecting the lower main wing spar bolt holes for crack(s) and non-crack damage and

taking corrective actions as needed; and replacing or modifying main wing spars at a specified time. This proposed AD would also revise the applicability by removing certain airplanes and adding a new airplane model. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by November 7, 2024.

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*. 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* under Docket No. FAA-2024-2142; 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, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Piper material identified in this proposed AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, Florida 32960; phone: (772) 567-4361; email: *customerservice@piper.com*; website: *piper.com*.
- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

FOR FURTHER INFORMATION CONTACT: Fred Caplan, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5507; email: *9-ASO-ATLACO-ADS@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 **ADDRESSES**. Include “Docket No. FAA-2024-2142; Project Identifier AD-2024-00033-A” 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 amend the 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 NPRM.

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 NPRM 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 NPRM, 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 NPRM. Submissions containing CBI should be sent to Fred Caplan, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2020-26-16, Amendment 39-21371 (86 FR 3769, January 15, 2021) (AD 2020-26-16), for certain Piper Model PA-28-151, PA-28-161, PA-28-181, PA-28-235, PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, PA-28RT-201T, PA-32-260, PA-32-300, PA-32R-300, PA-32RT-300, and PA-

32RT–300T airplanes. AD 2020–26–16 was prompted by an accident involving wing separation on a Piper Model PA–28R–201 airplane. An investigation by the National Transportation Safety Board (NTSB) revealed a fatigue crack in a visually inaccessible area of the lower main wing spar cap. The applicability of the NPRM for AD 2020–26–16 included additional Piper model airplanes with similar main wing spar structures as the Model PA–28R–201. Based on airplane usage history, the FAA determined that only those airplanes with a higher risk for fatigue cracks (airplanes with a significant history of operation in flight training or other high-load environments) should be subject to the inspection requirements proposed in that NPRM.

AD 2020–26–16 requires calculating the FSH for each main wing spar to determine when an inspection is required, inspecting the lower main wing spar bolt holes for cracks, and replacing any cracked main wing spar. The agency issued AD 2020–26–16 to detect and correct fatigue cracks in the lower main wing spar cap bolt holes.

Actions Since AD 2020–26–16 Was Issued

The preamble to AD 2020–26–16 explains that the FAA considers the requirements “interim action” and was considering further rulemaking. The FAA has now determined that further rulemaking is necessary, and this proposed AD follows from that determination. The FAA evaluated the inspection reports submitted by operators as required by AD 2020–26–16 and determined that additional action is needed, including requiring repetitive inspections of the lower main wing spar bolt holes for crack(s) and non-crack damage and replacement or modification of the main wing spar, using CSH instead of FSH to determine times for required actions, and revising the applicability by removing certain serial-numbered Piper Model PA–32–300 airplanes and all Model PA–32R–300, PA–32RT–300, and PA–32RT–300T airplanes because those airplanes would be included in the applicability of a proposed separate rulemaking action. The FAA also determined that Piper Model PA–32S–300 airplanes should be added to the applicability.

Since the FAA issued AD 2020–26–16, the FAA has analyzed the accident history of the airplanes affected by AD 2020–26–16 and other Piper airplanes operated in a similar fashion. The following paragraphs communicate the FAA’s findings on this subject.

Accident History

Fatigue cracking was present in the main wing spars of Piper Model PA–28–181, Model PA–28R–201, and Model PA–28–161 airplanes involved in the following accidents. The following NTSB reports are related to this issue and can be found on [ntsb.gov](https://www.ntsb.gov).

- NTSB Accident Number FTW87FA088: March 30, 1987—Marlin, TX—Piper Model PA–28–181—7,490 hours time-in-service (TIS). This accident was determined to have been caused by fatigue cracking in the outboard bolt holes of the main wing spar. This airplane’s primary usage was a “Pipeline Patrol” mission.

- NTSB Accident Number NYC93FA140: August 2, 1993—Provincetown, MA—Piper Model PA–28–181—11,683 hours TIS. This accident was determined to have been caused by structural overloading related to weather, but fatigue cracks were present near the outboard bolt holes. This airplane’s usage history included personal use, flight instruction, and charter flights.

- NTSB Accident Number ERA18FA120: April 4, 2018—Daytona Beach, FL—Piper Model PA–28R–201—7,691 hours TIS. This accident was determined to have been caused by fatigue cracking in the outboard bolt holes of the main wing spar. This airplane’s primary usage was flight instruction.

Bolt Hole Cracks and Other Findings

Following the release of AD 2020–26–16, the FAA and Piper received over 2,800 bolt-hole eddy current inspection reports. The inspections performed in the field revealed a mix of observations that warrant further discussion. Of the total inspections, over 100 reported a positive eddy current indication, with several including pictures of the bolt hole showing the source of the indication.

Piper later conducted more detailed inspections in a study of 24 main wing spars with 20 having positive eddy current indications. Out of the 20 positive indications, 3 were identified as fatigue cracks, where 1 was confirmed by Piper, and 2 were confirmed by the NTSB. The remaining were determined to be features not consistent with a crack, and 1 overstress crack as confirmed by the NTSB.

Though not all are confirmed, many of the indications are likely not fatigue cracks but are a variety of anomalies in the hole. These can include corrosion pitting, scratches, gouges, and threading marks possibly caused by forceful insertion and removal of the close-fit

bolts without proper unloading of the wing or other reasons. While these may not present as fatigue cracks at the time of inspection, anomalies in the hole create a stress concentration where cracks can begin to grow. Therefore, it is still crucial to inspect the critical bolt holes for these issues and take corrective action to prevent the formation of fatigue cracks. Piper Service Bulletin No. 1345, Revision A, dated September 17, 2021 (Piper SB No. 1345, Revision A); and Piper Service Bulletin No. 1372, dated April 3, 2024 (Piper SB No. 1372), include procedures for distinguishing between indications caused by hole damage or other anomalies from those caused by cracks.

In addition to the various forms of non-crack hole damage, the inspections revealed several cracks in and around the bolt holes. As part of the AD 2020–26–16 inspection reports, 6 cracks were found, including 2 later verified by NTSB lab examination and 1 verified by Piper (from the Piper study referenced above), and 3 visible cracks in photos. Other known cracks include those found in an airplane of the same operator fleet as the 2018 accident airplane, a separately submitted crack finding confirmed with dye penetrant, and a crack located on the lower spar cap surface running alongside the inspection bolt holes. Given these findings, additional cracks may be present among the other unconfirmed reported indications.

Other cracks have been discovered that may be caused by overload rather than by fatigue. While use of the airplane within its limits should not cause an overload crack, some crack findings have revealed that airplanes have been operated outside their limits. Though cracks due to overload are not the primary source of this corrective action, this emphasizes the need for and importance of inspecting the spar bolt holes for evidence of any cracking.

Long-Term Continued Operational Safety

The AD 2020–26–16 inspection report results indicated that additional inspections are needed to manage the safety of the fleet. While AD 2020–26–16 addressed the immediate safety concern, data indicates that more airplanes will need to be inspected and, due to aging, the airplanes already inspected will need additional inspections. This includes the need to expand inspections to include Piper Model PA–32S–300 airplanes in the applicability of this proposed AD because these airplanes share a similar structural design of the main wing spar

with the airplane models addressed in AD 2020–26–16

Crack development is a function of many factors, including the design of the structure, how severely the aircraft is flown, and manufacturing processes. Small imperfections may exist in any aircraft structure from an early age; however, through operation, these imperfections may slowly grow into fatigue cracks. Fatigue cracks have the effect of weakening the structure and its ability to support the stresses the aircraft was originally designed to handle.

The 2018 accident, along with other accidents in this fleet attributed to fatigue cracking, and the AD 2020–26–16 inspection reports, indicate an aging fleet that requires intervention to ensure any fatigue cracking does not reach a critical state prior to being detected. This often takes the form of repetitive inspections to be able to capture the formation of a detectable crack, requiring repair or replacement. The FAA has also determined that inspections alone are not sufficient to keep the fleet risk acceptably low long-term. Cracks are more likely to develop with aging of the main wing spar, so over time it becomes more likely that cracks will exist throughout the fleet and could be missed by inspection, due in part to the inherent imperfections of the inspection method; therefore, replacement or modification of the spars is needed. Both the FAA and Piper attempted to determine an inspection program that would manage risk to an acceptable level using inspection alone; however, no method could be found that did not eventually require spar replacement.

Ensuring further damage is not caused by the inspection itself is important, especially with repetitive inspections; however, inspecting for fatigue cracks as well as other hole anomalies is critical and outweighs the risk associated with repetitive inspections. Additionally, repeated inspections inherently allow for continued direct observation of the bolt holes over time and correcting non-crack damage if necessary. Piper has developed service actions, most recently in Piper SB No. 1345, Revision A, and Piper SB No. 1372, that mitigate inspection-induced damage by emphasizing proper unloading of the wing for both bolt and wing removal and replacement, if necessary, along with other instructions for ensuring care of the bolt holes.

Corrective Action Development

Each requirement outlined in this proposed AD has been developed to both address the unsafe condition and

limit the number of required inspections, reducing the burden on operators where possible. A brief discussion of each aspect of the requirements continues below.

Airplane Model Grouping

The inspection data received via the reporting requirement in AD 2020–26–16, along with testing of the baseline spar common to all Piper Model PA–28 and PA–32 airplanes has shown that inspections should be extended to include all models that share a similar structural design by utilizing the same baseline spar. It is likely that a significant contributing factor in the formation of cracks found in the main wing spar bolt attachment area is the cold bending of the spar to achieve the wing's dihedral. This method of forming the spar dihedral combined with the proximity to the wing attachment bolt holes leads to high residual stress in that area. The potential for fatigue cracking in and around the bolt holes, as well as higher variability in crack location and severity, is higher under this constant additional stress.

In an attempt to support less onerous inspections and to understand the causal factors, Piper investigated the residual stresses in the critical bolt-hole area. That investigation showed that the residual stress due to the spar cold bending process is a significant contributing factor in reducing the fatigue life of the spar bolt holes. An additional outcome of this investigation is a change to all new manufactured spars having machined dihedral bends to eliminate the residual stresses in the critical area.

Though there are differences between all Model PA–28 and PA–32 airplanes, such as additional reinforcing structure and lower operational loads, all airplane models share this same baseline spar with the cold bent dihedral. Differing characteristics allow for a grouping and tailoring of the requirements for each airplane model, but all airplane models need to be inspected. The current proposed requirements separate models into two groups, each requiring its own actions with a separate action for a third group under a separate proposed rulemaking action. The airplane models discussed share similar spar structure, while one group experiences higher operational loads than the other, due mostly to differences in gross weight and maximum airspeed. The remaining Piper Model PA–28 and PA–32 airplanes that would not be included in the applicability of this proposed AD either experience lower operational loads or have additional structure, both effectively lowering the stress

experienced in the subject bolt holes of the baseline spar.

Hours Calculation

The potential for fatigue cracking of the main wing spar bolt holes is highly influenced by the usage profile of the spar and airplane. For airplanes included in the applicability of this proposed AD, the primary usage is either flight instruction or personal use. Flight instruction consists of more hours spent flying at lower altitudes where the airplane is exposed to gusts and more takeoffs and landings than is typical for personal usage. These characteristics lead to reaching the fatigue life of the spar more quickly than personal usage, which generally involves a large time spent in cruise and fewer takeoffs and landings. As a result of the usage differences, the same TIS for an airplane used in flight instruction is not equivalent to the same time for a personal-use airplane.

An FSH equation was established in AD 2020–26–16 to account for the differences in usage and reduce the burden on personal use airplanes. This equation is still the best method available to account for different usage when determining when inspections should occur. In the United States, airplanes used in flight instruction for hire are required by FAA regulation to receive 100-hour inspections. Because instructional usage is unable to be tracked directly, a count of these inspections is used as a method for determining instructional usage to differentiate it from personal usage.

When AD 2020–26–16 was issued, available analysis indicated instructional usage was approximately 17 times more severe than personal usage, leading to this factor appearing in the FSH equation. After AD 2020–26–16 was published, further analysis completed by Piper estimated this factor was significantly lower. This has resulted in a new equation, now referred to as CSH in Piper SB No. 1372. The CSH calculation has the same instructions and intent as the FSH from AD 2020–26–16, but the value in the equation has been updated based on improved analysis and data. For Group 1 airplanes this proposed AD would require using a value of 3 instead of the value of 2 that is specified in Piper SB No. 1372, and a value of 2 would be used for Group 2 airplanes, as specified in Piper SB No. 1372.

Determination of Inspection and Spar Retirement or Modification Timing

The fleet corrective actions analyzed consist of an initial inspection, followed by repetitive inspections until a time is

reached when the spar should be modified or replaced. The FAA has worked with Piper to develop the specific timing for these actions using actual service data to determine current and future risk of fatigue cracks developing, and analysis using the physical properties of the structure to estimate formation and growth of cracks in the critical area of the spar. These efforts have resulted in inspection timing estimates that provide opportunities to locate cracks before reaching a critical size.

The proposed initial inspection time requirements for Group 1 and Group 2 airplanes have been determined using data from AD 2020–26–16 inspection reports and prior inspections consisting of known crack findings and known inspections that did not find an anomaly that exceeds the eddy current size threshold, to estimate times when a crack will exist in each group's fleet. An initial inspection time is then set just prior to when cracks would be expected in the fleet. This proposed initial inspection serves as a baseline inspection and will be followed by repetitive inspections to ensure a crack is not missed.

The proposed repetitive inspection programs have been set differently for each airplane group. For Group 1 airplanes, a tiered approach of inspecting more often with increasing age has been proposed as a method of reducing the burden on lower TIS airplanes. It is possible to inspect less used airplanes less often because these carry the least risk of developing a fatigue crack within the population. As age increases, and therefore risk increases, the proposed inspections are set to be more frequent. A similar approach would be possible for Group 2 airplanes, but the inspection intervals are estimated to be much shorter based on inspection data, structural design, and airplane performance, so stepping down with age would not be practical.

As an airplane ages, the likelihood or risk of a crack developing increases. A potential solution to this would be to continue to increase the frequency of inspections to ensure a crack is found before reaching a critical length; however, frequent and increased inspections are not a practical or safe approach due to the inherent risk in repeated bolt removal and reinsertion. At the fleet level, an ever-increasing age of the fleet means a higher risk that cracks are present in the fleet and may be missed, even with frequent inspections. This leaves a solution of removing or modifying the highest age spars to reduce and maintain the fleet risk, therefore spar retirement or

modification where possible is proposed.

These proposed fleet inspection requirements must be adjusted as needed to ensure cracks are found before they reach a critical size. A recent inspection of a Model PA–28–181 airplane main wing spar was performed at a time earlier than required by AD 2020–26–16 and revealed cracks at a TIS earlier than anticipated. A section of the main wing spar was sent to an independent materials lab, and under high magnification normally spaced fatigue striations were found, confirming this crack was caused by fatigue. This new finding required the FAA to adjust the Group 1 inspection schedules to earlier times to ensure a similar crack would be found in time.

Although this airplane was used almost exclusively for flight instruction, reducing the inspection times resulted in additional burden on all airplanes, including those for personal usage. Therefore, for this proposed AD, the FAA determined that for Group 1 airplanes a value of 3 should be used in the CSH instead of the value of 2 that is specified in Piper SB No. 1372. An increase in this value from 2 to 3 serves to mitigate the increased burden on Group 1 airplanes resulting from the reduced inspection times and provides relief for operators of personal-use airplanes.

Spar Modification and Replacement Options

Piper has developed a reinforcement kit as an option and alternative to retirement of the main wing spar, applicable to certain Group 1 airplanes. There is currently no spar modification developed for Piper Model PA–28R–180 and PA–28R–200 airplanes that are included in Group 1 or any airplanes designated as Group 2 airplanes, as specified in Piper SB No. 1372. The proposed inspection times after installing a reinforcement kit would provide an extended life of the main wing spar and longer intervals between the proposed repetitive inspections. The reinforcement kit provides additional structure that lowers and distributes the stress in the critical areas, allowing for slower crack growth. Piper used damage tolerance analysis when developing the inspection times after a reinforcement kit is installed.

Finally, new wing spars are available from Piper that have machined the spar dihedral bend instead of the cold bending process, eliminating the residual stress factor in these spars. These new wing spars have a different life limit and will not require any inspections.

Wing spars on the affected Piper airplanes could develop cracks that, if not addressed, would result in a wing separating from the fuselage in flight.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed Piper SB No. 1372. This material specifies procedures for reviewing airplane maintenance records to determine the number of 100-hour inspections completed on the airplane since new and any record of main wing spar replacement; calculating the service hours; doing eddy current inspections of the main wing spar bolt holes for crack(s) and non-crack damage; repairing bolt holes with non-cracking damage; for certain airplanes installing a main wing spar reinforcement kit; and replacing a main wing spar.

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 **ADDRESSES**.

Proposed AD Requirements in This NPRM

This proposed AD would retain none of the requirements of AD 2020–26–16. This proposed AD would revise the applicability by removing certain serial-numbered Model PA–32–300 airplanes and all Piper Model PA–32R–300, PA–32RT–300, and PA–32RT–300T airplanes because those airplanes will be included in a separate proposed rulemaking action. This proposed AD would add serial-numbered Model PA–28R–200 and PA–28R–201 airplanes to the applicability to include all serial numbers and would also add Piper Model PA–32S–300 airplanes to the applicability. This proposed AD would require accomplishing the actions specified in the material already described, except as discussed under “Differences Between this AD and the Referenced Material.” This proposed AD would also require reporting inspection results to Piper and the FAA if any cracks are found during any inspection.

Differences Between This Proposed AD and the Referenced Material

For Group 1 airplanes, to determine the CSH, instead of using the value of 2 provided in the simplified formula in Part 1, paragraph 2.b of the Instructions

in Piper SB No. 1372, this proposed AD would require using a value of 3. In addition, for Group 1 airplanes, the compliance times for the initial and repetitive inspections and the replacement or modification of the main

wing spars specified in paragraphs (i) and (j) of this proposed AD are different from what is in Table 1 of Piper SB No. 1372.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 10,665 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

ESTIMATED COSTS

| Action | Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
|--|---|------------|---------------------------------|----------------------------------|
| Review airplane maintenance records and determine CSH for each main wing spar. | 3 work-hours × \$85 per hour = \$255, per records review. | \$0 | \$255, per records review | \$2,719,575, per records review. |

The FAA estimates the following costs to do any necessary actions that would be required based on the results

of the proposed airplane maintenance records review and CSH calculation. The agency has no way of determining

the number of airplanes that might need these actions:

ON-CONDITION COSTS

| Action | Labor cost | Parts cost | Cost per product |
|---|--|------------|----------------------------|
| Eddy current inspections of the left-hand (LH) and right-hand (RH) inspection areas LH and RH lower main wing spar (including access and restoring the airplane). | 1 work-hour contracted service × \$600 per hour = \$600 for the eddy current inspection. 4 work-hours × \$85 per hour for access and restoring = \$340. | \$20 | \$960 per inspection. |
| Report inspection results to the FAA and Piper Aircraft, Inc. | 1 work-hour × \$85 per hour = \$85 per report. | 0 | 85 per report. |
| Repair holes with non-crack damage | 2 work-hours × \$85 per hour = \$170 | 20 | 190. |
| Replace main wing spar | 40 work-hours × \$85 per hour = \$3,400 per main wing spar. | 10,983 | 14,383 per main wing spar. |
| Install modification (reinforcement) kit | 190 work-hours × \$85 per hour = \$16,150 per main wing spar. | 4,000 | 20,150 per wing spar. |

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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 that the 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.

Piper Aircraft, Inc.: Docket No. FAA-2024-2142; Project Identifier AD-2024-00033-A.

(c) Applicability

This AD applies to Piper Aircraft, Inc. (Piper) airplanes, certificated in any category, with a model and serial number shown in Table 1 to paragraph (c) of this AD.

Table 1 to Paragraph (c)—Applicability and Airplane Group

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by:

■ a. Removing Airworthiness Directive 2020-26-16, Amendment 39-21371 (86 FR 3769, January 15, 2021); and

■ b. Adding the following new airworthiness directive:

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by November 7, 2024.

(b) Affected ADs

This AD replaces AD 2020-26-16, Amendment 39-21371 (86 FR 3769, January 15, 2021) (AD 2020-26-16).

| Model | Serial Numbers | Airplane Group |
|--------------------------|--|----------------|
| PA-28-151 | All serial numbers | 1 |
| PA-28-161 | All serial numbers | 1 |
| PA-28-181 Archer II | All serial numbers | 1 |
| PA-28-181 Archer III | All serial numbers lower than and including 2881687 | 1 |
| PA-28-181 Piper Pilot | All serial numbers lower than and including 28020148 | 1 |
| PA-28R-180 | All serial numbers | 1 |
| PA-28R-200 | All serial numbers | 1 |
| PA-28-235 | All serial numbers | 2 |
| PA-28R-201 | All serial numbers | 2 |
| PA-28R-201T | All serial numbers | 2 |
| PA-28RT-201 | All serial numbers | 2 |
| PA-28RT-201T | All serial numbers | 2 |
| PA-32-260 | All serial numbers | 2 |
| PA-32-300 | All serial numbers lower than and including 32-7840202 | 2 |
| PA-32S-300 | All serial numbers | 2 |

(d) Subject

Joint Aircraft System Component (JASC)
Code 5711, Wing Spar.

(e) Unsafe Condition

This AD was prompted by a report of a wing separation caused by fatigue cracking in a visually inaccessible area of the main wing lower spar cap. The FAA is issuing this AD to detect and correct fatigue cracks in the lower main wing spar cap bolt holes. The unsafe condition, if not addressed, could result in a wing separating from the fuselage in flight.

(f) Compliance

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

(g) Definitions

For the purpose of this AD the following definitions apply.

(1) Group 1 airplanes: Airplanes identified as Group 1 in Piper Service Bulletin No. 1372, dated April 3, 2024 (Piper SB No. 1372) and Table 1 to paragraph (c) of this AD.

(2) Group 2 airplanes: Airplanes identified as Group 2 in Piper SB No. 1372 and Table 1 to paragraph (c) of this AD.

(h) Review Airplane Maintenance Records and Determine Calculated Service Hours for Each Main Wing Spar

(1) Within 30 days after the effective date of this AD and thereafter at intervals not to exceed 100 hours time-in-service (TIS) or 12 months, whichever occurs first, review the airplane maintenance records and determine the number of 100-hour inspections completed on the airplane since new and any record of wing spar replacement(s) in accordance with Part I, paragraph 1, of the Instructions in Piper SB No. 1372. The owner/operator (pilot) holding at least a private pilot certificate may accomplish this and must enter compliance with this paragraph of the AD into the airplane

maintenance records in accordance with 14 CFR 43.9(a) and 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(2) Before further flight after doing the action required by paragraph (h)(1) of this AD, determine the calculated service hours (CSH) for each main wing spar using the applicable formula for your airplane group specified in Figure 1 or Figure 2 to paragraph (h)(2) of this AD and in accordance with Part I, paragraphs 2.a. through b., of the

Instructions in Piper SB No. 1372. Thereafter, after each 100-hour or annual inspection, recalculate the CSH for each main wing spar to determine the compliance time for the actions required by paragraphs (i) and (j) of this AD. If a factored service hour (FSH) inspection required by AD 2020–26–16 was done using Piper Service Bulletin No. 1345, dated March 27, 2020; or Piper Service Bulletin No. 1345A, dated September 17, 2021, you may use that data, including the TIS and number of 100-hour inspections at

the time of the last inspection, to calculate the CSH for that inspection using the requirements of paragraph (h) of this AD and Part I, paragraph 2.c. of the Instructions in Piper SB No. 1372 to determine the next required actions, including if an action is now due according to the requirements of paragraphs (i) and (j) of this AD.

Figure 1 to Paragraph (h)(2)—Group 1 Airplanes CSH Calculation

N is the number of 100-hour inspections; and T is the total hours TIS of the airplane main wing spar.

$$CSH = (N \times 100) + \frac{T - (N \times 100)}{3} \text{ for Group 1 airplanes}$$

Note 1 to Figure 1 to paragraph (h)(2): This calculation is not the same as the simplified calculation specified in Piper SB No. 1372

because this calculation uses a value of 3, for Group 1 airplanes only, and Piper SB No. 1372 uses a value of 2.

Figure 2 to paragraph (h)(2)—Group 2 Airplanes CSH Calculation

N is the number of 100-hour inspections; and T is the total hours TIS of the airplane main wing spar.

$$CSH = (N \times 100) + \frac{T - (N \times 100)}{2} \text{ for Group 2 airplanes}$$

Note 2 to Figure 2 to paragraph (h)(2): This calculation is the same as the simplified calculation specified in Piper SB No. 1372, but with a different form, and is for Group 2 airplanes only.

(i) Bolt Hole Inspections and Corrective Actions

(1) Do initial and repetitive eddy current inspections of the inner surface of each bolt hole in the lower wing spar cap for cracks and for non-crack damage (including deep

scratches, gouges, and thread marks), at the times in Table 2 and Table 3 to paragraph (i)(1) of this AD and in accordance with Part II, paragraph 4.a. of the Instructions in Piper SB No. 1372. Although Piper SB No. 1372 specifies NAS 410 Level II or Level III certification to perform eddy current and fluorescent penetrant inspections, this AD allows Level II or Level III qualification standards for inspection personnel using any inspector criteria approved by the FAA.

Note 3 to paragraph (i)(1): FAA Advisory Circular 65–31B, “Training, Qualification, and Certification of Nondestructive Inspection Personnel,” dated February 24, 2014, contains FAA-approved Level II and Level III qualification standards criteria for personnel doing nondestructive test inspections.

Table 2 to Paragraph (i)(1)—Compliance Times for Group 1 Airplane Inspections

| Wing Spar Configuration | Initial Inspection | Repetitive Inspections | | | |
|--|--|---|---|---|---|
| | | Tier A (3,000 through 7,499 Total CSH) | Tier B (7,500 through 11,999 Total CSH) | Tier C (12,000 through 13,499 Total CSH) | Tier D (14,000 through 25,000 Total CSH) |
| Unmodified Wing Spars | When wing spars reach 3,000 Total CSH , perform initial inspection within the next 100 hours TIS. | Perform repetitive inspection at intervals not to exceed 1,750 CSH | Perform repetitive inspection at intervals not to exceed 700 CSH | Perform repetitive inspection at intervals not to exceed 500 CSH | Perform the action required by paragraph (j) of this AD |
| Wing Spars modified with Piper Reinforcement Kit | Initial inspection upon installation of Piper Reinforcement Kit. | Perform repetitive inspection at intervals not to exceed 4,800 CSH | | | Perform repetitive inspection at intervals not to exceed 3,700 CSH |

Note 4 to Table 2 to Paragraph (i)(1):

The compliance times are not the same as the times specified in Piper SB No. 1372 for Group 1 airplanes.

Table 3 to Paragraph (i)(1)—Compliance Times for Group 2 Airplane Inspections

| Wing Spar Configuration | Initial Inspection | Repetitive Inspections | |
|-------------------------|--|---|--|
| | | 4,500 through 11,999 Total CSH | 12,000 Total CSH |
| Unmodified Wing Spars | When wing spars reach 4,500 Total CSH , perform initial inspection within the next 100 hours TIS. | Perform repetitive inspection at intervals not to exceed 400 CSH | Perform the action required by paragraph (j) of this AD. |

Note 5 to Table 3 to paragraph (i)(1): The compliance times are the same as the times specified in Piper SB No. 1372 for Group 2 airplanes.

(2) For any Group 1 or Group 2 airplane where the initial CSH cannot be calculated due to missing or incomplete airplane maintenance records: Do the initial inspection within 100 hours TIS or 60 days after the effective date of this AD, whichever occurs later.

(3) If an eddy current inspection does not identify any indications, then continue the repetitive eddy current inspections required by paragraph (i)(1) of this AD at the applicable times specified in Table 2 and Table 3 to paragraph (i)(1) of this AD.

(4) If any eddy current inspection identifies any indications or noisy signal, before further flight, do the applicable actions specified in Part II, paragraphs 4.b. through i., and if applicable the bolt hole oversize repair specified in Part III, paragraphs 1. through 7. and paragraph 9., of the Instructions in Piper SB No. 1372.

(5) If any eddy current inspection identifies any crack(s), before further flight, do the applicable actions specified in Part II, paragraph 4.k., of the Instructions in Piper SB No. 1372, and replace the affected main wing spar in accordance with Part IV, paragraphs 2.a. through d., of the Instructions in Piper SB No. 1372.

(j) Replace or Modify Main Wing Spar

For Group 1 and Group 2 airplanes:

(1) At the applicable time specified in Table 4 to paragraph (j) of this AD replace the affected main wing spars in accordance with Part IV, paragraphs 2.a. through d., of the Instructions in Piper SB No. 1372 or modify the main wing spars by installing the Piper reinforcement kit, in accordance with Part IV, paragraphs 1.a. through c., of the Instructions in Piper SB No. 1372.

(2) As required by paragraph (i)(5) of this AD, replace the affected main wing spars in

accordance with Part IV, paragraphs 2.a. through d., of the Instructions in Piper SB No. 1372.

Table 4 to Paragraph (j)—Compliance Times for Main Wing Spar Modification or Replacement

| Airplane Group | Wing Spar Configuration | Compliance Time for Main Wing Spar Modification or Replacement |
|----------------|--|---|
| Group 1 | Unmodified Wing Spars | Main wing spars must be replaced prior to 14,000 Total CSH or Main wing spars must be modified with Piper Reinforcement Kit to extend spar life beyond 14,000 Total CSH |
| | Wing Spars modified with Piper Reinforcement Kit | Modified main wing spars must be replaced prior to 25,000 Total CSH |
| Group 2 | Unmodified Wing Spars | Main wing spars must be replaced prior to 12,000 Total CSH |

If any cracks are found during any inspection required by paragraph (i) of this AD: After completing that inspection, using Appendix 1, "Inspection Results Form," of this AD, report the inspection results to the FAA, East Certification Branch, and to Piper Aircraft, Inc. Submit the report at the applicable time specified in paragraph (k)(1) or (2) of this AD.

(1) If the action was done on or after the effective date of this AD, submit the report within 30 days after the action was done.

(2) If the action was done before the effective date of this AD, submit the report within 30 days after the effective date of this AD.

(l) Special Flight Permit

A special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 to permit a one-time, non-revenue ferry flight to a location where the airplane can be inspected. This ferry flight must be performed with only essential flight crew. This AD prohibits a special flight permit if any inspection reveals a crack in the main wing spar.

(m) Alternative Methods of Compliance (AMOCs)

(1) The Manager, East 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 East Certification Branch, send it to the attention of the person identified in paragraph (n) of this AD and email 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 2020–26–16 are not approved as AMOCs for the corresponding provisions of this AD.

(n) Additional Information

(1) For more information about this AD, contact Fred Caplan, Aviation Safety Engineer, FAA, East Certification Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474–5507; email: 9-ASO-ATLACO-ADs@faa.gov.

(2) Piper material identified in this AD that is not incorporated by reference is available at the address specified in paragraph (o)(3) of this AD.

(3) FAA Advisory Circular 65–31B, "Training, Qualification, and Certification of Nondestructive Inspection Personnel," dated

February 24, 2014, maybe found at drs.faa.gov.

(o) 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) Piper Service Bulletin No. 1372, dated April 3, 2024.

(ii) [Reserved].

(3) For Piper material identified in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL 32960; phone: (772) 567–4361; email: customerservice@piper.com; website: piper.com.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. 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-locationsoremailfr.inspection@nara.gov.

Appendix 1 to Docket No. FAA–2024–2142

Inspection Results Form

Email completed form to:
 9-ASO-ATLCOS-Reporting@faa.gov
 and
 customer.service@piper.com

Or mail to: Federal Aviation Administration
 East Certification Branch
 1701 Columbia Avenue
 College Park, GA 30337

SUBJECT line: Docket No. FAA-2024-2142

Include photos if applicable

| | | | |
|--|-----------------------------------|-----------------------------------|--|
| Aircraft Model No.: PA- | | Serial Number: | |
| Aircraft Total Hours Time-In-Service (TIS): | | Registration Number: | |
| Calculated Service Hours | Left-Hand (LH) Wing: | Right-Hand (RH) Wing: | |
| (If both wings are factory installed original, these numbers should be the same) | | | |
| Date of previous inspection | | | |
| Inspection Results | | | |
| LH Wing Spar Fwd | Accepted <input type="checkbox"/> | Rejected <input type="checkbox"/> | RH Wing Spar Fwd Accepted <input type="checkbox"/> Rejected <input type="checkbox"/> |
| LH Wing Spar Aft | Accepted <input type="checkbox"/> | Rejected <input type="checkbox"/> | RH Wing Spar Aft Accepted <input type="checkbox"/> Rejected <input type="checkbox"/> |
| Inspector Comments | | | |
| | | | |
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| | | | |

Inspector Information

Name (print): _____ Signature: _____

Certificate No.: _____ Date: _____

Issued on September 10, 2024.

Victor Wicklund,

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

[FR Doc. 2024-21652 Filed 9-20-24; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 74

[Docket No. FDA-2024-C-4339]

DSM Biomedical; Filing of Color Additive Petition

AGENCY: Food and Drug Administration, HHS.

ACTION: Notification of petition.

SUMMARY: The Food and Drug Administration (FDA or we) is announcing that we have filed a petition, submitted by DSM Biomedical, proposing that the color additive regulations be amended to provide for the safe use of phthalocyanine green to color surgical sutures made of ultra-high molecular weight polyethylene (UHMWPE) for use in general surgery, at a concentration of no more than 0.5 percent by weight of the suture.

DATES: The color additive petition was filed on August 15, 2024.

ADDRESSES: For access to the docket to read background documents or comments received, go to <https://www.regulations.gov> and insert the docket number found in brackets in the heading of this document into the "Search" box and follow the prompts, and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Stephen DiFranco, Center for Food Safety and Applied Nutrition, Food and Drug Administration, 5001 Campus Dr., College Park, MD 20740, 240-402-2710.

SUPPLEMENTARY INFORMATION: Under the Federal Food, Drug, and Cosmetic Act (section 721(d)(1) (21 U.S.C. 379e(d)(1))), we are giving notice that we have filed a color additive petition (CAP 4C0335), submitted by DSM Biomedical, 735 Pennsylvania Dr., Exton, PA 19341. The petition proposes to amend the color additive regulations in 21 CFR part 74, "Listing of Color Additives Subject to Certification," to provide for the safe use of phthalocyanine green to color surgical sutures made of UHMWPE for use in general surgery, at a concentration of no

more than 0.5 percent by weight of the suture.

The petitioner claims that this action is categorically excluded under 21 CFR 25.32(l) because the substance is used in sutures. If FDA determines a categorical exclusion applies, neither an environmental assessment nor an environmental impact statement is required. If FDA determines a categorical exclusion does not apply, we will request an environmental assessment and make it available for public inspection.

Dated: September 18, 2024.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2024-21684 Filed 9-20-24; 8:45 am]

BILLING CODE 4164-01-P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[REG-108920-24]

RIN 1545-BR26

Guidance on Clean Electricity Low-Income Communities Bonus Credit Amount Program; Correction

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice of proposed rulemaking; correction.

SUMMARY: This document contains corrections to REG-108920-24, which was published in the **Federal Register** on Tuesday, September 3, 2024. REG-108920-24 contained proposed regulations concerning the program to allocate clean electricity low-income communities bonus credit amounts established pursuant to the Inflation Reduction Act of 2022 for calendar years 2025 and succeeding years.

DATES: Written or electronic comments and requests for a public hearing must be received by October 3, 2024.

ADDRESSES: Commenters were strongly encouraged to submit public comments electronically.

FOR FURTHER INFORMATION CONTACT: Concerning the proposed rules, Office of Associate Chief Counsel (Passthroughs & Special Industries) at (202) 317-6853 (not a toll-free number); concerning submissions of comments or the public hearing, the Publications and Regulations Section at (202) 317-6901 (not a toll-free number) or by email at publichearings@irs.gov (preferred).

SUPPLEMENTARY INFORMATION:

Background

The notice of proposed rulemaking (REG-108920-24) that is the subject of this correction is under section 48E of the Internal Revenue Code.

Correction

Accordingly, FR Doc. 2024-19617 (REG-108920-24), appearing on page 71193 in the **Federal Register** on Tuesday, September 3, 2024, is corrected as follows:

1. On page 71195, in the third column, in the first full paragraph, by correcting the fourth line from the top of the paragraph to read, "most recently released by American Community Survey (ACS) low-income".

2. On page 71196, in the second column, in the sixth bullet point from the top of the page, by correcting the first line of the bullet point to read, "Department of Agriculture (USDA) Section 515 Rural Rental".

3. On page 71204, in the third column, in the fourth full paragraph, by correcting the fifth sentence from the top of the paragraph to read, "records are required for the IRS to validate".

4. On page 71206, in the second column, in the third full paragraph, by correcting the twelve line from the top of the paragraph to read "The proposed regulations do not have substantial".

Kalle L. Wardlow,

Federal Register Liaison, Publications & Regulations Section, Associate Chief Counsel, (Procedure and Administration).

[FR Doc. 2024-21639 Filed 9-20-24; 8:45 am]

BILLING CODE 4830-01-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2024-0418; FRL-12225-01-R9]

Air Plan Revisions; California; San Diego County Air Pollution Control District and Mojave Desert Air Quality Management District

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve revisions to the San Diego County Air Pollution Control District (SDCAPCD) and Mojave Desert Air Quality Management District (MDAQM) portions of the California State Implementation Plan (SIP). These revisions concern negative declarations for the Control Techniques Guidelines