States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to the rule's published effective date. The Office of Information and Regulatory Affairs has designated this interpretive rule as not a ''major rule'' as defined by 5 U.S.C. 804(2).

Rohit Chopra,

Director, Consumer Financial Protection Bureau.

[FR Doc. 2023–02910 Filed 2–10–23; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2020–1078; Project Identifier AD–2020–00716–A; Amendment 39–22324; AD 2023–02–17]

RIN 2120–AA64

Airworthiness Directives; Textron Aviation Inc. (Type Certificate Previously Held by Cessna Aircraft Company) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Textron Aviation Inc. (type certificate previously held by Cessna Aircraft Company) (Textron) Model 210N, 210R, P210N, P210R, T210N, T210R, 177, 177A, 177B, 177RG, and F177RG airplanes. This AD was prompted by the in-flight break-up of a Model T210M airplane in Australia, due to fatigue cracking that initiated at a corrosion pit, and subsequent corrosion reports on other Model 210- and 177-series airplanes. This AD requires visual and eddy current inspections of the carry-thru spar lower cap for corrosion, cracking, and damage; corrective action if necessary; application of a protective coating and corrosion inhibiting compound (CIC); and reporting the inspection results to the FAA. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective March 20, 2023.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of March 20, 2023.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* by searching for and locating Docket No. FAA–2020–1078; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- For service information identified in this final rule, contact Textron Aviation Inc., One Cessna Boulevard, Wichita, KS 67215; phone: (316) 517–6061; email: *structures@txtav.com;* website: *support.cessna.com.*
- You may view this service information 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. It is also available at *regulations.gov* by searching for and locating Docket No. FAA–2020–1078.

FOR FURTHER INFORMATION CONTACT: Bobbie Kroetch, Aviation Safety Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Wichita, KS 67209; phone: (316) 946–4155; email: *bobbie.kroetch@faa.gov* or *Wichita-COS@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Textron Model 210N, 210R, P210N, P210R, T210N, T210R, 177, 177A, 177B, 177RG, and F177RG airplanes. The NPRM published in the **Federal Register** on May 11, 2021 (86 FR 25812).

The NPRM was prompted by a report that, on May 26, 2019, a Textron Model T210M airplane experienced an in-flight breakup while performing low-altitude aerial survey operations in Australia. The carry-thru spar failed and resulted in wing separation and loss of control of the airplane. A visual examination of the fracture surface identified fatigue cracking that initiated at a corrosion pit. The FAA issued an airworthiness concern sheet (ACS) on June 27, 2019, advising owners and operators of the accident and requesting relevant information about the fleet.

Following the ACS, the FAA received reports of widespread and severe corrosion of the carry-thru spar. Earlier Model 210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K, 210L, T210L, 210M, and T210M airplanes experienced the most widespread and severe corrosion, and the FAA issued AD 2020–03–16, Amendment 39–21029 (85 FR 10043, February 21, 2020) (AD 2020–03–16) as an immediately adopted rule (Final Rule; Request for Comments) to address the unsafe condition on those airplanes.

The FAA also received reports of corrosion on later Model 210N, P210N, T210N, 210R, P210R, and T210R airplanes and Model 177-series airplanes. On Model 210N, P210N, T210N, 210R, P210R, and T210R airplanes, the upper surface of the carry-thru spar is covered by fuselage skin and is not exposed to the environment. This removes the leak paths at the skin splices common to the earlier Model 210-series airplanes and reduces the potential for moisture intrusion. Additionally, the later Model 210-series airplanes were manufactured with zinc chromate primer applied to all carry-thru spars. However, the later Model 210-series airplanes were also delivered with foam installed along the carry-thru spar lower cap. The foam traps moisture against the lower surface of the carry-thru spar cap, which can aid in the development of corrosion.

The Model 177-series airplanes share a similar carry-thru spar design with the earlier Model 210-series airplanes: The upper surface of the carry-thru spars are exposed, and the carry-thru spars might not have been delivered with zinc chromate primer applied. Although Model 177-series airplanes were not delivered with foam padding installed on the lower surface of the carry-thru spar, corrosion has been reported on the carry-thru spar lower cap for these airplanes. Corrosion of the carry-thru spar lower cap can lead to fatigue cracking or reduced structural strength of the carry-thru spar, which, if not addressed, could result in wing separation and loss of control of the airplane.

In the NPRM, the FAA proposed to require visual and eddy current inspections of the carry-thru spar lower cap for corrosion, cracking, and damage; corrective action if necessary; application of a protective coating and CIC; and reporting the inspection results to the FAA. The FAA is issuing this AD to address the unsafe condition on these products.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from 124 commenters. The majority of comments were from individuals. Organizations submitting comments included the Aircraft Owners and Pilots Association (AOPA), Aviation Plus LLC,

Cardinal Flyers Online, and Textron. In addition, the FAA has included in the docket a discussion with the European Union Aviation Safety Agency that clarifies the proposed NPRM. The following summarizes the comments received on the NPRM and provides the FAA's responses.

A. Requests To Withdraw the NPRM

Comment summary: AOPA and numerous individual commenters requested that the NPRM be withdrawn.

1. There Is No Unsafe Condition: Crash Was Maintenance/Operation Issue

Seven commenters stated that the NPRM was unnecessary because they diligently inspect their airplanes and have not detected any problems during their inspections. Three commenters explained that this crash was due to a maintenance issue. One commenter questioned how the accident airplane was maintained. Another commenter stated that an AD is not necessary because the Model T210M spar fracture was due to heavy use and lack of maintenance and that a service bulletin would be sufficient. Several individual commenters discussed how the accident airplane was operated, stating improper operation and operation outside the standard limit of the airframe caused the accident.

Two commenters stated that there does not appear to be evidence that a problem exists. One commenter stated that voluntary visual inspections of the fleet have not exposed a widespread issue and noted that all airplane structures are exposed to the same aging issues of corrosion and fatigue and that the NPRM singles out Model 210- and 177-series airplanes.

FAA response: The FAA disagrees with the commenters' requests to withdraw the NPRM. Based on available data, including the corrosion and damage reports received, the FAA disagrees that an unsafe condition does not exist. While the in-flight break-up of a Model T210M airplane in Australia was the catalyst for this AD, the FAA determined that Model 210- and 177-series airplanes share a common single-load path design constructed from the same material. Also, the FAA issued an ACS, dated June 27, 2019, advising owners and operators of the accident and requesting relevant information about the fleet. The reports gathered in response to this ACS, combined with inspection reports received in response to AD 2020–03–16, issued to address widespread and severe corrosion of the carry-thru spars on Model 210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K, 210L, T210L, 210M, and T210M airplanes, revealed that carry-thru spars for Model 210- and 177-series airplanes are subject to corrosion. Corrosion can initiate cracking, resulting in a carry-thru spar being unable to carry the required load.

Australian Transport Safety Bureau (ATSB) Report AO–2019–026, *In-flight break-up involving Cessna T210M, VH–SUX,* dated May 26, 2019 (ATSB AO–2019–026) does state, in part, that ''The cyclic loads induced by the low-level survey flight profile were significantly greater than those associated with the higher-level flight profile originally intended for the aircraft type. This probably increased the risk of fatigue-related structural failure.'' However, ATSB AO–2019–026 does not list inadequate operator maintenance or identify improper operation as contributing factors to the accident.

The FAA acknowledges that the carry-thru spar on individual airplanes might not have findings of corrosion or damage. However, as of January 13, 2023, the FAA has received 226 inspection reports from operators of Model 210N, 210R, P210N, P210R, T210N, and T210R airplanes that include 21 reports of corrosion and damage, with two carry-thru spars removed from service. The FAA has also received 211 inspection reports from operators of Textron Model 177-series airplanes that include 120 reports of corrosion and at least 14 spars removed from service due to corrosion or damage.

2. NPRM Was Overreaching

Three commenters stated that the NPRM was overreaching. One commenter stated that the NPRM could be interpreted as punitive and another commenter stated that it is overreaching because it cast a net to include all Model 177-series airplanes and most Model 210-series airplanes.

FAA response: The FAA disagrees with the commenters' requests to withdraw the NPRM. Based on available data, including the corrosion and damage reports received, the FAA disagrees that the NPRM was overreaching by including all Model 210- and 177-series airplanes in the applicability. The FAA agrees that other types and models of airplanes have corrosion and fatigue issues, but this AD and its compliance time are based on data for these model airplanes and the nature of this unsafe condition. The applicability of this AD is all Model 210- and 177-series airplanes with carry-thru spars manufactured from 2014–T6 aluminum forging because this part is single-load path, critical structure manufactured from a material susceptible to severe corrosion.

3. NPRM Is Unnecessary: Use Existing Maintenance Directions, Service Documents, or Issue a Special Airworthiness Information Bulletin (SAIB)

Six commenters requested the FAA withdraw the NPRM and allow operators to rely upon the existing maintenance directions or service documents. Another commenter stated that a Textron service letter approach would be sufficient. One commenter stated that the service information approach was the correct decision and that Textron should provide data behind the request for the NPRM. The FAA infers that the commenter is requesting that the NPRM be withdrawn in lieu of service information. One commenter suggested that the FAA issue an SAIB instead of an AD.

FAA Response: The FAA disagrees with the commenters' requests to withdraw the NPRM. The procedures in Textron service letters are not legally enforceable requirements. Similarly, the FAA could issue an SAIB to draw attention to the inspections area, but an SAIB is informational only. Thus, an AD is the only way the FAA can mandate the procedures necessary to fix the unsafe condition.

Textron does not have the authority to determine if the FAA will or will not issue an AD on a potential airworthiness issue. The FAA has the regulatory authority to issue an AD and, in compliance with 14 CFR 39.5, issues an AD when it determines that an unsafe condition exists that is likely to exist or develop in other products of the same type design. For this AD, the FAA based its determination on data received in response to the ACS dated June 27, 2019, inspection reports completed on airplanes in the fleet, and data and analysis provided by Textron and evaluated by the FAA.

Cessna previously identified the carry-thru spar as an area of concern through the Continued Airworthiness Program (CAP) inspections, introduced in 1992, as well as the later published supplemental inspection documents (SIDs). Specifically, CAP Inspection Number 57–10–08 for the Cessna 210 identifies inspections for the carry-thru spar lower surface and additional inspection on the lower spar cap. Subsequent inspections completed after the Model T210M accident in Australia indicated that operators were not doing the voluntary inspections specified in the SIDs.

B. Requests Regarding Data Justifying AD Action

Comment summary: Eleven commenters requested that the FAA provide the data used to justify the NPRM. One commenter stated that pilots and owners need access to the underlying data being used to make critical decisions. Another commenter stated that neither the FAA nor Textron presented any evidence of the corrosion issue existing in Model 210-series airplanes that came from the factory with corrosion proofing coating already applied, specifically the 1979 N-model and newer airplanes, and suggested the FAA investigate the issue before taking widespread steps to correct what may be a theoretical issue. An additional commenter stated that no description is found specifying what constitutes severe corrosion compared to non-severe corrosion and requested to know how likely a carry-thru spar is to fail with corrosion versus severe corrosion. Another commenter requested that the FAA provide data to show there is a real threat to warrant immediate intervention.

FAA response: The FAA agrees with the commenters' requests to provide additional information regarding the data used to justify issuing this AD. Prior to issuing AD 2020–03–16 and the NPRM for this final rule, the FAA issued the ACS, dated June 27, 2019, advising owners and operators of the accident involving the Model T210M airplane in Australia and requesting relevant information about the fleet. The FAA evaluated data obtained in response to the ACS and from inspection reports completed in response to Textron Aviation Mandatory Single Engine Service Letter, SEL–57–06, dated June 24, 2019 (Textron SEL–57–06); Textron Aviation Single Engine Service Letter SEL–57–07, dated June 24, 2019 (Textron SEL–57–07); and subsequent Textron service letters that are identified in the Other Related Information paragraph. The data demonstrated that the risk was higher in earlier Model 210 airplanes (Model 210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K, 210L, T210L, 210M, and T210M airplanes), which supported issuing AD 2020–03–16 as an immediately adopted rule (Final Rule; Request for Comments).

The data received for later Model 210- and 177-series airplanes supported issuing the NPRM for this final rule. As of January 13, 2023, the FAA has received inspections results for 226 Model 210N, 210R, P210N, P210R, T210N, and T210R airplanes, including 21 reports of corrosion and damage and 2 spars removed from service. None of these later model airplanes reported cracking in the carry-thru spar. For Model 177-series airplanes, the FAA has received inspections results for 211 airplanes, including 120 reports of corrosion and at least 14 spars removed from service due to corrosion or damage. There have not been any reports of cracking in the lower flange of the carry-thru spars on Model 177-series airplanes.

Model 210- and 177-series airplanes share a similar carry-thru spar design with similar geometry. The carry-thru spars are single-load path, critical structure manufactured from 2014–T6 aluminum forging, which is susceptible to intergranular corrosion. A description of intergranular corrosion can be found in Chapter 2, Section 2.5.5, of FAA Advisory Circular AC 43–4B, *Corrosion Control for Aircraft,* dated September 11, 2018. Analysis completed by Textron demonstrated that the carry-thru spars on Model 210- and 177-series airplanes experience similar stress levels in operation. As of January 13, 2023, at least six spars were reported to have suspected cracking associated with corrosion in the lower flange of the carry-thru spar on early Model 210-series airplanes. For the carry-thru spar, severe corrosion is demonstrated by blistering, scaling, flaking, or measuring in excess of 0.010-inch deep. Any corrosion that results in cracking also qualifies as severe corrosion. Due to a large number of variables, the FAA cannot predict how spars with varying degrees of theoretical corrosion could fail in comparison to one another. However, the FAA's inability to predict the precise moment of failure does not eliminate or invalidate the unsafe condition.

The FAA determined that a longer compliance time than what is required by AD 2020–03–16 was acceptable for addressing the identified unsafe condition for later Model 210-series airplanes (Models 210N, P210N, T210N, 210R, P210R, and T210R airplanes) and Model 177-series airplanes, which is why those airplane models were not included in AD 2020–03–16 but are included in the applicability for this AD.

C. Requests Regarding Applicability

Numerous individual commenters requested changes to the applicability of the proposed AD for a variety of reasons.

1. Accounting for Differences Between Model 210- and 177-Series Airplanes

Comment summary: Thirteen commenters requested that the proposed AD account for differences between Model 210- and 177-series airplanes, including weight, operational usage, flight characteristics, wing loading, and application of corrosion protection. Four commenters stated that the FAA should account for the lack of interior foam padding installed on the lower carry-thru spar cap lower surface on Model 177-series airplanes as compared to Model 210-series airplanes. Two commenters identified that Model 177-series airplanes lack an interior bracket that is installed on Model 210-series airplanes, with one commenter noting the straps are dissimilar metal. Another commenter stated that corrosion on Model 177-series airplanes was found on the spar web, lower cap to web radius, and upper surface of the lower cap, as opposed to the Model 210-series airplanes where corrosion was found on the lower surface of the lower cap.

FAA response: The FAA acknowledges that there are differences in the carry-thru spars between Model 210- and 177-series airplanes. The FAA agrees that any subsequent rulemaking for the carry-thru spars on Model 210- and 177-series airplanes might not be the same. However, this is an interim AD requiring a visual inspection, eddy current inspection of the critical location, and corrosion treatment of the spars, and the FAA has determined that this action is necessary to address the unsafe condition for all affected airplanes.

Although the carry-thru spars for both Model 210- and 177-series airplanes are constructed from the same 2014–T6 aluminum forgings, the thicknesses of the caps are thinner on Model 177-series airplanes compared to Model 210-series airplanes. While the carry-thru spars on Model 177-series airplanes do not have interior foam adhered to the lower carry-thru spar cap, the installation orientation of the carry-thru spar in the airplane can result in moisture collecting on the upper surface of the forward flange of the carry-thru spar lower cap, and corrosion has been found on the tension-carrying lower cap. This AD only requires inspecting the lower cap and not the upper cap, web, or web to lower cap radius. Of the 120 reports of corrosion for Model 177-series airplanes, 27 include findings of corrosion on the upper surface of the lower carry-thru spar cap, an area included in the inspections required by this AD. Many of the 120 reports included insufficient information to identify the specific location of the corrosion.

Like the carry-thru spars on Model 210-series airplanes, some carry-thru spars on Model 177-series airplanes

were treated with primer in the factory prior to delivery, though not all spars were treated. This AD does account for the differences in these carry-thru spars in the required corrosion protection application. However, the existence of primer itself may not eliminate the possibility that corrosion exists and the spars still must be inspected. The FAA reviewed reports gathered in response to the ACS, dated June 27, 2019, and in response to AD 2020–03–16, which demonstrated that the carry-thru spars on both Model 210- and 177-series airplanes are subject to corrosion. Corrosion can initiate a crack, resulting in the carry-thru spar being unable to carry the required load. Analysis demonstrates crack growth can happen on an airplane under typical operation and in the original configuration. The carry-thru spars installed on Model 210- and 177-series airplanes share a similar single-load path design and geometry, are critical structure, and are constructed of 2014–T6 aluminum forging, which is susceptible to intergranular corrosion. Analysis completed by Textron demonstrated that the carry-thru spars experience similar stress levels in typical operation.

Although Model 177-series airplanes lack interior brackets that are installed on Model 210-series airplanes, corrosion on Model 210-series airplanes is not limited to the area surrounding the interior brackets and has been reported in a variety of locations on the carry-thru spar lower cap. The interior brackets installed on a limited number of Model 210-series airplanes are manufactured from 2024–T42 aluminum, which would not cause dissimilar metal corrosion with the carry-thru spar 2014–T6 aluminum forging. Corrosion has also been reported on Model 210-series airplanes that do not have the interior brackets installed.

2. Removing Model 177-Series Airplanes

Comment summary: One commenter stated that Model 177-series airplanes should not be included in the applicability of the proposed AD because the Model T210M airplane involved in the Australia accident was highly modified and flown in an aggressive manner that exceeded its design parameters. Eight commenters stated that there is a lack of service difficulty reports and failures associated with Model 177-series airplanes to justify including them in the applicability of the proposed AD. Three commenters stated that they did not find any issues during their airplane inspections. One commenter requested that Model F177RG airplanes be excluded from the applicability of the proposed AD because they were delivered from the factory with an interior coating of zinc chromate for corrosion protection.

Two commenters stated that the Cessna Model 177 community is proactive regarding maintenance and has a strong type club. The FAA infers that these commenters are requesting changes to the proposed AD based on the proactive nature of the Cessna Model 177 community.

FAA response: The FAA does not agree with the commenters' requests to remove Model 177-series airplanes from the applicability of this AD. The justification for issuing this AD is not based solely on the accident of the Model T210M airplane in Australia. Although that accident was a catalyst, as mentioned previously, the carry-thru spars on Model 210- and 177-series airplanes share a similar single-load path design, are critical structure, and are constructed of 2014–T6 aluminum forging, which is susceptible to intergranular corrosion. The FAA does not dispute that carry-thru spars on individual airplanes may not be affected by corrosion or damage; however, the reported inspection results demonstrate that Model 177-series airplanes do have a high rate of corrosion and damage.

The FAA agrees that the Cessna 177 community has a very strong type club and many proactive owners and operators. However, the FAA disagrees that Model 177-series airplanes should not be subject to the actions defined in the proposed AD. Not all operators are proactive and diligent in voluntarily inspecting for corrosion, so the inspections must be mandated. Out of the 211 Model 177-series reports received by the FAA as of January 13, 2023, 120 have reported corrosion. Of those, at least 14 were removed from service due to corrosion or damage.

The FAA acknowledges that some Model 177-series carry-thru spars, including those on Model F177RG airplanes, were treated with primer in the factory prior to delivery. This AD does account for the differences in these spars in the requirement to apply corrosion protection. However, the FAA disagrees that airplanes delivered from the factory with corrosion protection applied should be excluded from the AD, as corrosion has been reported on airplanes with factory-applied corrosion protection.

3. Removing Certain Model 210-Series Airplanes

Comment summary: Two commenters requested that later Model 210-series airplanes (Models 210N, 210R, P210N, P210R, T210N, and T210R) be removed from the applicability of the proposed AD because the cabin roof skin is one piece and completely covers the carry-thru spars, which prevents water entry. The commenters stated that these airplane models were factory-primed prior to installation, which improves the corrosion protection, and that none of the Model 210N and Model 210R airplanes that they are responsible for have evidence of corrosion related problems. One of the commenters stated that Model 210N airplanes, especially Model P210N airplanes, should not be included in the proposed AD because these airplanes have continuous fuselage skin and have factory-applied zinc chromate coating and sealant applied on the pressurized fuselage.

FAA response: The FAA acknowledges that later Model 210-series airplanes, including Model 210N, 210R, P210N, P210R, T210N, and T210R airplanes, are less susceptible to corrosion than the earlier Model 210-series airplanes. As of January 13, 2023, the FAA has received inspection reports on 226 later Model 210-series airplanes, including 15 (7%) reporting corrosion. No later Model 210-series airplanes were removed from service due to corrosion. Two carry-thru spars were removed from service due to damage. This is compared to 47% of the earlier Model 210-series airplanes reporting corrosion and 57% of the Model 177-series airplane fleet reporting corrosion.

The combined features of factory primer, continuous skin, and sealing, specifically associated with the pressurized airplanes, likely contributed to the lower corrosion rate; however, carry-thru spars on all Model 210-series airplanes have a similar carry-thru spar design and the actions identified in this AD are appropriate for all Model 210-series airplanes. As previously discussed, the carry-thru spars have a single-load path critical structure, and the spar is constructed of 2014–T6 aluminum forging, which is susceptible to intergranular corrosion. Additionally, analysis completed by Textron revealed that later Model 210-series airplanes, due to their weight and configuration, demonstrate higher stress levels in operation when compared to earlier Model 210-series airplanes. Therefore, the critical crack length—the length at which the crack reduces the capability of the structure below that provided in the certification basis—is smaller in the later Model 210-series airplanes. This AD is interim action and the FAA will continue to evaluate the inspection reports when determining final action for mitigating the identified unsafe

condition on Model 210-series airplanes.

4. Airplane Operation

Comment summary: Several commenters requested that the applicability of the proposed AD take into account the type of airplane operation. The commenters noted that the Model T210M airplane that experienced the in-flight break-up was operated in a more severe manner than the typical fleet. One commenter noted that Textron SEL–57–07 included similar visual and eddy current inspections as those in the proposed AD but the effectivity was limited to airplanes flown with severe usage, as defined by service and maintenance manual information. Another commenter suggested that an evaluation be used similar to one that was used for the Piper wing spar AD 2020–26–16, Amendment 39–21371 (86 FR 3769, January 15, 2021).

FAA response: The FAA reviewed inspection reports provided by operators of the current fleet of Model 210- and 177-series airplanes, which includes corrosion reports for airplanes operated in various environments, ranging from mild to severe corrosion environments, and under different types of operation. In addition, enforcement of an AD based on airplane operation would be difficult because FAA regulations do not require all operators to maintain records of operations based on usage and many airplanes are utilized in different kinds of operations.

The FAA determined that an evaluation similar to the one used for Piper wing spar AD 2020–26–16 is not appropriate for this AD. AD 2020–26–16 requires calculating ''factored service hours'' for each main wing spar to determine when an inspection is required. The application of the ''factored service hours'' formula will identify when an airplane meets the criteria for the eddy current inspection of the lower main wing spar bolt holes and replacement of the wing spar on affected Piper airplanes.

The unsafe condition on the Model 210-and 177-series airplanes addressed by this AD involves both corrosion and cracking. The FAA cannot use an evaluation similar to the one used for the Piper airplanes to draw the same conclusions or correlations to the unsafe condition addressed by this AD, as the unsafe condition associated with AD 2020–26–16 is primarily associated with fatigue cracking concerns.

5. Primed and Unprimed Airplanes

Comment summary: One commenter requested that the FAA account for the differences in primed and unprimed carry-thru spars on Model 177-series airplanes in the proposed AD. The commenter explained that early Model 177-series airplanes did not have protective coating (primer) applied from the factory but mid and later year airplanes did.

FAA response: The FAA acknowledges that carry-thru spars on some Model 177-series airplanes were treated with primer in the factory prior to delivery and this AD does account for the differences between primed and unprimed airplanes regarding the requirement to apply corrosion protection. However, the FAA disagrees that airplanes delivered with factory-applied corrosion protection should be excluded from the applicability of this AD. Corrosion has been reported on airplanes with factory-applied corrosion protection and the carry-thru spars on those airplanes must be inspected.

D. Requests Regarding Special Flight Permits

Comment summary: AOPA, Cardinal Flyers Online, and several individual commenters requested that the FAA allow special flight permits. The commenters explained that not all owners and operators have local repair and maintenance facilities and that many repair and maintenance facilities cannot perform all of the actions necessary to comply with the requirements specified in the proposed AD. The commenters noted that paragraph (m) of the proposed AD prohibited special flight permits, which would prohibit any flight to complete the visual and eddy current inspections specified in the proposed AD; therefore, all visual inspections and on-condition blending must either be completed at a facility with eddy current capability or would require an inspector with such capability to travel to the airplane. The commenters stated that allowing special flight permits would allow more facilities to complete individual portions of the inspection, increasing capacity and alleviating backlog at aircraft maintenance facilities. The commenters stated that allowing special flight permits could increase repair quality, improve scheduling, reduce costs, and encourage more owners to complete the inspections, increasing the safety of the fleet. Prohibiting special flight permits, however, could result in the inability to repair the affected airplanes. In addition, four commenters stated that the lack of documented failures for the Model 177 does not justify the prohibition of special flight permits.

FAA response: The FAA partially agrees with the commenters' requests and revised paragraph (m) of this AD to allow special flight permits in limited situations because it would grant owners and operators more flexibility when complying with the required actions in this AD and reduce the burden on inspection facilities and mechanics.

The FAA revised paragraph (g)(4) of this AD to allow airplanes without detected corrosion, cracking, or other damage, or evidence of previous corrosion removal to continue to operate and complete the eddy current inspection required by paragraph (h) of this AD within 200 hours TIS after the effective date of the AD or within 12 months after the effective date of this AD, whichever occurs first.

The FAA agrees with allowing an airplane with evidence of corrosion to be relocated if the process for obtaining a special flight permit is completed in accordance with FAA regulations, policy, and guidance. Furthermore, the FAA agrees with allowing an airplane with damage other than corrosion or evidence of previous blending to be relocated, provided the Wichita ACO Branch is contacted and provides concurrence.

The FAA disagrees with granting special flight permits if either the visual inspection or the eddy current inspection detects cracking in the carry-thru spar lower cap.

E. Requests Regarding Compliance Time

1. Extend the Compliance Time for the Required Inspections

Comment summary: AOPA, Aviation Plus LLC, Cardinal Flyers Online, and numerous individual commenters requested that the compliance time be extended for the visual inspection specified in paragraph (g) of the proposed AD (within 200 hours time-in-service (TIS) or within 12 months after the effective date, whichever occurs first). Four commenters suggested the compliance time be 200 hours TIS or within 12 months after the effective date of the AD, whichever occurs later. Two commenters suggested requiring the visual inspection within 12 months after the effective date of the AD, but not requiring the eddy current inspection required by paragraph (h) of the proposed AD within that timeframe. Several commenters remarked that TIS is more critical than calendar time and requested the FAA remove the 12 month time requirement to complete the visual inspection. One commenter suggested the compliance time be changed to 200 hours TIS or the next annual inspection

after the issuance of the AD, whichever occurs first. Two commenters provided additional compliance times, ranging from 36 months or 500 hours TIS to 5 years and 200 hours TIS. Eleven commenters noted that the 12-month calendar limit would make compliance difficult due to limited availability of maintenance facilities and personnel, potentially grounding airplanes. Several commenters raised concerns that there are not enough qualified maintenance facilities to handle the workload of the inspection within a 12-month period, especially given the prohibition on special flight permits and the requirements of an AD for the Piper wing spar.

One commenter mentioned that most Textron Model 177-series airplanes are flown less than 200 hours per year and three commenters identified that no carry-thru spars have failed on the Textron Model 177-series airplanes. The FAA infers that these commenters are thus requesting an increase in the compliance time for the inspections required by this AD.

FAA response: Based on the inspection reports received, the FAA disagrees with extending the compliance times specified in paragraph (g) of this AD. The compliance times specified in this AD correspond with the compliance times published in Textron Aviation Mandatory Single Engine Service Letter, SEL–57–08, Revision 2, dated August 3, 2020 (Textron SEL–57–08R2) and Textron Aviation Single Engine Service Letter SEL–57–09R1, dated August 3, 2020 (Textron SEL–57–09R1). Textron superseded Textron Aviation Mandatory Single Engine Service Letter, SEL–57–07, Revision 1, dated November 19, 2019 (Textron SEL–57–07R1), with Textron SEL–57–09R1, which identifies a compliance time of 200 flight hours or the next annual inspection from date of receipt, of that service letter, whichever occurs first.

The FAA does not agree with a compliance time based solely on usage TIS or on calendar time, nor does the FAA agree that the compliance time should be ''200 hours TIS or 12 months, whichever occurs later'' after the effective date of this AD. The carry-thru spar is a critical single-load path structure, and if a crack initiates, there could be a catastrophic failure. Corrosion is a function of calendar time and crack growth is a function of hours TIS. The FAA has received reports of severe corrosion on carry-thru spars with less than 4,000 hours TIS and corrosion could initiate cracking in structure with low hours TIS.

The FAA does not agree with revising the compliance time to ''200 hours TIS or next annual inspection after the issuance of this AD, whichever occurs first'' because if the next annual inspection is due before 12 months after the effective date of this AD that would be more restrictive than the language in the proposed AD, and could occur almost immediately. Operators can always accomplish the actions required by an AD prior to the compliance time specified in an AD.

The FAA has revised paragraph (g)(4) of this AD to allow airplanes without detected corrosion, cracking, or other damage, or evidence of previous corrosion removal to do the eddy current inspection required by paragraph (h) of this AD within 200 hours TIS after the effective date of this AD or within 12 calendar months after the effective date of this AD, whichever occurs first.

The FAA acknowledges both the limitations on the availability of maintenance facilities and personnel capable of completing the inspections required in this AD and the difficulty in meeting the compliance time in paragraph (g) of this AD without the ability to relocate the airplane. The FAA would entertain alternative methods of compliance (AMOCs) to extend the compliance time on a case-by-case basis provided the work was scheduled. If scheduling an eddy current inspection is difficult, an owner, operator, or any interested party can apply for an AMOC using the procedures in paragraph (n) of this AD. The AMOC request must include substantiating data showing that the proposed AMOC provides an acceptable level of safety for a different method or adjustment of the compliance time to address the unsafe condition, other than the one specified in the AD. Also, the FAA has revised paragraph (g)(4) in this AD to allow airplanes without detected corrosion, cracking, or other damage, or evidence of previous corrosion removal to complete the actions required by paragraph (h) of this AD within 200 hours TIS after the effective date of this AD or within 12 months after the effective date of this AD, whichever occurs first. As discussed above in section D., Requests Regarding Special Flight Permits, the FAA has revised paragraph (m) of this AD to allow special flight permits in limited situations.

2. Correspond Compliance Time for Eddy Current Inspection With Service Letter

Comment summary: One commenter requested the FAA explain the differences between the proposed AD requiring an eddy current inspection within one year and the Textron service letter (Textron SEL–57–07) that specified an eddy current inspection for most Model 177-series airplanes at or after 15,000 hours TIS. The FAA infers that the commenter is requesting the compliance time specified in the proposed AD match what is in the Textron SEL–57–07.

FAA response: The FAA agrees that there are differences between the compliance time in the proposed AD and Textron SEL–57–07. Textron Aviation superseded Textron SEL–57–07 with Textron SEL–57–09R1, which specifies a compliance time of 200 flight hours or the next annual inspection from date of receipt, whichever occurs first. Textron SEL–57–09R1 applies to all Model 177-series airplanes identified in this service letter regardless of the total flight hours on the airframe. The compliance time specified in this AD aligns with the compliance time in Textron SEL–57–09R1 and there is no justification for aligning the compliance time with what is specified in the superseded Textron SEL–57–07.

3. Account for TIS

Comment summary: Nine commenters requested that the proposed AD account for an airplane's TIS and one of those commenters noted that the accident airplane had a high number of hours TIS. Three of those commenters suggested a compliance time ranging from 2,500 hours TIS to 12,000 hours TIS. Several commenters cited high costs as justification for only requiring airplanes with a high number of hours TIS to do the actions specified in the proposed AD.

FAA response: The FAA disagrees with limiting the inspections required by this AD to airplanes with a high number of hours TIS. This AD is not based solely on the fatal 2019 accident in Australia involving a Model T210M airplane. As of January 13, 2023, there have been reports of corrosion on 120 Model 177-series airplanes, with at least 14 spars removed from service due to corrosion and damage of the lower cap, including a spar removed from service with less than 2,000 hours TIS. Additionally, 460 Model 210-series airplanes have reported corrosion, with 64 spars removed from service due to corrosion and damage, including five removed from service with less than 3,000 hours TIS. Inspections based on TIS alone are not sufficient to identify and address corrosion, as corrosion is a function of calendar time. Corrosion can serve as a crack initiator, resulting in the spar being unable to carry the required load. Analysis completed by Textron

demonstrates this crack growth can happen under typical operation.

4. Align Compliance Time With Maintenance Schedules

Comment summary: One commenter requested that the FAA allow the inspections to be completed when the inspection area is exposed for other maintenance. The FAA infers that the commenter is making this request to reduce costs and airplane down time.

FAA response: The FAA acknowledges the commenter's request to limit maintenance access to reduce the time and money spent to comply with the requirements of this AD. However, the FAA considers this AD to be interim action and is still evaluating what actions must be required when issuing future rulemaking that will be considered final action to address the identified unsafe condition. During this evaluation, the FAA will consider if, for any future rulemaking, compliance times can be developed that correspond with scheduled maintenance; however, for this AD, the FAA does not agree with extending the compliance time for the entire fleet. The compliance time of this AD is within 200 hours TIS or 12 months after the effective date of this AD, whichever occurs first. This compliance time may allow the actions to be accomplished at the same time as regular maintenance, as the requirements of this AD can always be completed early. An owner, operator, or any interested party can apply for an AMOC to propose an adjustment of the compliance time using the procedures in paragraph (n) of this AD. The AMOC request must include substantiating data showing that the proposed AMOC provides an acceptable level of safety for a different method or adjustment of the compliance time to address the unsafe condition, other than the one specified in the AD.

F. Requests Regarding Requiring Actions To Align With Service Information

Comment summary: Sixteen commenters requested that the FAA only require the actions specified in the Textron service information. One commenter stated that general aviation is struggling, and due to costs an AD should not require pilots to do any actions beyond those specified in the Textron service information. Two additional commenters mentioned the additional costs of repeating portions of the inspections in areas that differed between the Textron service information and the proposed AD. One commenter stated that the FAA should require the airplane manufacturer to create service information that will preserve the airworthiness of the carry-thru spar so compliance with the service information will count if the service information is included in an AD. Another commenter stated when the FAA overrides manufacturers' service information with ADs airplane owners would become less willing to use the information in future service bulletins because of concern that the FAA would require duplication of the actions in the service bulletins in an AD. One commenter stated that paragraph (g)(2) of the proposed AD negates the directions in paragraph (B)(2) of Textron SEL–57–09R1 because the service letter states to ''Make sure to only remove the minimum material necessary to blend the corroded surface with the surrounding surface.''

FAA response: The FAA disagrees that this AD should only require the actions specified in the Textron service information. After reviewing the procedures specified in that service information, the FAA determined that the unsafe condition could not be mitigated using only those procedures. Prior to the publication of the NPRM, the FAA received reports indicating that the visual inspection might not detect corrosion similar to that observed on the accident airplane. The fatigue crack on the accident airplane that caused the catastrophic failure of the carry-thru spar initiated at a corrosion pit approximately 0.011-inch deep. Cracking may be difficult to detect through visual inspection alone since the lower spar cap is in compression during the inspection. The eddy current inspection, however, could detect cracking from undetected corrosion or damage.

The FAA disagrees that paragraph (g)(2) of this AD negates the directions in step 6.B.(2) of the Accomplishment Instruction in Textron SEL–57–09R1. Paragraph (g)(2) of this AD addresses removal or repair of the carry-thru spar due to evidence of previous blending. The FAA agrees with granting credit for blending previously completed using Textron service letters and the FAA acknowledges that owners, operators, and maintenance personnel could have proactively completed the actions described in the Textron service letters. The FAA has revised paragraph (l) of this AD to clarify credit for previous blending completed using the procedures in older revisions of the Textron service letters. Paragraph (f) of this AD already provides credit for blending action completed prior to the effective date of this AD using Textron SEL–57–08R2 or Textron SEL–57–09R1.

The FAA agrees that alignment of a manufacturer's service documents and the requirements of an AD is ideal; however, the FAA cannot mandate a company to issue specific service information. Per 14 CFR 39.27, if an AD conflicts with the service document on which it is based, then the operator must follow the requirements of the AD. Additionally, the Textron service information clearly indicates that the compliance time presented might not apply to modified airplanes, including modifications that alter the airplane's design, gross weight, or airplane performance, including, but not limited to, installation of vortex generators, wing cuffs, short take-off and landing (STOL) kits, wing tips, and add-on wing fuel tanks. The FAA is responsible for considering the effects of these modifications on the airplanes included in the applicability of this AD.

While the FAA cannot mandate that the service information be revised, nor can the agency wait on such information to address the unsafe condition, the FAA may allow an AMOC if the service information is revised and the FAA finds it acceptable to address the unsafe condition. If Textron revises its service information and the FAA determines that the revisions mitigate the unsafe condition, an owner, operator, or any interested party can apply for an AMOC using the procedures in paragraph (n) of this AD. The AMOC request must include substantiating data showing that the proposed AMOC provides an acceptable level of safety for a different method to address the unsafe condition, other than the one specified in the AD.

The FAA has not changed this AD in regard to this issue.

G. Requests Regarding Limiting the AD to the Lower Carry-Thru Spar Cap

Comment summary: Two individual commenters requested the requirements of the proposed AD be limited to inspections on the lower carry-thru spar cap. Another commenter supported the focus on the lower spar flange but noted that, in the proposed AD, mechanics could miss the statement that limits the scope of the inspection. One commenter acknowledged that the NPRM specified a mechanic is not required to inspect the lower cap to web radius, spar web, upper cap, or lugs, but that nothing excludes a mechanic from taking a spar out of service if any evidence of previous blending in those areas is found.

FAA response: The FAA agrees with the commenter's requests to limit the requirements of this AD to inspections of the lower carry-thru spar cap and finds that, as written, the requirements of this AD are limited to inspections of the carry-thru spar lower cap including the lower surface, upper surface, and

edge. As detailed in paragraph (g) of this AD, inspecting the lower cap to web radius, spar web, upper cap, or lugs is not required. The preamble of this AD mentions that actions related to the web, upper caps, and lugs are not included as part of this AD. A mechanic may take a spar out of service during any inspection or maintenance event if the airplane is determined to not be airworthy to return to service.

The FAA has not changed this AD in regard to this issue.

H. Requests Regarding Eddy Current Inspection

1. On-Condition Eddy Current Inspection

Comment summary: Thirty-five commenters requested that the eddy current inspection of the carry-thru spar specified in paragraph (h) of the proposed AD only be required as an on-condition action when there is visual evidence of corrosion or damage. Three commenters stated that corrosion or cracking on the lower surface of the spar should be readily observable through a detailed visual inspection. Three commenters requested data justifying the eddy current inspection on airplanes that did not exhibit corrosion pitting on the carry-thru spar. One commenter asked why an airplane would need an eddy current inspection if the spar was delivered with a factory-applied protective coating, is clean and dry, and is not operated in an environment subject to moisture or other corrosion causing elements. Another commenter noted that over 300 visual inspections were completed on Model 177-series airplanes since the FAA identified this as a potential concern and none of the reports indicated that cracking was found. A different commenter requested that the FAA explain why it proposed expanding Textron's inspection requirements, which only specified eddy current inspections of the carry-thru spars if there were visual signs of corrosion, and asked if the FAA had significant evidence or engineering information indicating there could be internal corrosion or cracking even though it's not visible on the surface. One commenter stated that interpretation of the eddy current inspection results can be subjective. Two commenters requested requiring repetitive visual inspections instead of the eddy current inspection.

FAA's response: The FAA disagrees with the commenters' requests to make the eddy current inspection an on-condition action in this AD or to only require repetitive visual inspections. Prior to the publication of the NPRM, the FAA reviewed inspection reports and determined that the visual inspection might not detect corrosion. On the Model T210M airplane involved in the accident that prompted the NPRM, the fatigue crack initiated at a corrosion pit approximately 0.011-inch deep. Cracking could be difficult to detect by only a visual inspection since the lower spar cap is in compression during that inspection, and the eddy current inspection could detect cracking from undetected corrosion or damage. The FAA acknowledges that it has not received any reports of cracking in the carry-thru spar lower cap on Model 177-series airplanes; however, out of the 211 inspection reports received by the FAA as of January 13, 2023, there have been 120 reports of corrosion and at least 14 carry-thru spars have been removed from service due to corrosion or damage.

This AD requires that the technician completing the eddy current inspection be appropriately qualified as detailed in Textron Aviation Mandatory Service Letters SEL–57–08, Revision 2; and SEL–57–09, Revision 1.

The FAA has not changed this AD in regard to this issue.

2. Limited Availability of Inspectors

Comment summary: Several individual commenters expressed concern regarding the limited number of inspectors qualified and available of performing the eddy current inspection specified in the proposed AD. The commenters explained that it is difficult to locate qualified eddy current inspectors and for many airplane owners the inspectors are not local. One commenter requested that the FAA research how many facilities are willing to do the actions specified in the proposed AD and identify the lead time for scheduling the work.

FAA response: The FAA acknowledges that finding a person or facility qualified to do an eddy current inspection could be difficult in some geographic regions. While the FAA does not maintain a comprehensive listing of all repair stations capable of completing the specific eddy current inspections required by this AD, you may search for a repair station by location and rating on the FAA website: *av-info.faa.gov/repairstation.asp.* The FAA has no way to accurately determine any specific facility's willingness and scheduling availability to complete work at a given time.

As discussed above in section D., Requests Regarding Special Flight Permits, the FAA revised paragraph (m) of this AD to allow special flight permits with limitations. If scheduling an eddy current inspection is difficult, an owner, operator, or any interested party can apply for an AMOC using the procedures in paragraph (n) of this AD. The AMOC request must include substantiating data showing that the proposed AMOC provides an acceptable level of safety for a different method or adjustment of the compliance time to address the unsafe condition, other than the one specified in the AD. Also, the FAA has revised paragraph (g)(4) in this AD to allow airplanes without detected corrosion, cracking, or other damage, or evidence of previous corrosion removal to complete the actions required by paragraph (h) of this AD within 200 hours TIS after the effective date of this AD or within 12 months after the effective date of this AD, whichever occurs first.

I. Requests Regarding Including a New Repetitive Inspection Requirement

Comment summary: Three individual commenters requested that the proposed AD include repetitive inspections. One of the commenters requested requiring repetitive inspections instead of replacing carry-thru spars that fail the inspection but do not have evidence of cracking. One of the commenters agreed that spars with cracking should be removed from service but a questionable spar with no cracking should be repetitively inspected instead of removed.

FAA response: The FAA agrees that repetitive inspections might be appropriate for future rulemaking. The FAA considers this AD to be interim action and is still evaluating what actions must be required if future rulemaking is issued that will be considered final action. If the FAA determines that repetitive inspections are necessary, then they could be included as a requirement. Adding new requirements to this AD would require public comment before adopting a final rule, and would require publishing a supplemental NPRM. Because of the identified unsafe condition, the FAA does not agree to delay this AD.

The FAA does not have data to support allowing carry-thru spars with excessive material removed to remain in service, even if they are repetitively inspected; however, the FAA would consider permitting individual carry-thru spars to remain in service and be repetitively inspected if an owner, operator, or any interested party applies for an AMOC using the procedures in paragraph (n) of this AD and includes substantiating data showing that the proposed AMOC provides an acceptable level of safety.

The FAA has not changed this AD in regard to this issue.

J. Requests Regarding Removing Certain Requirements

1. Corrective Action Requirements

Comment summary: Textron requested that paragraphs (h)(3) and (4) of the proposed AD, which address corrective actions for spars with damage or corrosion, be removed. Textron stated that these paragraphs are redundant because the inspection and rework specified in paragraph (g) of the proposed AD would have already addressed these actions.

FAA response: The FAA does not agree because paragraphs (h)(3) and (4) of this AD provide directions for what to do if damage or corrosion are detected during the eddy current inspection required by paragraph (h) of this AD. Paragraph (g) of this AD requires a visual inspection with a 10X magnification lens looking for corrosion, cracking, and damage and provides directions for what to do if damage or corrosion are found during the visual inspection.

The FAA has not changed this AD in regard to this issue.

2. Corrosion Protection Requirement

Comment summary: An individual commenter stated that applying corrosion coating would be costly and disruptive for parts that do not need corrosion prevention. The FAA infers that the commenter is requesting that the requirement to apply corrosion coatings specified in the proposed AD be removed.

FAA response: The FAA disagrees that the requirement in paragraph (i) of this AD to apply primer and CIC should be removed. Applying primer and CIC prevents corrosion and reduces the potential for crack initiation from corrosion. The carry-thru spar is a critical single load path structure with a demonstrated corrosion issue. Failure to sufficiently protect the structure from repeated corrosion increases the likelihood of additional cracking.

The FAA has not changed this AD in regard to this issue.

K. Requests Regarding Credit for Previous Actions

1. Credit for Previous Blending

Comment summary: AOPA, Cardinal Flyers Online, and several individual commenters requested that the proposed AD be revised to either give credit for previous blending done before the effective date of the final rule or to clarify what previous blending is acceptable. Three commenters requested that the proposed AD be revised to provide credit for carry-thru spars that were blended using the procedures specified in the Textron service letters instead of the requirement to replace a carry-thru spar or repair it using an AMOC. Ten commenters requested that the proposed AD be revised to allow previous blending of a carry-thru spar that is within the limits specified in the Textron service letters, even if the blending was not done using the procedures in the service letters. One commenter stated that it is unreasonable to require removal from service of a carry-thru spar with evidence of factory cleanup. The FAA infers that this commenter is requesting that carry-thru spars that have evidence of prior blending be permitted to remain in service.

Three commenters stated that, in the proposed AD, the language was unclear regarding corrosion removed prior to the effective date of the AD using the procedures in the Textron service letters. Paragraph (g)(2) of the proposed AD would require that carry-thru spars with evidence of previous blending either be removed from service or repaired using an AMOC. The commenters noted that paragraph (l) of the proposed AD does grant credit for the visual inspection required by paragraph (g) of the proposed AD, but does not clearly identify if credit is allowed for any previous corrosion removal completed as a result of the visual inspection required by paragraph (g) of the proposed AD.

Multiple commenters requested that the FAA provide credit for previous corrosion removal, even if logbook records are used. Commenters also raised the concern that owners who have made an effort to maintain a carry-thru spar in good condition would be penalized if the final rule fails to give credit for previous blending accomplished using the procedures in Textron SEL–57–08R2, or Textron SEL–57–09R1, as specified in paragraph (g) of the proposed AD. Ten commenters stated that previous blending should be covered by paragraph (g)(3) of the proposed AD and that all previous corrosion removal that does not exceed the blend limits specified in Textron SEL–57–08R2 and Textron SEL–57–09R1 should be permitted. Several commenters stated that the language in paragraph (l) of the proposed AD was as ambiguous and may penalize those parties who took action prior to publication of the final rule. Several commenters stated that most carry-thru spars were blended to some extent at the factory and that other carry-thru spars were blended using guidance from Textron.

To justify allowing the blended carry-thru spars to remain in service, one commenter provided information from an industry forum and from experience working with cast aluminum to support the view that Cessna blended carry-thru spars prior to delivery. This same commenter also cited concerns regarding the time needed to obtain an AMOC.

FAA response: The FAA partially agrees with the commenters' requests. The FAA agrees with granting credit for the blending of carry-thru spars completed prior to the effective date of this AD using Textron SEL–57–08R2 and Textron SEL–57–09R1, and the FAA acknowledges that some owners, operators, and maintenance personnel proactively complied with the procedures in that service information; however, compliance with previous actions is already addressed and no change is needed to this AD because paragraph (f) of this AD states ''Comply with this AD within the compliance times specified, unless already done.''

The FAA also agrees to revise paragraphs (l)(1) and (2) of this AD to clarify that owners and operators may take credit for corrosion removal (blending) completed before the effective date of this AD using the procedures in Textron Aviation Mandatory Single Engine Service Letter SEL–57–08, dated November 1, 2019 (Textron SEL–57–08); Textron Aviation Mandatory Single Engine Service Letter SEL–57–08, Revision 1, dated November 19, 2019 (Textron SEL–57–08R1); Textron Aviation Mandatory Single Service Letter SEL–57–09, dated November 19, 2019 (Textron SEL–57–09); Textron SEL–57–06; Textron Aviation Mandatory Single Engine Service Letter SEL–57–06, Revision 1, dated November 19, 2019 (Textron SEL–57–06R1); Textron SEL–57–07; or Textron SEL–57–07R1.

The FAA disagrees allowing credit for blending completed prior to the release of Textron SEL–57–06 and Textron SEL–57–07 without an evaluation and a repair approved as an AMOC. While the FAA does not have data supporting that Cessna blended the forged carry-thru spars prior to delivery, the FAA does recognize that some carry-thru spars were blended prior to publication of the NPRM. Blend limits, blend ratios, and surface finish must be addressed in the AMOC request. Locations previously blended that are included in the AMOC request will still be required to complete the eddy current inspection or provide evidence of previous completion.

2. Clarifying Credit for Previous Actions

Comment summary: Ten individual commenters requested clarification regarding credit for previous actions. Four commenters stated that paragraph (l) in the proposed AD was unclear. Seven commenters requested the FAA give credit for previous actions and not require that the actions be duplicated. One commenter stated that the proposed AD should provide full credit for any previous corrosion remediation performed using accepted maintenance procedures, so owners who previously addressed corrosion on their airplane are not punished.

FAA response: The FAA agrees that credit should be granted for work previously accomplished using the procedures in the Textron service letters and, as stated previously, the FAA has revised paragraph (l) of this AD to clarify that owners and operators may take credit for previously accomplished visual inspections and corrosion removal if completed in accordance with Textron service letters. The FAA finds that owners and operators are not being required to duplicate actions because paragraph (f) of this AD states ''Comply with this AD within the compliance times specified, unless already done;'' therefore, compliance for previous actions is granted to those who completed the required actions prior to the effective date of this AD in accordance with the applicable steps of the Accomplishment Instructions in Textron SEL–57–08R2 and Textron SEL–57–09R1.

Operators that performed repairs using accepted maintenance practices other than the Textron service letters must apply for an AMOC.

L. Requests Regarding AMOCs

1. Repair

Comment summary: One commenter requested clarification regarding what kinds of carry-thru spar repairs the FAA would approve through the AMOC process. The commenter stated that paragraph (o) of the proposed AD did not identify what kind of repairs might be acceptable and that the proposed AD left the decision for acceptable AMOCs to Textron, even though the FAA says Textron's corrective action identified in Textron SEL–57–09R1 is not adequate. The commenter explained that the lack of definition in paragraph (o) of the proposed AD regarding acceptable repairs makes it difficult for owners to estimate the condition of their carry-thru spars.

FAA response: The FAA disagrees that paragraph (n) of this AD (paragraph (o) in the proposed AD), requires clarification. The FAA has defined an acceptable repair based on available data. If the FAA knew of additional standard repairs, then those repairs would have been reviewed and, if found acceptable, included in this AD.

This AD specifies the same material removal limits as those identified in Textron SEL–57–09R1. It is possible that spars with damage that cannot be removed within the limits identified in Table 1 of Textron SEL–57–09R1 could still be found acceptable based on further evaluation. A repair on a carry-thru spar for which the material removed exceeds that identified in Table 1 of Textron SEL–57–09 would require an AMOC. Generally, the FAA, not Textron, must approve AMOCs; however, in this AD the FAA has delegated to Textron's Organization Designation Authorization the authority to evaluate carry-thru spars with material removal beyond that identified in Textron SEL–57–09R1 to salvage as many spars as possible. Textron might choose not to evaluate modified airplanes, as detailed in Textron SEL–57–09R1 and Textron SEL–57–08R2. Additionally, there is no requirement for an operator to have its spar evaluated by Textron. The owner or operator may develop its own AMOC request to present to the FAA for evaluation of any repair for which there is substantiating data.

The FAA would not limit AMOC options by defining those that are acceptable, as it is unrealistic for the FAA to preemptively identify and evaluate any potential AMOC option that may or may not be applicable to an airplane.

The FAA has not changed this AD in regard to this issue.

2. Alternative Inspection Method

Comment summary: Cardinal Flyers Online and four individual commenters requested that instead of the eddy current inspection a visual inspection be allowed with the airplane on jacks. The commenters explained that putting the wings on jacks would place the lower spar cap in tension, allowing cracking to be seen more readily during the visual inspection. One commenter proposed using a dye penetrant inspection in addition to supporting the wings with jacks.

FAA response: The FAA acknowledges that other inspection methods could be used for the carry-thru spar inspection; however, the FAA does not have data to support including these alternative inspection methods in this AD. An owner, operator, or any interested party may develop inspection procedures and submit an AMOC request to the FAA along with substantiating data showing that the proposed AMOC addresses the unsafe condition with an acceptable level of safety.

The FAA has not changed this AD in regard to this issue.

3. Alternative Corrosion Protection Options

Comment summary: Three commenters requested that the proposed AD allow for alternative corrosion protection options in addition to those specified in the proposed AD. Two of those commenters stated that the corrosion coatings specified in the proposed AD need to be expanded to include other products typically used in aviation and not just those identified by Textron. One commenter stated that a carry-thru spar that has been fully anodized and inspected should be equivalent to or better than a carry-thru spar with coating applied.

FAA response: The FAA agrees that alternative coating options could be acceptable. Using the procedures in paragraph (n) of this AD an owner, operator, or any interested party is welcome to identify an alternative coating and submit an AMOC request to the FAA along with substantiating data showing that the proposed AMOC addresses the unsafe condition with an acceptable level of safety.

M. Requests Regarding Cost Estimates

1. Labor Rate Is Unrealistic

Comment summary: Eight commenters requested the FAA increase the cost per hour estimates for the labor rate because $85 per work-hour is too low, does not reflect the true rate of labor, and is not attainable. One commenter requested that the FAA publish the method used to derive the hourly rate charged by maintenance shops.

FAA response: The FAA partially agrees with the commenters' requests. The FAA Office of Aviation Policy and Plans provides the labor rate of $85 per work-hour to use when estimating the labor costs of complying with the AD requirements. The FAA does agree to alter the estimated cost of the eddy current inspection from $85 per work-hour to a flat rate of $600 for one work-hour of contracted service to more accurately reflect the cost of eddy current inspection. The FAA revised the estimated costs and on-conditions costs tables in this AD to account for the $600 per work-hour contracted service associated with the eddy current inspection.

2. Estimated Work-Hours

Comment summary: Aviation Plus LLC and several individual commenters requested that the FAA increase the estimated number of work-hours for doing the carry-thru spar inspections because the estimated work-hours specified in the NPRM are too low and do not include on-condition costs for removing the oxygen systems and air conditioning systems for access to the inspection area. Two commenters stated that the costs to remove the airplane interior for access to do the inspections are not accurate. One commenter wanted to know the source of the estimated work-hours.

Eleven commenters requested that the proposed estimated cost for the eddy current inspection be increased and noted that the cost should include travel time to the grounded airplane or the cost to bring the eddy current inspector to the airplane.

One of these commenters stated that a flat rate is usually charged for an eddy current inspection, and four of these commenters stated that the cost range is usually between $400 and $1,000. The commenters provided various reasons for their requests.

FAA response: The FAA agrees that some of the estimated costs in this AD should be revised.

Textron provided the original estimated work-hours for preparing, inspecting, and reassembling an airplane. The FAA observed inspections completed by maintenance facilities and verified the personnel were able to complete the work within the estimates provided by Textron Aviation. The FAA acknowledges there is variability in the time necessary to complete the work, depending on a number of factors including airplane configuration and condition and the experience and capabilities of the individual(s) performing the work. The cost estimates provided in the NPRM did not include travel time to the grounded airplane or the cost to bring the eddy current inspector to the airplane.

The FAA partially agrees with the commenters' requests and has increased the estimated work-hours from 12 hours to 20 hours for removing and reinstalling the interior, removing the foam as applicable, and preparing the spar for visual and eddy current inspections. Additionally, in the Estimated costs table in this final rule the FAA has separated the eddy current inspection of the cap kick area into a separate line item with an estimate of $600 for contracted service work-hours and in the On-condition costs table included a line item for the on-condition eddy current inspection required due to corrosion or damage with an estimate of $600 for contracted service work-hours. Furthermore, the FAA added an additional line item that includes 5 work-hours for airplanes equipped with oxygen bottles and an additional line item that includes 3 work-hours for airplanes equipped with air conditioning.

2. Costs of Replacement Parts

Comment summary: Four commenters discussed the availability and cost of replacement carry-thru spars. The commenters wanted to know how the FAA determined the estimate of $30,000 for a replacement carry-thru spar. Another commenter stated that replacement carry-thru spars are not available from the manufacturer and the cost estimate for a replacement spar is low. The FAA infers that these commenters are requesting that the cost estimate for a replacement carry-thru spar be increased.

FAA's response: Textron provided the $30,000 cost estimate for a replacement carry-thru spar and has informed the FAA of its intention to start producing replacement carry-thru spars for Model 177-series airplanes. Textron is currently producing replacement carry-thru spars for Model 210-series airplanes, with a current cost of $21,367 for part number (P/N) 1210721–1 and $19,999 for P/N 2110020–1. The FAA revised the cost for a replacement carry-thru spar for Model 210-series airplanes to reflect these actual part costs.

3. Textron Share the Costs

Comment summary: One commenter requested that Textron share the costs of the inspections. The commenter explained that the corrosion issue exists because of Textron's carry-thru spar design, which permits leaking and condensation, and because Textron did not apply anti-corrosion coatings during manufacture.

FAA response: The FAA has no authority to enforce business contracts (actual or implied) between parties. The primary concern the FAA has when issuing an AD is addressing unsafe conditions on various aircraft flying in the United States. The FAA provides estimated costs information for complying with the requirements of an AD but does not control warranty coverage and cannot mandate that a manufacturer cover all associated costs.

The FAA has not changed the AD in regard to this issue.

N. Requests Regarding Primer and CIC Removal

Comment summary: Ten individual commenters requested that the proposed AD not require the removal of previously applied primer and CIC. The commenters stated that removing the previously applied primer and CIC could damage the carry-thru spar and would result in duplication of effort, increase in cost, and lack of credit granted for previous actions.

FAA response: The FAA agrees with the commenters' requests and this AD does not require removing properly applied primer and CIC that is in good condition. Paragraph (l) of this AD provides credit for previous actions, including the application of primer and CIC.

The FAA has not changed this AD in regard to this issue.

O. Request Regarding Spar Structural Capability

Comment summary: One commenter asked how much force is needed to break a carry-thru spar that does not pass an eddy current inspection.

FAA response: The FAA has no way of knowing precisely how much force would be required to break a carry-thru spar for which an eddy current inspection identified a response as detailed in Textron Aviation Mandatory Service Letters SEL–57–08R2 or SEL–57–09R1. The residual strength capability of the carry-thru spar is dependent on the type and amount of damage located on the part, as well as the specific geometry of the part.

The FAA has not changed this AD in regard to this issue.

P. Requests Regarding Limiting Spar Replacement

Comment summary: Two commenters requested that the FAA only require carry-thru spar replacement if absolutely necessary. The commenters explained that replacing a carry-thru spar could introduce additional safety issues because this action requires disassembling and reassembling major components, including the airframe, partial fuel and electrical systems, control systems, and structural repairs. One of the commenters mentioned that replacement carry-thru spars are difficult to find.

FAA response: The FAA acknowledges that replacing a carry-thru spar is a significant and costly effort and could be difficult to find. The FAA encourages owners, operators, and any interested party to pursue repair options prior to replacing an affected carry-thru spar and has provided a

means to apply for an AMOC using the procedures provided in paragraph (n) of this AD. The FAA has not changed this AD in regard to this issue.

Q. Requests Regarding Clarifying Minimum Part Thickness

Comment summary: Two individual commenters requested that the proposed AD specify the minimum acceptable part thickness after a carry-thru spar is reworked instead of setting a limit on the maximum amount of material that can be removed during rework. One commenter stated that the carry-thru spars were not manufactured with tight tolerances and could be thicker than the specification, allowing for more material to be removed. The other commenter stated that measuring the amount of material removed could be difficult if blending was done over a large area and suggested using data previously released by Textron that specified thickness limits for various stations along the spar.

FAA response: The FAA agrees that for Model 210- and 177-series airplanes, the forged 2014–T6 aluminum carry-thru spars have a wide range of manufacturing tolerances, both above and below the dimensions identified in the design data. The FAA also agrees that additional material, beyond that identified in Table 1 of Textron SEL–57–08R2 and Textron SEL–57–09R1, may be removed on some spars. However, the amount of additional material that can be removed varies from one spar to another and must be evaluated on an individual basis.

The FAA determined that applying the thickness limits identified in data previously released by Textron for various stations along the spar must be evaluated on an individual airplane basis, as that information was not originally developed to address the unsafe condition identified in this AD. The FAA encourages an owner, operator, or interested party with a corroded or damaged carry-thru spar that exceed the limits identified in Table 1 of Textron SEL–57–08R2 and Textron SEL–57–09R1 to apply for an AMOC using the procedures in paragraph (n) of this AD. The AMOC request must include substantiating data showing that the proposed AMOC addresses the unsafe condition with an acceptable level of safety.

The FAA agrees that measuring the amount of material removed may be challenging and Textron provided suggestions for measuring the amount of material removed in step 6.B.(8) of the Accomplishment Instructions in Textron SEL–57–08R2 and Textron SEL–57–09R1. Additional guidance may be obtained by contacting Textron as detailed in paragraph (n)(3) of this AD.

The FAA has not changed this AD in regard to this issue.

R. Comment Regarding Reliability Centered Maintenance

Comment summary: One commenter suggested that the FAA find a solution to address the unsafe condition identified in the NPRM that promotes reliability centered maintenance (RCM). The commenter explained that RCM is a concept of maintenance planning to ensure that systems continue to do what their users require in their present operating context. Successful implementation of RCM will lead to increase in cost effectiveness, reliability, machine uptime, and a greater understanding of the level of risk that the organization is managing. The commenter stated that blanket ADs cost the general aviation community millions of dollars but do not increase safety, instead they increase risk by requiring unnecessary and invasive maintenance.

FAA response: The FAA lacks sufficient substantiating data to allow RCM for this AD. An owner, operator, or interested party can request to use RCM by applying for an AMOC using the procedures in paragraph (n) of this AD. The AMOC request must include substantiating data showing that the proposed AMOC addresses the unsafe condition with an acceptable level of safety.

The FAA has not changed this AD in regard to this issue.

S. Comment Regarding Tubing Corrosion

Comment summary: One commenter stated that the tubing corrosion issue only applies to a few airplanes rather than the entire fleet. The commenter did not request a change to the NPRM.

FAA response: Corrosion associated with tubing usually occurs in the web of the carry-thru spar, and this AD only requires inspecting the carry-thru spar lower cap. Although this AD does not specifically apply to corrosion associated with tubing, any corrosion found on the carry-thru spar lower cap, regardless of origin, is required to be addressed.

The FAA has not changed this AD in regard to this issue.

Additional Changes to This AD

The FAA did not carry over paragraph (l)(4) from the Credit for Previous Actions paragraph in the proposed AD into this AD. The FAA did not take away credit but removed a restriction. In the proposed AD, paragraph (l)(4) specified that, to receive credit, the protective coating and CIC had to have been applied to the airplane within 24 months after the date of completing the visual and eddy current inspection or within 12 months after the effective date of the AD, whichever occurs first. By the effective date of this final rule many airplanes will have completed the visual and eddy current inspections longer than 24 months ago. The airplanes in the applicability of this AD are not as likely to develop corrosion as the Model 210G through Model 210M airplanes that were included in the applicability of AD 2020–03–16 (the immediately adopted rule discussed previously), so the FAA determined that the requirement of corrosion application within 24 months after the visual and eddy current inspections was not necessary. The FAA did not want to penalize operators who had already completed the eddy current inspection by requiring they do the inspection again because they were outside of the 24-month limit. However, the requirement in paragraph (i) of this AD that CIC must be applied within 12 months after the effective date of this AD is unchanged.

Paragraph (h) of the proposed AD did not have explicit compliance times for completing the eddy current inspections, relying on paragraph (g) for the applicable compliance times for the eddy current inspections. For clarity, paragraph (h) now points to paragraph (g) for compliance times.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for the changes discussed previously, omitting the *Paperwork Reduction Act Burden Statement,* paragraph (n) in the proposed AD, and reidentifying the subsequent paragraphs, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under 1 CFR Part 51

The FAA reviewed the following service documents:

- Textron Aviation Mandatory Single Engine Service Letter, SEL–57–08, Revision 2, dated August 3, 2020 (Textron SEL–57–08R2); and
- Textron Aviation Mandatory Single Engine Service Letter, SEL–57–09, Revision 1, dated August 3, 2020 (Textron SEL–57–09R1).

For the applicable airplanes specified, these service letters contain instructions for visually inspecting the carry-thru spar for corrosion, damage, and cracking and for completing an eddy current inspection. This service information also specifies applying protective coating and CIC.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Other Related Service Information

The FAA reviewed the following service letters related to this AD which, for the applicable airplanes specified, contain instructions for visually inspecting the carry-thru spar for corrosion and doing an eddy current inspection of the carry-thru spar regardless of whether corrosion was found and removed. This service information also contains instructions for applying CIC, but does not specify applying protective coating.

- Textron Aviation Mandatory Single Engine Service Letter, SEL–57–06, dated June 24, 2019 (Textron SEL–57–06);
- Textron Aviation Mandatory Single Engine Service Letter, SEL–57–06, Revision 1, dated November 19, 2019;
- Textron Aviation Mandatory Single Engine Service Letter, SEL–57–07, dated June 24, 2019 (Textron SEL–57–07); and
- Textron Aviation Mandatory Single Engine Service Letter, SEL–57–07, Revision 1, dated November 19, 2019.

The FAA also reviewed the service letters listed below related to this AD, which, for the applicable airplanes specified, contain the same instructions and repair criteria as Textron SEL–57–08R2 and Textron SEL–57–09R1.

- Textron Aviation Mandatory Single Engine Service Letter, SEL–57–08, dated November 1, 2019;
- Textron Aviation Mandatory Single Engine Service Letter, SEL–57–08, Revision 1, dated November 19, 2019; and
- Textron Aviation Mandatory Single Engine Service Letter, SEL–57–09, dated November 19, 2019.

Differences Between This AD and the Service Information

- Although Textron SEL–57–08R2 also applies to Models 210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K, 210L, T210L, 210M, and T210M airplanes, this AD does not. The FAA issued AD 2020–03–16 to address the immediate safety of flight for those airplanes.
- Textron SEL–57–08R2 and Textron SEL–57–09R1 specify inspecting all interior surfaces of the carry-thru spar; additionally, Textron SEL–57–09R1 specifies inspecting the lower surface of the outboard spar to wing attach lugs. This AD only requires inspecting the carry-thru spar lower cap, including the lower surface, edge, and upper surface of the lower cap. While the web, upper cap, and lugs of the carry-thru spar may be susceptible to corrosion, evidence does not support including inspection of these areas as part of this AD. The FAA will continue to monitor reports of corrosion on all areas of the carry-thru spar for potential future action.
- Textron SEL–57–08R2 and Textron SEL–57–09R1 do not specify an eddy current inspection on the carry-thru spar unless the amount of material removed in the blended area exceeds 0.010-inch deep but is within limits. This AD requires an eddy current inspection of all locations on the carry-thru spar lower cap where corrosion was removed. The fatigue crack on the Model T210M airplane that suffered the fatal in-flight break-up initiated from a corrosion pit approximately 0.011-inch deep in the lower cap kick area. The visual and less restrictive eddy current inspection requirements specified in Textron SEL–57–08R2 and Textron SEL–57–09R1 could miss similar fatigue cracking on airplanes currently operating in the field.
- Textron SEL–57–08R2 and Textron SEL–57–09R1 only specify an eddy current inspection of the lower cap kick of the carry-thru spar if corrosion is identified on the carry-thru spar cap. This AD requires a one-time eddy current inspection of the lower cap kick area of all affected airplanes, regardless of the results of the visual inspection. The fatigue crack on the Model T210M airplane that suffered the fatal in-flight break-up initiated in the lower cap kick area. Cracking and corrosion damage may be difficult to identify through visual inspection alone. The FAA will use the results of the one-time eddy current inspection of the lower cap kick area, in part, to determine the necessity of future rulemaking action.
- Textron SEL–57–08R2 and Textron SEL–57–09R1 specify contacting Textron for evaluation and disposition of certain damage. Instead, this AD requires removing the carry-thru spar from service or repairing it (if possible) in accordance with the AMOC procedures identified in paragraph (n) of this AD. Operators should work with Textron to develop a repair in support of an AMOC request.
- Textron SEL–57–08 R2 and Textron SEL–57–09R1 provide instruction allowing airplanes that have complied with Textron SEL–57–06 or Textron SEL–57–07 to complete the application of the protective coating and CIC within 200 flight hours or at the next annual inspection, whichever occurs first. This AD permits applying protective coating and CIC within 12 months after the effective date of this AD.

Interim Action

The FAA considers this AD to be an interim action. This AD requires one-time visual and eddy current inspections of the carry-thru spar lower cap for corrosion, cracking, and damage, corrective action if necessary, applying a protective coating and CIC, and reporting the inspection results to the FAA. The FAA will analyze the inspection results received to determine further rulemaking action.

Costs of Compliance

The FAA estimates that this AD affects 3,421 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per airplane	Cost on U.S. operators
Inspection (includes part removal for access, removal of foam, if required, visual inspection, and reassembly).	20 work-hours × $85 per hour = $1,700.	Not applicable	$1,700	$5,815,700.
Eddy current inspection of the cap kick area.	1 work-hour contracted service × $600 = $600.	Not applicable	600	$2,052,600.
Spar treatment (primer and corrosion inhibitor) *.	3.50 work-hours × $85 per hour = $297.50.	$340	637.50	$2,180,887.50.

ESTIMATED COSTS—Continued

Action	Labor cost	Parts cost	Cost per airplane	Cost on U.S. operators
Removal and reinstallation of oxygen bottles **.	5 work-hours × $85 per hour = $425.	Not applicable	425	Up to $1,453,925 (not all airplanes have oxygen bottles installed).
Removal and reinstallation of air conditioning components **.	3 work-hours × $85 per hour = $255.	Not applicable	255	Up to $872,355 (not all airplanes have air conditioning installed).
Reporting requirement	2 work-hours × $85 per hour = $170.	Not applicable	170	$581,570.

* Model 210-series airplanes may only require application of corrosion inhibitor, depending on the condition of the zinc chromate primer. Model 177-series airplanes may or may not require application of the primer, depending on the production year and the quality of any existing zinc chromate primer.

** Some Model 210-series airplanes are equipped with oxygen bottles in the area of the carry-thru spar. Some Model 210- and 177-series airplanes are equipped with air conditioning systems. Additional work-hours were included in the estimated costs to account for the additional time required to complete the AD requirements on these airplanes.

The FAA estimates the following costs to do any necessary repairs or replacements that would be required based on the results of the proposed inspection. The agency has no way of determining the number of aircraft that might need these actions:

ON-CONDITION COSTS

Action	Labor cost	Parts cost	Cost per product
Corrosion removal	2 work-hours × $85 per hour = $170	Not applicable	$170
On-condition eddy current inspection	1 work-hour contracted service × $600 = $600	Not applicable	600
Spar replacement—Model 210/T210–airplanes (P/N 1210721–1).	160 work-hours × $85 per hour = $13,600	$21,367	34,967
Spar replacement—Model 210/T210–airplanes (P/N 2110020–1).	160 work-hours × $85 per hour = $13,600	$19,999	33,599
Spar replacement—Model P210 airplane	220 work-hours × $85 per hour = $18,700	$19,999	38,699
Spar replacement—Model 177–series airplane	120 work-hours × $85 per hour = $10,200	$30,000	40,200

The amount of work-hours necessary to complete the eddy current inspection and corrosion removal will depend on the extent of the corrosion on the carry-thru spar. The FAA has no way of estimating the work-hours that may be required for those procedures. The FAA's cost estimate assumes a minimum of one hour contracted service for the eddy current inspection and two hours for the corrosion removal. If the operator needs an AMOC for repair, the FAA has no way of estimating the extent of damage or follow-on eddy current inspection that may be required. The FAA has no way of estimating the potential cost of those actions.

Replacement carry-thru spars are not currently available from Textron for Model 177-series airplanes. Textron no longer produces the current carry-thru spar design and is developing a new design. The FAA does not have data to determine the availability of replacement carry-thru spars from other sources.

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 take 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

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

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

The Amendment

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

PART 39—AIRWORTHINESS DIRECTIVES

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

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

§ 39.13 [Amended]

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

2023–02–17 Textron Aviation Inc. (Type Certificate previously held by Cessna Aircraft Company): Amendment 39–22324; Docket No. FAA–2020–1078; Project Identifier AD–2020–00716–A.

(a) Effective Date

This airworthiness directive (AD) is effective March 20, 2023.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Textron Aviation Inc. (Type Certificate previously held by Cessna Aircraft Company) Model 210N, 210R, P210N, P210R, T210N, T210R, 177, 177A, 177B, 177RG, and F177RG airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 5310, Fuselage Main, Structure.

(e) Unsafe Condition

This AD was prompted by the in-flight break-up of a Model T210M airplane, due to fatigue cracking of the carry-thru spar that initiated at a corrosion pit and subsequent corrosion reports on other Model 210-series and Model 177-series airplanes. The FAA is issuing this AD to detect and correct cracking, corrosion, and other damage of the carry-thru spar lower cap, which, if not corrected, could lead to the carry-thru spar being unable to support the required structural loads and could result in separation of the wing and loss of airplane control.

(f) Compliance

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

(g) Visual Inspection

Within 200 hours time-in-service (TIS) after the effective date of this AD or within 12 calendar months after the effective date of this AD, whichever occurs first, prepare the carry-thru spar lower cap for inspection by following steps 4 and 5 of the Accomplishment Instructions in Textron Aviation Mandatory Single Engine Service Letter, SEL–57–08, Revision 2, dated August 3, 2020 (Textron SEL–57–08R2); or Textron Aviation Mandatory Single Engine Service Letter, SEL–57–09, Revision 1, dated August 3, 2020 (Textron SEL–57–09R1), as applicable to your airplane model. Visually inspect the carry-thru spar lower cap (including the lower surface, upper surface, and edge) with a 10X magnification lens looking for corrosion, cracking, and damage. You are not required to inspect the lower cap to web radius, spar web, upper cap, or lugs. Refer to the 'Spar Dimensions' and the 'Spar Detail' figures on page 7 of Textron SEL–57–08R2 or Textron SEL–57–09R1, as applicable to your airplane model, for the location of the specific spar features.

(1) If there is any cracking, before further flight, remove the carry-thru spar from service.

(2) If there is damage or evidence of previous removal of corrosion (blending), before further flight, either remove the carry-thru spar from service or repair the area using a method approved as specified in paragraph (n) of this AD. Comply with the requirements in paragraph (h) of this AD before further flight.

(3) If there is any corrosion, before further flight, remove the corrosion in the affected area by following steps 6.B.(1) through (7) of the Accomplishment Instructions in Textron SEL–57–08R2 or Textron SEL–57–09R1, as applicable to your airplane model, and then mechanically measure the depth of the blended area using a straight edge and feeler gauge or a depth gauge micrometer.

(i) If the material removed in the blended area exceeds the allowable blend limits specified in table 1 (including the notes) of Textron SEL–57–08R2 or Textron SEL–57–09R1, as applicable to your airplane model, before further flight, either remove the carry-thru spar from service or repair the area using a method approved as specified in paragraph (n) of this AD. Comply with the requirements in paragraph (h) of this AD before further flight.

(ii) If the material removed in the blended area does not exceed the allowable blend limits specified in table 1 (including the notes) of Textron SEL–57–08R2 or Textron SEL–57–09R1, as applicable to your airplane model, comply with the requirements in paragraph (h) of this AD before further flight.

(4) If the visual inspection did not detect corrosion, cracking, or damage and there is no evidence of previous removal of corrosion, comply with the requirements in paragraph (h) of this AD within 200 hours TIS after the effective date of the AD or within 12 calendar months after the effective date of the AD, whichever occurs first.

(h) Eddy Current Inspection

(1) At the applicable compliance time required by paragraph (g) of this AD, complete an eddy current inspection of the carry-thru spar lower cap for cracking, corrosion, and damage in the following areas in accordance with step 7 of the Accomplishment Instructions in Textron SEL–57–08R2 or Textron SEL–57–09R1, as applicable to your airplane model.

(i) The kick area as depicted in the 'Spar Dimensions' figure on page 7 of Textron SEL–57–08R2 or Textron SEL–57–09R1, as applicable to your airplane. You must complete an eddy current inspection of the lower cap kick area of your airplane regardless of whether corrosion was found and removed as a result of the visual inspection in paragraph (g) of this AD.

(ii) All areas where corrosion was found and removed as a result of the inspection in paragraph (g) of this AD.

(2) If there is any cracking, before further flight, remove the carry-thru spar from service.

(3) If there is any damage, before further flight, either remove the carry-thru spar from service or repair the area using a method approved as specified in paragraph (n) of this AD. After completing the repair, repeat the eddy current inspection of the repaired area before further flight.

(4) If there is any corrosion, before further flight, remove the corrosion by following the requirements in paragraph (g)(3) of this AD. You must repeat the eddy current inspection and comply with paragraph (h) of this AD for the area where the additional material was removed, but you do not have to repeat the eddy current inspection of the kick area.

(i) Corrosion Protection

Within 12 calendar months after the effective date of this AD, apply protective coating and corrosion inhibiting compound (CIC) by following steps 9 and 10 of the Accomplishment Instructions in Textron SEL–57–08R2 or Textron SEL–57–09R1, as applicable to your airplane model.

(j) Installation Prohibition

As of the effective date of this AD, do not install on any airplane a carry-thru spar unless it has been inspected as required by paragraphs (g) and (h) of this AD and corrosion protection applied as required by paragraph (i) of this AD.

(k) Reporting Requirement

Within 30 days after completing the inspections required by this AD or within 30 days after the effective date of this AD, whichever occurs later, report to the FAA by email (*Wichita-COS@faa.gov*) all information requested in the Carry-Thru Spar Inspection Report Attachment to Textron SEL–57–08R2 or Textron SEL–57–09R1, as applicable to your airplane model.

(l) Credit for Previous Actions

(1) You may take credit for the visual inspection and corrosion removal required by paragraph (g) of this AD if you performed the visual inspection and corrosion removal before the effective date of this AD using Textron Aviation Mandatory Single Engine

Service Letter SEL–57–08, dated November 1, 2019 (Textron SEL–57–08); Textron Aviation Mandatory Single Engine Service Letter SEL–57–08, Revision 1, dated November 19, 2019 (Textron SEL–57–08R1); Textron Aviation Mandatory Single Service Letter SEL–57–09, dated November 19, 2019 (Textron SEL–57–09); Textron Aviation Mandatory Single Engine Service Letter SEL–57–06, dated June 24, 2019 (Textron SEL–57–06); Textron Aviation Mandatory Single Engine Service Letter SEL–57–06, Revision 1, dated November 19, 2019 (Textron SEL–57–06R1); Textron Aviation Mandatory Single Engine Service Letter, SEL–57–07, dated June 24, 2019 (Textron SEL–57–07); or Textron Aviation Mandatory Single Engine Service Letter, SEL–57–07, Revision 1, dated November 19, 2019 (Textron SEL–57–07R1).

(2) You may take credit for the eddy current inspection of the lower cap kick area and all locations where corrosion was removed on the carry-thru spar lower cap and the corrosion removal as specified in paragraph (h) of this AD if you performed the eddy current inspection and corrosion removal required before the effective date of this AD using Textron SEL–57–08, Textron SEL–57–08R1, Textron SEL–57–06, Textron SEL–57–06R1, Textron SEL–57–07, Textron SEL–57–07R1, or Textron SEL–57–09.

(3) You may take credit for the corrosion protection required by paragraph (i) of this AD if you performed those actions before the effective date of this AD using Textron SEL–57–08, Textron SEL–57–08R1, or Textron SEL–57–09.

(4) To take credit for any previous action, you must have provided a completed Carry-Thru Spar Inspection Report, an attachment to Textron SEL–57–06, Textron SEL–57–06 R1, Textron SEL–57–07, Textron SEL–57–07R1, Textron SEL–57–08, Textron SEL–57–08R1, or Textron SEL–57–09 to Textron Aviation Inc. before the effective date of this AD, or you must comply with paragraph (k) of this AD within 30 days after the effective date of this AD.

(m) Special Flight Permit

(1) This AD prohibits a special flight permit if the inspection identifies cracking in the carry-thru spar.

(2) Special flight permits, as described in 14 CFR 21.197 and 21.199, may be issued for airplanes on which corrosion was identified to operate to a location where the requirements of this AD can be accomplished.

(3) Special flight permits, as described in 14 CFR 21.197 and 21.199, may be issued for an airplane demonstrating evidence of previous blending for which credit for previous actions, as defined in paragraph (l), cannot be granted or for an airplane demonstrating any damage other than corrosion or cracking, but concurrence by the Manager, Wichita ACO Branch, FAA is required before issuance of the special flight permit. Send requests for a special flight permit to your local Flight Standards District Office.

(n) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita ACO 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 certification office, send it to the attention of the person identified in paragraph (o) of this AD.

(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) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by a Textron Aviation, Inc. Unit Member (UM) of the Textron Organization Designation Authorization (ODA), that has been authorized by the Manager, Wichita ACO Branch, to make those findings. To be approved, the repair, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(o) Related Information

For more information about this AD, contact Bobbie Kroetch, Aviation Safety Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Wichita, KS 67209; phone: (316) 946–4155; email: *bobbie.kroetch@faa.gov* or *Wichita-COS@faa.gov*.

(p) Material Incorporated by Reference

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

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

(i) Textron Aviation Mandatory Single Engine Service Letter, SEL–57–08, Revision 2, dated August 3, 2020.

(ii) Textron Aviation Mandatory Single Engine Service Letter, SEL–57–09, Revision 1, dated August 3, 2020.

(3) For service information identified in this AD, contact Textron Aviation Inc., One Cessna Boulevard, Wichita, KS 67215; phone: (316) 517–6061; email: *structures@txtav.com;* website: *support.cessna.com.*

(4) You may view this service information at 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 service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: *fr.inspection@nara.gov,* or go to: *www.archives.gov/federal-register/cfr/ibr-locations.html.*

Issued on February 1, 2023.

Christina Underwood,

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

[FR Doc. 2023–02986 Filed 2–10–23; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–1050; Project Identifier AD–2021–01257–T; Amendment 39–22316; AD 2023–02–09]

RIN 2120–AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2007–10–04, which applied to all McDonnell Douglas Model DC–9–81 (MD–81), DC–9–82 (MD–82), DC–9–83 (MD–83), DC–9–87 (MD–87), and MD–88 airplanes. AD 2007–10–04 required repetitive inspections to detect cracks in the horizontal stabilizer, and related investigative and corrective actions if necessary. Since the FAA issued AD 2007–10–04, it has been determined that certain compliance times and repetitive intervals must be reduced to address the unsafe condition. This AD continues to require the actions specified in AD 2007–10–04 with revised compliance times for certain actions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective March 20, 2023.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 20, 2023.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA–2022–1050; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information incorporated by reference in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110–SK57, Seal Beach, CA 90740–5600; telephone 562–797–1717; website *myboeingfleet.com.*
- You may view this service information at the FAA, Airworthiness