

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. 99-CE-12-AD; Amendment 39-14023; AD 2005-06-13]

RIN 2120-AA64

**Airworthiness Directives; Fairchild Aircraft, Inc. SA226 and SA227 Series Airplanes**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

**SUMMARY:** The FAA is adopting a new Airworthiness Directive (AD) to supersede AD 99-06-02, which currently applies to certain Fairchild Aircraft (Fairchild) SA226 and SA227 series airplanes. AD 99-06-02 requires you to repetitively inspect the wing spar center web cutout on both wings for cracks between Wing Station (WS) 8 and WS 17.5. That AD also requires you to repair any area found cracked before further flight. The repair will eliminate the need for the repetitive inspections on that particular wing spar. Since that AD became effective, we have determined that we inadvertently omitted certain Model SA227-CC/DC airplane serial numbers from the applicability. This AD retains the actions of AD 99-06-02 and adds additional Model SA227-CC/DC airplanes to the Applicability section. The actions specified in this AD are intended to detect and correct fatigue cracking of the wing spar center web cutout area, which could result in structural failure of the wing spar. This could lead to loss of control of the airplane.

**DATES:** This AD becomes effective on May 2, 2005.

On April 16, 1999 (64 FR 11761, March 10, 1999), the Director of the Federal Register approved the incorporation by reference of Fairchild Airframe Airworthiness Limitations Manual ST-UN-M001, Rev. No. C-6, dated April 7, 1998; Fairchild Airframe Inspection Manual ST-UN-M002, Rev. No. A-6, dated December 8, 1997; Fairchild Airframe Airworthiness Limitations Manual ST-UN-M003, Rev. No. 5, dated April 7, 1998; Fairchild SA226/227 Series Structural Repair Manual, part number (P/N) 27-10054-079, pages 57 through 90; Initial Issue: March 1, 1983; Revision 28, dated June 24, 1998; and Fairchild SA227 Series Structural Repair Manual, P/N 27-10054-127, pages 47 through 60; Initial

Issue: December 1, 1991; Revision 7, dated June 24, 1998.

As of May 2, 2005, the Director of the Federal Register approved the incorporation by reference of Fairchild Airframe Airworthiness Limitations Manual ST-UN-M001, SA227 Series, Reissue C, dated January 18, 1991; Fairchild Airframe Inspection Manual ST-UN-M002, SA226 Series, Reissue A, dated December 9, 1986; and Fairchild Airframe Airworthiness Limitations Manual ST-UN-M003, SA227 Commuter Category, Initial issue dated December 6, 1991.

**ADDRESSES:** You may get the service information identified in this AD from Field Support Engineering, Fairchild Aircraft, Inc., P.O. Box 790490, San Antonio, Texas 78279-0490; telephone: (210) 824-9421; facsimile: (210) 820-8609.

You may view the AD docket at FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-CE-12-AD, 901 Locust, Room 506, Kansas City, Missouri 64106. Office hours are 8 a.m. to 4 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Mr. Hung Viet Nguyen, FAA, Fort Worth Airplane Certification Office (ACO), 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone: (817) 222-5155; facsimile: (817) 222-5960.

**SUPPLEMENTARY INFORMATION:****Discussion**

*What events have caused this AD?* AD 99-06-02, Amendment 39-11066 (64 FR 11761, March 10, 1999), currently requires you to do the following on certain Fairchild SA226 and SA227 series airplanes:

- Repetitively inspecting the wing spar center web cutout on both wings for cracks between Wing Station (WS) 8 and WS 17.5; and
- Immediately repairing any area found cracked. This repair will eliminate the need for the repetitive inspections on that particular wing spar.

Doing the actions as specified in AD 99-06-02 is required per the following documents:

- Fairchild Airframe Airworthiness Limitations Manual ST-UN-M001, Rev. No. C-6, dated April 7, 1998;
- Fairchild Airframe Inspection Manual ST-UN-M002, Rev. No. A-6, dated December 8, 1997;
- Fairchild Airframe Airworthiness Limitations Manual ST-UN-M003, Rev. No. 5, dated April 7, 1998;
- Fairchild SA226/227 Series Structural Repair Manual, part number (P/N) 27-10054-079, pages 57 through 90;

Initial Issue: March 1, 1983; Revision 28, dated June 24, 1998; and —Fairchild SA227 Series Structural Repair Manual, P/N 27-10054-127, pages 47 through 60; Initial Issue: December 1, 1991; Revision 7, dated June 24, 1998.

AD 99-06-02 was the result of reports of cracks in the wing spar center web cutout caused by fatigue due to airplane maneuvering and wind gusts.

*What has happened since AD 99-06-02 to initiate this action?* The FAA inadvertently omitted certain Fairchild Model SA227-CC/DC airplane serial numbers from the applicability of AD 99-06-02. In particular, we restricted the applicability of these airplanes to serial numbers CC/DC784 and CC/DC790 through CC/DC878. Any Fairchild Model SA227-CC/DC airplane incorporating a serial number from CC/DC879 through CC/DC896 should also be affected by the actions of AD 99-06-02.

*What is the potential impact if FAA took no action?* If not detected and corrected, fatigue cracking of the wing spar center web cutout area could result in structural failure of the wing spar to the point of failure with consequent loss of control of the airplane.

*Has FAA taken any action to this point?* We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Fairchild SA226 and SA227 series airplanes. This proposal was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on April 23, 1999 (64 FR 19934). The NPRM proposed to retain the actions of AD 99-06-02 and add additional Model SA227-CC/DC airplanes to the applicability section.

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

**Comment Issue: Incorporate Revised Service Information**

*What is the commenter's concern?* The manufacturer has revised the applicable service information to incorporate minor changes.

These revisions do not change the procedures contained in the service information referenced in AD 99-06-02; however, the manufacturer suggests incorporating the revised service information into the final rule AD action.

*What is FAA's response to the concern?* We concur with the

commenter and will make this change in the final rule AD action.

**Conclusion**

What is FAA's final determination on this issue? We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for the changes discussed above and minor editorial corrections. We have determined that these changes and minor corrections:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

**Changes to 14 CFR Part 39—Effect on the AD**

How does the revision to 14 CFR part 39 affect this AD? On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. This regulation now includes material that relates to altered products, special

flight permits, and alternative methods of compliance. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

**Costs of Compliance**

How many airplanes does this AD impact? We estimate that this AD affects 508 airplanes in the U.S. registry.

What is the cost impact of this AD on owners/operators of the affected airplanes? We estimate the following costs to do the inspection:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
5 work hours × \$65 = \$325 .....	Not Applicable .....	\$325	\$325 × 508 = \$165,100

These figures only take into account the costs of the initial inspection and do not take into account the costs of repetitive inspections and the costs associated with any repair that would be necessary if cracks are found. We have

no way of determining the number of repetitive inspections an owner/operator will incur over the life of the airplane, or the number of airplanes that will need repairs.

We estimate the following costs to do any necessary repairs in both wing spar center webs that will be required based on the results of the inspection. We have no way of determining the number of airplanes that may need this repair:

Labor cost to repair cracked wing spar center webs on both sides of the airplane	Parts cost	Total cost per airplane to repair cracked wing spar center webs on both sides of the airplane
400 work hours × \$65 = \$26,000 .....	\$400	\$26,000 + \$400 = \$26,400

What is the difference between the cost impact of this AD and the cost impact of AD 99-06-02? The only difference between AD 99-06-02 and this AD is the addition of 18 Fairchild Model SA227-CC/DC airplanes that we inadvertently omitted from the Applicability section of AD 99-06-02. Therefore, the only impact this AD has over that already required by AD 99-06-02 is the cost of the actions on the 18 additional airplanes.

**Regulatory Findings**

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

Will this AD involve a significant rule or regulatory action? For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;

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

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

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "AD Docket No. 99-CE-12-AD" in your request.

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

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

**Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

**PART 39—AIRWORTHINESS DIRECTIVES**

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

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

**§ 39.13 [Amended]**

2. FAA amends § 39.13 by removing Airworthiness Directive (AD) 99-06-02, Amendment 39-11066 (64 FR 11761, March 10, 1999), and by adding a new AD to read as follows:

**2005-06-13 Fairchild Aircraft, Inc.:**  
Amendment 39-14023; Docket No. 99-CE-12-AD; Supersedes AD 99-06-02, Amendment 39-11066.

**When Does This AD Become Effective?**

(a) This AD becomes effective on May 2, 2005.

**What Other ADs Are Affected by This Action?**

(b) This AD supersedes AD 99-06-02, Amendment 39-11066.

**What Airplanes Are Affected by This AD?**

(c) This AD affects the following airplane models and serial numbers that are certificated in any category:

Model	Serial Nos.
(1) SA226-AT .....	AT001 through AT074.
(2) SA226-TC .....	TC201 through TC419.
(3) SA226-T .....	T201 through T291.
(4) SA226-T(B) .....	T(B)276 and T(B)292 through T(B)417.
(5) SA227-TT .....	TT421 through TT541.
(6) SA227-TT(300) .....	TT(300)447, TT(300)465, TT(300)471, TT(300)483, TT(300)512, TT(300)518, TT(300)521, TT(300)527, TT(300)529, and TT(300)536.
(7) SA227-AC .....	AC406, AC415, AC416, and AC420 through AC785.
(8) SA227-AT .....	AT423 through AT631 and AT695.
(9) SA227-BC .....	BC762, BC764, BC766, and BC770 through BC789.
(10) SA227-CC/DC .....	CC/DC784, and CC/DC790 through CC/DC896.

**What Is the Unsafe Condition Presented in This AD?**

(d) This AD is the result of reports of cracks in the wing spar center web cutout caused by fatigue due to airplane

maneuvering and wind gusts. The actions specified in this AD are intended to detect and correct fatigue cracking of the wing spar center web cutout area, which could result in structural failure of the wing spar. This could lead to loss of control of the airplane.

**What Must I Do To Address This Problem?**

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

Actions	Compliance	Procedures
(1) Inspect each wing spar center web cutout for cracks between Wing Station (WS) 8 and WS 17.5.	Initially inspect upon accumulating 6,500 hours time-in-service (TIS) on each wing spar; within the next 2,000 hours TIS after the last inspection done following the applicable Airworthiness Limitations Manual (the last inspection done following AD 99-06-02); or within the next 500 hours TIS after May 2, 2005 the effective date of this AD, whichever occurs later. Repetitively inspect thereafter at intervals not to exceed 2,000 hours TIS.	<i>For Models SA227-TT, SA227-AT, SAA227-AC, and SA227-BC airplanes:</i> Follow Fairchild Airframe Airworthiness Limitations Manual ST-UN-M001, Rev. No. C-6, dated April 7, 1998; or Fairchild Airframe Airworthiness Limitations Manual ST-UN-M001, SA227 Series, Reissue C dated January 18, 1991, at the revision levels stated on page iii and page iv (page iii dated August 16, 1995, and page iv dated March 8, 2004); <i>For Models SA226-T, SA226-T(B), SA226-AT, and SA226-TC airplanes:</i> Follow Fairchild Airframe Inspection Manual ST-UN-M002, Rev. No. A-6, dated December 8, 1997; or Fairchild Airframe Inspection Manual ST-UN-M002, Reissue A, SA226 Series, dated December 9, 1986, at the revision levels stated on page iii and page iv (page iii dated April 7, 1998 and page iv dated March 8, 2004); and <i>For Models SA227-CC and SA227-DC airplanes:</i> Follow Fairchild Airframe Airworthiness Limitations Manual ST-UN-M003, Rev. No. 5, dated April 7, 1998; or Fairchild Airframe Airworthiness Limitations Manual ST-UN-M003, SA227 Commuter Category, Initial issue dated December 6, 1991, at the revision levels stated on page iii and page iv (page iii dated July 29, 2003, and page iv dated March 8, 2004).
(2) If any crack(s) is/are found during any inspection required by paragraph (e)(1) of this AD, repair the crack(s). This repair eliminates the repetitive inspections required in paragraph (e)(1) of this AD for that particular wing spar.	Before further flight .....	<i>For Models SA226-T, SA226-T(B), SA226-AT, SA226-TC, SA227-TT, SA227-AT, SA227-AC, and SA227-BC airplanes:</i> Follow Fairchild SA226/227 Series Structural Repair Manual, part number (P/N) 27-10054-079, pages 57 through 90; Initial Issue: March 1, 1983; Revision 28, dated June 24, 1998; and <i>For Models SA227-CC and SA227-DC airplanes:</i> Follow Fairchild SA227 Series Structural Repair Manual, P/N 27-10054-127, pages 47 through 60; Initial Issue: December 1, 1991; Revision 7, dated June 24, 1998.

Actions	Compliance	Procedures
(3) The repetitive inspections required in paragraph (e)(1) of this AD may be terminated if the wing spar center web repair specified in paragraph (e)(2) of this AD has been done on both the left and right wing spar. If one wing spar center web has been repaired, then repetitive inspections are still required on the other one until the repair is done.	Not applicable .....	Not applicable.

**May I Request an Alternative Method of Compliance?**

(f) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.19:

(1) Unless FAA authorizes otherwise, send your request to your principal inspector. The principal inspector may add comments and will send your request to the Manager, Fort Worth Aircraft Certification Office (ACO), FAA. For information on any already approved alternative methods of compliance, contact Mr. Hung Viet Nguyen, Fort Worth ACO, FAA, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone: (817) 222-5155; facsimile: (817) 222-5960.

(2) Alternative methods of compliance approved for AD 99-06-02 are considered approved as alternative methods of compliance for this AD.

**Does This AD Incorporate Any Material by Reference?**

(g) You must do the inspections required by this AD following the instructions in Fairchild Airframe Airworthiness Limitations Manual ST-UN-M001, Rev. No. C-6, dated April 7, 1998; Fairchild Airframe Airworthiness Limitations Manual ST-UN-M001, Rev. No. C-8, dated March 8, 2004; Fairchild Airframe Inspection Manual ST-UN-M002, Rev. No. A-6, dated December 8, 1997; Fairchild Airframe Inspection Manual ST-UN-M002, Rev. No. A-9, dated March 8, 2004; Fairchild Airframe Airworthiness Limitations Manual ST-UN-M003, Rev. No. 5, dated April 7, 1998; or Fairchild Airframe Airworthiness Limitations Manual ST-UN-M003, Rev. No. 7, dated March 8, 2004, as applicable. You must do the repairs required by this AD following the instructions in Fairchild SA226/227 Series Structural Repair Manual, part number (P/N) 27-10054-079, pages 57 through 90; Initial Issue: March 1, 1983; Revision 28, dated June 24, 1998; or Fairchild SA227 Series Structural Repair Manual, P/N 27-10054-127, pages 47 through 60; Initial Issue: December 1, 1991; Revision 7, dated June 24, 1998, as applicable.

(1) On April 16, 1999 (64 FR 11761, March 10, 1999), and in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, the Director of the Federal Register approved the incorporation by reference of Fairchild Airframe Airworthiness Limitations Manual ST-UN-M001, Rev. No. C-6, dated April 7, 1998; Fairchild Airframe Inspection Manual ST-UN-M002, Rev. No. A-6, dated December 8, 1997; Fairchild Airframe Airworthiness Limitations Manual ST-UN-M003, Rev. No. 5, dated April 7, 1998; Fairchild SA226/227

Series Structural Repair Manual, part number (P/N) 27-10054-079, pages 57 through 90; Initial Issue: March 1, 1983; Revision 28, dated June 24, 1998; and Fairchild SA227 Series Structural Repair Manual, P/N 27-10054-127, pages 47 through 60; Initial Issue: December 1, 1991; Revision 7, dated June 24, 1998.

(2) As of May 2, 2005, and in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, the Director of the Federal Register approved the incorporation by reference of Fairchild Airframe Airworthiness Limitations Manual ST-UN-M001, SA227 Series, Reissue C dated January 18, 1991, at the revision levels stated on page iii and page iv (page iii dated August 16, 1995, and page iv dated March 8, 2004); Fairchild Airframe Inspection Manual ST-UN-M002, Reissue A, SA226 Series, dated December 9, 1986, at the revision levels stated on page iii and page iv (page iii dated April 7, 1998, and page iv dated March 8, 2004); and Fairchild Airframe Airworthiness Limitations Manual ST-UN-M003, SA227 Commuter Category, Initial issue dated December 6, 1991, at the revision levels stated on page iii and page iv (page iii dated July 29, 2003, and page iv dated March 8, 2004).

(3) You may get a copy from Field Support Engineering, Fairchild Aircraft, Inc., P.O. Box 790490, San Antonio, Texas 78279-0490. You may review copies at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri, on March 14, 2005.

**David R. Showers,**

*Acting Manager, Small Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 05-5383 Filed 3-18-05; 8:45 am]

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**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. FAA-2005-20513; Directorate Identifier 2005-CE-07-AD; Amendment 39-14022; AD 2005-05-52]

**RIN 2120-AA64**

**Airworthiness Directives; the Cessna Aircraft Company Models 402C and 414A Airplanes**

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

**ACTION:** Final rule; request for comments.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) to supersede emergency AD 2005-05-51 and AD 2000-23-01 for The Cessna Aircraft Company (Cessna) Models 402C and 414A airplanes. This AD contains the same information as emergency AD 2005-05-52 and publishes the action in the **Federal Register**. It requires you to eddy current inspect the forward wing spars and visually inspect the aft and auxiliary spars. This AD is the result of extensive cracks found on three wing spars of the affected airplanes. We are issuing this AD to detect and correct cracking in the wing spars before the cracks grow to failure. Such a wing failure could result in the wing separating from the airplane with consequent loss of control of the airplane.

**DATES:** This AD becomes effective on March 21, 2005, to all affected persons who did not receive emergency AD 2005-05-52, issued March 2, 2005. Emergency AD 2005-05-52 contained the requirements of this amendment and became effective immediately upon receipt. As of March 21, 2005, the Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations.

We must receive any comments on this AD by April 30, 2005.

**ADDRESSES:** Use one of the following to submit comments on this AD: