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[Page 52255-52263]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0827; Directorate Identifier 2010-CE-029-AD; Amendment 39-16412; AD 2010-17-18]

RIN 2120-AA64

Airworthiness Directives; Air Tractor, Inc. Models AT-802 and AT-802A Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) to supersede AD 2010-13-08, which applies to all Air Tractor, Inc. (Air Tractor) Models AT-802 and AT-802A airplanes. AD 2010-13-08 currently requires you to repetitively inspect (using the eddy current method) the two outboard fastener holes in both of the wing main spar lower caps at the center splice joint for cracks and repair or replace any cracked spar cap. Since we issued 2010-13-08, we evaluated service information issued by Air Tractor and determined we need to add inspections, add modifications, and change the safe life for certain serial number (SN) ranges. Consequently, this AD would retain the actions of AD 2010-13-08 and would add inspections, add modifications, and change the safe life for certain SN ranges. We are issuing this AD to detect and correct cracks in the wing main spar lower cap at the center splice joint, which could result in failure of the spar cap and lead to wing separation and loss of control of the airplane.

DATES: This AD becomes effective on September 9, 2010.

On September 9, 2010, the Director of the Federal Register approved the incorporation by reference of Snow Engineering Co. Service Letter 80GG, revised December 21, 2005; Snow Engineering Co. Service Letter 284, dated October 4, 2009; Snow Engineering Co. Service Letter 281, dated August 1, 2009; Snow Engineering Co. Service Letter 245, dated April 25, 2005; Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005; Snow Engineering Co. Drawing Number 20995, Sheet 2, Rev. D., dated November 25, 2005; and Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A., dated January 7, 2009, listed in this AD.

As of April 21, 2006 (71 FR 19994, April 19, 2006), the Director of the Federal Register approved the incorporation by reference of Snow Engineering Co. Service Letter 240, dated September 30, 2004; and Snow Engineering Co. Process Specification 197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002, listed in this AD.

We must receive any comments on this AD by October 12, 2010.

ADDRESSES: Use one of the following addresses to comment on this AD.

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

To get the service information identified in this AD, contact Air Tractor, Inc., P.O. Box 485, Olney, Texas 76374; telephone: (940) 564-5616; fax: (940) 564-5612; E-mail: airmail@airtractor.com; Internet: <http://www.airtractor.com>.

To view the comments to this AD, go to <http://www.regulations.gov>. The docket number is FAA-2010-0827; Directorate Identifier 2010-CE-029-AD.

FOR FURTHER INFORMATION CONTACT: Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; telephone: (210) 308-3365; facsimile: (210) 308-3370.

SUPPLEMENTARY INFORMATION:

Discussion

Since 2000, we have issued several ADs related to the wing spar inspection and safe life on Air Tractor AT-400, AT-500, AT-600, and AT-800 series airplanes.

In 2001, we issued AD 2001-10-04, Amendment 39-12230 (66 FR 27014, May 16, 2001) to lower the safe life for the wing lower spar cap on Air Tractor AT-400, AT-500, and AT-800 series airplanes. This AD allowed for inspection (using eddy current methods) of the wing lower spar cap for airplanes that were at or over the lower safe life and for which parts were not available. Later that same year, we revised that AD to remove AT-800 series airplanes from the applicability that were equipped with the factory-supplied computerized fire gate (part number 80540) and engaged in full-time firefighting.

In 2002, we issued AD 2002-11-05, Amendment 39-12766 (67 FR 37967, May 31, 2002) that retained the actions for the AT-802 series airplanes and further reduced the safe life for certain AT-400 series airplanes and certain AT-500 series airplanes that either incorporate or have incorporated Marburger winglets.

After receiving reports of fatigue cracking found on three Model AT-802A airplanes that were below the reduced safe life established in AD 2001-10-04, we issued AD 2006-08-09, Amendment 39-14565 (71 FR 27794, May 12, 2006). AD 2006-08-09 required repetitively inspecting the two outboard fastener holes in both of the wing main spar lower caps at the center splice joint for cracks and repairing or replacing any cracked spar cap.

After issuing AD 2006-08-09, we determined the need to clarify the affected SN applicability. Models AT-802 and AT-802A share a common SN range. Sometimes service information listed only one of the models with a starting or ending SN within a SN range, depending on which model was produced with that specific SN, even though the service information applied to both models. We superseded AD 2006-08-09 and issued AD 2010-13-08, Amendment 39-16339 (75 FR 35616, June 23, 2010) to retain the actions from AD 2006-08-09, clarify serial number applicability, and add an option of modifying the wing main spar lower caps to extend the safe life limit.

After completing fatigue analysis on Models AT-802 and AT-802A airplanes, Air Tractor issued service information that adds inspections, adds modifications, and changes the safe life for certain SN

ranges. Since we issued 2010-13-08, we evaluated this new service information and determined the need to add inspections, add modifications, and change the safe life for certain SN ranges.

This condition, if not corrected, could result in failure of the spar cap and lead to wing separation and loss of control of the airplane.

Relevant Service Information

We reviewed the following service information from Snow Engineering Co.:

- Service Letter 80GG, revised December 21, 2005;
- Service Letter 284, dated October 4, 2009;
- Service Letter 281, dated August 1, 2009;
- Service Letter 245, dated April 25, 2005;
- Service Letter 240, dated September 30, 2004;
- Process Specification 197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002;
- Drawing Number 20995, Sheet 3, dated November 25, 2005;
- Drawing Number 20995, Sheet 2, Rev. D., dated November 25, 2005; and
- Drawing Number 20975, Sheet 4, Rev. A., dated January 7, 2009.

The service information describes procedures for the following actions:

- Inspection (repetitively) of the two outboard fastener holes in both of the wing main spar lower caps at the center splice joint for cracks;
- Repair or replacement of any cracked spar cap; and
- Modification option to extend the safe life limit.

FAA's Determination and Requirements of This AD

We are issuing this AD because we evaluated all the information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design. This AD requires you to repetitively inspect (using the eddy current method) the two outboard fastener holes in both of the wing main spar lower caps at the center splice joint for cracks and repair or replace any cracked spar cap.

FAA's Determination of the Effective Date

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for public comment before issuing this AD are impracticable, and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and an opportunity for public comment. We invite you to send any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under the ADDRESSES section. Include the docket number "FAA-2010-0827; Directorate Identifier 2010-CE-029-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive concerning this AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Pub. L. 96-354) (RFA) establishes as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation.

To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. In accordance with Section 608 of the Regulatory Flexibility Act, an agency head may waive or delay completion of some or all of the requirements of Section 603 by providing a written finding that this final rule is being promulgated in response to an emergency that makes compliance or timely compliance with the provisions of Section 603 impracticable.

We are performing a review to determine whether this final rule AD action will have a significant economic impact on a substantial number of small entities. However, the immediate safety of flight conditions of this AD action make compliance with the provisions of Section 603 impracticable. Our justification for immediate adoption of this rule, and therefore of impracticability, is stated in FAA's Justification and Determination of the Effective Date. After we determine whether this final rule AD action has a significant economic impact on a substantial number of small entities or not, we will publish in the Federal Register our determination and, if required, our final regulatory flexibility analysis.

Examining the AD Docket

You may examine the AD docket that contains the AD, the regulatory evaluation, any comments received, and other information on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5527) is located at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

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 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 removing Airworthiness Directive (AD) 2010-13-08, Amendment 39-16339 (75 FR 35616, June 23, 2010), and by adding a new AD to read as follows:



2010-17-18 Air Tractor, Inc.: Amendment 39-16412; Docket No. FAA-2010-0827; Directorate Identifier 2010-CE-029-AD.

Effective Date

- (a) This AD becomes effective on September 9, 2010.

Affected ADs

- (b) This AD supersedes AD 2010-13-08; Amendment 39-16339.

Applicability

(c) This AD affects Models AT-802 and AT-802A airplanes, all serial numbers (SNs) beginning with -0001, that are:

- (1) Certificated in any category;
- (2) Engaged in agricultural dispersal operations, including those airplanes that have been converted from fire fighting to agricultural dispersal or airplanes that convert between fire fighting and agricultural dispersal;
- (3) Not equipped with the factory-supplied computerized fire gate (part number (P/N) 80540); and
- (4) Not engaged in only full-time fire fighting.

Subject

- (d) Air Transport Association of America (ATA) Code 57: Wings.

Unsafe Condition

(e) This AD results from our determination that we need to require the actions in the new service information to add inspections, add modifications, and change the safe life for certain SN ranges. We are issuing this AD to detect and correct cracks in the wing main spar lower cap at the center splice joint, which could result in failure of the spar cap and lead to wing separation and loss of control of the airplane.

Compliance

(f) To address this problem for Models AT-802 and AT-802A airplanes, SNs -0001 through -0091, you must do the following, unless already done:

Table 1–Actions, Compliance, and Procedures

Actions	Compliance	Procedures
<p>(1) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps.</p>	<p>Initially inspect upon accumulating 1,700 hours time-in-service (TIS) or within the next 50 hours TIS after April 21, 2006 (the effective date of AD 2006-08-09), whichever occurs later, and repetitively thereafter at intervals not to exceed 800 hours TIS. If, before September 9, 2010 (the effective date of this AD), you installed the center splice plate and extended 8-bolt splice blocks, use the inspection compliance times found in paragraph (f)(5) of this AD.</p>	<p>Follow Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002.</p>
<p>(2) If you find any cracks as a result of any inspection required in paragraph (f)(1) of this AD, do the following actions:</p> <p>(i) For cracks that can be repaired, repair the airplane by doing the following actions:</p> <p>(A) Install center splice plate, P/N 20997-2, and extended 8-bolt splice blocks, P/N 20985-1 & -2, and cold-work the lower spar cap fastener holes; and</p> <p>(B) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the modification and is separate from the inspections required in paragraph (f)(1) of this AD.</p> <p>(ii) For cracks that cannot be repaired by incorporating the modification specified above, do the actions to replace the lower spar caps and associated parts listed following the procedures identified in paragraph (f)(3) of this AD.</p>	<p>Before further flight after the inspection where a crack was found. If, before the airplane reaches a total of 3,200 hours TIS, you repair your airplane following paragraph (f)(2)(i) of this AD, you must do the eddy current inspections following the compliance times found in paragraph (f)(5) of this AD. If, at 3,200 hours TIS or after, you repair your airplane following paragraph (f)(2)(i) of this AD, this repair terminates the inspection requirements of paragraph (f)(1) of this AD.</p>	<p>Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Drawing Number 20995, Sheet 2, Rev. D., dated November 25, 2005; and Snow Engineering Co. Service Letter #240, dated September 30, 2004.</p>

(3) Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate. This replacement terminates the repetitive inspections required in paragraph (f)(1) of this AD.

(i) Do the replacement at whichever of the following compliance times occurs first:

(A) Before further flight when cracks are found that cannot be repaired by incorporating the modification in paragraph (f)(2)(i) of this AD; or

(B) Before or when the airplane reaches the wing main spar lower cap safe life of a total of 4,100 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of this AD), whichever occurs later.

(ii) After this replacement the new spar safe life is 11,700 hours TIS. If, before September 9, 2010 (the effective date of this AD), an airplane main spar lower cap was replaced with P/N 21083-1/-2, the spar safe life for that P/N spar cap is 8,000 hours TIS until the main spar lower cap is replaced with P/N 21118-1/-2. The new spar safe life for P/N 21118-1/-2 is 11,700 hours.

(iii) To extend the initial 4,100 hours TIS safe life of the wing main spar lower cap to a total of 8,000 hours TIS, you may incorporate the optional modification specified in paragraph (f)(4) of this AD.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(4) To extend the safe life of the wing main spar lower cap to a total of 8,000 hours TIS, you may incorporate the following optional modification. This modification terminates the repetitive inspections required in paragraph (f)(1) of this AD, unless you performed the modification before the airplane reaches a total of 3,200 hours TIS to repair cracks:

(i) Install center splice plate, P/N 20997-2, and extended 8-bolt splice blocks, P/N 20985-1 & -2, and cold-work the lower spar cap fastener holes; and

(ii) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the modification and is separate from the inspections required in paragraph (f)(1) of this AD.

Modify at whichever of the following compliance times occurs first:

(A) Before further flight after any inspection required in paragraph (f)(1) of this AD where a crack is found. If you modify your airplane before the airplane reaches a total of 3,200 hours TIS to repair cracks as required in paragraph (f)(2)(i) of this AD, you must do the eddy current inspections following the compliance times found in paragraph (f)(5) of this AD.

(B) Between 3,200 hours TIS and 4,100 hours TIS.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Drawing Number 20995, Sheet 2, Rev. D., dated November 25, 2005; and Snow Engineering Co. Service Letter #240, dated September 30, 2004.

(5) If, before September 9, 2010 (the effective date of this AD) or as a result of performing the repair for cracks following paragraph (f)(2) of this AD, you installed the center splice plate and extended 8-bolt splice blocks, use the following table for compliance times to do the eddy current inspections required in paragraph (f)(1) of this AD. If you find any cracks as a result of any inspection following the compliance times in the following table, you must do the replacement action in paragraph (f)(2)(ii) of this AD:

Table 2–Eddy Current Inspection Compliance Times

Condition of the Airplane	Initially Inspect	Repetitively Inspect Thereafter at Intervals Not to Exceed
(i) If the airplane has already had the center splice plate and extended 8-bolt splice blocks installed at or after 3,200 hours TIS but the fastener holes have not been cold worked, at any time you may cold work the fastener holes to terminate the repetitive inspection requirements of this paragraph.	When the airplane reaches a total of 2,400 hours TIS after the modification or within the next 100 days after September 9, 2010 (the effective date of this AD), whichever occurs later.	1,200 hours TIS until the 8,000 hours TIS spar replacement time.

(ii) Before reaching 3,200 hours TIS, the airplane had the center splice plate and extended 8-bolt splice blocks already installed but the fastener holes have not been cold worked.	When the airplane reaches a total of 2,400 hours TIS after the modification or within the next 100 days after September 9, 2010 (the effective date of this AD), whichever occurs later.	1,200 hours TIS. Upon reaching 4,800 hours TIS after the modification, inspect repetitively thereafter at intervals not to exceed 600 hours TIS until the 8,000 hours TIS spar replacement time.
(iii) Before reaching 3,200 hours TIS, the airplane had the center splice plate and extended 8-bolt splice blocks installed and the fastener holes have been cold worked.	When the airplane reaches a total of 4,800 hours TIS after the modification or within the next 100 days after September 9, 2010 (the effective date of this AD), whichever occurs later.	600 hours TIS until the 8,000 hours TIS spar replacement time.

(g) To address this problem for AT-802 and AT-802A airplanes, SNs -0092 through -0101, you must do the following, unless already done:

Table 3–Actions, Compliance, and Procedures

Actions	Compliance	Procedures
(1) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps.	Initially inspect upon accumulating 1,700 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of this AD), whichever occurs later, and repetitively thereafter at intervals not to exceed 800 hours TIS. If the center splice plate, P/N 20994-2, is installed as specified in paragraph (g)(4) of this AD, do the repetitive inspections at intervals not to exceed 2,000 hours TIS.	Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; and Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002.

(2) If you find any cracks as a result of any inspection required by paragraph (g)(1) of this AD, do the following actions. This repair modification terminates the repetitive inspections required in paragraph (g)(1) of this AD:

(i) For cracks that can be repaired, repair the airplane by doing the following actions:

(A) Install the 9-bolt splice blocks and cold-work the lower spar cap fastener holes;

(B) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the repair and is separate from the inspections required in paragraph (g)(1) of this AD; and

(C) Install the center splice plate, P/N 20994-2, per paragraph (g)(4) if not already installed.

(ii) For cracks that cannot be repaired by doing the actions in paragraph (g)(2)(i) of this AD, replace the lower spar caps and associated parts listed following the procedures identified in paragraph (g)(3) of this AD.

Before further flight after the inspection where a crack was found.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; and Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002, Snow Engineering Co. Service Letter #281, dated August 1, 2009; and Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005.

(3) Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate. This replacement terminates the repetitive inspections required in paragraph (g)(1) of this AD.

(i) Do the replacement at whichever of the following compliance times occurs first:

(A) Before further flight when cracks are found that cannot be repaired by incorporating the modification in paragraph (g)(2)(i) of this AD; or

(B) Before or when the airplane reaches the wing main spar lower cap safe life of a total of 4,100 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of this AD), whichever occurs later.

(ii) To extend the initial 4,100 hours TIS safe life of the wing main spar lower cap to a total of 8,000 hours TIS, you may incorporate the optional modification specified in paragraph (g)(4) of this AD.

(iii) After replacement of the old spar with the new lower spar cap, P/N 21118-1/-2, the new spar safe life is 11,700 hours TIS.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(4) To extend the safe life of the wing main spar lower cap to a total of 8,000 hours TIS, you may incorporate the following optional modification:

(i) Install center splice plate, P/N 20994-2, if not already installed as part of a repair, and cold-work the lower spar cap fastener holes; and

(ii) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the modification and is separate from the inspections required in paragraph (g)(1) of this AD.

Before the airplane reaches a total of 4,100 hours TIS. After installation of the center splice plate, P/N 20994-2, do the repetitive inspections required in paragraph (g)(1) at intervals not to exceed 2,000 hours TIS. If as of September 9, 2010 (the effective date of this AD) you have already exceeded the 4,100 hours TIS threshold for extending the safe life to 8,000 hours TIS, you may be eligible for an alternative method of compliance following paragraph (m) in this AD.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A., dated January 7, 2009; and Snow Engineering Co. Service Letter #245, dated April 25, 2005.

(5) If you find any cracks as a result of any repetitive inspection required by paragraph (g)(4) of this AD, do the following actions. This repair modification terminates the repetitive inspections required in paragraph (g)(4) of this AD:

(i) For cracks that can be repaired, repair the airplane by doing the following actions:

(A) Install the 9-bolt splice blocks and cold-work the lower spar cap fastener holes; and

(B) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the repair and is separate from the inspections required in paragraph (g)(1) of this AD.

(ii) For cracks that cannot be repaired by doing the actions in paragraph (g)(5)(i) of this AD, replace the lower spar caps and associated parts listed following the procedures identified in paragraph (g)(3) of this AD.

Before further flight after the inspection where a crack was found.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; and Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002, Snow Engineering Co. Service Letter #281, dated August 1, 2009; and Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005.

(h) To address this problem for AT-802 and AT-802A airplanes, SNs -0102 through -0178, you must do the following, unless already done:

Table 4–Actions, Compliance, and Procedures

Actions	Compliance	Procedures
(1) Do an initial eddy current inspection for cracks of the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. After this initial inspection, you may do the optional cold-working of the lower spar cap fastener holes to increase the hours TIS between repetitive inspections required in paragraph (h)(2) of this AD.	Before the airplane reaches a total of 5,500 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of this AD), whichever occurs later.	Follow Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Service Letter #245, dated April 25, 2005; and Snow Engineering Co. Service Letter #284, dated October 4, 2009.

(2) Repetitively eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps.

(i) For fastener holes that are cold-worked: After the initial inspection, repetitively thereafter inspect at intervals not to exceed 2,200 hours TIS.

(ii) For fastener holes not cold-worked: After the initial inspection, repetitively thereafter inspect at intervals not to exceed 1,100 hours TIS.

Follow Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Service Letter #284, dated October 4, 2009; and (optional) Snow Engineering Co. Service Letter #245, dated April 25, 2005.

(3) If you find any cracks as a result of any inspection required by paragraphs (h)(1) and (h)(2) of this AD, do the following actions. This modification terminates the repetitive inspections required in paragraph (h)(1) and (h)(2) of this AD:

Before further flight after the inspection where a crack was found.

Follow Snow Engineering Co. Service Letter #281, dated August 1, 2009; and Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005.

(i) For cracks that can be repaired, repair the airplane by doing the following actions:

(A) Install the 9-bolt splice blocks and cold-work the lower spar cap fastener holes; and

(B) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the repair and is separate from the inspections required in paragraphs (h)(1) and (h)(2) of this AD.

(ii) For cracks that cannot be repaired by doing the actions in paragraph (h)(3)(i) of this AD, replace the lower spar caps and associated parts listed following the procedures in paragraph (h)(4) of this AD.

(4) Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate. This replacement terminates the repetitive inspections required in paragraphs (h)(1) and (h)(2) of this AD.

(i) Do the replacement at whichever of the following compliance times occurs first:

(A) Before further flight when cracks are found that cannot be repaired by incorporating the repair in paragraph (h)(3)(i) of this AD; or

(B) Before or when the airplane reaches the wing main spar lower cap safe life of a total of 8,000 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of this AD), whichever occurs later.

(ii) After this replacement the new spar safe life is 11,700 hours TIS.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(i) To address this problem for AT-802 and AT-802A airplanes, SNs -0179 through -0269, you must do the following, unless already done:

Table 5–Actions, Compliance, and Procedures

Actions	Compliance	Procedures
Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate.	By the 8,000 hours TIS safe-life or within the next 50 hours TIS after September 9, 2010 (the effective date of this AD), whichever occurs later. After this replacement the subsequent new spar safe life is 11,700 hours TIS.	Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(j) To address this problem for AT-802 and AT-802A airplanes, SNs -0270 and subsequent, you must do the following, unless already done:

Table 6–Actions, Compliance, and Procedures

Actions	Compliance	Procedures
Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate.	By the 11,700 hours TIS safe-life or within the next 50 hours TIS after September 9, 2010 (the effective date of this AD), whichever occurs later. After this replacement the subsequent new spar safe life is 11,700 hours TIS.	Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(k) Report any crack from any inspection required in paragraphs (f), (g), or (h) of this AD within 10 days after the cracks are found on the form in Figure 1 of this AD.

(1) Send your report to Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; telephone: (210) 308-3365; facsimile: (210) 308-3370.

(2) The Office of Management and Budget (OMB) approved the information collection requirements contained in this regulation under the provisions of the Paperwork Reduction Act and assigned OMB Control Number 2120-0056.

Special Permit Flight

(1) Under 14 CFR part 39.23, we are allowing special flight permits for the purpose of compliance with this AD under the following conditions:

- (1) Only operate in day visual flight rules (VFR).
- (2) Ensure that the hopper is empty.
- (3) Limit airspeed to 135 miles per hour (mph) indicated airspeed (IAS).
- (4) Avoid any unnecessary g-forces.
- (5) Avoid areas of turbulence.
- (6) Plan the flight to follow the most direct route.

AD 2010-17-18 INSPECTION REPORT
(REPORT ONLY IF CRACKS ARE FOUND)

General Information

1. Inspection Performed By:	2. Phone:
3. Aircraft Model:	4. Aircraft Serial Number:
5. Engine Model Number:	6. Aircraft Total Hours TIS:
7. Wing Total Hours TIS:	8. Lower Spar Cap Hours TIS:

Previous Inspection/Repair History

<p>9. Has the lower spar cap been inspected (eddy-current, dye penetrant, magnetic particle, or ultrasound) before?</p> <p style="text-align: center;"><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>If yes, an inspection has occurred:</p> <p>Date: _____</p> <p>Inspection Method: _____</p> <p>Lower Spar Cap TIS: _____</p> <p>Cracks found? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>10. Has there been any major repair or alteration performed to the spar cap?</p> <p style="text-align: center;"><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>If yes, specify (Description and hours TIS):</p>

Inspection for AD 2010-17-18

<p>11. Date of AD inspection:</p> <p>Inspection Results:</p>	<p>11a. Cracks found:</p> <p style="text-align: center;"><input type="checkbox"/> Left Hand <input type="checkbox"/> Right Hand</p>
<p>11b. Crack Length: _____</p> <p>Location: _____</p>	<p>11c. Does drilling hole to next larger size remove all traces of the crack(s)?</p> <p style="text-align: center;"><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>12d. Corrective Action Taken:</p>	

Mail report (only if you find any cracks as a result of the inspection for AD 2010-17-18) to: Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; telephone: (210) 308-3365; facsimile: (210) 308-3370

Figure 1

Alternative Methods of Compliance (AMOCs)

(m) The Manager, Fort Worth Airplane Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Andy McAnaul, Aerospace Engineer, ASW-150, FAA San Antonio MIDO-43, 10100 Reunion Pl., Ste. 650, San Antonio, Texas 78216, phone: (210) 308-3365, fax: (210) 308-3370.

Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(n) AMOCs approved for AD 2010-13-08 are not approved for this AD.

Material Incorporated by Reference

(o) You must use Snow Engineering Co. Service Letter 80GG, revised December 21, 2005; Snow Engineering Co. Service Letter 284, dated October 4, 2009; Snow Engineering Co. Service Letter 281, dated August 1, 2009; Snow Engineering Co. Service Letter 245, dated April 25, 2005; Snow Engineering Co. Service Letter 240, dated September 30, 2004; Snow Engineering Co. Process Specification 197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005; Snow Engineering Co. Drawing Number 20995, Sheet 2, Rev. D., dated November 25, 2005; and Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A., dated January 7, 2009, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Snow Engineering Co. Service Letter 80GG, revised December 21, 2005; Snow Engineering Co. Service Letter 284, dated October 4, 2009; Snow Engineering Co. Service Letter 281, dated August 1, 2009; Snow Engineering Co. Service Letter 245, dated April 25, 2005; Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005; Snow Engineering Co. Drawing Number 20995, Sheet 2, Rev. D., dated November 25, 2005; and Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A., dated January 7, 2009, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) On April 21, 2006 (71 FR 19994, April 19, 2006), the Director of the Federal Register approved the incorporation by reference of Snow Engineering Co. Service Letter 240, dated September 30, 2004; and Snow Engineering Co. Process Specification 197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002.

(3) For service information identified in this AD, contact Air Tractor, Inc., P.O. Box 485, Olney, Texas 76374; telephone: (940) 564-5616; fax: (940) 564-5612; E-mail: airmail@airtractor.com; Internet: <http://www.airtractor.com>.

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

(5) You may also review copies of the service information incorporated by reference for this AD at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Kansas City, Missouri on August 11, 2010.

John Colomy,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.