

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0955; Directorate Identifier 2008-CE-040-AD; Amendment 39-15668; AD 2008-19-01]

RIN 2120-AA64

Airworthiness Directives; Harco Labs, Inc. Pitot/AOA Probes (Part Numbers 100435-39, 100435-39-001, 100435-40, and 100435-40-001)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Harco Labs, Inc. part numbers 100435-39, 100435-39-001, 100435-40, and 100435-40-001 pitot/angle of attack (AOA) probes installed on, but not limited to Eclipse Aviation Inc. Model EA500 airplanes. This AD requires you to incorporate information into the Limitations section of the airplane flight manual (AFM) that will allow operation only under day visual flight rules (VFR) and allow only a VFR flight plan. This AD also requires you to test the pitot/AOA probes for heater performance and replace the pitot/AOA probe if it fails the heater performance test. This AD results from several reports of airspeed disagree caution indication due to blockage from freezing condensation within the pitot/AOA system. We are issuing this AD to detect and correct improperly performing pitot/AOA probe heaters, which could result in blockage within the pitot/AOA system from condensation freezing with consequent incorrect indication of impact air pressure (airspeed/AOA). This blockage could lead to the stall warning becoming unreliable and the stick pusher, overspeed warning, autopilot, and yaw damper to malfunction.

DATES: This AD becomes effective on September 29, 2008.

On September 29, 2008, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

We must receive any comments on this AD by November 10, 2008.

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 Harco Labs, Inc. 186 Cedar Street, Branford, Connecticut 06405; telephone: (203) 483-3700; fax: (203) 483-3701, and Eclipse Aviation, 2503 Clark Carr Loop SE, Albuquerque, New Mexico 87106; telephone: (505) 245-7555; fax: (505) 241-8802.

To view the comments to this AD, go to <http://www.regulations.gov>. The docket number is FAA-2008-0955; Directorate Identifier 2008-CE-040-AD.

FOR FURTHER INFORMATION CONTACT: Solomon Hecht, Aerospace Engineer, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone: (781) 238-7159; fax: (781) 238-7170.

SUPPLEMENTARY INFORMATION:

Discussion

We received several reports of airspeed disagree caution indication due to blockage within the pitot/AOA system from freezing condensation.

We are issuing this AD to detect and correct improperly performing pitot/AOA probe heaters.

This condition, if not corrected, could result in a blockage within the pitot/AOA system from condensation freezing with consequent incorrect indication of impact air pressure (airspeed/AOA). This blockage could lead to the stall warning becoming unreliable and the stick pusher, overspeed warning, autopilot, and yaw damper to malfunction.

Relevant Service Information

We reviewed Harco Labs, Inc. Service Bulletin SB-34-10-10-001, Revision F, dated August 19, 2008; Harco Pitot AOA Probe Internal Tubing Heater Verification Test Procedure No. P1149, Rev: E, referenced in 8. Appendix A of Harco Labs, Inc. Service Bulletin SB-34-10-10-001, Revision F, dated August 19, 2008; and Eclipse Aviation Alert Service Bulletin SB 500-34-019, Rev C, dated August 20, 2008. The service information describes procedures for verification of the internal tube (wedge) heater performance on pitot/AOA probes.

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 incorporate information into the Limitations section of the airplane flight manual (AFM) that will allow operation only under day visual flight rules (VFR) and allow only a VFR flight plan. This AD also requires you to test the pitot/AOA probes for heater performance and replace the pitot/AOA probe if it fails the heater performance test.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the potential for the stall warning to become unreliable and the stick pusher, overspeed warning, autopilot, and yaw damper to malfunction due to blockage from condensation freezing in

the pitot/AOA system compromises the continued operational safety of the airplanes. Therefore, 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-2008-0955; Directorate Identifier 2008-CE-040-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 Findings

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

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

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under 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 regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

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 adding the following new airworthiness directive (AD):



2008-19-01 Harco Labs, Inc.: Amendment 39-15668; Docket No. FAA-2008-0955; Directorate Identifier 2008-CE-040-AD.

Effective Date

- (a) This AD becomes effective on September 29, 2008.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Harco Labs, Inc. pitot/angle of attack (AOA) probe part numbers (P/Ns) 100435-39, 100435-39-001, 100435-40, and 100435-40-001; serial numbers 740000 through 799999; that are installed on, but not limited to Eclipse Aviation Company Model EA500 airplanes, certificated in any category, with:

- (1) A serial number in the range of 000001 through 000189 where the affected probe was installed at manufacture; or
- (2) Any serial number where an affected probe was installed in the field.

Unsafe Condition

(d) This AD is the result of several reports of airspeed disagree caution indication due to blockage within the pitot/AOA system from freezing condensation. We are issuing this AD to detect and correct improperly performing pitot/AOA probe heaters, which could result in blockage within the pitot/AOA system from condensation freezing with consequent incorrect indication of impact air pressure (airspeed/AOA). This blockage could lead to the stall warning becoming unreliable and the stick pusher, overspeed warning, autopilot, and yaw damper to malfunction.

Compliance

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

Actions	Compliance	Procedures
<p>(1) Do a logbook check of the maintenance records to determine if any pitot/AOA probe (P/Ns 100435-39, 100435-39-001, 100435-40, or 100435-40-001) with any affected serial number is installed. If, as a result of this check, you positively identify that all (P/Ns 100435-39, 100435-39-001, 100435-40, or 100435-40-001) pitot/AOA probes installed do not have a serial number affected by this AD, then no further action is required.</p>	<p>Before further flight after September 29, 2008 (the effective date of this AD).</p>	<p>The owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may do the logbook check. Make an entry into the aircraft logbook showing compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).</p>
<p>(2) If you find, as a result of the check required by paragraph (e)(1) of this AD any pitot/AOA probe with an affected serial number is installed or you cannot positively identify the serial number of any pitot/AOA probe installed, incorporate the following text into the Limitations section of the airplane flight manual (AFM):</p> <p>(i) “Operate Only under Day Visual Flight Rules (VFR)”;</p> <p>and</p> <p>(ii) “File Only a VFR Flight Plan.”</p>	<p>Before further flight after September 29, 2008 (the effective date of this AD).</p>	<p>The owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may insert the information into the AFM as specified in paragraph (e)(2) of this AD. You may insert a copy of this AD into the Limitations section of the AFM to comply with this action. Make an entry into the aircraft logbook showing compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).</p>
<p>(3) If you find any pitot/AOA probe with an affected serial number is installed or you cannot positively identify the serial number of any pitot/AOA probe installed, test the pitot/AOA probe heater performance. Completion of the test with all pitot/AOA probes passing terminates the AFM operational limitations required in paragraph (e)(2) of this AD.</p>	<p>Within the next 90 days after September 29, 2008 (the effective date of this AD).</p>	<p>(i) For all probes installed in Eclipse Model EA500 airplanes, use Eclipse Aviation Alert Service Bulletin SB 500-34-019, Rev C, dated August 20, 2008; and</p> <p>(ii) For all probes, use Harco Labs, Inc. Service Bulletin SB-34-10-10-001, Revision F, dated August 19, 2008, and Harco Pitot AOA Probe Internal Tubing Heater Verification Test Procedure No. P1149, Rev: E, also referenced in 8. Appendix A of Harco Labs, Inc. Service Bulletin SB-34-10-10-001 Revision F, dated August 19, 2008.</p>

<p>(4) If any pitot/AOA probe fails the test procedure specified in paragraph (e)(3) of this AD, replace it with a pitot/AOA probe under the following situations:</p> <p>(i) the replacement pitot/AOA probe serial number is not affected by this AD;</p> <p>(ii) the replacement pitot/AOA probe successfully passes the test procedure in paragraph (e)(3) of this AD; or</p> <p>(iii) the replacement pitot/AOA probe fails the test or is not tested and you:</p> <p>(A) comply with paragraph (e)(2) of this AD; and</p> <p>(B) within the next 90 days after September 29, 2008, install a pitot/AOA probe that meets the criteria of paragraph (e)(4)(i) or (e)(4)(ii) of this AD.</p>	<p>Within the next 90 days after September 29, 2008 (the effective date of this AD).</p>	<p>Replace following Eclipse Aviation Alert Service Bulletin SB 500-34-019, Rev C, dated August 20, 2008, or following an FAA-approved repair procedure (e.g. the FAA-approved aircraft maintenance manual), as applicable.</p>
<p>(5) Do not install any P/N 100435-39, 100435-39-001, 100435-40, or 100435-40-001 pitot/AOA probe unless the criteria of paragraph (e)(4)(i), (e)(4)(ii), or (e)(4)(iii) of this AD are met.</p>	<p>As of September 29, 2008 (the effective date of this AD).</p>	<p>Not applicable.</p>
<p>(6) Remove the operating limitations specified in paragraph (e)(2) of this AD from the Limitations section of the AFM.</p>	<p>Before further flight after completion of the test in paragraph (e)(3) of this AD with all pitot/AOA probes passing or replacement of all failed pitot/AOA probes with:</p> <p>(i) pitot/AOA probes having serial numbers not affected by this AD; or</p> <p>(ii) pitot/AOA probes successfully passing the test following paragraph (e)(3) of this AD.</p>	<p>Not applicable.</p>

(f) If you are required to accomplish paragraph (e)(3) of this AD, previously tested the pitot/AOA probe using Harco Labs, Inc. Service Bulletin SB-34-10-10-001, Revision E or earlier, and have a copy of the Pitot AOA Probe Internal Tubing Heater Verification Test Procedure Data

Sheet for the probe being tested, you may use that data to accomplish procedure 3.1 Lines 1 through 14 or procedure 3.2 Lines 1 through 14, of Harco Pitot AOA Probe Internal Tubing Heater Verification Test Procedure No. P1149, Rev: E, also referenced in 8. Appendix A of Harco Labs, Inc. Service Bulletin SB-34-10-10-001 Revision F, dated August 20, 2008.

Special Flight Permit

(g) Under 14 CFR 39.23, we are limiting the special flight permits for this AD by requiring you to follow the limitations in paragraph (e)(2) of this AD ("Operate Only under Day Visual Flight Rules (VFR)" and "File Only a VFR Flight Plan").

Alternative Methods of Compliance (AMOCs)

(h) The Manager, Boston Aircraft 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: Solomon Hecht, Aerospace Engineer, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone: (781) 238-7159; fax: (781) 238-7170. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

Material Incorporated by Reference

(i) You must use Harco Labs, Inc. Service Bulletin SB-34-10-10-001, Revision F, dated August 19, 2008; Harco Pitot AOA Probe Internal Tubing Heater Verification Test Procedure No. P1149 Rev: E also referenced in 8. Appendix A of Harco Labs, Inc. Service Bulletin SB-34-10-10-001, Revision F, dated August 19, 2008; and Eclipse Aviation Alert Service Bulletin SB 500-34-019, Rev C, dated August 20, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Harco Labs, Inc. 186 Cedar Street, Branford, Connecticut 06405; telephone: (203) 483-3700; fax: (203) 483-3701 and Eclipse Aviation, 2503 Clark Carr Loop SE, Albuquerque, New Mexico 87106; telephone: (505) 245-7555; fax: (505) 241-8802.

(3) You may review copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, 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.

Issued in Kansas City, Missouri, on August 29, 2008.

Brian A. Yanez,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

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