

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-20970; Directorate Identifier 2004-NM-53-AD]

RIN 2120-AA64

Airworthiness Directives; Cessna Model 500, 501, 550, S550, 551, and 560 Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Cessna Model 500, 501, 550, S550, 551, and 560 airplanes. This proposed AD would require revising the airplane flight manual (AFM) to prohibit use of the wing fuel boost pumps for defueling under certain conditions; installing a placard; doing other specified investigative and corrective actions as necessary; and modifying the boost pumps. This proposed AD also would require the subsequent removal of the AFM revision and placard. This proposed AD is prompted by a report of a chafed electrical wiring harness, which was arcing inside the fuel tank. We are proposing this AD to prevent potential fuel vapor ignition in a fuel tank, which could result in explosion and loss of the airplane.

DATES: We must receive comments on this proposed AD by June 2, 2005.

ADDRESSES: Use one of the following addresses to submit comments on this proposed AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, room PL-401, Washington, DC 20590.

- By fax: (202) 493-2251.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For the service information identified in this proposed AD, contact Cessna Aircraft Co., P.O. Box 7706, Wichita, Kansas 67277.

You can examine the contents of this AD docket on the Internet at <http://dms.dot.gov>, or at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., room PL-401, on the plaza level of the Nassif Building, Washington, DC. This docket number is FAA-2005-20970; the directorate identifier for this docket is 2004-NM-53-AD.

FOR FURTHER INFORMATION CONTACT: Bryan Easterwood, Aerospace Engineer, Electrical Systems and Avionics Branch, ACE-119W, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4132; fax (316) 946-4107.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to submit any written relevant data, views, or arguments regarding this proposed AD. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2005-20970; Directorate Identifier 2004-NM-53-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments submitted by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of that Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association,

business, labor union, etc.). You can review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78), or you can visit <http://dms.dot.gov>.

Examining the Docket

You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is on the plaza level of the Nassif Building at the DOT street address stated in the **ADDRESSES** section. Comments will be available in the AD docket shortly after the DMS receives them.

Discussion

We have received a report indicating that chafing can exist between the submerged electrical wiring harness on the wing fuel boost pump and an aluminum fuel line inside the wing fuel tank. When troubleshooting a tripped circuit breaker for the fuel boost pump on a Cessna Model 550 airplane, technicians discovered that the electrical wiring harness of the wing fuel boost pump had chafed through the wire bundle insulation and was arcing on an aluminum fuel line inside the wing fuel tank. Subsequent inspections of additional airplanes revealed similar wire chafing on nearly half the inspected airplanes. The resulting potential for arcing and fuel vapor ignition, if not corrected, could result in explosion and loss of the airplane.

The design of the wire routing installation, the type and spacing of electrical wire clamps or lack of clamping, and the fuel pump wire type in the area of the wing fuel boost pump on Model 550 airplanes are the same on Cessna Model 500, 501, S550, 551, and 560 airplanes; therefore, the unsafe condition could exist on all of these airplanes.

Relevant Service Information

We have reviewed the Cessna service bulletins listed in the following table:

SERVICE INFORMATION

Service bulletin	Date	Airplane model(s)	Serial Nos.
SB500-28-12	June 14, 2004	500 and 501	0001-0689
SBS550-28-08	May 7, 2004	S550	0001-0160
SB550-28-14	December 2, 2003	550 and 551	0002-0733
SB550-28-15	January 20, 2004	550	0801-1075
SB560-28-10	April 23, 2004	560	0001-0538
SB560-28-11	March 12, 2004	560	0539-0648

The service bulletins describe procedures for:

- Revising the Limitations section of the airplane flight manual (AFM) to prohibit use of the wing fuel boost pumps for defueling if the individual fuel load in each wing is less than a specified weight;
- Installing a placard that advises the flightcrew of the minimum fuel weight requirements; and
- Inspecting the full length of the wiring of the wing fuel boost pumps to detect chafing through the outer jackets, through the wire braid (shielding), and into the wire insulation.

The service bulletins also describe procedures for corrective and other specified actions, depending on the inspection results, as follows:

- Applying sealant to any damaged areas of the wing fuel boost pump wiring;
- Installing spiral wrap on fuel boost pump wiring; and
- Replacing the fuel boost pump with a new pump, if the wire conductor is exposed and chafing is found through the outer jacket, wire braid, and insulation.

In addition, the service bulletins describe procedures for inspecting for damage of the fuel tube and wing structure, replacing damaged fuel tubes with new fuel tubes, and replacing or repairing damaged wing structure.

The service bulletins also describe procedures for modifying the wing fuel boost pumps by installing clamps on certain tube assemblies and on the boost pump wiring, and ensuring that the wires will not contact any fuel lines or the airplane structure.

The service bulletins specify removing the AFM revision and placard after doing the inspection, corrective and other specified actions, and modification.

Accomplishing the actions specified in the service information is intended to adequately address the unsafe condition.

FAA's Determination and Requirements of the Proposed AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other airplanes of this same type design. Therefore, we are proposing this AD, which would require the actions specified in the service information described previously, except as discussed under "Differences Between the Proposed AD and the Service Information."

Differences Between the Proposed AD and the Service Information

This proposed AD specifies the placard text size, which is not provided

in the service bulletins. We find it necessary to require this minimum standard on the placard to ensure its readability.

The service bulletins specify revising the AFM immediately (after receipt of the service bulletin), but this proposed AD would allow up to 25 flight hours for this action. In developing an appropriate compliance time for this action, we considered the safety implications and operators' typical maintenance schedules and determined that 25 flight hours will have minimal effect on operators, and no adverse effect on safety.

Although the Accomplishment Instructions of the referenced service bulletins describe procedures for submitting a sheet recording compliance with the service bulletin, this proposed AD would not require that action. We do not need this information from operators.

Costs of Compliance

This proposed AD would affect about 2,397 airplanes worldwide. The following table provides the estimated costs for U.S. operators to comply with this proposed AD.

ESTIMATED COSTS

Applicable service bulletin	Work hours	Average labor rate per hour	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
SB500-28-12	20	\$65	\$2,229	\$3,529	444	\$1,566,876
SBS550-28-08	12	65	102	882	126	111,132
SB550-28-14	8	65	1,992	2,512	469	1,178,128
SB550-28-15	8	65	1,936	2,456	194	476,464
SB560-28-10	12	65	1,949	2,729	428	1,168,012
SB560-28-11	8	65	1,052	1,572	101	158,772

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

For the reasons discussed above, I certify that the proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. 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 regulatory evaluation of the estimated costs to comply with this proposed AD. See the **ADDRESSES** section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

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

PART 39—AIRWORTHINESS DIRECTIVES

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

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

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Cessna Aircraft Company: Docket No. FAA–2005–20970; Directorate Identifier 2004–NM–53–AD.

Comments Due Date

(a) The Federal Aviation Administration (FAA) must receive comments on this AD action by June 2, 2005.

Affected ADs

(b) None.

Applicability

(c) This AD applies to the Cessna airplanes listed in Table 1 of this AD, certificated in any category.

TABLE 1.—APPLICABILITY

Airplane model(s)	Serial numbers
500 and 501 ...	0001 through 0689 inclusive.
S550	0001 through 0160 inclusive.
550 and 551 ...	0002 through 0733 inclusive.
550	0801 through 1075 inclusive.
560	0001 through 0648 inclusive.

TABLE 2.—SERVICE INFORMATION

For Cessna Model—	Having serial numbers—	Use Cessna Service Bulletin—	Dated—
500 and 501 airplanes	0001–0689	SB500–28–12	June 14, 2004.
S550 airplanes	0001–0160	SBS550–28–08	May 7, 2004.
550 and 551 airplanes	0002–0733	SB550–28–14	December 2, 2003.
550 airplanes	0801–1075	SB550–28–15	January 20, 2004.
560 airplanes	0001–0538	SB560–28–10	April 23, 2004.
560 airplanes	0539–0648	SB560–28–11	March 12, 2004.

AFM Revision

(g) Within 25 flight hours after the effective date of this AD: Revise the Limitations section of the applicable Cessna airplane flight manual (AFM) to prohibit use of the wing fuel boost pumps for defueling under certain conditions, by inserting the applicable temporary change identified in the service bulletin.

Placard Installation

(h) Within 25 flight hours after the effective date of this AD: Install a placard close to the fuel quantity gauge, in accordance with the Accomplishment Instructions of the service bulletin. In addition to the specifications in the service bulletin, the letters on the placard must be at least ¼-inch tall.

Inspection and Modification

(i) Within 300 flight hours after the effective date of this AD: Do the actions specified in paragraphs (i)(1) and (i)(2) of this AD in accordance with the Accomplishment Instructions of the service bulletin.

(1) Do a detailed inspection for chafed wiring of the wing fuel boost pumps, and, before further flight thereafter, do all applicable corrective and other specified actions.

(2) Modify the wing fuel boost pumps.

Note 1: For the purposes of this AD, a detailed inspection is: “An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good

lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required.”

(j) Before further flight after the inspection and modification required by paragraph (i) of this AD, remove the AFM temporary change and placard required by paragraphs (g) and (h) of this AD.

Reporting Clarification

(k) Although the service bulletin specifies to submit certain information to the manufacturer, this AD does not include that requirement.

Alternative Methods of Compliance (AMOCs)

(l) The Manager, Wichita Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

Issued in Renton, Washington, on April 11, 2005.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05–7674 Filed 4–15–05; 8:45 am]

BILLING CODE 4910–13–P

Unsafe Condition

(d) This AD was prompted by a report of a chafed electrical wiring harness, which was arcing inside the fuel tank. We are issuing this AD to prevent potential fuel vapor ignition in a fuel tank, which could result in explosion and loss of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Service Information

(f) The term “service bulletin” as used in this AD refers to the applicable service bulletin listed in Table 2 of this AD.

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 71**

[Docket No. FAA–2005–20555; Airspace Docket No. 05–AAL–08]

Proposed Revision of Class E Airspace; Emmonak, AK

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This action proposes to revise the Class E airspace at Emmonak, AK. The Standard Instrument Approach Procedures (SIAP's) are being amended for the Emmonak airport. Additional Class E airspace is needed to contain aircraft executing instrument approaches at Emmonak Airport. Adoption of this proposal would result in additional Class E airspace upward from 700 feet (ft.) above the surface at Emmonak, AK.

DATES: Comments must be received on or before June 2, 2005.

ADDRESSES: Send comments on the proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC