

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2004-19694; Directorate Identifier 2004-CE-41-AD; Amendment 39-14240; AD 2005-17-19]

RIN 2120-AA64

#### Airworthiness Directives; Cirrus Design Corporation Models SR20 and SR22 Airplanes

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA adopts a new airworthiness directive (AD) for certain Cirrus Design Corporation (CDC) Models SR20 and SR22 airplanes. This AD requires you to measure and adjust the crew seat break-over bolts and to replace the crew seat recline locks on both crew seats. This AD results from CDC discovering that the crew seats, under emergency landing dynamic loads, may fold forward at less than the 26 g required by the regulations. We are issuing this AD to prevent the crew seats from folding forward during emergency landing dynamic loads with consequent occupant injury.

**DATES:** This AD becomes effective on October 13, 2005.

As of October 13, 2005, the Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation.

**ADDRESSES:** To get the service information identified in this AD, contact Cirrus Design Corporation, 4515 Taylor Circle, Duluth, Minnesota 55811; telephone: (218) 727-2737; Internet address: <http://www.cirrusdesign.com>.

To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at <http://dms.dot.gov>. The docket number is FAA-2004-19694; Directorate Identifier 2004-CE-41-AD.

#### FOR FURTHER INFORMATION CONTACT ONE OF THE FOLLOWING:

–Wess Rouse, Small Airplane Project Manager, ACE-117C, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois 60018; telephone: 847-294-8113; facsimile: (847) 294-7834; email: [Wess.Rouse@faa.gov](mailto:Wess.Rouse@faa.gov); or

–Angie Kostopoulos, Composite Technical Specialist, ACE-116C, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois 60018; telephone: (847) 294-7426; facsimile: (847) 294-7834; e-mail: Evangelia.Kostopoulos@Faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

*What events have caused this AD?* The Cirrus Design Corporation (CDC) performed dynamic seat testing on Models SR20 and SR22 airplanes. CDC found that, under emergency landing dynamic loads, the crew seats may fold forward at less than the 26 g required by 14 CFR Section 23.562(b)(2).

*What is the potential impact if FAA took no action?* If not prevented, the crew seats folding forward during emergency landing dynamic loads could result in occupant injury.

*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 Cirrus Design Corporation (CDC) Models SR20 and SR22 airplanes. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on January 13, 2005 (70 FR 2370). The NPRM proposed to measure and adjust the crew seat break-over bolts and to replace the crew seat recline locks on both crew seats. Since issuing the earlier NPRM, FAA received and evaluated new service information that increases the serial number effectivity of the earlier NPRM. Since the change imposed an additional burden over that proposed in the earlier NPRM, we reopened the comment period to allow the public additional time to comment on the proposed AD. The supplemental NPRM was published in the Federal Register on June 9, 2005 (70 FR 33724).

### **Comments**

*Was the public invited to comment?* We again provided the public the opportunity to participate in developing this AD. We received no comments on the supplemental NPRM or on the determination of the cost to the public.

### **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 minor editorial corrections. We have determined that these 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 1,501 airplanes in the U.S. registry.

*What is the cost impact of this AD on owners/operators of the affected airplanes?* CDC will provide warranty credit for service bulletins SB A2X-25-08, dated June 22, 2004, and SB 2X-25-06 R4, dated May 5, 2005. This AD will not have a labor or parts cost for the owner or operator.

### **Authority for This Rulemaking**

*What authority does FAA have for issuing this rulemaking action?* 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 AD.

### **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 other information as included in the Regulatory Impact) 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 "Docket No. FAA-2004-19694; Directorate Identifier 2004-CE-41-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 adding a new AD to read as follows:

SUPERSEDED

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**CORRECTION:** Today, September 1, 2005, there is a typo in the table, "compliance" column, page 52001, AD 2005-17-19. It should read "...the effective date of this AD.) We've corrected this copy.

**2005-17-19 Cirrus Design Corporation:** Amendment 39-14240; Docket No. FAA-2004-19694; Directorate Identifier 2004-CE-41-AD.

## When Does This AD Become Effective?

- (a) This AD becomes effective on October 13, 2005.

## What Other ADs Are Affected by This Action?

- (b) None.

## 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) SR20	1005 through 1455.
(2) SR22	0002 through 1044.

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

- (d) This AD is the result of discovering that the crew seats, under emergency landing dynamic loads, may fold forward at less than 26 g required by the regulations, 14 Code of Federal Regulations (CFR) Section 23.562(b)(2). The actions specified in this AD are intended to prevent the crew seats from folding forward during emergency landing dynamic loads with consequent occupant injury.

## What Must I Do To Address This Problem?

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

Actions	Compliance	Procedures
<p>(1) For Models SR20, serial numbers 1005 through 1423, and SR22, serial numbers 0002 through 0972, do the following actions:</p> <p>(i) Move the lower portion of the crew seat upholstery upward to expose the seat frame and locking mechanism. Measure the clearance between the break-over bolt and the seat frame for a clearance that meets the requirements in the service bulletin.</p> <p>(ii) If the clearance does not meet that specified in the service bulletin, do the crew seat break-over bolt adjustment and re-cover the crew seat frame and locking mechanism with the upholstery.</p> <p>(iii) If the clearance does meet that specified in the service bulletin, re-cover the crew seat frame and locking mechanism.</p> <p>(iv) Repeat the above actions for the opposite crew seat.</p>	<p>Within 50 hours time-in-service (TIS) or within 180 days, whichever occurs first after October 13, 2005 (the effective date of this AD).</p>	<p>Follow Cirrus Design Corporation Alert Service Bulletin SB A2X-25-08, dated June 22, 2004.</p>
<p>(2) For Models SR20, serial numbers 1005 through 1455, and SR22, serial numbers 0002 through 1044, do the following actions:</p> <p>(i) Identify whether the recline lock is secured with two bolts or three bolts.</p> <p>(ii) If the recline locks are secured with two bolts, remove the existing recline locks and replace with the new recline locks kit, kit number 70084-001.</p> <p>(iii) If the recline locks are secured with three bolts, remove existing recline locks and replace with the new recline locks kit, kit number 70084-002.</p> <p>(iv) Check break-over pin alignment and adjust as necessary.</p> <p>(v) Check that the locks engage with the break-over bolts with the seat in the full recline position. If full seat recline is not possible or difficult to engage, grinding of the lower aft seat frame is necessary.</p> <p>(vi) Repeat the above actions for the opposite crew seat.</p>	<p>Within 50 hours TIS or within 180 days, whichever occurs first after October 13, 2005 (the effective date of this AD).</p>	<p>Follow Cirrus Design Corporation Service Bulletin SB 2X-25-06 R4, revised May 5, 2005.</p>

### 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. 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, Chicago Aircraft Certification Office, FAA. For information on any already approved alternative methods of compliance, please contact one of the following:

(1) Wess Rouse, Small Airplane Project Manager, ACE-117C; Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois 60018; telephone: (847) 294-8113; facsimile: (847) 294-7834; e-mail: Wess.Rouse@Faa.gov; or

(2) Angie Kostopoulos, Aerospace Engineer, ACE-116C, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois 60018; telephone: (847) 294-7426; facsimile: (847) 294-7834; e-mail: Evangelia.Kostopoulos@Faa.gov.

## Does This AD Incorporate Any Material by Reference?

(g) You must do the actions required by this AD following the instructions in Cirrus Design Corporation Alert Service Bulletin SB A2X-25-08, dated June 22, 2004; and Service Bulletin SB 2X-25-06 R4, revised May 5, 2005. The Director of the Federal Register approved the incorporation by reference of these service bulletins in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get a copy of this service information, contact Cirrus Design Corporation, 4515 Taylor Circle, Duluth, Minnesota 55811; telephone: (218) 727-2737; Internet address: <http://www.cirrusdesign.com>. To review copies of this service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, 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) or call (202) 741-6030. To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001 or on the Internet at <http://dms.dot.gov>. The docket number is FAA-2004-19694; Directorate Identifier 2004-CE-41-AD.

Issued in Kansas City, Missouri, on August 19, 2005.

Terry L. Chasteen,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

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