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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-CE-39-AD; Amendment 39-12906; AD 2002-20-09]

RIN 2120-AA64

Airworthiness Directives; Rockwell Collins, Inc. AFD-3010 Adaptive Flight Display Units

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to certain Rockwell Collins, Inc. (Rockwell Collins) AFD-3010 adaptive flight display units that are installed on aircraft. This AD requires you to inspect the AFD-3010 unit to determine if it contains an MFP386 Application Specific Integrated Circuit (ASIC) device with a date code of 0128. This AD also requires you to have any AFD-3010 units with an MFP386 device with a date code of 0128 modified. This AD is the result of reports of a manufacturing defect. The actions specified by this AD are intended to prevent premature failure of the ASIC, which could result in the AFD-3010 unit displaying erroneous primary flight and engine parameter information. Such failure could lead to the pilot using incorrect information when making critical flight safety decisions.

DATES: This AD becomes effective on November 12, 2002.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation as of November 12, 2002.

The Federal Aviation Administration (FAA) must receive any comments on this rule on or before December 12, 2002.

ADDRESSES: Submit comments to FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-CE-39-AD, 901 Locust, Room 506, Kansas City, Missouri 64106. You may view any comments at this location between 8 a.m. and 4 p.m., Monday through Friday, except Federal holidays. You may also send comments electronically to the following address: 9-ACE-7-Docket@faa.gov. Comments sent electronically must contain "Docket No. 2002-CE-39-AD" in the subject line. If you send comments electronically as attached electronic files, the files must be formatted in Microsoft Word 97 for Windows or ASCII text.

You may get the service information referenced in this AD from Rockwell Collins Inc., Business and Regional Systems, 400 Collins Road Northeast, Cedar Rapids, Iowa 52498; telephone: (319) 295-1831. You may view this information at FAA, Central Region, Office of the Regional Counsel,

Attention: Rules Docket No. 2002-CE-39-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Roger A. Souter, FAA, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4134; facsimile: (316) 946-4407; e-mail: roger.souter@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

What Events Have Caused This AD?

The FAA has received reports of a manufacturing defect on the MFP386 Application Specific Integrated Circuit (ASIC) device, Collins part number (CPN) 351-4957-020. These are used on the A5 card in the input/output control circuitry of the AFD-3010 adaptive flight display units.

The manufacturing defect of the MFP386 ASIC device resulted in significant delamination around all of the die edges. This causes stress on the wire bonds that hold the device to the A5 card. Stress on the wire bonds could cause the bonds to break, which could result in failure of the device.

Failure of this device has been reported on AFD-3010 units containing an MFP386 ASIC device with a date code of 0128.

When the MFP386 ASIC fails, the AFD-3010 unit may display erroneous primary flight information and engine parameters. These systems affect the way the pilot makes critical flight safety decisions.

These Rockwell Collins AFD-3010 adaptive flight display units are installed on, but not limited to, the following aircraft:

- Bombardier Model CL-600-2A12(CL-601) airplanes;
- Cessna Model 525 and 525A airplanes;
- Dassault Model Mystere-Falcon 20–F5 and Mystere-Falcon 50 airplanes; and
- Raytheon Model 390 and Hawker 800XP airplanes.

What Are the Consequences if the Condition Is Not Corrected?

This condition, if not corrected, could result in failure of the ASIC, which could result in the AFD-3010 unit displaying erroneous primary flight and engine parameter information. Such failure could lead to the pilot using incorrect information when making critical flight safety decisions.

Is There Service Information That Applies to This Subject?

Rockwell Collins has issued Service Bulletin 12, Revision No. 2, AFD-3010-31-12, dated August 30, 2002.

The service bulletin includes procedures for:

- Inspecting the AFD-3010 unit to determine serial number of the installed unit;
- Inspecting the AFD-3010 unit (if serial number is one of the affected units) to determine the date code of the MFP386 ASIC device; and
- Replacing the MFP386 ASIC device if the date code is 0128.

The FAA's Determination and an Explanation of the Provisions of this AD

What Has FAA Decided?

The FAA has reviewed all available information, including the service information referenced above; and determined that:

- The unsafe condition referenced in this document exists or could develop on type design aircraft that incorporate these Rockwell Collins AFD-3010 adaptive flight display units;
- The actions specified in the previously-referenced service should be accomplished on affected Rockwell AFD-3010 adaptive flight display units; and
- AD action should be taken in order to correct this unsafe condition.

What Does This AD Require?

This AD requires you to incorporate the actions in the previously-referenced service bulletin.

In preparation of this rule, we contacted type clubs and aircraft operators to obtain technical information and information on operational and economic impacts. We did not receive any information through these contacts. If received, we would have included, in the rulemaking docket, a discussion of any information that may have influenced this action.

Will I Have the Opportunity To Comment Prior to the Issuance of the Rule?

Because the unsafe condition described in this document could result in erroneous display of primary flight information, we find that notice and opportunity for public prior comment are impracticable. Therefore, good cause exists for making this amendment effective in less than 30 days.

Comments Invited

How Do I Comment on This AD?

Although this action is in the form of a final rule and was not preceded by notice and opportunity for public comment, FAA invites your comments on the rule. You may submit whatever written data, views, or arguments you choose. You need to include the rule's docket number and submit your comments to the address specified under the caption ADDRESSES. We will consider all comments received on or before the closing date specified above. We may amend this rule in light of comments received. Factual information that supports your ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether we need to take additional rulemaking action.

Are There Any Specific Portions of the AD I Should Pay Attention To?

We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. You may view all comments we receive before and after the closing date of the rule in the Rules Docket. We will file a report in the Rules Docket that summarizes each FAA contact with the public that concerns the substantive parts of this AD.

How Can I Be Sure FAA Receives My Comment?

If you want us to acknowledge the receipt of your written comments, you must include a self-addressed, stamped postcard. On the postcard, write "Comments to Docket No. 2002-CE-39-AD." We will date stamp and mail the postcard back to you.

Compliance Time of This AD

What Is the Compliance Time of This AD?

The compliance time of this AD is "within the next 14 days after the effective date of this AD."

Why Is the Compliance Time Presented in Calendar Time Instead of Hours Time-in-Service (TIS)?

This unsafe condition is not a result of the number of times the airplane is operated. The chance of this situation occurring is the same for an airplane with 10 hours time-in-service (TIS) as it would be for an airplane with 500 hours TIS. For this reason, the FAA has determined that a compliance based on calendar time should be utilized in this AD in order to assure that the unsafe condition is addressed on all airplanes in a reasonable time period.

Regulatory Impact

Does This AD Impact Various Entities?

These regulations 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. Therefore, FAA has determined that this final rule does not have federalism implications under Executive Order 13132.

Does This AD Involve a Significant Rule or Regulatory Action?

We have determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a significant regulatory action under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket (otherwise, an evaluation is not required). A copy of it, if filed, may be obtained from the Rules Docket.

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 airworthiness directive (AD) to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

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

We post ADs on the internet at "www.airweb.faa.gov/rgl"

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).

2002-20-09 Rockwell Collins, Inc.: Amendment 39-12906; Docket No. 2002-CE-39-AD.

(a) *What airplanes are affected by this AD?* This AD applies to AFD-3010 adaptive flight display units, part numbers 822-1084-012/-108/-202/-206/-302/-304/-402/-404/-406 (serial numbers as specified in Rockwell Collins Service Bulletin 12, Revision No. 2, AFD-3010-31-12, dated August 30, 2002), that are installed in aircraft. These AFD-3010 adaptive flight display units are installed in, but not limited to, the following aircraft that are certificated in any category:

- (1) Bombardier Model CL-600-2A12 (CL-601) airplanes;
- (2) Cessna Model 525 and 525A airplanes;
- (3) Dassault Model Mystere-Falcon 20-F5 and Mystere-Falcon 50 airplanes; and
- (4) Raytheon Model 390 and Hawker 800XP airplanes.

(b) *Who must comply with this AD?* Anyone who wishes to operate an aircraft equipped with one of the affected AFD-3010 adaptive flight display units must comply with this AD.

(c) *What problem does this AD address?* The actions specified by this AD are intended to prevent premature failure of the Application Specific Integrated Circuit (ASIC) device, which could result in the AFD-3010 unit displaying erroneous primary flight and engine parameter information. Such failure could lead to the pilot using incorrect information when making critical flight safety decisions.

(d) *What must I do to address this problem?* To address this problem, you must accomplish the following actions:

Actions	Compliance	Procedures
(1) Inspect the AFD-3010 adaptive flight display unit to determine the serial number.	Within the next 14 days after November 12, 2002 (the effective date of this AD), unless already accomplished.	In accordance with Rockwell Collins Service Bulletin 12, Revision No. 2 (AFD-3010-31-12), dated August 30, 2002.

<p>(2) If the serial number of the AFD-3010 unit is listed as one of the affected units specified in Rockwell Collins Service Bulletin 12, Revision No. 2 (AFD-3010-31-12), dated August 30, 2002, then inspect the MFP386 ASIC device to determine the date code.</p> <p>(i) If the date code on the MFP386 ASIC device is 0128, return the unit to the manufacturer for modification and install the modified ADF-3010 unit.</p> <p>(ii) If the date code on the MFP386 ASIC is other than 0128, no manufacturer modification is necessary.</p>	<p>Prior to further flight after the inspection required in paragraph (d)(1) of this AD, unless already accomplished.</p>	<p>In accordance with Rockwell Collins Service Bulletin 12, Revision No. 2 (AFD-3010-31-12), dated August 30, 2002.</p>
<p>(3) Do not install, on any aircraft, an affected ADF-3010 adaptive flight display that contains a MFP386 ASIC device with a date code of 0128.</p>	<p>As of November 12, 2002 (the effective date of this AD).</p>	<p>Not applicable.</p>

(e) *Can I comply with this AD in any other way?* You may use an alternative method of compliance or adjust the compliance time if:

- (1) Your alternative method of compliance provides an equivalent level of safety; and
- (2) The Manager, Wichita Aircraft Certification Office, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita Aircraft Certification Office.

Note: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) *Where can I get information about any already-approved alternative methods of compliance?* Contact Roger A. Souter, FAA, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4134; facsimile: (316) 946-4407; e-mail: roger.souter@faa.gov.

(g) *What if I need to fly the airplane to another location to comply with this AD?* The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) *Are any service bulletins incorporated into this AD by reference?* Actions required by this AD must be done in accordance with Rockwell Collins Service Bulletin 12 (AFD-3010-31-12), Revision No. 2, dated August 30, 2002. The Director of the Federal Register approved this

incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You can get copies from Rockwell Collins, Business and Regional Systems, 400 Collins Road Northeast, Cedar Rapids, Iowa 52498; telephone: (319) 295-1831. You may view this information at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(i) *When does this amendment become effective?* This amendment becomes effective on November 12, 2002.

Issued in Kansas City, Missouri, on October 3, 2002.

James E. Jackson,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02-25717 Filed 10-15-02; 8:45 am]

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