

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. 2000-CE-13-AD]

RIN 2120-AA64

**Airworthiness Directives; Rockwell Collins, Inc. FMC-4200, FMC-5000, and FMC-6000 Flight Management Computers****AGENCY:** Federal Aviation Administration, DOT.**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes to adopt a new airworthiness directive (AD) that would apply to Rockwell Collins, Inc. (Rockwell Collins) FMC-4200, FMC-5000, and FMC-6000 flight management computers (FMC) that are installed on airplanes. This proposed AD would require you to have the FMC modified to correct a problem with the flight management system (FMS) accepting new information when an existing procedure or flight plan is changed. This proposed AD is the result of a report that an aircraft proceeded beyond the published altitude constraint on an arrival procedure. The actions specified by this proposed AD are intended to prevent the FMC from retaining and displaying original altitude constraints when an edit or a replacement is made to a procedure or flight plan that shares a waypoint with another procedure or an airway, and there is an altitude constraint on the shared waypoint. Such a condition could cause the pilot to fly the airplane out of the range of the correct altitude constraint. This condition could result in air traffic control or the pilot making flight decisions that put the airplane in unsafe flight conditions.

**DATES:** The Federal Aviation Administration (FAA) must receive any comments on this proposed rule on or before September 6, 2002.

**ADDRESSES:** Submit comments to FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2000-CE-13-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. 2000-CE-13-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 service information that applies to this proposed AD from Rockwell Collins, Business and Regional Systems, 400 Collins Road Northeast, Cedar Rapids, Iowa 52498; telephone: (319) 295-2512; facsimile: (319) 295-5064. You may also view this information at the Rules Docket at the address above.

**FOR FURTHER INFORMATION CONTACT:**

Roger A. Souter, FAA, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Rm 100, Wichita, Kansas 67209; telephone: (316) 946-4134; facsimile: (316) 946-4407. E-mail address: *Roger.Souter@faa.gov*.

**SUPPLEMENTARY INFORMATION:****Comments Invited**

*How do I comment on this proposed AD?* The FAA invites comments on this proposed 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. We may amend this proposed rule in light of comments received. Factual information that supports your ideas and suggestions is extremely helpful in evaluating the effectiveness of this proposed AD action and determining whether we need to take additional rulemaking action.

*Are there any specific portions of this proposed AD I should pay attention to?* The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this proposed 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 contact we have with the public that concerns the substantive parts of this proposed AD.

*How can I be sure FAA receives my comment?* If you want FAA to acknowledge the receipt of your mailed comments, you must include a self-addressed, stamped postcard. On the postcard, write "Comments to Docket No. 2000-CE-13-AD." We will date stamp and mail the postcard back to you.

**Discussion**

*What events have caused this proposed AD?* The FAA received a report of an incident that occurred during a flight arriving in Toronto,

Ontario. A change in the flight management computer (FMC) had been made to the original flight plan changing the altitude constraint to 8,000 feet—11,000 feet. However, the flight management system (FMS) retained the altitude constraint of the original flight plan of 10,000 feet—14,000 feet. The pilot was unaware of this situation occurring, which resulted in the descent of the airplane to proceed beyond the published altitude constraint on the arrival procedure.

When the FMC is operating correctly and a change is made, the FMS allows the pilot to delete information associated with a procedure or flight plan by deleting the procedure or by replacing the procedure.

Rockwell Collins FMC-4200, FMC-5000, and FMC-6000 flight management computers could be installed on, but not limited to, the following aircraft:

- Raytheon Model Beechjet 400A and Model 400T (T-1A) airplanes;
- Bombardier Model CL-600-2B19 Regional Jet Series 100 airplanes; and
- Bombardier Model CL-600-2B16 (variant CL-604) airplanes.

*What are the consequences if the condition is not corrected?* As described above, such erroneous altitude constraints retained by the FMS could cause the pilot to fly the airplane out of the range of the correct altitude constraint. This condition could result in air traffic control or the pilot making flight decisions that put the airplane in unsafe flight conditions.

*Is there service information that applies to this subject?* Rockwell Collins has issued the following service bulletins:

- Service Bulletin 15, Revision No. 1 (FMC-4200/5000/6000-34-15), dated November 15, 2000;
- Service Bulletin 502 (FMC-3000/4200-34-502), dated February 17, 2000;
- Service Bulletin 504, Revision No. 1 (FMC-4200/6000-34-504), dated March 26, 2001; and
- Service Bulletin 507 (FMC-6000-34-507), dated April 4, 2001.

*What are the provisions of this service information?* These service bulletins include procedures for modifying the FMC software in order to resolve the select altitude problem.

**The FAA's Determination and an Explanation of the Provisions of This Proposed AD**

*What has FAA decided?* After examining the circumstances and reviewing all available information related to the incidents described above, we have determined that:

- The unsafe condition referenced in this document exists or could develop on type design aircraft that incorporate a Rockwell Collins FMC-4200, FMC-5000, or FMC-6000 flight management computer;
- The actions specified in the previously-referenced service information should be accomplished on the affected airplanes; and
- AD action should be taken in order to correct this unsafe condition.

*What would this proposed AD require?* This proposed AD would require you to have the FMC modified to allow the FMS to accept new information when changing an existing procedure or flight plan.

#### Cost Impact

*How many airplanes would this proposed AD impact?* We estimate that 700 affected Rockwell Collins FMC-4200, FMC-5000, and FMC-6000 flight

management computers could be installed on airplanes in the U.S. registry. Some airplanes have more than one unit installed.

*What would be the cost impact of this proposed AD on owners/operators of the affected airplanes?* We estimate the following costs to accomplish the proposed modification:

Labor cost	Parts cost	Total cost per FMC unit
4 workhours per FMC unit × \$60 per hour = \$240 .....	\$500 per FMC unit .....	\$740

#### Compliance Time of This Proposed AD

What would be the compliance time of this proposed AD? The compliance time of this proposed AD is “within the next 24 calendar months after the effective date of this AD, unless already accomplished.”

*Why is the proposed compliance time presented in calendar time instead of hours time-in-service (TIS)?* The compliance of this proposed AD is presented in calendar time instead of hours TIS because the condition exists regardless of airplane operation. The FMS retention of invalid altitude constraint information could occur regardless of the number of times and hours the airplane was operated. For these reasons, FAA has determined that a compliance based on calendar time should be utilized in this proposed AD in order to ensure that the unsafe condition is addressed in a reasonable time period on all airplanes that have an affected Rockwell FMC-4200, FMC-5000, or FMC-6000 flight management computer installed.

#### Regulatory Impact

*Would this proposed AD impact various entities?* The regulations proposed herein 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. Therefore, it is determined that this proposed rule

would not have federalism implications under Executive Order 13132.

*Would this proposed AD involve a significant rule or regulatory action?* For the reasons discussed above, I certify that this proposed action (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) if promulgated, 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. A copy of the draft regulatory evaluation prepared for this action has been placed in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption

#### ADDRESSES.

#### 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 Federal Aviation Administration proposes to amend 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:

**Rockwell Collins, Inc.: Docket No. 2000-CE-13-AD.**

(a) *What airplanes are affected by this AD?* This AD affects Rockwell Collins FMC-4200, FMC-500, and FMC-6000 flight management computers (FMC) that are installed on, but not limited to, the following aircraft that are certificated in any category:

- (1) Raytheon Model Beechjet 400A and Model 400T (T-1A) airplanes;
- (2) Bombardier Model CL-600-2B19 Regional Jet Series 100 airplanes; and
- (3) Bombardier Model CL-600-2B16 (variant CL-604) airplanes.

(b) *Who must comply with this AD?* Anyone who wishes to operate an aircraft equipped with one of the affected FMCs must comply with this AD.

(c) *What problem does this AD address?* The actions specified by this AD are intended to prevent the FMC from retaining original information when an edit is made to a procedure or flight plan. Such a condition could cause the pilot to fly the airplane out of the range of the correct altitude constraint. This condition could result in air traffic control or the pilot making flight decisions that put the airplane in unsafe flight conditions.

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

Actions	Compliance	Procedures
(1) Modify the flight management computer .....	Within the next 24 calendar months after the effective date of this AD.	Use the applicable service information as specified in paragraph (e) of this AD.
(2) Do not install, on any aircraft, an affected FMC that has not been modified as required by paragraph (d)(1) of this AD.	As of the effective date of this AD .....	Not applicable.

(e) *What service information do I use to accomplish the procedures required in paragraph (d)(1) of this AD?* The service bulletins required to accomplish these actions are as follows:

FMC affected	Applicable service bulletin
FMC-4200 .....	Rockwell Collins Service Bulletin 502 (FMC-3000/4200-34-502), dated February 17, 2000, or Rockwell Collins Service Bulletin 504, Revision No. 1 (FMC-4200/6000-34-504), dated March 26, 2001.
FMC-5000 .....	Rockwell Collins Service Bulletin 15, Revision No. 1 (FMC-4200/5000/6000-34-15), dated November 15, 2000.
FMC-6000 .....	Rockwell Collins Service Bulletin 504, Revision No. 1 (FMC-4200/6000-34-504), dated March 26, 2001, or Rockwell Collins Service Bulletin 507 (FMC-6000-34-507), dated April 4, 2001.

(f) *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 (ACO), approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

**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 (f) 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.

(g) *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, Rm 100, Wichita, Kansas 67209; telephone: (316) 946-4134; facsimile: (316) 946-4407. E-mail address: [Roger.Souter@faa.gov](mailto:Roger.Souter@faa.gov).

(h) *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.

(i) *How do I get copies of the documents referenced in this AD?* You may get copies of the documents referenced in this AD from Rockwell Collins, Business and Regional Systems, 400 Collins Road Northeast, Cedar Rapids, Iowa 52498. You may view these documents at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106.

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

**Dorenda D. Baker,**

*Acting Manager, Small Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 02-17307 Filed 7-9-02; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 2002-NE-11-AD]

RIN 2120-AA64

#### Airworthiness Directives; Pratt & Whitney JT8D-200 Series Turbofan Engines

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The Federal Aviation Administration (FAA) proposes to adopt a new airworthiness directive (AD) that is applicable to certain Pratt & Whitney (PW) JT8D-200 series turbofan engines. This proposal would require the installation of stops on the fan exit guide vane case. This proposal is prompted by reports of the flange between the fan duct case and the fan exit guide vane case separating due to a fan blade fracture event. The actions specified by the proposed AD are intended to prevent the flange between the fan duct case and the fan exit guide vane case from separating due to a fan blade failure. Separations of that flange could result in damage to the airplane.

**DATES:** Comments must be received by September 9, 2002.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-NE-11-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location, by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in the proposed rule may be obtained from Pratt & Whitney, 400 Main St., East

Hartford, CT 06108; telephone (860) 565-6600, fax (860) 565-4503. This information may be examined, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

#### FOR FURTHER INFORMATION CONTACT:

Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7175, fax (781) 238-7199.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NE-11-AD." The postcard will be date stamped and returned to the commenter.

#### Availability of NPRM's

Any person may obtain a copy of this NPRM by submitting a request to the