



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0659; Directorate Identifier 2017-CE-014-AD]

RIN 2120-AA64

Airworthiness Directives; Rockwell Collins, Inc. Traffic Surveillance System

Processing Unit

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Rockwell Collins, Inc. TSS-4100 Traffic Surveillance System Processing Units that incorporate TSSA-4100 Field Loadable Software (FLS) Rockwell Collins part numbers 810-0052-002/-003/-010/-011/-012/-100/-101 and are installed on airplanes. This proposed AD was prompted by five instances of air traffic control observing coasting (extrapolated stale data) of automatic dependent surveillance-broadcast data (position/velocity data). This proposed AD would require installing the TSSA-4100 FLS upgrades on the TSS-4100 units. We are proposing this AD to correct the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- 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: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Rockwell Collins, Inc., Collins Aviation Services, 400 Collins Road NE, M/S 164-100, Cedar Rapids, IA 52498-0001; telephone: 888-265-5467 (U.S.) or 319-265-5467; fax: 319-295-4941 (outside U.S.); email: techmanuals@rockwellcollins.com; Internet: http://www.rockwellcollins.com/Services_and_Support/Publications.aspx. You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0659; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Paul Rau, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; phone: 316-946-4149; fax: 316-946-4107; email: paul.rau@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0659; Directorate Identifier 2017-CE-014-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because 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 about this proposed AD.

Discussion

We were notified of five instances of air traffic control observing coasting (extrapolated stale data) automatic dependent surveillance-broadcast data (ADS-B position/velocity data) on a related Rockwell Collins, Inc. platform that shares a common architecture with the TSS-4100 Traffic Surveillance System Processing Units, Rockwell Collins part number (RCPN) 822-2132-001, that are installed on airplanes. The affected units incorporate TSSA-4100 Field Loadable Software (FLS) RCPNs 810-0052-002/-003/-010/-011/-012/-100/-101. An investigation of the events determined that the ADS-B position and the Mode S/ traffic alert and collision avoidance system (TCAS) altitude of the TSS-4100 are affected. The extrapolation of the data occurs with no warning to the crew.

This condition, if not corrected, could result in misleading position and/or altitude being reported by the airplane. Misleading altitude data can adversely affect TCAS and possibly lead to mid-air collision due to an incorrect initial resolution advisory (RA) and/or an incorrect RA modification.

Related Service Information under 1 CFR part 51

We reviewed Rockwell Collins Service Information Letter, TSSA-4100-SIL-10-1, Revision No. 9, dated March 31, 2017. The service letter describes procedures for determining the part number of the affected FLS and the installation procedure for updating the FLS. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require updating the TSSA-4100 FLS on the TSS-4100 Traffic Surveillance System Processing Unit.

Costs of Compliance

We estimate that this proposed AD affects 1,000 products installed on airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Upgrade the FLS to RCPN 810-0052-013 or 810-0052-102	1 work-hour X \$85 per hour = \$85	\$700	\$785	\$785,000

According to the manufacturer, some of the costs of this proposed AD may be covered by the manufacturer, thereby reducing the cost impact on affected individuals. We do not control manufacturer coverage for affected individuals. As a result, we have included all costs in our cost estimate.

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 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 this 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),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, 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

Rockwell Collins, Inc.: Docket No. FAA-2017-0659; Directorate Identifier 2017-CE-014-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

Rockwell Collins, Inc. TSS-4100 Traffic Surveillance System Processing Units, Rockwell Collins part number (RCPN) 822-2132-001, that incorporate TSSA-4100 Field Loadable Software (FLS) RCPN 810-0052-002/-003/-010/-011/-012/-100/-101; that are installed on but not limited to the airplanes listed in paragraphs (c)(1) through (14) of this AD and are certificated in any category.

- (1) Cessna Citation CJ4 (525C)
- (2) Bombardier Challenger 300 (BD-100-1A10)
- (3) Bombardier Challenger 350 (BD-100-1A10)
- (4) Bombardier Challenger 605 (CL-600-2B16)
- (5) Bombardier Challenger 650 (CL-600-2B16)
- (6) Bombardier CRJ-700 (CL-600-2C10)
- (7) Bombardier CRJ-900 (CL-600-2D24)
- (8) Bombardier CRJ-1000 (CL-600-2E25)
- (9) Bombardier Global 5000 (BD-700-1A11)
- (10) Bombardier Global 5000V (BD-700-1A11)
- (11) Bombardier Global 6000 (BD-700-1A10)

(12) Embraer Legacy (EMB-550)

(13) Embraer Legacy 450 (EMB-545)

(14) Gulfstream G280.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 34, Navigation.

(e) Unsafe Condition

This AD was prompted by five instances of air traffic control observing coasting (extrapolated stale data) automatic dependent surveillance-broadcast data (ADS-B position/velocity data). We are issuing this AD to prevent erroneous extrapolation of position/velocity and altitude data that could result in misleading position and/or altitude being reported by the airplane and possibly lead to mid-air collision.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Upgrade of FLS

Within the next 12 months after the effective date of this AD or within the next 750 hours time-in-service after the effective date of this AD, whichever occurs first, upgrade the TSSA-4100 FLS to RCPN 810-0052-013 or 810-0052-102, as applicable, following Rockwell Collins Service Information Letter, TSSA-4100-SIL-10-1, Revision No. 9, dated March 31, 2017.

(h) Credit for Actions Accomplished in Accordance with Previous Service Information

This AD allows credit for the action required in paragraph (g) of this AD if done before the effective date of this AD following either Rockwell Collins Service Information Letter, TSSA-4100-SIL-10-1, Revision No. 6, dated September 19, 2016; Rockwell Collins Service Information Letter, TSSA-4100-SIL-10-1, Revision No. 7,

dated November 21, 2016; or Rockwell Collins Service Information Letter, TSSA-4100-SIL-10-1, Revision No. 8, dated January 4, 2017, provided the TSSA-4100 FLS is upgraded to RCPN 810-0052-013 or 810-0052-102, as applicable.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (j)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about this AD, contact Paul Rau, Aerospace Engineer, Wichita ACO, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; phone: 316-946-4149; fax: 316-946-4107; email: paul.rau@faa.gov.

(2) For service information identified in this AD, contact Rockwell Collins, Inc., Collins Aviation Services, 400 Collins Road NE, M/S 164-100, Cedar Rapids, IA 52498-0001; telephone: 888-265-5467 (U.S.) or 319-265-5467; fax: 319-295-4941 (outside U.S.); email: techmanuals@rockwellcollins.com; Internet: http://www.rockwellcollins.com/Services_and_Support/Publications.aspx. You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on June 26, 2017.

Pat Mullen,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2017-13948 Filed: 6/30/2017 8:45 am; Publication Date: 7/3/2017]