

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0883; Project Identifier 2019-CE-034-AD; Amendment 39-21460; AD 2021-05-17]

RIN 2120-AA64

Airworthiness Directives; Rockwell Collins, Inc. Flight Display System Application

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) AD 2019-12-09 for certain Rockwell Collins, Inc. (Rockwell Collins) FDSA-6500 flight display system applications installed on airplanes. AD 2019-12-09 imposed operating limitations on the traffic collision avoidance system (TCAS). AD 2019-12-09 was prompted by conflict between the TCAS display indications and aural alerts that may occur during a resolution advisory (RA) scenario. This AD retains the requirements of AD 2019-12-09 until a software upgrade is completed. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective April 29, 2021.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of April 29, 2021.

ADDRESSES: For service information identified in this final rule, contact Rockwell Collins at Collins Aviation Services, 400 Collins Road NE, M/S 164-100, Cedar Rapids, IA 52498-0001; phone: (319) 295-9258; fax: (319) 295-4351; email: techmanuals@rockwellcollins.com; website: <https://www.rockwellcollins.com/ServicesandSupport/Publications.aspx>. You may view this service information at the Airworthiness Products Section, Operational Safety Branch, FAA, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0883.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0883; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Nhien Hoang, Aviation Safety Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Wichita, KS 67209; phone: (316) 946-4157; fax: (316) 946-4107; email: Nhien.Hoang@faa.gov or Wichita-COS@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2019-12-09, Amendment 39-19664 (84 FR 32260, July 8, 2019), (AD 2019-12-09). AD 2019-12-09 applied to certain part-numbered Rockwell Collins FDSA-6500 flight display system applications that may be installed on, but not limited to, Bombardier Inc. Model CL-600-2B16 (604 variant) airplanes and Textron Aviation Inc. Models 525B, B200, B200C, B200CGT, B200GT, B300, B300C, and C90GTi airplanes. The NPRM published in the **Federal Register** on December 14, 2020 (85 FR 80686).

AD 2019-12-09 prohibited operation with the TCAS in TA/RA mode by requiring a revision to the Limitations section of the airplane flight manual (AFM) or AFM supplement (AFMS) and by fabricating and installing a placard on each aircraft primary flight display. AD 2019-12-09 resulted from a report that a conflict could occur between the TCAS primary cockpit display indications and the aural alerts during an RA scenario. The FAA issued AD 2019-12-09 as an interim action to address the immediate urgency to prevent the pilot from over-correcting or under-correcting for aircraft separation, which may result in a mid-air collision.

In the NPRM, the FAA proposed to retain the actions of AD 2019-12-09 and install updated software on the flight data system applications within 12 months. Once the software is upgraded, the FAA proposed to allow removal of the limitations and placard. Because the requirements proposed in the NPRM had a longer compliance time, the FAA provided the public an opportunity to comment. The FAA is issuing this AD to address the unsafe condition on these products.

Discussion of Final Airworthiness Directive Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

The FAA reviewed the relevant data and determined that air safety requires adoption of the AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information Under 14 CFR Part 51

The FAA reviewed Rockwell Collins Service Information Letter FDSA-6500-19-1, Revision No. 2, dated June 12, 2019. This service information letter contains information regarding hardware and software compatibility for the FDSA-6500 flight display system and provides software download instructions. 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 **ADDRESSES**.

Costs of Compliance

The FAA estimates that this AD affects 932 FDSA-6500 flight display system applications installed on 311 airplanes worldwide. The FAA has no way of knowing the number of FDSA-6500 applications installed on airplanes of U.S. Registry. The estimated cost on U.S. operators reflects the maximum possible cost based on worldwide applications.

The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Revise the Limitations section of the AFM or AFMS.	.5 work-hour × \$85 per hour = \$42.50.	Not applicable	\$42.50 (per airplane)	Up to \$13,217.50.

ESTIMATED COSTS—Continued

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Fabricate and install a placard	.5 work-hour × \$85 per hour = \$42.50.	Negligible	\$42.50 (per primary flight display).	Up to \$39,610.
FDSA-6500 software upgrade	1 work-hour × \$85 per hour = \$85.	Not applicable	\$85 (per primary flight display).	Up to \$79,220.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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.

The FAA is 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

The FAA has 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.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

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

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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:
 - a. Removing Airworthiness Directive 2019-12-09, Amendment 39-19664 (84 FR 32260, July 8, 2019); and
 - b. Adding the following new airworthiness directive:

2021-05-17 Rockwell Collins, Inc.:
Amendment 39-21460; Docket No. FAA-2020-0883; Project Identifier 2019-CE-034-AD.

(a) Effective Date

This airworthiness directive (AD) is effective April 29, 2021.

(b) Affected ADs

This AD replaces AD 2019-12-09, Amendment 39-19664 (84 FR 32260, July 8, 2019) (AD 2019-12-09).

(c) Applicability

This AD applies to Rockwell Collins, Inc., (Rockwell Collins) Flight Display System Application FDSA-6500 part numbers (P/Ns) 810-0234-1H0001, 810-0234-1H0002, 810-

0234-1H0003, 810-0234-2H0001, 810-0234-2C0001, 810-0234-2C0002, and 810-0234-4B0001. These applications are installed on, but not limited to, Bombardier Inc. Model CL-600-2B16 (604 variant) airplanes and Textron Aviation Inc. Models 525B, B200, B200C, B200CGT, B200GT, B300, B300C, and C90GTi airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 3400, NAVIGATION SYSTEM.

(e) Unsafe Condition

This AD was prompted by a conflict between the traffic collision avoidance system (TCAS) primary display indications and aural alerts during a resolution advisory (RA) scenario. The FAA is issuing this AD to prevent conflicting TCAS information, which could result in the pilot under-correcting or over-correcting and may lead to inadequate aircraft separation and a mid-air collision.

(f) Compliance

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

(g) Actions

(1) Within 30 days after July 23, 2019 (the effective date of AD 2019-12-09), do the following:

(i) Revise the airplane flight manual (AFM) or AFM supplement (AFMS) by adding the following text to the Limitations section: For TCAS II installations, during flight, do not operate TCAS in the "TA/RA" mode; TCAS may only be operated in "TA Only" mode.

(ii) Fabricate a placard for each aircraft primary flight display, using at least 1/8 inch letters, with the following text: TCAS Flight Ops—TA Only mode (TA/RA mode prohibited).

(iii) Install the placard on the bottom of each aircraft primary flight display bezel in the area depicted in figure 1 to paragraph (g)(1)(iii) of this AD.

Note 1 to paragraph (g)(1): In "TA/RA" mode, the TA stands for traffic advisory and RA stands for resolution advisory.

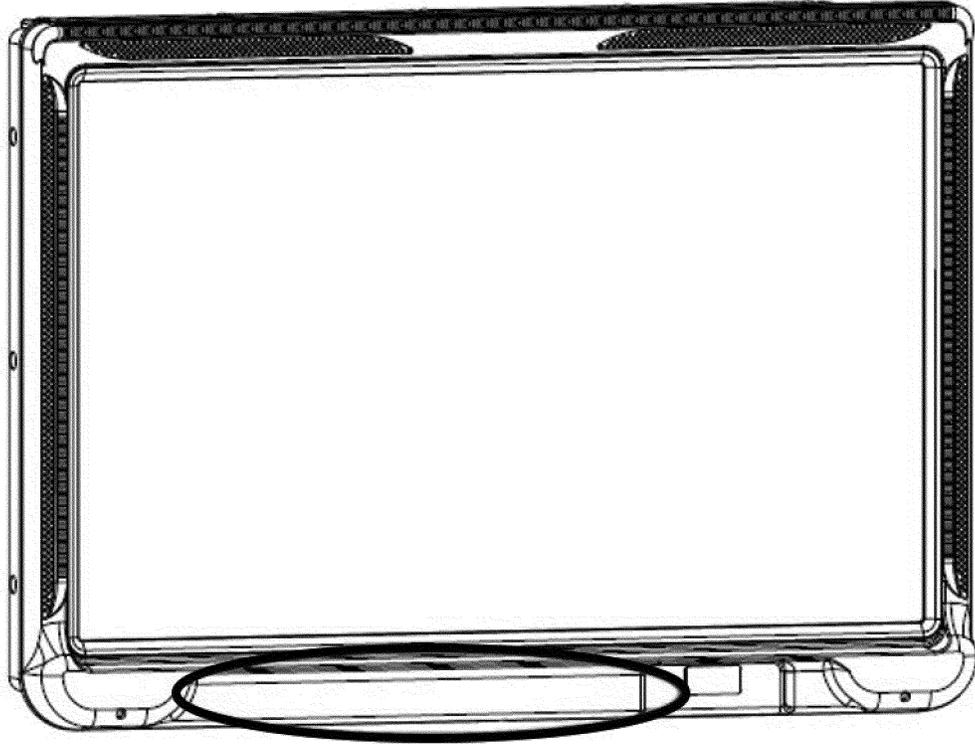


Figure 1 to paragraph (g)(1)(iii); placard location on bezel

(2) In addition to the provisions of 14 CFR 43.3 and 43.7, the actions required by paragraphs (g)(1)(i) through (iii) of this AD may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9(a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417. This authority is not applicable to aircraft being operated under 14 CFR part 119.

(3) Within 12 months after the effective date of this AD, upgrade the FDSA-6500 field loadable software for your airplane as listed in the table in Section C and by following the instructions in Section F of Rockwell Collins Service Information Letter FDSA-6500-19-1, Revision No. 2, dated June 12, 2019.

(4) The airplane flight manual revision and placards required by paragraph (g)(1) of this AD may be removed after completing the software upgrade required by paragraph (g)(3) of this AD.

(5) As of the effective date of this AD, do not install a Rockwell Collins Flight Display System Application FDSA-6500 P/N 810-0234-1H0001, 810-0234-1H0002, 810-0234-1H0003, 810-0234-2H0001, 810-0234-2C0001, 810-0234-2C0002, or 810-0234-4B0001 on any airplane.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita ACO Branch, 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 certification office, send it to the attention of the person identified in Related Information.

(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.

(i) Related Information

For more information about this AD, contact Nhien Hoang, Aviation Safety Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Wichita, KS 67209; phone: (316) 946-4157; fax: (316) 946-4107; email: Nhien.Hoang@faa.gov or Wichita-COS@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Rockwell Collins Service Information Letter FDSA-6500-19-1, Revision No. 2, dated June 12, 2019.

(ii) [Reserved]

(3) For Rockwell Collins service information identified in this AD, contact Rockwell Collins at Collins Aviation Services, 400 Collins Road NE, M/S 164-100, Cedar Rapids, IA 52498-0001; phone: (319) 295-9258; fax: (319) 295-4351; email: techmanuals@rockwellcollins.com; website: https://www.rockwellcollins.com/Services_and_Support/Publications.aspx.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on February 25, 2021.

Gaetano A. Sciortino,

Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

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