



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0797; Directorate Identifier 2013-NM-007-AD; Amendment 39-18776; AD 2017-01-09]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 767-300 and 767-300F series airplanes. This AD was prompted by reports of malfunctions in the flight deck display units, which resulted in blanking, blurring, or loss of color on the display. This AD requires modification and installation of components in the main equipment center. For certain other airplanes this AD requires modification, replacement, and installation of flight deck air relief system (FDARS) components. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone: 562-797-1717; Internet: <https://www.myboeingfleet.com>. You may view this referenced

service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2013-0797.

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-2013-0797; 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 AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, 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: Francis Smith, Aerospace Engineer, Cabin Safety and Environmental Controls Branch, ANM-150S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6596; fax: 425-917-6590; email: francis.smith@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 767-300 and 767-300F series airplanes. The SNPRM published in the Federal Register on May 27, 2016 (81 FR 33612) (“the SNPRM”). We preceded the SNPRM with a notice of proposed rulemaking (NPRM) that published in the Federal Register on September 25, 2013 (78 FR 58970) (“the NPRM”). The NPRM proposed to require modification and installation of components in the main equipment center. For certain

other airplanes, the NPRM proposed to require modification, replacement, and installation of FDARS components. The NPRM was prompted by reports of malfunctions in the flight deck display units, which resulted in blanking, blurring, or loss of color on the display. The SNPRM proposed to revise the applicability, add certain modifications, and clarify certain requirements. We are issuing this AD to prevent malfunctions of the flight deck display units, which could affect the ability of the flight crew to read the displays for airplane attitude, altitude, or airspeed, and consequently reduce the ability of the flight crew to maintain control of the airplane.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the SNPRM and the FAA's response to each comment.

Support for the SNPRM

The Air Line Pilots Association, International supported the intent of the SNPRM.

Effect of Winglets on Accomplishment of the Specified Actions

Aviation Partners Boeing stated that the installation of winglets per Supplemental Type Certificate (STC) ST01920SE does not affect the accomplishment of the manufacturer's service instructions.

We agree with the commenter that STC ST01920SE does not affect the accomplishment of the manufacturer's service instructions. Therefore, the installation of STC ST01920SE does not affect the ability to accomplish the actions required by this AD. We have not changed this final rule in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the SNPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the SNPRM.

Related Service Information under 1 CFR part 51

We reviewed the following service information.

- Boeing Service Bulletin 767-21-0235, dated October 8, 2009; and Revision 1, dated July 29, 2011 (“SB 767-21-0235, R1”). The service information describes procedures for a relay installation and related wiring changes (which change (modify) the 3-way valve control logic for the cooling system for the flight deck display equipment on freighter airplanes).

- Boeing Service Bulletin 767-21-0244, Revision 1, dated March 8, 2010 (“SB 767-21-0244, R1”). The service information describes procedures for changing (modifying) the 3-way valve control logic and installing a cooling system for the flight deck display equipment.

- Boeing Alert Service Bulletin 767-21A0245, Revision 2, dated September 27, 2013 (“ASB 767-21A0245, R2”); and Boeing Alert Service Bulletin 767-21A0247, Revision 1, dated April 9, 2013 (“ASB 767-21A0247, R1”). The service information describes procedures for changing (modifying) the 3-way valve control logic and main cargo air distribution system (MCADS), and installing an FDARS. These documents are distinct since they apply to different airplane models.

- Boeing Alert Service Bulletin 767-21A0253, dated October 12, 2012. The service information describes procedures for replacing the existing duct, installing an FDARS, changing (modifying) the 3-way valve control logic, and installing a new altitude switch and pitot tube.

- Boeing Alert Service Bulletin 767-21A0254, dated June 7, 2013. The service information describes procedures for replacing the duct with a new duct; installing an FDARS (including the installation of mounting brackets, ducts, orifice, outlet valve, and screen); and activating the 3-way valve logic (including modification of the associated wiring and related actions).

- Boeing Service Bulletin 767-31-0073, dated October 12, 1995. The service information describes procedures for installing a maintenance data selection system for the engine indication and crew alerting system.

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.

Costs of Compliance

We estimate that this AD affects 52 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
3-way valve control logic and MCADS change and FDARS installation (ASB 767-21A0247, R1)	46 work-hours X \$85 per hour = \$3,910	\$21,865	\$25,775	\$1,185,650 (46 airplanes)
3-way valve control logic and MCADS change and FDARS installation (ASB 767-21A0245, R2)	64 work-hours X \$85 per hour = \$5,440	\$18,315	\$23,755	\$47,510 (2 airplanes)
3-way valve logic change and installation of FDARS components (Boeing Alert Service Bulletin 767-21A0253, dated October 12, 2012)	76 work-hours X \$85 per hour = \$6,460	\$55,663	\$62,123	\$248,492 (4 airplanes)

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Change (modify) the 3-way valve control logic change and installation of a flight deck display equipment cooling system (SB 767-27-0244, R1)	33 work-hours X \$85 per hour = \$2,805	\$0	\$2,805	\$8,415 (3 airplanes)
Relay installation and related wiring changes (Boeing Service Bulletin 767-21-0235, dated October 8, 2009; or SB 767-21-0235, R1)	Up to 10 work-hours X \$85 per hour = up to \$850	Up to \$955	Up to \$1,805	Up to \$88,445 (49 airplanes)
Activation of 3-way valve logic change and installation of FDARS (Boeing Alert Service Bulletin 767-21A0254, dated June 7, 2013)	51 work-hours X \$85 per hour = \$4,335	\$16,338	\$20,673	(0 airplanes)
Installation of engine indication and crew alerting system maintenance data selection system (Boeing Service Bulletin 767-31-0073, dated October 12, 1995)	Up to 13 work-hours X \$85 per hour = \$1,105	Up to \$3,535	Up to \$4,640	Up to \$13,920 (3 airplanes)

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty 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

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) Is not a “significant rule” under 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.

Adoption of 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 adding the following new airworthiness directive (AD):

2017-01-09 The Boeing Company: Amendment 39-18776; Docket No. FAA-2013-0797; Directorate Identifier 2013-NM-007-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 767-300 and 767-300F series airplanes, certificated in any category; as identified in the service information specified in paragraphs (c)(1) through (c)(5) of this AD. This AD does not apply to The Boeing Company Model 767-300 (passenger) series airplanes.

(1) Boeing Service Bulletin 767-21-0244, Revision 1, dated March 8, 2010 (“SB 767-27-0244, R1”).

(2) Boeing Alert Service Bulletin 767-21A0245, Revision 2, dated September 27, 2013 (“ASB 767-21A0245, R2”).

(3) Boeing Alert Service Bulletin 767-21A0247, Revision 1, dated April 9, 2013 (“ASB 767-21A0247, R1”).

(4) Boeing Alert Service Bulletin 767-21A0253, dated October 12, 2012.

(5) Boeing Alert Service Bulletin 767-21A0254, dated June 7, 2013.

(d) Subject

Air Transport Association (ATA) of America Code 21, Air Conditioning.

(e) Unsafe Condition

This AD was prompted by reports of malfunctions in the flight deck display units, which resulted in blanking, blurring, or loss of color on the display. We are issuing this AD to prevent malfunctions of the flight deck display units, which could affect the ability of the flight crew to read the displays for airplane attitude, altitude, or airspeed, and consequently reduce the ability of the flight crew to maintain control of the airplane.

(f) Compliance

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

(g) Installation of Flight Deck Air Relief System (FDARS) and 3-Way Valve Logic Change or Activation

(1) For Model 767-300F series airplanes, as identified in Boeing Alert Service Bulletin 767-21A0253, dated October 12, 2012: Within 72 months after the effective date of this AD, in the main equipment center and the area under the left and right sides of the flight deck floor, replace the existing duct with a new duct; install an FDARS (including the installation of mounting brackets, ducts, orifice, outlet valve, and screen); change the 3-way valve logic (including modification of the associated wiring and related actions); and install a new altitude switch and pitot tube; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 767-21A0253, dated October 12, 2012.

(2) For Model 767-300F series airplanes, as identified in Boeing Alert Service Bulletin 767-21A0254, dated June 7, 2013: Within 72 months after the effective date of this AD, in the main equipment center and the area under the left and right sides of the flight deck floor, replace the duct with a new duct; install an FDARS (including the installation of mounting brackets, ducts, orifice, outlet valve, and screen); and activate the 3-way valve logic (including modification of the associated wiring and related actions);

in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 767-21A0254, dated June 7, 2013.

(h) Installation of FDARS and a 3-Way Valve Control Logic and Main Cargo Air Distribution System Change

(1) For Model 767-300F series airplanes, as identified in ASB 767-21A0245, R2: Within 72 months after the effective date of this AD, in the main equipment center and the area under the left and right sides of the flight deck floor, change (modify) the 3-way valve control logic and main cargo air distribution system (MCADS), and install an FDARS, in accordance with the Accomplishment Instruction of ASB 767-21A0245, R2, except as provided by paragraph (j) of this AD.

(2) For Model 767-300F series airplanes, as identified in ASB 767-21A0247, R1: Within 72 months after the effective date of this AD, change (modify) the 3-way valve control logic and MCADS, and install an FDARS, in accordance with the Accomplishment Instructions of ASB 767-21A0247, R1.

(i) Installation of a Flight Deck Display Equipment Cooling System and a 3-Way Valve Logic Change

For Model 767-300 series airplanes that have been converted by Boeing to Model 767-300BCF (Boeing Converted Freighter) airplanes, as identified in SB 767-27-0244, R1: Within 72 months after the effective date of this AD, change (modify) the 3-way valve control logic and install a flight deck display equipment cooling system, in accordance with the Accomplishment Instructions of SB 767-27-0244, R1.

(j) Exception to Paragraph (h)(1) of this AD

For Model 767-300F series airplanes, as identified in ASB 767-21A0245, R2: If the 3 way valve control logic change (modification) specified in Boeing Service Bulletin 767-21-0235, dated October 8, 2009; or Revision 1, dated July 29, 2011 (“SB 767-21-0235, R1”); is done prior to or concurrent with the actions required by paragraph (h)(1) of this AD, operators need to do only the functional test, FDARS

installation, and flex duct change, in accordance with the Accomplishment Instructions of ASB 767-21A0245, R2. Operators do not need to do the other actions specified in the Accomplishment Instructions of ASB 767-21A0245, R2, if the actions in the Accomplishment Instructions of Boeing Service Bulletin 767-21-0235, dated October 8, 2009; or SB 767-21-0235, R1; are done concurrently. If the functional test fails, before further flight, do corrective actions that are approved in accordance with the procedures specified in paragraph (l) of this AD.

(k) Concurrent Requirements

(1) For Groups 1 and 3 airplanes, as identified in ASB 767-21A0245, R2: Prior to or concurrently with accomplishing the requirements of paragraph (h)(1) of this AD, do the relay installation and related wiring changes specified in, and in accordance with, the Accomplishment Instructions of Boeing Service Bulletin 767-21-0235, dated October 8, 2009; or SB 767-21-0235, R1.

(2) For Group 1 airplanes, as identified in ASB 767-21A0247, R1: Prior to or concurrently with accomplishing the requirements of paragraph (h)(2) of this AD, do the relay installation and related wiring changes specified in the Accomplishment Instructions of Boeing Service Bulletin 767-21-0235, dated October 8, 2009; or SB 767-21-0235, R1.

(3) For Model 767-300 series airplanes that have been converted by Boeing to Model 767-300BCF airplanes, as identified in SB 767-27-0244, R1: Prior to or concurrently with accomplishing the requirements of paragraph (i) of this AD, do all the actions (installation) specified in the Accomplishment Instructions of Boeing Service Bulletin 767-31-0073, dated October 12, 1995.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle 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 (m) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(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.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane and the approval must specifically refer to this AD.

(m) Related Information

For more information about this AD, contact Francis Smith, Aerospace Engineer, Cabin Safety and Environmental Controls Branch, ANM-150S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6596; fax:425 917-6590; email: francis.smith@faa.gov.

(n) 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) Boeing Service Bulletin 767-21-0235, dated October 8, 2009.

(ii) Boeing Service Bulletin 767-21-0235, Revision 1, dated July 29, 2011.
(iii) Boeing Service Bulletin 767-21-0244, Revision 1, dated March 8, 2010.
(iv) Boeing Alert Service Bulletin 767-21A0245, Revision 2, dated September 27, 2013.

(v) Boeing Alert Service Bulletin 767-21A0247, Revision 1, dated April 9, 2013.

(vi) Boeing Alert Service Bulletin 767-21A0253, dated October 12, 2012.

(vii) Boeing Alert Service Bulletin 767-21A0254, dated June 7, 2013.

(viii) Boeing Service Bulletin 767-31-0073, dated October 12, 1995.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone: 562-797-1717; Internet: <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(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, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on December 30, 2016.

John P. Piccola, Jr.,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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