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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0382; Directorate Identifier 2010-NM-063-AD; Amendment 39-16887; AD 2011-25-11]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding an existing airworthiness directive (AD) for all The Boeing Company 757-200, 757-200PF, 757-200CB, 757-300, 767-200, 767-300, and 767-300F series airplanes. That AD currently requires revising the Limitations section of the airplane flight manual (AFM) to advise the flightcrew of procedures to follow to ensure that a fuel filter impending bypass condition due to gross fuel contamination is detected in a timely manner. This new AD requires installing new operating program software (OPS) (Version 7) of the engine indication and crew alerting system (EICAS) in the EICAS computers. This AD also requires various concurrent actions. This AD also retains the existing AD provision that relieves certain airplanes (those equipped with certain EICAS OPS versions) from the requirements. Accomplishment of the new actions terminates the requirements of the existing AD. This AD was prompted by an error in the EICAS OPS. The error prevents the display of an advisory message to the flightcrew of a left engine fuel filter contamination and imminent bypass condition, which may indicate an imminent multiple engine thrust loss or engine malfunction event due to fuel contamination. We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD is effective January 17, 2012.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of January 17, 2012.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone (206) 544-5000, extension 1; fax (206) 766-5680; email me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call (425) 227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; 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 Document 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: Rebel Nichols, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6509; fax (425) 917-6590; email: rebel.nichols@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2008-09-07, Amendment 39-15488 (73 FR 21811, April 23, 2008). That AD applies to the specified products. The NPRM was published in the Federal Register on April 20, 2011 (76 FR 22059). That NPRM proposed to require installing new EICAS OPS (Version 7) in the EICAS computers. That NPRM also proposed to require various concurrent actions, depending on the airplane configuration, including installing a certain EICAS OPS version, making wiring changes, replacing the audio accessory unit, replacing certain handsets and EICAS computers, changing EICAS computer connector keying, and loading operational program configuration (OPC) software. That NPRM also proposed to retain the existing AD provision that relieves certain airplanes (those equipped with certain EICAS OPS versions) from the proposed requirements. That NPRM also specified that accomplishment of the new proposed actions would terminate the requirements of the existing AD.

Comments

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

Support for NPRM

Boeing and Air Line Pilots Association, International, support the intent and contents of the NPRM (76 FR 22059, April 20, 2011).

Request To Remove Requirement To Install OPS Version 2

ABX Air requested that we revise the NPRM (76 FR 22059, April 20, 2011) to remove the requirement to install OPS Version 2 before installing OPS Version 7. ABX Air contended that OPS Version 2 is not a prerequisite to OPS Version 7, and does not need to be required in the AD.

We agree with the request, for the reasons provided by the commenter. Where paragraph (j)(12) of the proposed AD would have required installing "EICAS OPS Version 2 and EICAS OPC software, as applicable," we have limited that requirement in this final rule to installing "EICAS OPC software, as applicable."

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD with the change described previously. We also determined that this change will not increase the economic burden on any operator or increase the scope of the AD.

Costs of Compliance

We estimate that this AD affects 1,078 airplanes of U.S. registry. We estimate the costs to comply with the following requirements:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
AFM revision (retained from AD 2008-09-07, Amendment 39-15488 (73 FR 21811, April 23 2008)).	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$91,630
EICAS OPS installation (new proposed action)	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$91,630

We have no definitive data for the number of U.S.-registered airplanes subject to the proposed concurrent requirements in this AD, but we provide the following estimated per-airplane costs to comply with the concurrent actions.

Estimated Costs for Concurrent Actions

Action	Labor cost	Parts cost	Cost per product
EICAS OPS installation	1–2 work-hours X \$85 per hour = \$85–\$170	Negligible	\$85–\$170
Wiring change	5 work-hours X \$85 per hour = \$425	\$501	\$926
AAU/handset replacement	1 work-hour X \$85 per hour = \$85	Negligible	\$85
EICAS computer replacement, wiring change, OPC installation	5–24 work-hours X \$85 per hour = \$425–\$2,040	Negligible	\$425–\$2,040
EICAS OPC installation	1 work-hour X \$85 per hour = \$85	Negligible	\$85

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 have 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) 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 removing airworthiness directive (AD) 2008-09-07, Amendment 39-15488 (73 FR 21811, April 23, 2008), and adding the following new AD:



2011-25-11 The Boeing Company: Amendment 39-16887; Docket No. FAA-2011-0382; Directorate Identifier 2010-NM-063-AD.

(a) Effective Date

This airworthiness directive (AD) is effective January 17, 2012.

(b) Affected ADs

This AD supersedes AD 2008-09-07, Amendment 39-15488 (73 FR 21811, April 23, 2008).

(c) Applicability

This AD applies to all The Boeing Company 757-200, 757-200PF, 757-200CB, 757-300, 767-200, 767-300, and 767-300F series airplanes; certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 31: Instruments.

(e) Unsafe Condition

This AD was prompted by an error in the operating program software (OPS) of the engine indication and crew alerting system (EICAS). The error prevents the display of an advisory message to the flightcrew of a left engine fuel filter contamination and imminent bypass condition, which may indicate an imminent multiple engine thrust loss or engine malfunction event due to fuel contamination. We are issuing this AD to prevent malfunction and thrust loss on both engines, which could result in a forced off-airport landing.

(f) Compliance

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

Restatement of Requirements of AD 2008-09-07, Amendment 39-15488 (73 FR 21811, April 23, 2008), With No Changes

(g) Revision of Airplane Flight Manual (AFM)

Except as provided by paragraphs (h) and (i) of this AD: Within 30 days after May 8, 2008 (the effective date of AD 2008-09-07, Amendment 39-15488 (73 FR 21811, April 23, 2008)), revise the Limitations section of the applicable AFM to include the following. This may be done by inserting a copy of this AD into the AFM.

"If the STATUS cue shows while on the ground after engine start or during flight, select the status page on the secondary EICAS display, and verify the "L ENG FUEL FILT" message is not shown. If the "L ENG FUEL FILT" message is not shown on the status page, the secondary engine parameters may be reselected on the secondary EICAS display, or the display may be blanked. If the "L ENG FUEL FILT" message is shown on the status display, accomplish the ENGINE FUEL FILTER non-normal checklist as published in the Boeing Quick Reference Handbook. If on the ground, check the Dispatch Deviations Guide (DDG), or operator equivalent.

In the event that the status level "L ENG FUEL FILT" and advisory level "R ENG FUEL FILT" messages are simultaneously shown, an impending fuel filter bypass condition exists on both engines. With both messages shown, airplane fuel system contamination may be present and may result in erratic engine operation or flameout.

Further flight crew action in response to either or both the "L ENG FUEL FILT" status-level message and the "R ENG FUEL FILT" advisory level messages being shown are not established by Boeing or the FAA. Any further flight crew action should be determined by individual operator policy.

Boeing policy on flight crew use of status-level messages has not changed. After engine start, any condition having an adverse effect on safe continuation of the flight appears as an EICAS alert message (Warning, Caution, or Advisory). If other status-level messages are shown as a consequence of complying with these temporary operating instructions, the flight crew should respond in accordance with the appropriate operator policy.

Dispatch of the airplane with an inoperative EICAS display unit is prohibited."

(h) Exception to AFM Limitations Requirement

If all affected airplanes in an operator's fleet have been verified by the operator to have EICAS computer part number S242N701-1001 and only EICAS OPS versions other than Version 6 software that are FAA approved for that airplane, then accomplishment of the actions specified in paragraph (g) of this AD is not required.

New Requirements of This AD

(i) EICAS OPS Installation

Except as provided by paragraph (k) of this AD: Within 90 days after the effective date of this AD, install EICAS OPS Version 7 in the left and right EICAS computers, in accordance with the applicable service information specified in paragraph (i)(1) or (i)(2) of this AD. Accomplishment of the applicable requirements of paragraphs (i) and (j) of this AD terminates the requirements of paragraph (g) of this AD, provided that those actions have been accomplished on all airplanes operated within an operator's fleet.

(1) For Model 757 airplanes: Use Boeing Special Attention Service Bulletin 757-31-0192, dated September 11, 2009.

(2) For Model 767-200, -300, and -300F series airplanes: Use Boeing Special Attention Service Bulletin 767-31-0267, dated September 11, 2009.

(j) Concurrent Requirements

For airplanes subject to the requirements of paragraph (i) of this AD: Before or concurrently with accomplishment of the requirements of paragraph (i) of this AD, do the applicable actions specified in paragraphs (j)(1) through (j)(12) of this AD.

(1) For Model 757-200, 757-200CB, 757-200PF series airplanes, as identified in Boeing Service Bulletin 757-31-0104, dated December 5, 2002: Install EICAS OPS Version 5, in accordance with Boeing Service Bulletin 757-31-0104, dated December 5, 2002.

(2) For Model 757-300 series airplanes, as identified in Boeing Service Bulletin 757-31-0105, dated December 5, 2002: Install EICAS OPS Version 5, in accordance with Boeing Service Bulletin 757-31-0105, dated December 5, 2002.

(3) For Model 767-200 and -300 airplanes, as identified in Boeing Service Bulletin 767-23-0159, Revision 2, dated January 11, 2007: Change wires from the audio accessory unit (AAU) on the E2-5 shelf to the bell chime module in the warning electronics unit (WEU) (P51), in accordance with Boeing Service Bulletin 767-23-0159, Revision 2, dated January 11, 2007.

(4) For Model 767-300 series airplanes, as identified in Boeing Special Attention Service Bulletin 767-23-0160, dated May 31, 2001: Replace the AAU with a new or serviceable unit, in accordance with Boeing Special Attention Service Bulletin 767-23-0160, dated May 31, 2001.

(5) For Model 767-300 series airplanes, as identified in Boeing Service Bulletin 767-23-0167, dated February 28, 2002: Replace the AAU with a new or serviceable unit, in accordance with Boeing Service Bulletin 767-23-0167, dated February 28, 2002.

(6) For Model 767-200 and 767-300 series airplanes, as identified in Boeing Service Bulletin 767-23-0164, dated May 31, 2001: Replace the pilots' handset on the P8 panel, replace 5 attendant handsets, and replace the AAU on the E2-5 shelf in the main equipment center, as applicable; in accordance with Boeing Service Bulletin 767-23-0164, dated May 31, 2001.

(7) For Model 767-200, 767-300, and 767-300F series airplanes, as identified in Boeing Service Bulletin 767-31-0091, Revision 4, dated July 7, 2005: Replace the left and right EICAS computers in the E8 rack, make wire changes in the E8 shelf, change the left and right EICAS computer connector keying on the E8 shelf, and load operational program configuration (OPC) software into both left and right EICAS computers; in accordance with Boeing Service Bulletin 767-31-0091, Revision 4, dated July 7, 2005. These actions are also required by AD 2004-10-05, Amendment 39-13635 (69 FR 28051, May 18, 2004).

(8) For Model 767-200 and 767-300 series airplanes, as identified in Boeing Service Bulletin 767-31-0098, including Appendixes A, B, and C, Revision 2, dated October 21, 1999: Replace the left and right EICAS computers in the E8 rack, make wire changes in the E8 shelf, change the left and right EICAS computer connector keying on the E8 shelf, and load OPC software into both left and right EICAS computers; in accordance with Boeing Service Bulletin 767-31-0098, including Appendixes A, B, and C, Revision 2, dated October 21, 1999. These actions are also required by AD 2004-10-05 (69 FR 28051, May 18, 2004).

(9) For Model 767-300 series airplanes, as identified in Boeing Service Bulletin 767-31-0099, including Appendixes A, B, and C, Revision 3, dated February 8, 2001: Replace the left and right EICAS computers in the E8 rack, make wire changes in the E8 shelf, change the left and right EICAS computer connector keying on the E8 shelf, and load OPC software into both left and right EICAS computers; in accordance with Boeing Service Bulletin 767-31-0099, including Appendixes A, B, and C, Revision 3, dated February 8, 2001. These actions are also required by AD 2004-10-05 (69 FR 28051, May 18, 2004).

(10) For Model 767-200 and 767-300 series airplanes, as identified in Boeing Service Bulletin 767-31-0100, including Appendixes A, B, and C, Revision 2, dated July 29, 1999: Replace the left and right EICAS computers in the E8 rack, make wire changes in the E8 shelf, change the left and right EICAS computer connector keying on the E8 shelf, and load OPC software into both left and right EICAS computers; in accordance with Boeing Service Bulletin 767-31-0100, including

Appendixes A, B, and C, Revision 2, dated July 29, 1999. These actions are also required by AD 2004-10-05 (69 FR 28051, May 18, 2004).

(11) For Model 767-200 and 767-300 series airplanes, as identified in Boeing Service Bulletin 767-31-0101, including Appendixes A, B, and C, dated July 6, 2000: Replace the left and right EICAS computers in the E8 rack, make wire changes in the E8 shelf, change the left and right EICAS computer connector keying on the E8 shelf, and load OPC software into both left and right EICAS computers; in accordance with Boeing Service Bulletin 767-31-0101, including Appendixes A, B, and C, dated July 6, 2000. These actions are also required by AD 2004-10-05 (69 FR 28051, May 18, 2004).

(12) For Model 767-200, 767-300, and 767-300F series airplanes, as identified in the table in paragraph 3.D. of Boeing Service Bulletin 767-31-0114, Revision 1, dated June 8, 2000: Install EICAS OPC software, as applicable, in accordance with Boeing Service Bulletin 767-31-0114, Revision 1, dated June 8, 2000.

(k) Exception to OPS Installation Requirement

For any airplane verified by the operator to have EICAS computer part number S242N701-1001 and only EICAS OPS versions other than Version 6 software that are FAA approved for that airplane, the actions specified in paragraphs (i) and (j) of this AD are not required.

(l) Parts Installation

As of the effective date of this AD, no person may install EICAS OPS Version 6 software on any airplane.

(m) Credit for Actions Accomplished in Accordance With Previous Service Information

Accomplishment before the effective date of this AD of the actions specified in a service bulletin identified in table 1 of this AD is acceptable for compliance with the applicable requirements of paragraph (j) of this AD, except as noted.

Table 1—Credit Service Bulletins

Boeing Service Bulletin –	Revision –	Dated –	Airplanes excluded from compliance approval –
767-23-0159	1	December 5, 2002	No exceptions
767-31-0091	1	February 4, 1999	Acceptable except for airplanes VN634, VN635, VH171, VN172, VF251, and VN198
767-31-0091	2	February 24, 2000	Acceptable except for airplane VN198
767-31-0091	3	April 27, 2000	No exceptions
767-31-0098	---	August 27, 1998	Acceptable except for airplanes VB051 through VB054, VN307 through VN314, VN676, and VK046 through VK054
767-31-0098	1	February 4, 1999	Acceptable except for airplanes VB051 through VB054, VN307 through VN314, VN676, and VK046 through VK054

767-31-0099	---	August 6, 1998	Acceptable only for airplanes VL871 through VL873
767-31-0099	1	February 4, 1999	Acceptable only for airplanes VL871 through VL873
767-31-0099	2	June 17, 1999	acceptable only for airplanes VL871 through VL873
767-31-0100	---	August 20, 1998	No exceptions
767-31-0100	1	February 4, 1999	No exceptions
767-31-0114	---	March 18, 1999	Acceptable except for airplanes VL891 through VL910, VR201 through VR206, and VW701 through VW721

(n) 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 the Related Information section 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.

(o) Related Information

For more information about this AD, contact Rebel Nichols, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 917-6509; fax (425) 917-6590; email: rebel.nichols@faa.gov.

(p) Material Incorporated by Reference

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51 of the following service information on the date specified:

- (i) Boeing Special Attention Service Bulletin 757-31-0192, dated September 11, 2009, approved for IBR January 17, 2012.
- (ii) Boeing Special Attention Service Bulletin 767-31-0267, dated September 11, 2009, approved for IBR January 17, 2012.
- (iii) Boeing Service Bulletin 757-31-0104, dated December 5, 2002, approved for IBR January 17, 2012.
- (iv) Boeing Service Bulletin 757-31-0105, dated December 5, 2002, approved for IBR January 17, 2012.
- (v) Boeing Service Bulletin 767-23-0159, Revision 2, dated January 11, 2007, approved for IBR January 17, 2012.
- (vi) Boeing Special Attention Service Bulletin 767-23-0160, dated May 31, 2001, approved for IBR January 17, 2012.

(vii) Boeing Service Bulletin 767-23-0164, dated May 31, 2001, approved for IBR January 17, 2012.

(viii) Boeing Service Bulletin 767-23-0167, dated February 28, 2002, approved for IBR January 17, 2012.

(ix) Boeing Service Bulletin 767-31-0091, Revision 4, dated July 7, 2005, approved for IBR January 17, 2012.

(x) Boeing Service Bulletin 767-31-0098, including Appendixes A, B, and C, Revision 2, dated October 21, 1999, approved for IBR January 17, 2012.

(xi) Boeing Service Bulletin 767-31-0099, including Appendixes A, B, and C, Revision 3, dated February 8, 2001, approved for IBR January 17, 2012.

(xii) Boeing Service Bulletin 767-31-0100, including Appendixes A, B, and C, Revision 2, dated July 29, 1999, approved for IBR January 17, 2012.

(xiii) Boeing Service Bulletin 767-31-0101, including Appendixes A, B, and C, dated July 6, 2000, approved for IBR January 17, 2012.

(xiv) Boeing Service Bulletin 767-31-0114, Revision 1, dated June 8, 2000, approved for IBR January 17, 2012.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone (206) 544-5000, extension 1; fax (206) 766-5680; email me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>.

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

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on November 29, 2011.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.