



## 適航指令發布單

### Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2018-10-011	發布日期 Date issued	2018/10/17
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category, line numbers 1 through 6899 inclusive.		
主旨摘要	This AD was prompted by significant changes made to the airworthiness limitations (AWL) related to fuel tank ignition prevention and the nitrogen generation system.		
民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input checked="" type="checkbox"/> FAA  <input type="checkbox"/> EASA  <input type="checkbox"/> Brazil  <input type="checkbox"/> Transport Canada Civil Aviation  <input type="checkbox"/> DGAC             </div> <div style="width: 50%;"> <input type="checkbox"/> Germany LBA  <input type="checkbox"/> CAA-NL  <input type="checkbox"/> UK CAA  <input type="checkbox"/> Japan CAB  <input type="checkbox"/> CAA of Israel  <input type="checkbox"/> Other _____             </div> </div>		
	設計國 AD 編號 Original AD number	2018-20-24	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	ATA 28. Ref. Boeing 737-600/700/700C/800/900/900ER Special Compliance Items/Airworthiness Limitations, D626A001-9-04, Revision January 2017.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a> Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a>			

[Federal Register Volume 83, Number 199 (Monday, October 15, 2018)]  
[Rules and Regulations]  
[Pages 51815-51819]  
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[FR Doc No: 2018-21971]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2017-0814; Product Identifier 2017-NM-066-AD; Amendment 39-19458; AD 2018-20-24]**

**RIN 2120-AA64**

### **Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. This AD was prompted by significant changes made to the airworthiness limitations (AWL) related to fuel tank ignition prevention and the nitrogen generation system. This AD requires revision of the maintenance or inspection program, as applicable, to include the latest revision of the AWLs. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective November 19, 2018.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of November 19, 2018.

**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 service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0814.

### **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-2017-0814; 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, the regulatory evaluation, any comments received, and other information. The address for Docket

Operations (phone: 800-647-5527) is Docket Operations, 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:** Tak Kobayashi, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3553; email: takahisa.kobayashi@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. The NPRM published in the Federal Register on October 2, 2017 (82 FR 45743). The NPRM was prompted by significant changes made to the AWLs related to fuel tank ignition prevention and the nitrogen generation system. The NPRM proposed to require revision of the maintenance or inspection program, as applicable, to include the latest revision of the AWLs.

In the NPRM, we discussed that we would mandate the latest revision of the Airworthiness Limitations section (ALS) of the Instructions for Continued Airworthiness (ICA) as of the effective date of the AD for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes with an original certificate of airworthiness or original export certificate of airworthiness that was issued on or before the effective date of the AD. We also discussed that operators of airplanes with an original certificate of airworthiness or original export of certificate of airworthiness issued after the effective date of the AD must comply with the ALS revision specified as part of the approved type design. Since the issuance of the NPRM, Boeing revised the ALS a number of times and added new AWL tasks. In order to mandate the latest ALS revision available as of the effective date of the AD as we originally proposed, we must supplement the NPRM for public comments because new additional AWL tasks in the later ALS revisions expand the scope of the NPRM. As a result, the issuance of the AD to address the unsafe condition would be delayed.

Based on those conditions, we have made the following adjustments in this final rule. First, instead of mandating the latest ALS revision, we are mandating Revision January 2017 of the ALS as originally proposed in the NPRM. Second, we have changed the AD applicability to exclude those airplanes delivered with later ALS revisions (later than Revision January 2017) as part of the type design. The change in the AD applicability is intended to avoid the situation discussed in the NPRM where the AD mandates a specific ALS revision for an airplane that was delivered with a later ALS revision as part of the type design. Airplanes outside the AD applicability should use the ALS revision later than Revision January 2017 as part of the type design. Those adjustments we made in the final rule do not expand the scope of the NPRM. We will consider further rulemaking to mandate a later ALS revision for all affected airplanes.

We are issuing this AD to address the development of an ignition source inside the fuel tanks and the flammability exposure of the center fuel tank, which could lead to fuel tank explosion and consequent loss of the airplane. We are also issuing this AD to address the loss of engine fuel suction feed capability, which could result in dual engine flameout, inability to restart engines, and consequent forced landing of the airplane.

### **Comments**

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

## **Support for the NPRM**

Commenter Nick Gianetti supported the NPRM.

## **Request To Clarify the Provision for Exceptional Short-Term Extensions**

Southwest Airlines requested clarification regarding the provision for “exceptional short-term extension” in the service information.

We agree that clarification is necessary. Operators may use an exceptional short-term extension with the concurrence of the appropriate authority, as described in the service information. Exceptional short-term extensions should be used to address uncontrollable or unexpected situations. For any change to the interval of an AWL other than an exceptional short-term extension, approval must be handled under the provisions of paragraph (k) of this AD. No change to this AD is necessary.

Request To Identify AD 2011-20-07, Amendment 39-16818 (76 FR 60710, September 30, 2011) (“AD 2011-20-07”), as an Affected AD

Boeing stated that AD 2011-20-07 is affected by the proposed AD because it relates to an AWL in the mandated service information. They requested that we identify AD 2011-20-07 as an affected AD under paragraph (b) of the proposed AD.

We acknowledge the commenter's rationale for including AD 2011-20-07 in paragraph (b) of this AD. However, paragraph (b), “Affected ADs,” is intended to include other affected ADs, but not all related ADs. It is primarily used to reference superseded ADs and other ADs that are terminated, in whole or in part, by requirements in a given AD. Although compliance with certain requirements in AD 2011-20-07 affects this AD, the opposite is not true (i.e., this AD does not affect compliance with AD 2011-20-07). Therefore, we have not changed this AD regarding this issue.

## **Request To Specify the Unsafe Condition for Engine Fuel Suction Feed**

Boeing stated that the NPRM defines the unsafe condition for fuel tank ignition prevention and fuel tank flammability exposure reduction, but not the unsafe condition related to engine fuel suction feed. Because the proposed AD also requires the incorporation of the AWL for engine fuel suction feed testing, Boeing asserted that the unsafe condition associated with engine fuel suction feed should also be specified, and they proposed wording for the unsafe condition.

We partially agree with the commenter. We agree to specify the unsafe condition associated with engine fuel suction feed, but we disagree with the wording proposed by the commenter because this AD does not mandate repetitive operational tests of the engine fuel suction feed system. This AD requires only the incorporation of certain AWLs, not the repetitive operational tests or other procedures specified in them. We have changed paragraph (e) of this AD to include the unsafe condition involving engine fuel suction feed.

## **Request To Change Wording in the Proposed AD**

Boeing requested that we replace the word “latest” with “later” in certain subparagraphs of paragraph (g) of the proposed AD in which multiple compliance times are compared.

We do not agree with the commenter's request because the subparagraphs in question compare three compliance times; therefore, the superlative form “latest” is correct. We have not changed this AD in this regard.

### **Request To Provide a Grace Period in Paragraph (g)(7) of the Proposed AD**

Southwest Airlines stated that some airplanes could be out of compliance as of the effective date of the proposed AD because the initial 120-month compliance time specified in paragraph (g)(7) of the proposed AD may already have passed for those airplanes. Southwest Airlines requested that we change paragraph (g)(7) of the proposed AD to specify a grace period.

We agree to specify a grace period for those airplanes that could have passed the required compliance time specified in paragraph (g)(7) of this AD. Therefore, we have changed paragraph (g)(7) of this AD to specify a grace period of 24 months after the effective date of this AD.

### **Request To Delete Paragraph (h) of the Proposed AD**

Boeing stated that some of the wire types listed in paragraph (h)(1) of the proposed AD are not identified in FAA Advisory Circular 43-13-1B for the flammability aspect. Boeing also stated that they do not have arc-track test data for the wires listed in paragraph (h)(1) and therefore cannot accept the use and installation of these wire types on a Boeing product without written FAA approval of the wires. In addition, Boeing stated that it has data for TFE-2X Standard wall, but not for Roundit 2000NX and Varglas Types HO, HP, or HM and can therefore approve or recommend approval of only the TFE-2X Standard wall. Boeing requested that we delete paragraph (h) of the proposed AD or revise it to include an FAA-issued global alternative method of compliance (AMOC) that identifies the material listed in paragraph (h) of the proposed AD. Boeing stated that if the FAA decides to keep paragraph (h) of the proposed AD as it is, we should state that all materials listed in paragraph (h) of the proposed AD are approved by the FAA.

We do not agree with the commenter's request. Paragraph (h) of this AD allows alternative wire types and sleeving materials for certain wire types and sleeving materials identified in AWL No. 28-AWL-05. AWL No. 28-AWL-05 was originally mandated by AD 2008-10-10, Amendment 39-15516 (73 FR 25986, May 8, 2008) ("AD 2008-10-10"), which was later revised to AD 2008-10-10 R1, Amendment 39-16164 (75 FR 1529, January 12, 2010) ("AD 2008-10-10 R1"). Since the issuance of AD 2008-10-10 R1, which will be terminated by this AD, we have received numerous requests for approval of AMOCs from operators and supplemental type certificate (STC) holders (or applicants) to allow the installation of alternative wire types and sleeving. We evaluated certain attributes of those alternative wire types and sleeving for each installation, and issued numerous AMOC approvals for AD 2008-10-10 R1 based on our determination that the installation of those wire types and sleeving would provide an acceptable level of safety. The alternative wire types and sleeving specified in paragraph (h) of this AD were previously approved as an AMOC for AD 2008-10-10 R1. Although paragraph (h) of this AD provides certain allowances, it does not provide approval of alternative wire types and sleeving that are installed as part of an aircraft design change. Each applicant for any design change is responsible to show that the installation of alternative wire types and sleeving identified in paragraphs (h)(1) and (h)(2) of this AD complies with all applicable regulatory requirements, including flammability requirements, as the commenter pointed out. We have not changed this AD in this regard.

### **Request To Specify Additional Wire Type Specifications in Paragraph (h)(1) of the Proposed AD**

Delta Airlines (DAL) stated that the military wire specifications identified in paragraph (h)(1) of the proposed AD have been superseded. DAL requested that we revise paragraph (h)(1) of the proposed AD to identify additional wire type specifications.

We agree with the commenter and have revised paragraph (h)(1) of this AD to identify additional acceptable SAE and military wire type specifications.

## **Request To Specify Sleeving Thickness**

Boeing stated that under AWL No. 28-AWL-05, the wall thickness requirement for TFE-2X sleeving is specified as “standard wall.” Boeing requested that we also specify the wall thickness requirement for Varglas Type HO, HP, and HM, that are allowed as alternative sleeving under paragraph (h)(2) of the proposed AD.

We do not agree with the commenter's request. As we explained in an earlier comment response, paragraph (h)(2) of this AD provides certain allowances for sleeving material to comply with AWL No. 28-AWL-05, but it does not provide approval of alternative sleeving that is installed as part of an aircraft design change. Each applicant for any design change is responsible to show that the installation of alternative sleeving identified in paragraph (h)(2) of this AD complies with all applicable regulatory requirements. This includes substantiation to show that sleeve installation, including the selection of sleeve thickness, is adequate to protect wires from chafing for the life of installation. We have not changed this AD regarding this issue.

## **Request To Mandate a Later Revision of the Service Information**

Boeing stated that Boeing 737-600/700/700C/800/900/900ER Special Compliance Items/Airworthiness Limitations, D626A001-9-04, Revision January 2017, specified by the proposed AD, is under review and subject to update. Boeing requested that we mandate a later revision of the service information.

We do not agree with the commenter's request. As stated in the Discussion section of this AD, we have determined that it is appropriate to require the same ALS revision (Revision January 2017) that was proposed in the NPRM. We have also adjusted the applicability of this AD to exclude those airplanes delivered with a later ALS revision (issued after Revision January 2017) as part of the type design.

## **Effect of Winglets on Accomplishment of the Proposed Actions**

Aviation Partners Boeing stated that accomplishing the STC ST00830SE does not affect the actions specified in the proposed AD.

We concur with the commenter that STC ST00830SE does not affect the accomplishment of the manufacturer's service instructions. Therefore, the installation of STC ST00830SE does not affect the ability to accomplish the actions required by this AD. We have not changed this AD 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 final rule with the changes described previously and minor editorial changes. We have determined that these minor changes:

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

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

## **Related Service Information Under 1 CFR Part 51**

We reviewed Boeing 737-600/700/700C/800/900/900ER Special Compliance Items/Airworthiness Limitations, D626A001-9-04, Revision January 2017. This service information describes AWLs that include airworthiness limitation instructions (ALI) and critical design configuration control limitations (CDCCL) tasks related to fuel tank ignition prevention and the

nitrogen generation 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 1,850 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

We have determined that revising the maintenance or inspection program takes an average of 90 work-hours per operator, although we recognize that this number may vary from operator to operator. In the past, we have estimated that this action takes 1 work-hour per airplane. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), we have determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, we estimate the total cost per operator to be \$7,650 (90 work-hours x \$85 per work-hour).

### **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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### **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):





**FAA**  
**Aviation Safety**

## **AIRWORTHINESS DIRECTIVE**

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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**2018-20-24 The Boeing Company:** Amendment 39-19458; Docket No. FAA-2017-0814; Product Identifier 2017-NM-066-AD.

### **(a) Effective Date**

This AD is effective November 19, 2018.

### **(b) Affected ADs**

This AD affects the ADs specified in paragraphs (b)(1) through (b)(5) of this AD.

(1) AD 2008-06-03, Amendment 39-15415 (73 FR 13081, March 12, 2008) ("AD 2008-06-03").

(2) AD 2008-10-10 R1, Amendment 39-16164 (75 FR 1529, January 12, 2010) ("AD 2008-10-10 R1").

(3) AD 2008-17-15, Amendment 39-15653 (73 FR 50714, August 28, 2008) ("AD 2008-17-15").

(4) AD 2011-18-03, Amendment 39-16785 (76 FR 53317, August 26, 2011) ("AD 2011-18-03").

(5) AD 2013-15-17, Amendment 39-17533 (78 FR 52838, August 27, 2013) ("AD 2013-15-17").

### **(c) Applicability**

This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category, line numbers 1 through 6899 inclusive.

### **(d) Subject**

Air Transport Association (ATA) of America Code 28, Fuel.

### **(e) Unsafe Condition**

This AD was prompted by significant changes made to airworthiness limitations (AWL) related to fuel tank ignition prevention and the nitrogen generation system. We are issuing this AD to address the development of an ignition source inside the fuel tanks and the flammability exposure of the center fuel tank, which could lead to a fuel tank explosion and consequent loss of the airplane. We are also issuing this AD to address the potential loss of engine fuel suction feed capability, which could result in dual engine flameouts, inability to restart engines, and consequent forced landing of the airplane.

### **(f) Compliance**

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

### **(g) Revision of Maintenance or Inspection Program**

Within 60 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the information in Section A, including Subsections A.1, A.2, and A.3,

of Boeing 737-600/700/700C/800/900/900ER Special Compliance Items/Airworthiness Limitations, D626A001-9-04, Revision January 2017; except as provided in paragraph (h) of this AD. The initial compliance times for the airworthiness limitation instructions (ALI) tasks are within the applicable compliance times specified in paragraphs (g)(1) through (g)(11) of this AD:

(1) For AWL No. 28-AWL-01, “External Wires Over Center Fuel Tank”: Within 120 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, or within 120 months after the most recent inspection was performed as specified in AWL No. 28-AWL-01, whichever is later.

(2) For AWL No. 28-AWL-03, “Fuel Quantity Indicating System (FQIS)–Out Tank Wiring Lightning Shield to Ground Termination”: Within 120 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, or within 120 months after the most recent inspection was performed as specified in AWL No. 28-AWL-03, whichever is later.

(3) For AWL No. 28-AWL-19, “Center Tank Fuel Boost Pump Automatic Shutoff System”: Within 12 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 12 months after accomplishment of the actions specified in Boeing Service Bulletin 737-28A1206, or within 12 months after the most recent inspection was performed as specified in AWL No. 28-AWL-19, whichever is latest. This AWL does not apply to airplanes that have complied with paragraph (s) of AD 2011-18-03.

(4) For AWL No. 28-AWL-20, “Over-Current and Arcing Protection Electrical Design Features Operation–Boost Pump Ground Fault Interrupter (GFI)”: Within 12 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 12 months after accomplishment of the actions specified in Boeing Service Bulletin 737-28A1201, or within 12 months after the most recent inspection was performed as specified in AWL No. 28-AWL-20, whichever is latest. For airplanes that have complied with paragraph (g)(2)(ii) of AD 2011-20-07, Amendment 39-16818 (76 FR 60710, September 30, 2011), the operational test for left center tank fuel boost pump relay R54 and right center tank fuel boost pump relay R55 does not apply.

(5) For AWL No. 28-AWL-23, “Center Tank Fuel Boost Pump Power Failed On Protection System”: Within 12 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 12 months after accomplishment of the actions specified in Boeing Service Bulletin 737-28A1248, or within 12 months after the most recent inspection was performed as specified in AWL No. 28-AWL-23, whichever is latest. This AWL does not apply to airplanes that have complied with paragraph (s) of AD 2011-18-03.

(6) For AWL No. 28-AWL-24, “Spar Valve Motor Operated Valve (MOV) Actuator–Lightning and Fault Current Protection Electrical Bond”: Within 72 months after accomplishment of the actions specified in Boeing Service Bulletin 737-28A1207, or within 72 months after the most recent inspection was performed as specified in AWL No. 28-AWL-24, whichever is later.

(7) For AWL No. 28-AWL-29, “Full Cushion Clamps and Teflon Sleeving (If Installed) Installed on Out-of-Tank Wire Bundles Installed on Brackets that are Mounted Directly on the Fuel Tanks”: For airplanes having line numbers (L/N) 1 through 1754 inclusive, within 120 months after accomplishment of the actions specified in Boeing Service Bulletin 737-57A1279, or within 24 months after the effective date of this AD, whichever is later. For airplanes having L/N 1755 and on, within 120 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, or within 24 months after the effective date of this AD, whichever is later.

(8) For AWL No. 47-AWL-04, “Nitrogen Generation System–Thermal Switch”: Within 22,500 flight hours after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 22,500 flight hours after accomplishment of the actions specified in Boeing Service Bulletin 737-47-1003, or within 22,500

flight hours after the most recent inspection was performed as specified in AWL No. 47-AWL-04, whichever is latest.

(9) For AWL No. 47-AWL-06, “Nitrogen Generation System (NGS)–Cross Vent Check Valve”: Within 13,000 flight hours after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 13,000 flight hours after accomplishment of the actions specified in Boeing Service Bulletin 737-47-1003, or within 13,000 flight hours after the most recent inspection was performed as specified in AWL No. 47-AWL-06, whichever is latest.

(10) For AWL No. 47-AWL-07, “Nitrogen Generation System (NGS)–Nitrogen Enriched Air (NEA) Distribution Ducting Integrity”: Within 6,500 flight hours after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 6,500 flight hours after accomplishment of the actions specified in Boeing Service Bulletin 737-47-1003, or within 6,500 flight hours after the most recent inspection was performed as specified in AWL No. 47-AWL-07, whichever is latest.

(11) For AWL No. 28-AWL-101, “Engine Fuel Suction Feed Operational Test”: Within 7,500 flight hours or 36 months, whichever occurs first, after the date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness; or within 7,500 flight hours or 36 months, whichever occurs first, after the most recent inspection was performed as specified in AWL No. 28-AWL-101; whichever is later.

#### **(h) Additional Acceptable Wire Types and Sleeving**

As an option, when accomplishing the actions required by paragraph (g) of this AD, the changes specified in paragraphs (h)(1) and (h)(2) of this AD are acceptable.

(1) Where AWL No. 28-AWL-05 identifies wire types BMS 13-48, BMS 13-58, and BMS 13-60, the following wire types are acceptable: MIL-W-22759/16, SAE AS22759/16 (M22759/16), MIL-W-22759/32, SAE AS22759/32 (M22759/32), MIL-W-22759/34, SAE AS22759/34 (M22759/34), MIL-W-22759/41, SAE AS22759/41 (M22759/41), MIL-W-22759/86, SAE AS22759/86 (M22759/86), MIL-W-22759/87, SAE AS22759/87 (M22759/87), MIL-W-22759/92, and SAE AS22759/92 (M22759/92); and MIL-C-27500 and NEMA WC 27500 cables constructed from these military or SAE specification wire types, as applicable.

(2) Where AWL No. 28-AWL-05 identifies TFE-2X Standard wall for wire sleeving, the following sleeving materials are acceptable: Roundit 2000NX and Varglas Type HO, HP, or HM.

#### **(i) No Alternative Actions, Intervals, and Critical Design Configuration Control Limitations (CDCCLs)**

Except as provided in paragraph (h) of this AD, after the maintenance or inspection program, as applicable, has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections), intervals, and CDCCLs may be used unless the actions, intervals, and CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k) of this AD.

#### **(j) Terminating Actions for Certain AD Requirements**

Accomplishment of the revision required by paragraph (g) of this AD terminates the requirements specified in paragraphs (j)(1) through (j)(5) of this AD for that airplane:

- (1) The revision required by paragraphs (h) and (h)(1) of AD 2008-06-03.
- (2) All requirements of AD 2008-10-10 R1.
- (3) The revision required by paragraph (g) of AD 2008-17-15.
- (4) The revision required by paragraph (k) of AD 2011-18-03.
- (5) All requirements of AD 2013-15-17.

### **(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle 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 paragraph (l) 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 Branch, 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.

### **(l) Related Information**

For more information about this AD, contact Tak Kobayashi, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3553; email: takahisa.kobayashi@faa.gov.

### **(m) 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 737-600/700/700C/800/900/900ER Special Compliance Items/Airworthiness Limitations, D626A001-9-04, Revision January 2017.

(ii) Reserved.

(3) For service information identified in this AD, 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>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on September 19, 2018.

John P. Piccola,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.