



適航指令發布單 Airworthiness Directive Issuance Form

民航局AD編號 AD number	CAA-2024-03-011	發布日期 Date issued	2024/03/22												
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 777-200, 777-200LR, 777-300, 777-300ER, and 777F series airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 777-31A0342 RB, dated July 19, 2021.														
主旨摘要 Subject	This AD requires installing certain new software and doing a software configuration check. The FAA is issuing this AD to address the unsafe condition on these products.														
民航局 CAA <input type="radio"/> 本國產品 Native product <input type="radio"/> 其他個案 Other	<div>設計國民航主管機構 Original Authority</div> <table><tr><td><input checked="" type="radio"/> FAA</td><td><input type="radio"/> Germany LBA</td></tr><tr><td><input type="radio"/> EASA</td><td><input type="radio"/> CAA-NL</td></tr><tr><td><input type="radio"/> Brazil</td><td><input type="radio"/> UK CAA</td></tr><tr><td><input type="radio"/> Transport Canada Civil Aviation</td><td><input type="radio"/> Japan CAB</td></tr><tr><td><input type="radio"/> DGAC</td><td><input type="radio"/> CAA of Israel</td></tr><tr><td></td><td><input type="radio"/> Other_____</td></tr></table> <div>設計國AD編號 Original AD number</div> <div>2024-04-09</div> <div>1. 直接採用原AD之內容? (Is the original AD directly adopted?) <input checked="" type="radio"/> 是(Yes) <input type="radio"/> 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="radio"/> 需要(Yes) <input checked="" type="radio"/> 不需要(No)</div>			<input checked="" type="radio"/> FAA	<input type="radio"/> Germany LBA	<input type="radio"/> EASA	<input type="radio"/> CAA-NL	<input type="radio"/> Brazil	<input type="radio"/> UK CAA	<input type="radio"/> Transport Canada Civil Aviation	<input type="radio"/> Japan CAB	<input type="radio"/> DGAC	<input type="radio"/> CAA of Israel		<input type="radio"/> Other_____
<input checked="" type="radio"/> FAA	<input type="radio"/> Germany LBA														
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<input type="radio"/> DGAC	<input type="radio"/> CAA of Israel														
	<input type="radio"/> Other_____														
備註 Note	ATA 31. Ref. Boeing Alert Requirements Bulletin 777-31A0342 RB, dated July 19, 2021.														

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)2349-6330 / 6332, Fax：(02)2545-8464, adcaa@mail.caa.gov.tw

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)2349-6330 / 6332, Fax：(02)2545-8464, adcaa@mail.caa.gov.tw

[Federal Register, Volume 89 Number 54 (Tuesday, March 19, 2024)]

[Rules and Regulations]

[Pages 19501-19505]

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[FR Doc No: 2024-05497]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0598; Project Identifier AD–2021–01322–T; Amendment 39–22688; AD 2024–04–09]

RIN 2120–AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY:

Federal Aviation Administration (FAA), DOT.

ACTION:

Final rule.

SUMMARY:

The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 777–200, 777–200LR, 777–300, 777–300ER, and 777F series airplanes. This AD was prompted by reports of wing anti-ice (WAI) valve failure that can result in undetected structural damage to leading edge (LE) slat assemblies, and separately a failure of the autothrottle (A/T) to disconnect after the pilot manually advanced the throttle levers, which caused a low-speed condition during a go-around. This AD was also prompted by a determination that insufficient low-speed protection exists in the 777 fleet and a determination that the flightcrew may not recognize and properly respond to a multi-channel unreliable airspeed event. This AD requires installing certain new software and doing a software configuration check. The FAA is issuing this AD to address the unsafe condition on these products.

DATES:

This AD is effective April 23, 2024.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of April 23, 2024.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA–2022–0598; 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.

Material Incorporated by Reference:

- 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; website myboeingfleet.com.
- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety 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 at regulations.gov under Docket No. FAA-2022-0598.

FOR FURTHER INFORMATION CONTACT:

Doug Tsuji, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3548; email: douglas.tsuji@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA 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 777-200, 777-200LR, 777-300, 777-300ER, and 777F series airplanes. The NPRM published in the **Federal Register** on June 22, 2022 ([87 FR 37249](#)). The NPRM was prompted by reports of WAI valve failure that can result in undetected structural damage to LE slat assemblies, and separately a failure of the A/T to disconnect after the pilot manually advanced the throttle levers, which caused a low-speed condition during a go-around. The NPRM was also prompted by a determination that insufficient low-speed protection exists in the 777 fleet and a determination that the flightcrew may not recognize and properly respond to a multi-channel unreliable airspeed event. In the NPRM, the FAA proposed to require installing certain new software and doing a software configuration check. The FAA is issuing this AD to prevent undetected failure of the WAI system and consequent high temperature bleed air flowing into the LE slat assemblies, which could result in reduced structural integrity of the slat and prevent continued safe flight and landing of the airplane. The FAA is also issuing this AD to prevent failure of the A/T to disconnect after manually advancing the throttle levers, or insufficient low energy protection, which could result in controlled flight into terrain, or a multi-channel unreliable airspeed event could result in loss of control of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from the Air Line Pilots Association, International (ALPA) and an individual who supported the NPRM without change. Air Peace Limited (Air Peace) supported the NPRM, and had additional comments detailed below.

The FAA received additional comments from four commenters, including Boeing, American Airlines, United Airlines (United), and Alis Cargo. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request To Remove Certain Information From What Prompted the Proposed AD

Boeing requested that the proposed AD be revised to remove all wording stating that the proposed AD “was also prompted by a determination that insufficient low speed protection exists in the 777 fleet and a determination that the flight crew may not recognize and properly respond to a multi-channel unreliable airspeed event.” Boeing stated that the change that the AIMS Version 17C resolves is unrelated to unreliable airspeed indication, and that the Fault Tolerant air data inertial reference system (ADIRS) provides reliable airspeed data.

The FAA agrees to clarify. The changes associated with AIMS–2 Version 17C are not directly related to the issue of unreliable airspeed indication, and are intended to address the WAI issue and the A/T issue. However, the FAA disagrees with removing reference to the insufficient low-speed protection and unreliable airspeed because some of the changes associated with AIMS–2 Version 17C were to fix an unsafe condition (A/T issue) introduced by the previous AIMS–2 update (Version 17B). The FAA acknowledges previous versions of AIMS software addressed unreliable airspeed (Version 17.1) and insufficient low airspeed protection (Version 17B) and that Version 17C has had these updates previously incorporated. However, neither of these earlier software updates were mandated by AD action. Therefore, this AD is addressing unreliable airspeed and insufficient low airspeed protection through requiring the software update that addresses all of the changes related to the identified unsafe condition. The FAA has not changed this AD regarding this issue.

Request To Move Certain Information

Boeing requested that two sentences related to a requirement to install earlier BP versions of AIMS–2 BP software prior to installing AIMS–2 BP Version 17C software be moved from the Background to the Related Service Information Under [1 CFR part 51](#) section of the NPRM.

The FAA acknowledges the commenter's request. However, the information in those sentences does not directly relate to the actions specified in the service information specified in the Related Service Information Under [1 CFR part 51](#) section of this final rule. Therefore, the FAA has determined that moving the information is not appropriate. Additionally, that portion of the Background section does not get carried over to the final rule. The FAA has not changed this AD regarding this issue.

Request To Revise Sentence Related to Earlier Software Update

Boeing requested that the FAA revise a sentence in the Background section of the NPRM to specify that “AIMS–2 BP V17B” rather than “One earlier software update” was prompted by an accident at San Francisco International Airport. Boeing stated that this would clarify that AIMS Version 17B is for the AIMS–2 platform.

The FAA disagrees with the commenter's request. Within the context of the Background section of the NPRM, the FAA clearly identified “AIMS–2 BP Version 17B” and that it was developed as a result of the accident investigation. Additionally, that portion of the Background section does not get carried over to the final rule. The FAA has not changed this AD regarding this issue.

Request To Correct Typographical Errors and Add Service Information Reference

Boeing requested that the FAA correct several typographical errors in the Costs of Compliance section of the NPRM. Boeing noted that “AIMS 2” should be “AIMS–2;” “SB 777–21–0322” should be “SB 777–31–0332;” and that the action to install AIMS–2 BP Version 17C should specify bulletin “777–31A0342.”

The FAA agrees to correct these typographical errors and add the reference to the service information.

The FAA has revised the Costs of Compliance section of this final rule accordingly.

Request To Revise Explanation of AIMS–2 BP Version 17C Software

Boeing requested that the FAA revise the third paragraph of the Background portion of the NPRM to clarify why Boeing developed AIMS–2 BP Version 17C software. Boeing provided suggested wording.

The FAA agrees that Boeing's suggested wording would provide a more detailed description of why AIMS–2 BP Version 17C software was developed. However, that wording is not necessary to explain the requirements of and reasons for this AD. Additionally, that section of the Background portion does not get carried over to the final rule. Therefore, no change to this AD is necessary regarding this issue.

Request To Extend Compliance Time

Air Peace Limited and United requested that, for operators that will require an upgrade of AIMS–1 to AIMS–2, the compliance time be extended to 48 months. Air Peace noted that the upgrade has a high cost and that there is a lead time for acquiring parts.

The FAA disagrees with the commenters' request. In developing an appropriate compliance time for this action, the FAA considered the recommendations of the manufacturer, the urgency associated with the subject unsafe condition, and the availability of required parts. In consideration of these items, the FAA has determined that a 36 month compliance time will ensure an acceptable level of safety. However, under the provisions of paragraph (i) of this AD, the FAA will consider requests for approval of an extension of the compliance time if sufficient data are submitted to substantiate that the new compliance time would provide an acceptable level of safety. The FAA has not changed this AD in this regard.

Request To Allow Later-Approved Software

American Airlines requested that paragraph (g) of the proposed AD be revised to specify that later-approved versions of the Block Point (BP) software are allowed for compliance. The commenter noted that this would minimize the need for alternative methods of compliance (AMOCs).

The FAA agrees to clarify. Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021, which is incorporated by reference, already allows the installation of the specified software “or later approved software part numbers” and specifies in the General Information paragraph what constitutes “later approved” software. Therefore, no change to this AD is necessary.

Request To Remove Certain Airplanes From the Applicability

Alis Cargo noted that its fleet has a current configuration of AIMS–1 BP Version 16, so is part of Group 5 as specified in Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021. Alis Cargo added that no concurrent requirements are specified for Group 5 airplanes in Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021, making it unclear that a large and costly hardware upgrade from AIMS–1 to AIMS–2 is required. The commenter noted that the manufacturer said AIMS–1 hardware is limited and obsolete, so no dedicated software release is available for AIMS–1. The commenter stated that no known safety issues are related to AIMS–1 hardware, so operators should not be forced to upgrade the hardware to fix a software issue.

The FAA infers that the commenter is requesting to remove airplanes equipped with AIMS–1 hardware from the applicability of this AD. The FAA acknowledges the high cost of converting from AIMS–1 to AIMS–2 hardware and has updated the footnote in the Costs of Compliance section to estimate the parts cost for this action. The FAA has determined this action is necessary to address the unsafe

condition. The unsafe condition is not AIMS–1 or AIMS–2 dependent, but rather is connected to the related BP software. Changes to the existing AIMS–1 software (*i.e.*, a more complex software code requiring more memory and computing capability) would exceed the capabilities of AIMS–1 hardware. Since the software running on AIMS–1 hardware is unsafe and cannot be upgraded on the AIMS–1 platform, affected airplanes must be converted to AIMS–2 hardware so that new software that addresses the unsafe conditions can be installed. The FAA has not changed this AD in this regard.

Request To Allow Using Certain Service Information

United requested that the proposed AD be revised to include certain AIMS retrofit service bulletins, which include steps for replacing AIMS–1 with AIMS–2. United noted that Boeing provided several bulletins, which United used to accomplish the retrofit on a portion of its fleet that was equipped with AIMS–1. United concluded that specifying the service information would reduce the number of AMOC submittals.

The FAA acknowledges the commenter's concerns. However, listing additional service information is not practical in this case because the bulletins that United mentioned may not be the only bulletins used to upgrade to AIMS–2, and some may be specific to a certain operator or certain airplane configuration. However, the FAA concurs that, if an airplane was upgraded to AIMS–2 prior to the effective date of this AD, obtaining an AMOC for the upgrade is no longer necessary. In addition, the FAA has determined that clarification of the definition of Group 5 airplanes is necessary, since an airplane that was upgraded to AIMS–2 after the service information was released might no longer fit into the group definitions in the service information. For an airplane on which AIMS–1 was upgraded to AIMS–2 prior to the effective date of this AD, obtaining an AMOC is not required. However, installing the AIMS–2 BP Version 17C software part numbers and doing a software configuration check are still required, along with any applicable concurrent actions. The FAA has added paragraph (h)(6) of this AD to clarify the group definition and requirements for airplanes that were upgraded to AIMS–2.

Request To Revise Costs of Compliance

United requested that the Costs of Compliance section of the proposed AD be revised to account for higher hardware costs and more work-hours. United stated that Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021, implements ATN [Aeronautical Telecommunications Network] Controller Pilot Data Link Communications (CPDLC) for AIMS–2 airplanes. United added that AIMS–1 configured airplanes do not use the VDLMD2 radios required for CPDLC software that is part of the required BP17C software, so those airplanes also require a retrofit of VHF radios and OPC software, as well as replacement of the Tuning panel. The commenter also noted that the hardware cost for the AIMS retrofit is higher than that estimated in the proposed AD and provided suggested revised costs for installing AIMS–2 and BP17B/C.

The FAA acknowledges the commenter's concerns and that upgrading from AIMS–1 to AIMS–2 may require additional modifications not accounted for in this AD. However, this AD does not require using specific service information to upgrade from AIMS–1 to AIMS–2, but instead requires obtaining an AMOC, as specified in paragraph (h)(2) of this AD. The FAA has no way of knowing the specific configuration of each airplane equipped with AIMS–1 and cannot account for all possible incidental costs that may be required in upgrading a particular airplane to AIMS–2. The cost information specified in this AD describes only the direct costs of the specific actions required by this AD. Based on the best data available, the manufacturer provided the estimated number of work hours and parts costs necessary to do the required actions. This number represents the time necessary to perform only the actions actually required by this AD. The FAA recognizes that, in doing the actions required by an AD, operators might incur incidental costs in addition to the direct costs. The cost analysis in AD

rulemaking actions, however, typically does not include incidental costs such as the time necessitated by other administrative actions or incorporating other associated technologies. Those incidental costs might vary significantly among operators. Therefore, the FAA has not changed this AD regarding this issue.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under [1 CFR Part 51](#)

The FAA reviewed Boeing Alert Requirements Bulletin 777-31A0342 RB, dated July 19, 2021. This service information specifies procedures for installing new AIMS-2 BP Version 17C software, and doing a software configuration check. For Groups 1, 2, and 3: this service information also specifies concurrent actions (installation of AIMS-2 BP Version 17B software; installation of AIMS-2 and PlaneNet-2 systems; or installation of AIMS-2 and software; depending on configuration). 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 353 airplanes of U.S. registry. 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
Install AIMS-2 BP Version 17C and do software check (777-31A0342 RB)	3 work-hours × \$85 per hour = \$255	Up to \$13,140	Up to \$13,395	Up to \$4,728,435.
Install AIMS-2 BP Version 17B (SB777-31-0294)	3 work-hours × \$85 per hour = \$255	Up to \$13,140	Up to \$13,395	Up to \$4,728,435.
Install AIMS-2 and PlaneNet-2 (SB 777-31-0331)	Up to 101 work-hours × \$85 per hour = Up to \$8,585	Up to \$13,140	Up to \$21,725	Up to \$7,668,925.
Install AIMS-2 and software (SB 777-31-0322)	Up to 106 work-hours × \$85 per hour = Up to \$9,010	Up to \$13,140	Up to \$22,150	Up to \$7,818,950.

** This software parts cost is estimated to be the same for the concurrent actions as for the primary actions. The FAA does not have any definitive data on which to base the additional parts cost associated with installing AIMS-2, but estimates the cost could be up to \$762,500, depending on airplane configuration. Additionally, the FAA estimates that 100 airplanes of U.S. registry may require installing AIMS-2.*

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all 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

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 adding the following new airworthiness directive:

(a) Effective Date

This airworthiness directive (AD) is effective April 23, 2024.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 777-200, 777-200LR, 777-300, 777-300ER, and 777F series airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 777-31A0342 RB, dated July 19, 2021.

(d) Subject

Air Transport Association (ATA) of America Code 31, Instruments.

(e) Unsafe Condition

This AD was prompted by reports of wing anti-ice (WAI) valve failure that can result in undetected structural damage to leading edge (LE) slat assemblies, and separately a failure of the autothrottle (A/T) to disconnect after the pilot manually advanced the throttle levers disconnect after the pilot manually advanced the throttle levers, which caused a low-speed condition during a go-around. This AD was also prompted by a determination that insufficient low-speed protection exists in the 777 fleet and a determination that the flightcrew may not recognize and properly respond to a multi-channel unreliable airspeed event. The FAA is issuing this AD to prevent undetected failure of the WAI system and consequent high temperature bleed air flowing into the LE slat assemblies, which could result in reduced structural integrity of the slat and prevent continued safe flight and landing of the airplane. The FAA is also issuing this AD to prevent failure of the A/T to disconnect after manually advancing the throttle levers, or insufficient low energy protection, which could result in controlled flight into terrain, or a multi-channel unreliable airspeed event could result in loss of control of the airplane.

(f) Compliance

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

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 777-31A0342 RB, dated July 19, 2021, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 777-31A0342 RB, dated July 19, 2021.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 777-31A0342, dated July 19, 2021, which is referred to in Boeing Alert Requirements Bulletin 777-31A0342 RB, dated July 19, 2021.

(h) Exceptions to Service Information Specifications

- (1) Where the Compliance Time columns of the tables in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021, use the phrase “the original issue date of Requirements Bulletin 777–31A0342 RB,” this AD requires using the effective date of this AD.
- (2) Where Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021, specifies contacting Boeing for instructions for upgrading certain software: This AD requires doing the upgrade using a method approved in accordance with the procedures specified in paragraph (i) of this AD.
- (3) Where the description in the Effectivity section of Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021, defines Group 1 airplanes as “Airplanes with Airplane Information Management System (AIMS)–2 with service bulletin 777–31–0294 incorporated,” this AD requires using “Airplanes with Airplane Information Management System (AIMS)–2 with a requirement to incorporate service bulletin 777–31–0294.”
- (4) Where the description in the Effectivity section of Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021, defines Group 2 airplanes as “Airplanes with AIMS–2 with service bulletin 777–31–0331 incorporated,” this AD requires using “Airplanes with AIMS–2 with a requirement to incorporate service bulletin 777–31–0331.”
- (5) Where the description in the Effectivity section of Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021, defines Group 3 airplanes as “Airplanes with AIMS–2 with service bulletin 777–31–0332 incorporated,” this AD requires using “Airplanes with AIMS–2 with a requirement to incorporate service bulletin 777–31–0332.”
- (6) Where the description in the Effectivity section of Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021, defines Group 5 airplanes as “Airplanes with Airplane Information Management System (AIMS)–,” this AD requires using “Airplanes with Airplane Information Management System (AIMS)–1 and airplanes equipped with AIMS–2 that are not in Group 1, 2, 3, or 4.” (That is, there are two subsets of Group 5 airplanes with different required actions.) For airplanes, that, as of the effective date of this AD, are equipped with AIMS–2 and are not in Group 1, 2, 3 or 4, this AD does not require Action 1 of Table 3 of the Accomplishment Instructions of Boeing Alert Requirements Bulletin 777–31A0342 RB, dated July 19, 2021.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, AIR–520, Continued Operational Safety 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 responsible Flight Standards 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 (j)(1) 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 responsible Flight Standards 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 Company Organization Designation Authorization (ODA) that has been authorized by the Manager, AIR–520, Continued Operational Safety Branch, FAA, 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.

(j) Related Information

(1) For more information about this AD, contact Doug Tsuji, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3548; email: douglas.tsuji@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (4) of this AD.

(k) 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 Alert Requirements Bulletin 777-31A0342 RB, dated July 19, 2021.

(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; website *myboeingfleet.com*.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety 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 material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on February 21, 2024.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[[FR Doc. 2024-05497](#) Filed 3-18-24; 8:45 am]

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