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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0098; Product Identifier 2020-NM-011-AD; Amendment 39-19844; AD 2020-03-20]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model MD-11, MD-11F, and 717-200 airplanes, all Model 737-8 and 737-9 airplanes, all Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certain Model 747-400 and 747-400F series airplanes, certain Model 757 and 767 airplanes, and all Model 777 airplanes. This AD requires revising the existing airplane flight manual (AFM) to include a limitation to prohibit operations that require less than 0.3 required navigational performance (RNP) within a specified area for airplanes having a certain multi-mode receiver (MMR) with certain software installed. This AD was prompted by reports of the loss of global positioning system (GPS) data or degraded GPS positional accuracy while using a certain MMR. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective February 18, 2020.

The FAA must receive comments on this AD by April 3, 2020.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

Fax: 202-493-2251.

Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0098; 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 street address for Docket Operations (phone: 800-647-5527) is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: David Sumner, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3538; email: david.sumner@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

In December 2019, the FAA received reports of the loss of GPS data or degraded GPS positional accuracy while using a certain MMR with certain software installed. An investigation determined that within a certain region of the world, operational software (OPS), number COL4D-0087-0002, COL4E-0087-0001, COL48-0087-0700, or COL49-0087-0701, if installed on Collins GLU-2100 MMR, part number (P/N) 822-2532-100, could result in a GPS positional error. The affected area occurs in a funnel shaped region of the world that mainly extends +/- 20 degrees on either side of 180 degrees West Longitude, and encompasses the Northern Hemisphere to 10 degrees Latitude in the Southern Hemisphere. When an airplane is within this affected region, the software should map the computed ionospheric pierce point (IPP) to the correct hemisphere, but the software is not doing that. The consequences of the GPS error are:

An annunciated loss of GPS output, where the Global Navigation Satellite System (GNSS) bus becomes inactive anywhere from a few seconds to up to 40 minutes.

Un-annunciated reduced positional accuracy in the affected region when the Satellite-Based Augmentation System (SBAS) ionosphere corrections are improperly applied. The positional error will be bounded to 0.3 nautical miles, but may not be bounded by the horizontal protection level (HPL) that is output by the GNSS.

This improper mapping within the OPS, if not addressed, could, during a high-precision approach with a GPS error, result in controlled flight into terrain.

FAA's Determination

The FAA is issuing this AD because the agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires revising the existing airplane flight manual to include a limitation to prohibit operations that require less than 0.3 RNP within a specified area for airplanes having a certain MMR with certain software installed.

Interim Action

The FAA considers this AD interim action. Collins is currently developing a software update that will further address the unsafe condition identified in this AD. Once this software update is developed, approved, and available, the FAA might consider additional rulemaking.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C.) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for "good cause," finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Under this section, an agency, upon finding good cause, may issue a final rule without seeking comment prior to the rulemaking. Similarly, Section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies foregoing notice and comment prior to adoption of this rule because, as described in the Discussion section of this AD, the loss of GPS data, or degraded GPS positional accuracy, during a high-precision approach with a GPS positional error, could result in controlled flight into terrain. Given the significance of the risk presented by this unsafe condition, it must be immediately addressed.

Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B). In addition, for the reasons stated above, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, the FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2020-0098 and Product Identifier 2020-NM-011-AD at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this final rule. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact the agency receives about this final rule.

Confidential Business Information

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to David Sumner, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch,

2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3538; email: david.sumner@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Regulatory Flexibility Act (RFA)

The requirements of the RFA do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

Although the FAA estimates the number of airplanes identified in the applicability of this AD as 3,200 airplanes of U.S. registry, the AFM revision specified in this AD is required only for the airplanes having a configuration identified in paragraph (g) of this AD. The FAA estimates that 409 airplanes of U.S. registry are affected by the AFM revision specified in paragraph (g) of this AD.

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
AFM revision	1 work-hour × $85 per hour = $85	$0	$85	$34,765

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, and

(2) Will not affect intrastate aviation in Alaska.

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):

2020-03-20 The Boeing Company: Amendment 39-19844; Docket No. FAA-2020-0098; Product Identifier 2020-NM-011-AD.

(a) Effective Date

This AD is effective February 18, 2020.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company airplanes, certificated in any category, as identified in paragraphs (c)(1) through (9) of this AD.

(1) Model MD-11 and MD-11F airplanes modified by supplemental type certificate (STC) ST01895WI.

(2) Model 717-200 airplanes modified by STC ST04416AT.

(3) All Model 737-8 and 737-9 airplanes.

(4) All Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes.

(5) Model 747-400 and 747-400F series airplanes modified by STC ST01892WI.

(6) Model 757-200, -200PF, -200CB, and -300 series airplanes modified by STC ST04436AT.

(7) Model 767-200, -300, -300F, -400ER, and -2C series airplanes modified by STC ST04436AT or ST01883WI.

(8) All Model 777-200, -200LR, -300, and -300ER series airplanes.

(9) All Model 777F series airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 34, Navigation.

(e) Unsafe Condition

This AD was prompted by reports of the loss of global positioning system (GPS) data or degraded GPS positional accuracy while using a certain multi-mode receiver (MMR). The FAA is issuing this AD to address the loss of GPS data and degraded GPS positional accuracy, which, during a high-precision approach with this GPS error, could result in controlled flight into terrain.

(f) Compliance

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

(g) Airplane Flight Manual (AFM) Revision

For airplanes equipped with Collins GLU-2100 MMR, part number (P/N) 822-2532-100, having any applicable GLU-2100 operational software (OPS) identified in figure 1 to paragraph (g) of this AD installed: At the applicable time specified in paragraphs (g)(1) and (2) of this AD, revise the limitations or certificate limitations section, as applicable, of the existing AFM to include the information specified in figure 2 to paragraph (g) of this AD and revise the procedures or normal procedures section, as applicable, of the existing AFM to include the information specified in figure 3 to paragraph (g) of this AD. This may be done by inserting a copy of figures 2 and 3 to paragraph (g) of this AD into the existing AFM.

(1) For Model 737-8 and 737-9 airplanes: Before further flight.

(2) For all airplanes except Model 737-8 and 737-9 airplanes: Within 7 days after the effective date of this AD.

Figure 1 to paragraph (g) – *Affected OPS software*

Airplanes	**OPS Software Number**
Model 777-200, 777-200LR, 777-300, 777-300ER, and 777F series airplanes	COL4D-0087-0002
Model 737-600, 737-700, 737-700C, 737-800, 737-900, and 737-900ER series airplanes; and Model 737-8, and 737-9 airplanes	COL4E-0087-0001
All airplanes	COL48-0087-0700
Model MD-11, MD-11F, and 717-200 airplanes; and Model 737-600, 737-700, 737-700C, 737-800, 737-900, 737-900ER, 747-400F, 747-400, 757-200, 757-200PF, 757-200CB, 757-300, 767-200, 767-300, 767-300F, 767-400ER, 767-2C, 777-200, 777-200LR, 777-300, 777-300ER, and 777F series airplanes	COL49-0087-0701

Figure 2 to paragraph (g) – *AFM – Limitations or Certificate Limitations*

Electronics – Global Landing Unit (GLU)

(Required by AD 2020-03-20)

Operations that require less than 0.3 RNP (For example, 0.1, 0.11, 0.15, etc.) in the region identified below are prohibited with GLU-2100 OPS software number COL4D-0087-0002, COL4E-0087-0001, COL48-0087-0700, or COL49-0087-0701 installed.

Exception: Anchorage (PANC) approach procedures that allow less than RNP 0.3 are authorized provided the instructions outlined in the Electronics – Global Landing Unit Section of Normal Procedures Chapter are followed.

Note: Currently, Fairbanks (PAFA) and Anchorage (PANC) are the only airports in the region with an RNP approach that requires better than 0.3 nmi performance.

Region bounded by the following coordinates:

Latitude Range (degrees)	**Longitude Range (degrees)**
80 N to 70 N	40 E to 40 W
70 N to 69 N	134.5 E to 134.38 W
69 N to 68 N	134.5 E to 137.28 W
68 N to 67 N	134.5 E to 139.50 W
67 N to 66 N	134.5 E to 141.58 W
66 N to 65 N	134.5 E to 144.23 W
65 N to 64 N	134.5 E to 145.48 W
64 N to 63 N	134.5 E to 146.44 W
63 N to 62 N	134.5 E to 148.33 W
62 N to 61 N	134.5 E to 149.50 W
61 N to 60 N	134.5 E to 150.35 W
60 N to 59 N	134.5 E to 151.00 W
59 N to 58 N	134.5 E to 151.40 W
58 N to 57 N	134.5 E to 152.62 W
57 N to 56 N	134.5 E to 153.42 W
56 N to 30 N	154 E to 154 W
30 N to 5 N	163 E to 163 W
5 N to 10 S	166 E to 166 W
10 S to 15 S	170 E to 170 W

Figure 2 to paragraph (g) – *AFM – Limitations or Certificate Limitations continued*

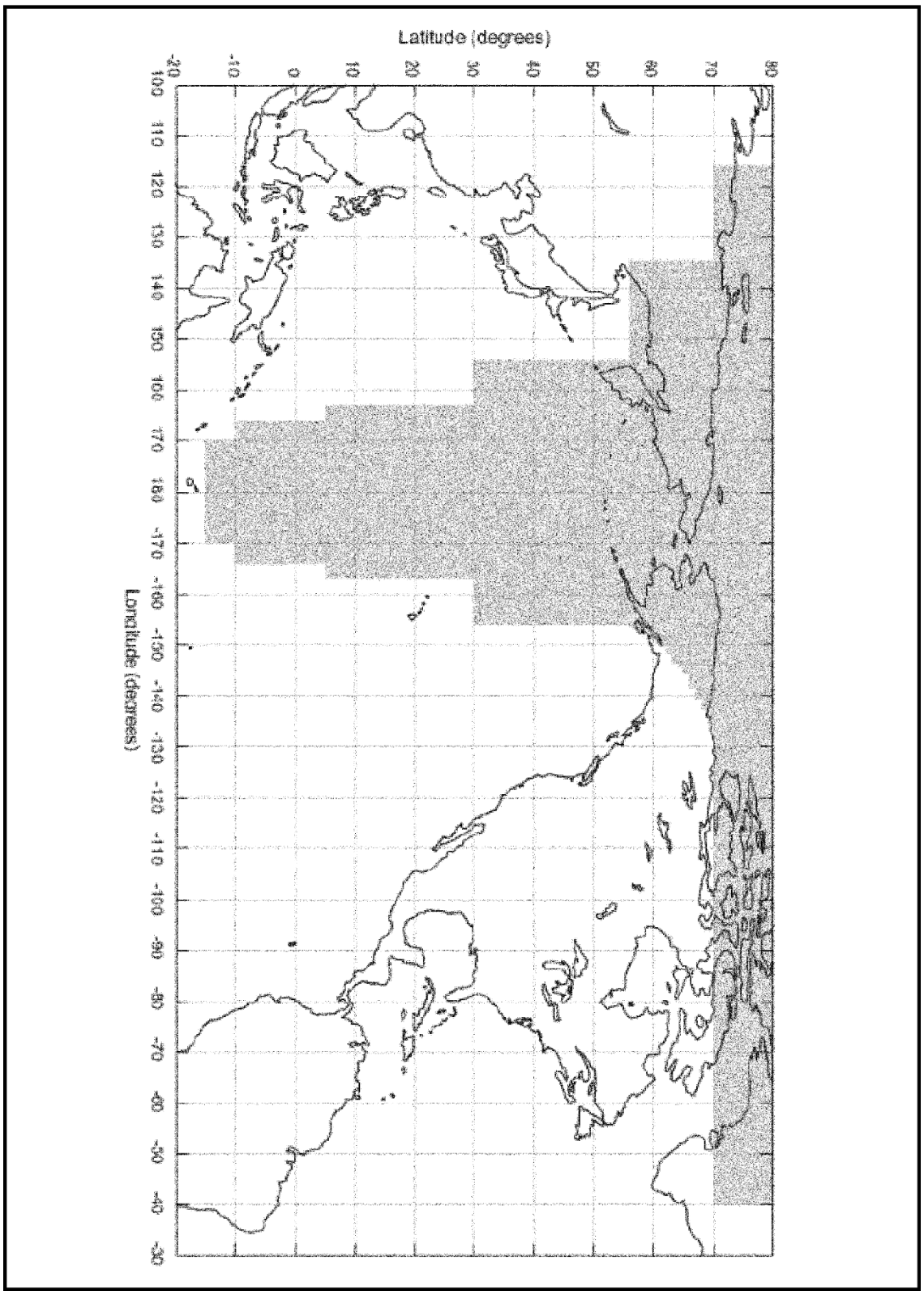

Figure 3 to paragraph (g) – *AFM – Procedures or Normal Procedures*

Electronics – Global Landing Unit (GLU)

(Required by AD 2020-03-20)

To conduct an approach procedure with GLU-2100 OPS software number COL4D-0087-0002, COL4E-0087-0001, COL48-0087-0700, or COL49-0087-0701, installed at Anchorage (PANC) with less than 0.3 RNP, accomplish the following prior to dispatch in accordance with AC 90-101A:

Perform a RNP GPS prediction to ensure the predicted availability of GPS Horizontal Integrity Limit (HIL) is less than MAX HIL for the planned operation time frame at Anchorage (PANC).

MAX HIL = 1.8 (RNP – 0.0726 nm) for LNAV with A/P engaged

MAX HIL = 1.8 (RNP – 0.0926 nm) for LNAV with F/D

(h) 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 (i) 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 Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO 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.

(i) Related Information

For more information about this AD, contact David Sumner, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3538; email: david.sumner@faa.gov.

(j) Material Incorporated by Reference

None.

Issued on February 12, 2020.

Gaetano A. Sciortino,

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

[FR Doc. 2020-03195 Filed 2-13-20; 11:15 am]