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:

2022–11–10 Piper Aircraft, Inc.: Amendment 39–22060; Docket No. FAA–2022–0021; Project Identifier AD–2020–01283–A.

(a) Effective Date

This airworthiness directive (AD) is effective June 27, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Piper Aircraft, Inc. Model PA–46–600TP airplanes, serial numbers 4698001, 4698004 through 4698146 inclusive, 4698148, and 4698150 through 4698157 inclusive, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 5711, Wing Spar.

(e) Unsafe Condition

This AD results from testing that showed that the wing splice assembly could fail before the assembly reaches its established life limit. The FAA is issuing this AD to prevent failure of the wing splice assembly before the current established life limit. The unsafe condition, if not addressed, could result in loss of airplane control.

(f) Compliance

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

(g) Action

Within 90 days after the effective date of this AD, revise the Airworthiness Limitations section in the existing maintenance manual or instructions for continued airworthiness by reducing the life limit of the wing splice assembly part number 46W57A100–001 to 3,767 hours time-in-service.

Note 1 to paragraph (g): Section 4–00–00 of Piper Aircraft, Inc. PA–46–600TP, M600 Maintenance Manual, Airworthiness Limitations, Page 1, dated August 31, 2021, contains the life limit in paragraph (g) of this AD.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta 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)(1) of this AD.

(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.

(i) Related Information

(1) For more information about this AD, contact Fred Caplan, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474–5507; email: *frederick.n.caplan@faa.gov.*

(2) For service information identified in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL, 32960; phone: (772) 291–2141; website: *https://www.piper.com.*

(j) Material Incorporated by Reference

None.

Issued on May 17, 2022.

Gaetano A. Sciortino,

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

[FR Doc. 2022–10863 Filed 5–20–22; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0509; Project Identifier AD–2022–00338–T; Amendment 39–22038; AD 2022–09–18]

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 all The Boeing Company Model 707, 717, and 727 airplanes; Model DC–8, DC–9, and DC–10 airplanes; Model MD–10 and MD–11 airplanes; Model DC–9–81 (MD–81), DC–9–82 (MD–82), DC–9–83 (MD–83), DC–9–87 (MD–87), and MD–88 (collectively described, in the preamble of this AD, as MD–80) airplanes; and Model MD–90–30 airplanes. This AD was prompted by a determination that radio altimeters cannot be relied on to perform their intended function if they experience interference from wireless broadband operations in the 3.7–3.98 GHz frequency band (5G C-Band), and a recent determination that during approach, landings, and go-arounds, as a result of this interference, certain airplane systems may not properly function, resulting in increased flightcrew workload while on approach with the flight director, autothrottle, or autopilot engaged. This AD requires revising the limitations and operating procedures sections of the existing airplane flight manual (AFM) to incorporate specific operating procedures for, depending on the airplane model, instrument landing system (ILS) approaches, non-precision approaches, ground spoiler deployment, and go-around and missed approaches, when in the presence of 5G C-Band interference as identified by Notices to Air Missions (NOTAMs). The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective May 23, 2022.

The FAA must receive comments on this AD by July 7, 2022.

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 at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0509; 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 street address for the Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Eric Igama, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712–4137; phone: 562–627–5388; email: *Roderick.Igama@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

In March 2020, the United States Federal Communications Commission (FCC) adopted final rules authorizing flexible use of the 3.7–3.98 GHz band for next generation services, including 5G and other advanced spectrum-based services.[1] Pursuant to these rules, C-Band wireless broadband deployment was permitted to occur in phases with the opportunity for operations in the lower 0.1 GHz of the band (3.7–3.8 GHz) in certain markets beginning on January 19, 2022. This AD refers to ''5G C-Band'' interference, but wireless broadband technologies, other than 5G, may use the same frequency band.[2] These other uses of the same frequency band are within the scope of this AD since they would introduce the same risk of radio altimeter interference as 5G C-Band.

The radio altimeter is an important aircraft instrument, and its intended function is to provide direct height-above-terrain/water information to a variety of aircraft systems. Commercial aviation radio altimeters operate in the 4.2–4.4 GHz band, which is separated by 0.22 GHz from the C-Band telecommunication systems in the 3.7–3.98 GHz band. The radio altimeter is more precise than a barometric altimeter and for that reason is used where aircraft height over the ground needs to be precisely measured, such as autoland, manual landings, or other low altitude operations. The receiver on the radio altimeter is typically highly accurate, however it may deliver erroneous results in the presence of out-of-band radio frequency emissions from other frequency bands. The radio altimeter must detect faint signals reflected off the ground to measure altitude, in a manner similar to radar. Out-of-band signals could significantly degrade radio altimeter functions during critical phases of flight, if the altimeter is unable to sufficiently reject those signals.

The FAA issued AD 2021–23–12, Amendment 39–21810 (86 FR 69984, December 9, 2021) (AD 2021–23–12) to address the effect of 5G C-Band interference on all transport and commuter category airplanes equipped with a radio (also known as radar) altimeter. AD 2021–23–12 requires revising the limitations section of the existing AFM to incorporate limitations prohibiting certain operations, which require radio altimeter data to land in low visibility conditions, when in the presence of 5G C-Band interference as identified by NOTAM. The FAA issued AD 2021–23–12 because radio altimeter anomalies that are undetected by the automation or pilot, particularly close to the ground (*e.g.*, landing flare), could lead to loss of continued safe flight and landing.

Since the FAA issued AD 2021–23–12, Boeing has continued to evaluate potential 5G C-Band interference on aircraft systems that rely on radio altimeter inputs. Boeing issued Boeing Multi Operator Message MOM–MOM–22–0038–01B(R1), dated February 2, 2022 (for Model 707 and 727 operators); Boeing Multi Operator Message MOM–MOM–22–0030–01B(R3), dated March 22, 2022 (for Model MD–10, MD–11, MD–80, and 717 operators); Boeing Multi Operator Message MOM–MOM–22–0040–01B, dated January 17, 2022 (for Model DC–8, DC–9, and DC–10 operators); Boeing MD–10 Flight Crew Operations Manual Bulletin 2–10C, ''Operation in airspace affected by 5G signal interference,'' dated March 18, 2022; Boeing MD–11 Flight Crew Operations Manual Bulletin 2–18C, ''Operation in airspace affected by 5G signal interference,'' dated March 18, 2022; and Boeing MD–80 Flight Crew Operations Manual Bulletin 80–2–019B, ''Operation in airspace affected by 5G signal interference,'' dated February 1, 2022; and Boeing 717 Flight Crew Operating Manual Bulletin FAB2 717–2–016C, ''Operation in airspace affected by 5G signal interference,'' dated March 18, 2022.

Based on Boeing's data, the FAA identified an additional hazard presented by 5G C-Band interference on The Boeing Company Model 707 and 727 airplanes; Model 717–200 airplanes; Model DC–8–10, DC–8–20, DC–8–30, and DC–8–40 airplanes; DC–8–50, DC–8–60, DC–8–60F, DC–8–70, DC–8–70F series airplanes; Model DC–8F–54 and DC–8F–55 airplanes; Model DC–9–10, DC–9–20, DC–9–30, DC–9–40, and DC–9–50 series airplanes; Model DC–10–10, DC–10–10F, DC–10–15, DC–10–30, DC–10–30F (KC–10A and KDC–10), DC–10–40, and DC–10–40F airplanes; Model MD–10–10F and MD–10–30F airplanes; Model MD–11 and MD–11F airplanes; Model DC–9–81 (MD–81), DC–9–82 (MD–82), DC–9–83 (MD–83), DC–9–87 (MD–87), and MD–88 (collectively described, in this preamble, as MD–80[3]) airplanes; and Model MD–90–30 airplanes. The FAA determined that anomalies due to 5G C-Band interference may affect multiple other airplane systems using radio altimeter data, regardless of the approach type or weather. These anomalies may not be evident until very low altitudes. Impacted systems depend on the airplane model and include, but are not limited to, flight guidance, autothrottle system, flight controls, traffic alert and collision avoidance system (TCAS), ground proximity warning system (GPWS), windshear advisory and guidance system (WAGS), and central aural warning system (CAWS).

The effects on these impacted systems include:

- *Flight Guidance (for Model 717, MD–10, and MD–11 airplanes):* Glideslope guidance sensitivity may be affected when conducting Category I ILS approaches to barometric altitude (BARO) minimums. During missed approach, pilot inputs into the flight control panel (FCP) may not result in commands to the flight director to provide speed or heading guidance, and may not provide altitude capture guidance. Simulator testing for Model MD–11 airplanes showed that in some cases the system will bias the flight director bars out of view when presented with the expected erroneous radio altimeter data, providing immediate and compelling information to the flightcrew to perform a go-around. If the flight director bars remain in view, appropriate guidance is still displayed, and other systems' effects are sufficient to elicit proper pilot response to land (if visual) or conduct a go-around. Similar effects are expected for Model 717 and MD–10 airplanes due to similar system architecture.
- *Flight Guidance (for Model 707, 727, DC–8, DC–9, DC–10, MD–80, and MD–90 airplanes):* Glideslope guidance sensitivity may be affected when conducting Category I ILS approaches to BARO minimums.
- *Flight Guidance (for Model 717, MD–10, MD–11, MD–80, and MD–90 airplanes):* As specified in the operating procedures in paragraph (h) of this AD, non-precision approaches can be flown using LNAV/VNAV with flight directors, autopilot, and autothrottle to published BARO minimums.
- *Autothrottle System (for Model 717, MD–10, and MD–11 airplanes):* RETARD, FMA RETARD, ALIGN, and FLARE functions and indications may be unreliable and may occur early, late, or not at all. If the autothrottle system

[1] The FCC's rules did not make C-Band wireless broadband available in Alaska, Hawaii, and the U.S. Territories.

[2] The regulatory text of the AD uses the term ''5G C-Band'' which, for purposes of this AD, has the same meaning as ''5G'', ''C-Band'' and ''3.7–3.98 GHz.''

[3] This preamble groups these models under the term ''MD–80'' in order to reflect the title and affected models of the ''MD–80'' bulletin described in the previous paragraph. The regulatory applicability of this AD, however, and required AFM changes, address the individual models of that ''MD–80'' group.

is not in the FLARE mode, LO SPD protection can engage and advance with autothrottles ON or OFF.

• *Autothrottle System (for Model 707, 727, DC–8, DC–9, DC–10, MD–80, and MD–90 airplanes):* Potentially erroneous autothrottle commands.

• *Flight Controls (for Model 717, MD–10, and MD–11 airplanes):* Auto ground spoiler function may require manual extension. For Model MD–11 airplanes, longitudinal stability augmentation system (LSAS) and low altitude stability enhancement (LASE) may not function properly. The pitch attitude hold (PAH) may not wash out on schedule. Positive nose lowering (PNL) and pitch rate damping (PRD) may not be available during landing. Pitch attitude protection (PAP) may activate early, or not at all. If PAP is activated early, it may resist increasing pitch attitude, necessitating additional column pull force.

• *TCAS:* May be unreliable and resolution advisories and voice warnings may not be inhibited below 1,000 feet above ground level (AGL).

• *Enhanced ground proximity warning system (E–GPWS) and WAGS:* May be unreliable and activate early, late, or not at all.

• *CAWS:* CAWS annunciations may not provide proper aural warnings or altitude callouts and/or radio altimeter displayed values during flare.

• Other simultaneous flight deck effects associated with the 5G C-Band interference could increase pilot workload.

These erroneous indications and annunciations, as well as conflicting information, may be provided to the flightcrew during critical phases of flight. There may also be a lack of cues present to elicit prompt go-around or recovery initiation. These effects could lead to reduced ability of the flightcrew to maintain safe flight and landing of the airplane and are an unsafe condition.

To address this unsafe condition, this AD mandates procedures for operators to incorporate specific operating procedures for, depending on the airplane model, ILS approaches, non-precision approaches, ground spoiler deployment, and go-around and missed approaches, when in the presence of 5G C-Band interference as identified by NOTAMs.

Finally, the FAA notes that AD 2021–23–12 remains in effect and prohibits certain ILS approaches. Thus, this AD addresses procedures applicable only to those ILS approaches not already prohibited by AD 2021–23–12.

The FAA is issuing this AD to address the unsafe condition on these products.

FAA's Determination

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

AD Requirements

This AD requires revising the limitations and operating procedures sections of the existing AFM to incorporate specific operating procedures for, depending on the airplane model, ILS approaches, non-precision approaches, ground spoiler deployment, and go-around and missed approaches, when in the presence of 5G C-Band interference as identified by NOTAMs.

Compliance With AFM Revisions

Section 91.9 prohibits any person from operating a civil aircraft without complying with the operating limitations specified in the AFM. FAA regulations also require operators to furnish pilots with any changes to the AFM (14 CFR 121.137) and pilots in command to be familiar with the AFM (14 CFR 91.505).

Interim Action

The FAA considers this AD to be an interim action. If final action is later identified, the FAA might consider further 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. 551 *et seq.*) 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 providing notice and seeking comment prior to issuance. Further, 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 forgoing notice and comment prior to adoption of this rule because the FAA determined that radio altimeters cannot be relied on to perform their intended function if they experience interference from wireless broadband operations in the 5G C-Band. The FAA recently determined that as a result of this interference, certain airplane systems may not properly function during approach, landings, and go-arounds, resulting in increased flightcrew workload while on approach with the flight director, autothrottle, or autopilot engaged. This increased flightcrew workload could lead to reduced ability of the flightcrew to maintain safe flight and landing of the airplane. The urgency is based on the hazard presented by 5G C-Band interference and on the ongoing C-Band wireless broadband deployment. 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, 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, for the same reasons the FAA found good cause to forgo notice and comment.

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under **ADDRESSES**. Include Docket No. FAA–2022–0509 and Project Identifier AD–2022–00338–T at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. 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 agency will also post a report summarizing each substantive verbal contact received about this final rule.

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 Eric Igama, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712–4137; phone: 562–627–5388; email: *Roderick.Igama@faa.gov.* Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (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

The FAA estimates that this AD affects 476 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
AFM revision	1 work-hour × $85 per hour = $85	$0	$85	$40,460

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:

2022–09–18 The Boeing Company: Amendment 39–22038; Docket No. FAA–2022–0509; Project Identifier AD–2022–00338–T.

(a) Effective Date

This airworthiness directive (AD) is effective May 23, 2022.

(b) Affected ADs

None.

(c) Applicability

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

(1) Model 707–100 Long Body, –200, –100B Long Body, and –100B Short Body series airplanes, and Model 707–300, –300B, –300C, and –400 series airplanes.

(2) Model 717–200 airplanes.

(3) Model 727, 727C, 727–100, 727–100C, 727–200, and 727–200F series airplanes.

(4) Model DC–8–11, DC–8–12, DC–8–21, DC–8–31, DC–8–32, DC–8–33, DC–8–41, DC–8–42, DC–8–43, DC–8–51, DC–8–52, DC–8–53, DC–8–55, DC–8F–54, DC–8F–55, DC–8–61, DC–8–62, DC–8–63, DC–8–61F, DC–8–62F, DC–8–63F, DC–8–71, DC–8–72, DC–8–73, DC–8–71F, DC–8–72F, and DC–8–73F airplanes.

(5) Model DC–9–11, DC–9–12, DC–9–13, DC–9–14, DC–9–15, DC–9–15F, DC–9–21, DC–9–31, DC–9–32, DC–9–32 (VC–9C), DC–9–32F, DC–9–32F (C–9A, C–9B), DC–9–33F, DC–9–34, DC–9–34F, DC–9–41, and DC–9–51 airplanes.

(6) Model DC–10–10, DC–10–10F, DC–10–15, DC–10–30, DC–10–30F (KC–10A and KDC–10), DC–10–40, and DC–10–40F airplanes.

(7) Model MD–10–10F and MD–10–30F airplanes.

(8) Model MD–11 and MD–11F airplanes.

(9) Model DC–9–81 (MD–81), DC–9–82 (MD–82), DC–9–83 (MD–83), DC–9–87 (MD–87), MD–88, and MD–90–30 airplanes.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by a determination that radio altimeters cannot be relied on to perform their intended function if they experience interference from wireless broadband operations in the 3.7–3.98 GHz frequency band (5G C-Band), and a determination that during approach, landings, and go-arounds, as a result of this interference, certain airplane systems may not properly function, resulting in increased flightcrew workload while on approach with the flight director, autothrottle, or autopilot engaged. The FAA is issuing this AD to address 5G C-Band interference that could result in increased flightcrew workload and could lead to reduced ability of the flightcrew to maintain safe flight and landing of the airplane.

(f) Compliance

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

(g) Revision of Existing Airplane Flight Manual (AFM)—Limitations

(1) For airplanes identified in paragraphs (c)(1) and (c)(3) through (6) of this AD: Within 2 days after the effective date of this AD, revise the Limitations Section of the existing AFM to include the information specified in figure 1 to paragraph (g)(1) of this AD. This may be done by inserting a copy of figure 1 to paragraph (g)(1) of this AD into the Limitations Section of the existing AFM.

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Figure 1 to paragraph (g)(1) – *AFM Limitations Revision for Model 707, 727, DC-8, DC-9 (except DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87)), and DC-10*

(Required by AD 2022-09-18)

Radio Altimeter 5G C-Band Interference, Approach Procedures
The following limitations are required for ILS approaches on runways in U.S. airspace in the presence of 5G C-Band wireless broadband interference as identified by NOTAM (NOTAMs will be issued to state the specific airports or approaches where the radio altimeter is unreliable due to the presence of 5G C-Band wireless broadband interference).

ILS Approaches
Operators must use the Radio Altimeter 5G C-Band Interference, ILS Approaches procedure contained in the Operating Procedures Section of this AFM.

(2) For airplanes identified in paragraphs (c)(2), (7), and (8) of this AD: Within 2 days after the effective date of this AD, revise the Limitations Section of the existing AFM to include the information specified in figure 2 to paragraph (g)(2) of this AD. This may be done by inserting a copy of figure 2 to paragraph (g)(2) of this AD into the Limitations Section of the existing AFM.

Figure 2 to paragraph (g)(2) – *AFM Limitations Revision for Model 717, MD-10, and MD-11*

(Required by AD 2022-09-18)

Radio Altimeter 5G C-Band Interference, Approach, Landing, and Go-Around Procedures
The following limitations are required for approaches, landings, or go-arounds on runways, in U.S. airspace in the presence of 5G C-Band wireless broadband interference as identified by NOTAM (NOTAMs will be issued to state the specific airports or approaches where the radio altimeter is unreliable due to the presence of 5G C-Band wireless broadband interference).

ILS and Non Precision Approaches, Landing, and Go-Around
Operators must use the Radio Altimeter 5G C-Band Interference, Approach, Landing, and Go-Around procedures contained in the Operating Procedures Section of this AFM.

(3) For airplanes identified in paragraph (c)(9) of this AD: Within 2 days after the effective date of this AD, revise the Limitations Section of the existing AFM to include the information specified in figure 3 to paragraph (g)(3) of this AD. This may be done by inserting a copy of figure 3 to paragraph (g)(3) of this AD into the Limitations Section of the existing AFM.

Figure 3 to paragraph (g)(3) – *AFM Limitations Revision for Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, and MD-90-30*

(Required by AD 2022-09-18)

Radio Altimeter 5G C-Band Interference, Approach Procedures

The following limitations are required for approaches in U.S. airspace in the presence of 5G C-Band wireless broadband interference as identified by NOTAM (NOTAMs will be issued to state the specific airports or approaches where the radio altimeter is unreliable due to the presence of 5G C-Band wireless broadband interference).

ILS and Non Precision Approaches

Operators must use the Radio Altimeter 5G C-Band Interference, Approaches procedures contained in the Operating Procedures Section of this AFM.

(h) Revision of Existing AFM—Operating Procedures

(1) For airplanes identified in paragraphs (c)(1) and (3) through (6) of this AD: Within 2 days after the effective date of this AD, revise the Operating Procedures Section of the existing AFM to include the information specified in figure 4 to paragraph (h)(1) of this AD. This may be done by inserting a copy of figure 4 to paragraph (h)(1) of this AD into the Operating Procedures Section of the existing AFM.

Note 1 to paragraph (h)(1): Guidance for accomplishing the actions required by paragraph (h)(1) of this AD can be found in Boeing Multi Operator Message MOM–MOM–22–0038–01B(R1), dated February 2, 2022; and Boeing Multi Operator Message MOM–MOM–22–0040–01B, dated January 17, 2022.

Figure 4 to paragraph (h)(1) – *AFM Operating Procedures Revision for Model 707, 727, DC-8, DC-9 (except DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87)), and DC-10*

(Required by AD 2022-09-18)

Radio Altimeter 5G C-Band Interference, ILS Approaches

ILS Approaches

For ILS approaches not prohibited by AD 2021-23-12, disconnect the autopilot and autothrottles, and place both flight director switches to OFF prior to glideslope intercept.

(2) For airplanes identified in paragraph (c)(2) of this AD: Within 2 days after the effective date of this AD, revise the Operating Procedures Section of the existing AFM to include the information specified in figure 5 to paragraph (h)(2) of this AD. This may be done by inserting a copy of figure 5 to paragraph (h)(2) of this AD into the Operating Procedures Section of the existing AFM.

Note 2 to paragraph (h)(2): Guidance for accomplishing the actions required by paragraph (h)(2) of this AD can be found in Boeing Multi Operator Message MOM–MOM–22–0030–01B(R3), dated March 22, 2022; and Boeing 717 Flight Crew Operating Manual Bulletin FAB2 717–2–016C, ''Operation in airspace affected by 5G signal interference,'' dated March 18, 2022.

Figure 5 to paragraph (h)(2) – *AFM Operating Procedures Revision for Model 717*

(Required by AD 2022-09-18)

Radio Altimeter 5G C-Band Interference, Approach, Landing, and Go-Around

ILS Approaches

For ILS approaches not prohibited by AD 2021-23-12, disconnect the autopilot prior to glideslope intercept.

Note: Possible erroneous radio altimeter indications may affect autothrottles and flight director guidance; manually intervene if necessary.

Non-Precision Approaches

Non-precision instrument approaches can be conducted using LNAV/VNAV with flight directors, autopilot, and autothrottle to published BARO minimums.

Landing

For landing, the Auto Ground Spoiler function may require manual extension. If manual extension is required, calculate landing distance requirements as specified in Appendix 3, Auto Ground Spoiler System Inop, of this AFM.

During Go-Around and Missed Approach

If go-around is required, initial flight director pitch guidance will provide proper speed and pitch targets, but, under certain 5G interference conditions, the flight director cannot be commanded from the Flight Control Panel (FCP) to provide speed or heading guidance, and may not provide altitude capture guidance. If this guidance is not available, manually comply with missed approach procedures, including altitude constraints.

(3) For airplanes identified in paragraph (c)(7) of this AD: Within 2 days after the effective date of this AD, revise the Operating Procedures Section of the existing AFM to include the information specified in figure 6 to paragraph (h)(3) of this AD. This may be done by inserting a copy of figure 6 to paragraph (h)(3) of this AD into the Operating Procedures Section of the existing AFM.

Note 3 to paragraph (h)(3): Guidance for accomplishing the actions required by paragraph (h)(3) of this AD can be found in Boeing Multi Operator Message MOM–MOM–22–0030–01B(R3), dated March 22, 2022; and Boeing MD–10 Flight Crew Operations Manual Bulletin 2–10C, ''Operation in airspace affected by 5G signal interference,'' dated March 18, 2022.

Figure 6 to paragraph (h)(3) – *AFM Operating Procedures Revision for Model MD-10*

(Required by AD 2022-09-18)

Radio Altimeter 5G C-Band Interference, Approach, Landing, and Go-Around

ILS Approaches

For ILS approaches not prohibited by AD 2021-23-12, disconnect the autopilot prior to glideslope intercept.

Note: Possible erroneous radio altimeter indications may affect autothrottles and flight director guidance; manually intervene if necessary.

Non-Precision Approaches

Non-precision instrument approaches can be conducted using LNAV/VNAV with flight directors, autopilot, and autothrottle to published BARO minimums.

Landing

For landing, the Auto Ground Spoiler function may require manual extension. If manual extension is required, calculate landing distance requirements according to the following tables, as applicable.

SERIES 10
50/EXT ESTIMATED LANDING DISTANCES (FEET)
USE MANUAL SPOILERS

Weight 1000 LB		260	280	300	320	340	360	380	400
S.L.	DRY	2800	2900	3030	3160	3290	3410	3540	3660
STD=15°C	WET	3670	3810	3990	4190	4370	4540	4730	4900
2000 FT	DRY	2920	3030	3170	3310	3450	3580	3720	3840
STD=11°C	WET	3840	3990	4190	4400	4600	4780	4980	5170
4000 FT	DRY	3060	3170	3320	3480	3620	3760	3920	4050
STD=7°C	WET	4040	4190	4410	4630	4850	5040	5260	5460
6000 FT	DRY	3210	3330	3490	3650	3820	3960	4130	4270
STD=3°C	WET	4240	4410	4650	4890	5120	5330	5570	5780
8000 FT	DRY	3360	3490	3670	3840	4020	4180	4360	4520
STD=-1°C	WET	4460	4650	4900	5160	5410	5640	5900	6130
10000 FT	DRY	3530	3670	3860	4060	4250	4420	4610	4780
STD=-5°C	WET	4690	4910	5180	5460	5730	5980	6260	6510
NOTE: Standard day, no wind, zero slope, three engines at maximum reverse thrust to 80 KIAS, then reverse idle to 60 KIAS, then forward idle to stop. (Includes Air Run Distance)									

CORRECTIONS:

Temperature: Valid from STD -20°C to STD +40°C

FEET PER °C	DRY	WET
BELOW standard day	-7	-10
ABOVE standard day	+37	+44

Slope: Valid from -2% downhill to +2% uphill

FEET PER 1% SLOPE	DRY	WET
UPHILL	-46	-96
DOWNHILL	+257	+459

Wind: Valid from -10 knot tailwind to +20 knot headwind

FEET PER KNOT	DRY	WET
HEADWIND	-20	-34
TAILWIND	+50	+68

SERIES 10
35/EXT ESTIMATED LANDING DISTANCES (FEET)
USE MANUAL SPOILERS

Weight 1000 LB		260	280	300	320	340	360	380	400
S.L.	DRY	2800	2900	3030	3170	3300	3420	3560	3680
STD=15°C	WET	3710	3850	4050	4250	4450	4620	4820	4990
2000 FT	DRY	2930	3030	3180	3330	3470	3600	3740	3870
STD=11°C	WET	3890	4040	4260	4480	4680	4870	5080	5270
4000 FT	DRY	3070	3180	3330	3490	3640	3790	3940	4080
STD=7°C	WET	4090	4260	4480	4720	4940	5150	5370	5580
6000 FT	DRY	3210	3340	3500	3670	3840	3990	4160	4310
STD=3°C	WET	4300	4490	4730	4980	5220	5440	5690	5910
8000 FT	DRY	3380	3510	3680	3870	4050	4210	4400	4560
STD=-1°C	WET	4530	4730	4990	5260	5530	5770	6030	6280
10000 FT	DRY	3550	3690	3880	4090	4280	4460	4650	4830
STD=-5°C	WET	4790	5000	5280	5580	5860	6120	6410	6670
NOTE: Standard day, no wind, zero slope, three engines at maximum reverse thrust to 80 KIAS, then reverse idle to 60 KIAS, then forward idle to stop. (Includes Air Run Distance)									

CORRECTIONS:

Temperature: Valid from STD -20°C to STD +40°C

FEET PER °C	DRY	WET
BELOW standard day	-7	-10
ABOVE standard day	+17	+25

Slope: Valid from -2% downhill to +2% uphill

FEET PER 1% SLOPE	DRY	WET
UPHILL	-47	-99
DOWNHILL	+125	+300

Wind: Valid from -10 knot tailwind to +20 knot headwind

FEET PER KNOT	DRY	WET
HEADWIND	-20	-34
TAILWIND	+30	+51

SERIES 30
50/EXT ESTIMATED LANDING DISTANCES (FEET)
USE MANUAL SPOILERS

Weight 1000 LB		340	360	380	400	420	440	460	480
S.L.	DRY	3380	3530	3670	3800	3910	4050	4210	4370
STD=15°C	WET	4500	4700	4900	5100	5270	5470	5690	5920
2000 FT	DRY	3550	3710	3850	4000	4120	4270	4440	4610
STD=11°C	WET	4740	4960	5180	5390	5570	5790	6030	6280
4000 FT	DRY	3740	3900	4060	4220	4350	4510	4710	4910
STD=7°C	WET	5010	5250	5480	5710	5910	6150	6440	6720
6000 FT	DRY	3930	4110	4280	4450	4590	4770	5010	5240
STD=3°C	WET	5290	5550	5800	6050	6260	6520	6860	7200
8000 FT	DRY	4140	4330	4510	4720	4910	5120	5390	5650
STD=-1°C	WET	5590	5860	6130	6430	6710	7020	7390	7770
10000 FT	DRY	4370	4570	4770	5010	5260	5510	5800	6110
STD=-5°C	WET	5910	6210	6500	6840	7200	7560	7970	8410
NOTE: Standard day, no wind, zero slope, three engines at maximum reverse thrust to 80 KIAS, then reverse idle to 60 KIAS, then forward idle to stop. (Includes Air Run Distance)									

CORRECTIONS:

Temperature: Valid from STD -20°C to STD +40°C

FEET PER °C	DRY	WET
BELOW standard day	-10	-14
ABOVE standard day	+23	+34

Slope: Valid from -2% downhill to +2% uphill

FEET PER 1% SLOPE	DRY	WET
UPHILL	-54	-116
DOWNHILL	+168	+380

Wind: Valid from -10 knot tailwind to +20 knot headwind

FEET PER KNOT	DRY	WET
HEADWIND	-25	-41
TAILWIND	+79	+63

SERIES 30
35/EXT ESTIMATED LANDING DISTANCES (FEET)
USE MANUAL SPOILERS

Weight 1000 LB		340	360	380	400	420	440	460	480
S.L.	DRY	3500	3650	3810	3950	4070	4220	4390	4560
STD=15°C	WET	4700	4920	5140	5360	5540	5760	6010	6250
2000 FT	DRY	3680	3840	4010	4160	4300	4460	4640	4820
STD=11°C	WET	4960	5190	5440	5670	5870	6110	6380	6640
4000 FT	DRY	3870	4040	4230	4400	4540	4720	4930	5150
STD=7°C	WET	5250	5500	5770	6020	6240	6500	6810	7120
6000 FT	DRY	4080	4270	4460	4650	4800	4990	5250	5510
STD=3°C	WET	5550	5830	6110	6390	6620	6910	7270	7640
8000 FT	DRY	4300	4500	4710	4930	5140	5370	5650	5930
STD=-1°C	WET	5870	6170	6480	6800	7100	7430	7840	8240
10000 FT	DRY	4540	4760	4990	5250	5500	5780	6090	6400
STD=-5°C	WET	6210	6540	6870	7250	7610	8010	8460	8900

NOTE: Standard day, no wind, zero slope, three engines at maximum reverse thrust to 80 KIAS, then reverse idle to 60 KIAS, then forward idle to stop. (Includes Air Run Distance)

CORRECTIONS:

Temperature: Valid from STD -20°C to STD +40°C

FEET PER °C	DRY	WET
BELOW standard day	-10	-15
ABOVE standard day	+26	+37

Slope: Valid from -2% downhill to +2% uphill

FEET PER 1% SLOPE	DRY	WET
UPHILL	-58	-120
DOWNHILL	+179	+411

Wind: Valid from -10 knot tailwind to +20 knot headwind

FEET PER KNOT	DRY	WET
HEADWIND	-26	-42
TAILWIND	+86	+68

During Go-Around and Missed Approach

If go-around is required, initial flight director pitch guidance will provide proper speed and pitch targets, but, under certain 5G interference conditions, the flight director cannot be commanded from the Flight Control Panel (FCP) to provide speed or heading guidance, and may not provide altitude capture guidance. If this guidance is not available, manually comply with missed approach procedures, including altitude constraints.

(4) For airplanes identified in paragraph (c)(8) of this AD: Within 2 days after the effective date of this AD, revise the Operating Procedures Section of the existing AFM to include the information specified in figure 7 to paragraph (h)(4) of this AD. This may be done by inserting a copy of figure 7 to paragraph (h)(4) of this AD into the Operating Procedures Section of the existing AFM.

Note 4 to paragraph (h)(4): Guidance for accomplishing the actions required by paragraph (h)(4) of this AD can be found in Boeing Multi Operator Message MOM–MOM–22–0030–01B(R3), dated March 22, 2022; and Boeing MD–11 Flight Crew Operations Manual Bulletin 2–18C, ''Operation in airspace affected by 5G signal interference,'' dated March 18, 2022.

Figure 7 to paragraph (h)(4) – *AFM Operating Procedures Revision for Model MD-11*

(Required by AD 2022-09-18)

Radio Altimeter 5G C-Band Interference, Approach, Landing, and Go-Around

ILS Approaches

For ILS approaches not prohibited by AD 2021-23-12, disconnect the autopilot prior to glideslope intercept.

Note: Possible erroneous radio altimeter indications may affect autothrottles and flight director guidance; manually intervene if necessary.

Non-Precision Approaches

Non-precision instrument approaches can be conducted using LNAV/VNAV with flight directors, autopilot, and autothrottle to published BARO minimums.

Landing

For landing, the Auto Ground Spoiler function may require manual extension. If manual extension is required, calculate landing distance requirements according to the following tables, as applicable.

50/EXT ESTIMATED LANDING DISTANCES (FEET)
USE MAN SPOILERS

General Electric CF6-80C2 Engines

Weight 1000 LB		360	380	400	420	440	460	480	500
S.L.	DRY	4315	4480	4650	4803	4949	5126	5274	5453
STD=15°C	WET	5156	5388	5604	5805	6008	6240	6443	6677
2000 FT	DRY	4520	4695	4876	5039	5195	5384	5542	5734
STD=11°C	WET	5466	5688	5927	6140	6355	6605	6827	7084
4000 FT	DRY	4738	4925	5118	5292	5459	5661	5830	6036
STD=7°C	WET	5777	6021	6275	6510	6743	7007	7241	7527
6000 FT	DRY	4975	5175	5381	5568	5747	5963	6145	6367
STD=3°C	WET	6125	6392	6658	6917	7166	7449	7710	7999
8000 FT	DRY	5229	5443	5663	5864	6057	6290	6486	6725
STD=-1°C	WET	6497	6787	7084	7354	7628	7939	8212	8538
10000 FT	DRY	5505	5734	5972	6188	6418	6693	6931	7208
STD=-5°C	WET	6920	7220	7544	7842	8155	8532	8853	9223
NOTE: Standard day, no wind, zero slope, three engines at maximum reverse thrust to 80 KIAS, then reverse idle to 60 KIAS, then forward idle to stop (includes air run distances).									

CORRECTIONS:

Temperature: Valid from STD -20°C to STD +40°C

FEET PER °C	DRY	WET
BELOW standard day	-12	-14
ABOVE standard day	+25	+35

Slope: Valid from -2% downhill to +2% uphill

FEET PER 1% SLOPE	DRY	WET
UPHILL	-84	-137
DOWNHILL	+229	+444

Wind: Valid from -10 knot tailwind to +20 knot headwind

FEET PER KNOT	DRY	WET
HEADWIND	-32	-46
TAILWIND	+83	+132

35/EXT ESTIMATED LANDING DISTANCES (FEET)
USE MAN SPOILERS

General Electric CF6-80C2 Engines

Weight 1000 LB		360	380	400	420	440	460	480	500
S.L.	DRY	4632	4803	4974	5155	5340	5496	5685	5855
STD=15°C	WET	5577	5795	6020	6257	6502	6717	6969	7197
2000 FT	DRY	4856	5039	5221	5414	5613	5780	5983	6165
STD=11°C	WET	5890	6131	6373	6631	6893	7128	7394	7642
4000 FT	DRY	5096	5291	5486	5693	5906	6085	6304	6500
STD=7°C	WET	6249	6509	6763	7037	7317	7571	7864	8133
6000 FT	DRY	5357	5566	5775	5998	6227	6420	6655	6867
STD=3°C	WET	6631	6914	7190	7489	7798	8060	8380	8674
8000 FT	DRY	5637	5862	6087	6326	6574	6782	7037	7317
STD=-1°C	WET	7047	7348	7660	7980	8308	8600	8943	9324
10000 FT	DRY	5943	6185	6428	6687	6963	7267	7546	7854
STD=-5°C	WET	7513	7841	8166	8522	8888	9294	9675	10074

NOTE: Standard day, no wind, zero slope, three engines at maximum reverse thrust to 80 KIAS, then reverse idle to 60 KIAS, then forward idle to stop (includes air run distances).

CORRECTIONS:

Temperature: Valid from STD -20°C to STD +40°C

FEET PER °C	DRY	WET
BELOW standard day	-13	-16
ABOVE standard day	+29	+39

Slope: Valid from -2% downhill to +2% uphill

FEET PER 1% SLOPE	DRY	WET
UPHILL	-94	-155
DOWNHILL	+275	+522

Wind: Valid from -10 knot tailwind to +20 knot headwind

FEET PER KNOT	DRY	WET
HEADWIND	-35	-50
TAILWIND	+95	+143

50/EXT ESTIMATED LANDING DISTANCES (FEET)
USE MAN SPOILERS

Pratt & Whitney PW-4460/PW-4462 Engines

Weight 1000 LB		360	380	400	420	440	460	480	500
S.L.	DRY	4316	4476	4641	4791	4963	5113	5262	5443
STD=15°C	WET	5050	5269	5498	5710	5922	6157	6371	6626
2000 FT	DRY	4526	4697	4875	5036	5190	5377	5535	5728
STD=11°C	WET	5343	5585	5824	6053	6282	6531	6760	7035
4000 FT	DRY	4751	4935	5125	5297	5463	5663	5832	6038
STD=7°C	WET	5664	5914	6185	6425	6673	6943	7189	7477
6000 FT	DRY	4993	5190	5394	5580	5757	5973	6154	6375
STD=3°C	WET	6003	6284	6566	6826	7094	7392	7651	7969
8000 FT	DRY	5253	5465	5684	5883	6075	6307	6503	6741
STD=-1°C	WET	6382	6677	6983	7266	7550	7869	8158	8494
10000 FT	DRY	5534	5762	5998	6214	6443	6718	6955	7232
STD=-5°C	WET	6783	7107	7440	7749	8076	8457	8797	9182

NOTE: Standard day, no wind, zero slope, three engines at maximum reverse thrust to 60 KIAS, then forward idle to stop (includes air run distances).

CORRECTIONS:

Temperature: Valid from STD -20°C to STD +40°C

FEET PER °C	DRY	WET
BELOW standard day	-11	-13
ABOVE standard day	+25	+34

Slope: Valid from -2% downhill to +2% uphill

FEET PER 1% SLOPE	DRY	WET
UPHILL	-83	-138
DOWNHILL	+228	+443

Wind: Valid from -10 knot tailwind to +20 knot headwind

FEET PER KNOT	DRY	WET
HEADWIND	-33	-45
TAILWIND	+83	+128

35/EXT ESTIMATED LANDING DISTANCES (FEET)
USE MAN SPOILERS

Pratt & Whitney PW-4460/PW-4462 Engines

Weight 1000 LB		360	380	400	420	440	460	480	500
S.L.	DRY	4622	4790	4958	5138	5326	5484	5677	5850
STD=15°C	WET	5422	5661	5902	6154	6422	6647	6923	7169
2000 FT	DRY	4856	5035	5215	5406	5605	5773	5979	6165
STD=11°C	WET	5755	6005	6265	6533	6812	7062	7353	7626
4000 FT	DRY	5105	5298	5491	5696	5908	6087	6307	6506
STD=7°C	WET	6102	6386	6659	6950	7251	7511	7825	8121
6000 FT	DRY	5373	5581	5788	6009	6238	6430	6665	6879
STD=3°C	WET	6493	6787	7084	7397	7724	8013	8345	8656
8000 FT	DRY	5662	5885	6109	6347	6594	6802	7056	7285
STD=-1°C	WET	6907	7220	7543	7887	8236	8548	8916	9254
10000 FT	DRY	5975	6216	6458	6716	6992	7296	7575	7882
STD=-5°C	WET	7353	7703	8047	8423	8815	9243	9646	10082

NOTE: Standard day, no wind, zero slope, three engines at maximum reverse thrust to 60 KIAS, then forward idle to stop (includes air run distances).

CORRECTIONS:

Temperature: Valid from STD -20°C to STD +40°C

FEET PER °C	DRY	WET
BELOW standard day	-11	-15
ABOVE standard day	+28	+39

Slope: Valid from -2% downhill to +2% uphill

FEET PER 1% SLOPE	DRY	WET
UPHILL	-93	-151
DOWNHILL	+273	+524

Wind: Valid from -10 knot tailwind to +20 knot headwind

FEET PER KNOT	DRY	WET
HEADWIND	-35	-48
TAILWIND	+94	+140

During Go-Around and Missed Approach

If go-around is required, initial flight director pitch guidance will provide proper speed and pitch targets, but, under certain 5G interference conditions, the flight director cannot be commanded from the Flight Control Panel (FCP) to provide speed or heading guidance, and may not provide altitude capture guidance. If this guidance is not available, manually comply with missed approach procedures, including altitude constraints.

(5) For airplanes identified in paragraph (c)(9) of this AD: Within 2 days after the effective date of this AD, revise the Operating Procedures Section of the existing AFM to include the information specified in figure 8 to paragraph (h)(5) of this AD. This may be done by inserting a copy of figure 8 to paragraph (h)(5) of this AD into the Operating Procedures Section of the existing AFM.

Note 5 to paragraph (h)(5): Guidance for accomplishing the actions required by paragraph (h)(5) of this AD can be found in Boeing Multi Operator Message MOM–MOM–22–0030–01B(R3), dated March 22, 2022; and Boeing MD–80 Flight Crew Operations Manual Bulletin 80–2–019B, ''Operation in airspace affected by 5G signal interference,'' dated February 1, 2022.

Figure 8 to paragraph (h)(5) – *AFM Operating Procedures Revision for Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, and MD-90-30*

(Required by AD 2022-09-18)

Radio Altimeter 5G C-Band Interference, Approaches

ILS Approaches

For ILS approaches not prohibited by AD 2021-23-12, disconnect the autopilot and autothrottles, and place both flight director switches to OFF prior to glideslope intercept.

Note: Possible erroneous radio altimeter indications may affect autopilot, autothrottles, and flight director guidance; manually intervene if necessary.

Non-Precision Approaches

Non-precision instrument approaches can be conducted using LNAV/VNAV with flight directors, autopilot, and autothrottle to published BARO minimums.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles 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 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-LAACO-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) AMOCs approved for AD 2021–23–12, Amendment 39–21810 (86 FR 69984, December 9, 2021) providing relief for specific radio altimeter installations are approved as AMOCs for the provisions of this AD.

(j) Related Information

(1) For more information about this AD, contact Eric Igama, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712–4137; phone: 562–627–5388; email: *Roderick.Igama@faa.gov.*

(2) For service information identified in this AD that is not incorporated by reference, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110 SK57, Seal Beach, CA 90740–5600; telephone 562–797–1717; internet *https://www.myboeingfleet.com.*

(k) Material Incorporated by Reference

None.

Issued on April 28, 2022.

Gaetano A. Sciortino,

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

[FR Doc. 2022–11058 Filed 5–18–22; 4:15 pm]

BILLING CODE 4910–13–C

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0519; Project Identifier MCAI–2022–00589–R; Amendment 39–22050; AD 2022–10–51]

RIN 2120–AA64

Airworthiness Directives; Airbus Helicopters and Airbus Helicopters Deutschland GmbH (AHD) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Airbus Helicopters Model AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters; and Airbus Helicopters Deutschland GmbH (AHD) Model EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, EC135T3, MBB–BK 117 C–2, MBB–BK 117 D–2, and MBB–BK 117 D–3 helicopters. This AD was prompted by a supplier report of a non-conformity occurring during production. This AD requires removing certain flight control Flexball cables from service and prohibits installing those flight control Flexball cables on any helicopter, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. This AD also requires reporting certain information. The FAA previously sent an emergency AD to all known U.S. owners and operators of these helicopters. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective June 7, 2022. Emergency AD 2022–10–51, issued on May 3, 2022, which contained the requirements of this amendment, was effective with actual notice.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of June 7, 2022.

The FAA must receive comments on this AD by July 7, 2022.

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.

For EASA material incorporated by reference (IBR) in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email *ADs@easa.europa.eu;* internet *www.easa.europa.eu.* You may find this IBR material on the EASA website at *https://ad.easa.europa.eu.* For Airbus Helicopters service information identified in this final rule, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641–0000 or (800) 232–0323; fax (972) 641–3775; or at *https://www.airbus.com/helicopters/services/technical-support.html.* You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N–321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222–5110. Service information that is IBRed is also available in the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0519.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0519; 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 EASA emergency AD, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kristi Bradley, Program Manager, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222–5110; email *kristin.bradley@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

On May 3, 2022, the FAA issued Emergency AD 2022–10–51 for Airbus Helicopters Model AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters; and Airbus Helicopters Deutschland GmbH (AHD) Model EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, EC135T3, MBB–BK 117 C–2, MBB–BK 117 D–2, and MBB–BK 117 D–3 helicopters. Emergency AD 2022–10–51 requires removing certain part-numbered and serial-numbered flight control Flexball cables from service and prohibits installing those flight control Flexball cables on any helicopter. Emergency AD 2022–10–51 also requires reporting certain information to Airbus Helicopters or AHD, as applicable. The FAA sent the emergency AD to all known U.S. owners and operators of these helicopters. That action was prompted by EASA Emergency AD 2022–0077–E, dated April 29, 2022 (EASA AD 2022–0077–E), to correct an unsafe condition for Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France, Aerospatiale, Model AS 350 B, AS 350 B1, AS 350 B2, AS 350 B3, AS 350 BA, AS 350 BB, AS 350 D, AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N, AS 355 NP, EC 130 B4, and EC 130 T2 helicopters, all serial numbers (S/Ns); and Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH, Eurocopter España S.A., Model EC 135 T1, EC 135 T2, EC 135 T2+, EC 135 T3, EC 135 P1, EC 135 P2, EC 135 P2+, EC 135 P3, EC 635 T1, EC 635 T2+, EC 635 T3, EC 635 P2+, EC 635 P3, MBB–BK 117 D–2, MBB–BK 117 D–3, MBB–BK 117 D–3m, and MBB–BK 117 C–2 helicopters, all S/Ns.

The FAA is issuing this AD to address non-conforming flight control Flexball cables, which, if not addressed, could result in increased friction inside the flight control Flexball cables, jamming of the flight controls, and subsequent loss of control of the helicopter. See EASA AD 2022–0077–E for additional background information.

Related Service Information Under 1 CFR Part 51

EASA AD 2022–0077–E requires replacing affected flight control Flexball cables with a serviceable part and prohibits installing an affected flight control Flexball cable on any helicopter.

This material is reasonably available because the interested parties have access to it through their normal course