



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0584; Product Identifier 2017-NM-173-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all Airbus Model A330-200, A330-200 Freighter, and A330-300 series airplanes. This proposed AD was prompted by reports of dual flight management system (FMS) resets with the loss of flight plan (F-PLN) data. This proposed AD would require revising the airplane flight manual (AFM) to prohibit Required Navigation Performance - Authorization Required (RNP-AR) operations using Flight Management Guidance Envelope Computer (FMGEC) standard P5H3. This proposed AD would also require modifying the FMS software of airplanes equipped with FMGEC standard P5H3. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**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 <http://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 service information identified in this NPRM, contact Airbus SAS, Airworthiness Office – EAL, 2 Rond-Point Emile Dewoitine, 31700 Blagnac, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0584; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3229.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0584; Product Identifier 2017-NM-173-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

**Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2017-0233, dated November 23, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model

A330-200, Model A330-200 Freighter, and Model A330-300 series airplanes. The MCAI

states:

Operators of [Airbus] A330 aeroplanes fitted with a Flight Management Guidance Envelope Computer (FMGEC) standard P5H3 have reported some occurrences of dual Flight Management System (FMS) reset with the loss of Flight Plan (F-PLN) data. These events have been identified in all flight phases, including Take-Off transition.

This condition, if not corrected, particularly in the context of Required Navigation Performance – Authorization Required (RNP-AR) operations of the aeroplane, could lead to a large reduction in safety margins due to terrain and/or surrounded traffic proximity [below acceptable safety margins], and out of the context of RNP-AR operations could lead to an increased pilot workload.

To address this potential unsafe condition, Airbus issued Aircraft Flight Manual (AFM) Temporary Revision (TR) 774 issue 1 [approved October 13, 2017, to the Airbus A330/A340 Airplane Flight Manual] to provide instructions to prohibit RNP-AR operations. In addition, Airbus developed modification (mod) 207362 to allow FMS software downgrading from P5 to P4A standard, and issued [Airbus] Alert Operator Transmission (AOT) A22L002-17 [dated October 20, 2017] providing instructions to implement that mod on in-service aeroplanes. As a long term action, Airbus intends to publish [Airbus] Service Bulletin (SB) A330-22-3264 [dated March 14, 2018], which will supersede [Alert Operators Transmission] AOT A22L002-17 [dated October 20, 2017], to provide the same instructions for FMS software downgrade.

For the reasons described above, this [EASA] AD requires amendment of the applicable AFM and operating the aeroplane accordingly, and requires FMS software downgrading of aeroplanes with FMGEC standard P5H3.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0584.

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

Airbus has issued Temporary Revision TR774, RNP-AR Operations Forbidden with FMGEC Standard P5H3, Issue 1, approved October 13, 2017, to the Airbus A330/A340 Airplane Flight Manual. The service information describes the operational restrictions for Required Navigation Performance – Authorization Required (RNP-AR) on Airbus A330 airplanes equipped with FMGEC standard P5H3.

Airbus has issued Airbus Service Bulletin A330-22-3264, dated March 14, 2018. The service information describes procedures to downgrade the FMS from P5 to P4A operational software on P5H3 FMGEC standard, by embodying Modification 207362S34542 on the affected airplanes.

The service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **Other Related Service Information**

The Airbus A330/A340 Airplane Flight Manual (AFM) for the aircraft affected by this AD is required to be furnished with the aircraft, per 14 CFR 25.1581. Further, operators of the aircraft affected by this AD must operate in accordance with the limitations specified in the AFM, per 14 CFR 91.9.

## **FAA's Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in

the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

**Costs of Compliance**

We estimate that this proposed AD affects 3 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

**Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
3 work-hours X \$85 per hour = \$255	\$0	\$255	\$765

According to the manufacturer, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all known costs in our cost estimate.

**Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

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

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**Airbus:** Docket No. FAA-2018-0584; Product Identifier 2017-NM-173-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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

None.

#### **(c) Applicability**

This AD applies to Airbus Model A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, and A330-343 airplanes, certificated in any category, all manufacturer serial numbers.

**(d) Subject**

Air Transport Association (ATA) of America Code 22, Auto flight.

**(e) Reason**

This AD was prompted by reports of dual flight management system (FMS) resets with the loss of flight plan (F-PLN) data. We are issuing this AD to address dual FMS reset and loss of F-PLN data, which in the context of Required Navigation Performance – Authorization Required (RNP-AR) operations of the airplane could result in significantly reduced situational awareness of proximity to terrain and/or other aircraft to below acceptable safety margins, and out of the context of RNP-AR operations could lead to an unusually high pilot workload.

**(f) Compliance**

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

**(g) Definitions**

For the purposes of this AD, the definitions in paragraphs (g)(1) through (g)(3) of this AD apply.

(1) Group 1 airplanes are those that have Flight Management Guidance Envelope Computer (FMGEC) standard P5H3 (Airbus Modification 204758 Part Number (P/N) FMGEC C13226HA07 with P/N FMS operational SW PS4087700-906) embodied in production, or embodied in service as specified in Airbus Service Bulletin A330-22-3209; or Airbus Service Bulletin A330-22-3225; or Airbus Service Bulletin A330-22-3244; or Airbus Service Bulletin A330-22-3247; or Airbus Service Bulletin A330-22-3262, except those that have RNP-AR.

(2) Group 2 airplanes have the same configuration as those in Group 1, but in addition have RNP-AR (Airbus Modification 203441, or Airbus Modification 203442, or Airbus Modification 200624) embodied in production or Airbus Service Bulletin A330-34-3262; or Airbus Service Bulletin A330-34-3308; or Airbus Service Bulletin A330-34-3345, embodied in service.

(3) Group 3 airplanes are those in any configuration other than that identified in paragraph (g)(1) or (g)(2) of this AD.

**(h) Airplane Flight Manual (AFM) Revision**

For Group 2 airplanes: Within 30 days after the effective date of this AD, revise the Limitations section of the Airbus A330/A340 Airplane Flight Manual (AFM) to include the information in Temporary Revision TR774, RNP-AR Operations Forbidden with FMGEC Standard P5H3, Issue 1, approved October 13, 2017 (“TR774”), and inform all flight crews, and, thereafter, operate the airplane accordingly, as specified in the TR. TR774 prohibits the RNP-AR operation on Airbus A330 airplanes equipped with FMGEC standard P5H3. Revising the AFM to include TR774 may be done by inserting a copy of TR774 in the AFM. When this TR has been included in general revisions of the AFM, the general revisions may be inserted in the AFM, provided the relevant information in the general revision is identical to that in TR774, and the TR may be removed.

**(i) FMS Software Modification**

(1) For Group 1 and Group 2 airplanes: Within 60 days after the effective date of this AD, modify the airplane by installing FMS software P4A (P/N FMS operational SW PS4087700-905) on FMGEC standard P5H3 (P/N FMGEC C13226HA07 with P/N FMS

operational SW PS4087700-906) in accordance with the instructions of Airbus Service Bulletin A330-22-3264, dated March 14, 2018.

(2) For Group 2 airplanes: After modification of an airplane as required by paragraph (i)(1) of this AD, the AFM revision required by paragraph (h) of this AD may be removed from the AFM of that airplane.

**(j) Optional Modification**

For Group 3 airplanes: From the effective date of this AD, it is allowed to modify any airplane into a Group 1 or Group 2 configuration, provided that, concurrently, that airplane is modified in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-22-3264, dated March 14, 2018.

**(k) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraph (i) of this AD and optional actions specified in paragraph (j) of this AD, if those actions were performed before the effective date of this AD using Airbus Alert Operators Transmission – AOT A22L002-17, dated October 20, 2017.

**(l) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Section, Transport Standards 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 International Section, send it to the attention of the person identified in paragraph (m)(2) of this AD.

Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(3) Required for Compliance (RC):** If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2017-0233, dated November 23, 2017, for related information. This MCAI may be

found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0584.

(2) For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3229.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAL, 2 Rond-Point Emile Dewoitine, 31700 Blagnac, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.  
Issued in Des Moines, Washington, on June 22, 2018.

Michael Kaszycki,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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