DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NM-110-AD]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87) and MD-88 Airplanes

AGENCY: Federal Aviation Administration, DOT. **ACTION:** Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to all McDonnell Douglas Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87) and MD-88 airplanes. This proposal would require the implementation of a program of structural inspections of baseline structure to detect and correct fatigue cracking in order to ensure the continued airworthiness of these airplanes as they approach the manufacturer's original fatigue design life goal. This action is necessary to detect and correct fatigue cracking that could compromise the structural integrity of these airplanes. This action is intended to address the identified unsafe condition.

DATES: Comments must be received by November 24, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2000-0NM-110-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anmnprmcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2000-NM-110-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in the proposed rule may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1–L51 (2–60). This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California.

FOR FURTHER INFORMATION CONTACT:

Mike Lee , Aerospace Engineer, Airframe Branch, ANM–120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712; telephone (562) 627– 5325; fax (562) 627–5210.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

• Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.

• For each issue, state what specific change to the proposed AD is being requested.

• Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2000–NM–110–AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2000–NM–110–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

In the early 1980's, as part of its continuing work to maintain the structural integrity of older transport category airplanes, the FAA concluded that the incidence of fatigue cracking may increase as these airplanes reach or exceed their design service goal (DSG). A significant number of these airplanes were approaching or had exceeded the DSG on which the initial type certification approval was predicated. In light of this, and as a result of increased utilization, longer operational lives, and the high levels of safety expected of the currently operated transport category airplanes, we determined that a supplemental structural inspection program (SSIP) was necessary to ensure a high level of structural integrity for all airplanes in the transport fleet.

Issuance of Advisory Circular

As a follow-on from that determination, the FAA issued Advisory Circular (AC) No. 91-56, "Supplemental Structural Inspection Program for Large Transport Category Airplanes," dated May 6, 1981. That AC provides guidance material to manufacturers and operators for use in developing a continuing structural integrity program to ensure safe operation of older airplanes throughout their operational lives. This guidance material applies to transport airplanes that were certified under the fail-safe requirements of part 4b ("Airplane Airworthiness, Transport Categories") of the Civil Air Regulations of the Federal Aviation Regulations (FAR) (14 CFR part 25), and that have a maximum gross weight greater than 75,000 pounds. The procedures set forth in that AC are applicable to transport category airplanes operated under subpart D ("Special Flight Operations") of part 91 of the FAR (14 CFR part 91); part 121 ("Operating Requirements: Domestic, Flag, and Supplemental Operations"); part 125 ("Certification and Operations: Airplanes having a Seating Capacity of 20 or More Passengers or a Maximum Payload of 6,000 Pounds or More''); and part 135 ("Operating Requirements: Commuter and On-Demand Operations") of the FAR (14 CFR parts 121, 125, and 135). The objective of the SSIP was to establish inspection programs to ensure timely detection of fatigue cracking.

Development of the Supplemental Structural Inspection Program

In order to evaluate the effect of increased fatigue cracking, with respect to maintaining fail-safe design and damage tolerance of the structure of McDonnell Douglas Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87) and MD-88 airplanes (commonly referred to as Model MD-80 and MD-88 airplanes), Boeing conducted a structural reassessment of those airplanes, using modern damage tolerance evaluation techniques. Boeing accomplished this reassessment using the criteria contained in AC No. 91-56, as well as 14 CFR 25.571; Amdt. 25-45. During the reassessment, members of the airline industry participated with Boeing in working group sessions and developed the SSIP for Model MD-80 and MD-88 airplanes. Engineers and maintenance specialists from the FAA also attended these sessions to observe these developments. Subsequently, based on the working group's recommendations, Boeing developed the Supplemental Inspection Document (SID) for Model MD-80 and MD-88 airplanes.

Aging Aircraft Safety Act (AASA)

In October 1991, Congress enacted Title IV of Public Law 102–143, the AASA of 1991, to address aging aircraft concerns. That Act instructed the FAA administrator to prescribe regulations that will ensure the continuing airworthiness of aging aircraft.

SSID Team

In April 2000 the Transport Airplane Directorate (TAD) chartered a SSID Team to develop recommendations to standardize the SID/SSID ADs regarding the treatment of repairs, alterations, and modifications (RAMs). The report can be accessed at http://www.faa.gov/ certification/aircraft/transport.htm.

FAA Responses To AASA

In addition to the SSID Team activity, there are other on-going activities associated with FAA's Aging Aircraft Program. This includes, among other initiatives, our responses to the AASA.

On November 1, 2002, as one of the responses to the AASA, we issued the Aging Airplane Safety Interim Final Rule (AASIFR) (67 FR 72726, December 6, 2002). The applicability of that rule addresses airplanes that are operated under part 121 of the FAR (14 CFR part 121), all U.S. registered multi-engine airplanes operated under part 129 of the FAR (14 CFR part 129), and all multiengine airplanes used in scheduled operations under part 135 of the Federal Aviation Regulations (14 CFR part 135). The AASIFR requires the maintenance programs of those airplanes to include damage tolerance-based inspections and procedures that include all major structural RAMs. Currently, the ASSIFR requires that these procedures must be established and incorporated within four years after December 8, 2003, the effective date specified by the AASIFR.

Public Technical Meeting

The TAD also held a public meeting regarding standardization of the FAA approach to RAMs in SID/SSID ADs on February 27, 2003, in Seattle, Washington. We presented our views and heard comments from the public concerning issues regarding the standardization of the requirements of ADs for certain transport category airplanes that mandate SSIDs and that address the treatment of RAMs for those certain transport category airplanes. Our presentation included a plan for the standardization of SID/SSID ADs, the results of the SSID Team findings, and the TAD vision of how SID/SSID ADs may support compliance to the AASIFR. We also asked for input from operators on the issues addressing RAMs in SID/ SSID ADs. One of the major comments presented at the public meeting was that operators do not have the capability to accomplish the damage tolerance assessments, and they will have to rely on the manufacturers to perform those assessments. Furthermore, the operators believe that the timeframes to accomplish the damage tolerance assessments will not permit manufacturers to support the operators. Another major comment presented was from the Airworthiness Assurance Working Group (AAWG) of the Aviation Rulemaking Advisory Committee (ARAC). The AAWG requested that we withdraw the damage tolerance requirements from the final rule and task AAWG to develop a new RAM damage tolerance based program with timelines to be developed by ARAC. The public meeting presentations can be accessed at http://www.faa.gov/ certification/aircraft/transport.htm.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Report No. L26–022, "MD–80 Supplemental Inspection Document (SID)," Revision B, dated March 2003, which provides a description of Principal Structural Elements (PSEs) and Non Destructive Inspection (NDI) procedures and thresholds with repetitive inspection intervals for inspections of PSEs. For the purposes of this AD, a PSE is defined as an element that contributes significantly to the carrying of flight, ground or pressurization loads, and the integrity of that element is essential in maintaining the overall structural integrity of the airplane.

The FAA also has reviewed and approved McDonnell Douglas Report No. MDC 91K0263, "DC–9/MD–80 Aging Aircraft Repair Assessment Program Document," dated July 1997, which provides procedures to determine the appropriate inspection or replacement program for certain repairs to the fuselage pressure boundary. These repairs and inspection/ replacement programs are acceptable alternative methods of compliance for the repair and repair inspection programs specified in this proposed AD.

Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, the proposed AD would require implementation of a structural inspection program of baseline structure to detect and correct fatigue cracking in order to ensure the continued airworthiness of airplanes as they approach the manufacturer's original fatigue design life goal.

Revision of the Maintenance Program

Paragraph (a) of the proposed AD would require a revision of the maintenance inspection program that provides for inspection(s) of the PSE per Boeing Report No. L26–022, "MD–80 SID," Revision B, dated March 2003. PSEs are also defined and specified in the SID. All references in this AD to the "SID" are to Revision B dated March 2003.

Supplemental Inspection Program (SIP)

Paragraph (b) of the proposed AD would specify that the supplemental inspection program be implemented on a PSE-by-PSE basis before structure exceeds its 75% fatigue life threshold (³/₄N_{th}), and its full fatigue life threshold (N_{th}). The threshold value is defined as the life of the structure measured in total landings, when the probability of failure reaches one in a billion. The MD-80 SID program is not a sampling program. All airplanes would be inspected once prior to reaching both PSE thresholds (once by ³/₄N_{th} and once by N_{th}). In order for the inspection to have value, no PSE would be inspected prior to half of the fatigue life threshold, 1/2Nth. The additional 3/4Nth threshold aids in advancing the threshold for some PSEs as explained in Section 3 of Volume I, of the SID. Inspection of each PSE should be accomplished in

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accordance with the NDI procedures set forth in Section 2 of Volume II, Revision B, dated March 2003.

Once threshold N_{th} is passed, the PSE would be inspected at repetitive intervals not to exceed $\Delta NDI/2$ as specified in Section 3 of Volume I of the SID per the NDI procedure, which is specified in Section 2 of Volume II of the SID. $\Delta NDI/2$ is defined as half of the life for a crack to grow from a given NDI detectable crack size to instability.

SIP Inspection Requirements

Paragraph (b) of this proposed AD also would require, for airplanes that have exceeded the N_{th}, that each PSE be inspected prior to reaching the established thresholds (3/4Nth and Nth) or within 18 months after the effective date of this AD. The entire PSE must be inspected regardless of whether or not it has been repaired, altered, or modified. If any PSE is repaired, altered, or modified, it must be reported as "discrepant." A discrepant report indicates that a PSE could not be completely inspected because the NDI procedure could not be accomplished due to differences on the airplane from the NDI reference standard (*i.e.*, RAMs).

Reporting Requirements

Paragraph (c) of this proposed AD would require that all negative, positive, or discrepant findings of the inspection accomplished in paragraph (b) of the AD must be reported to Boeing at the times specified, and in accordance with, the instructions contained in Section 3 of Volume 1 of the SID.

Corrective Action

Paragraph (d) of this proposed AD would require that any cracked structure detected during any inspection required per paragraph (b) of this AD must be repaired before further flight. Additionally, paragraph (d) of this AD would require accomplishment of follow-on actions as specified in paragraphs (d)(1), (d)(2), and (d)(3) of this proposed AD, at the times specified below.

(1) Within 18 months after repair, accomplish a damage tolerance assessment (DTA) that defines the threshold for inspection and submit the assessment for approval to the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

(2) Prior to reaching 75% of the threshold, submit the inspection methods and repetitive inspections intervals for the repair for approval by the Manager of the LAACO.

(3) Prior to the threshold, the inspection method and repetitive

inspection intervals are to be incorporated into the FAA-approved structural maintenance or inspection program for the airplane.

For the purposes of this proposed AD, the FAA anticipates that submissions of the damage tolerance assessment of the repair, if acceptable, should be approved within six months after submission.

Transferability of Airplanes

Paragraph (e) of this proposed AD specifies the requirements of the inspection program for transferred airplanes. Before any airplane that is subject to this proposed AD can be added to an air carrier's operations specifications, a program for the accomplishment of the inspections required by this proposed AD must be established. Paragraph (e) of the proposed AD would require accomplishment of the following:

1. For airplanes that have been inspected per this proposed AD, the inspection of each SSI must be accomplished by the new operator per the previous operator's schedule and inspection method, or per the new operator's schedule and inspection method, at whichever time would result in the earlier accomplishment date for that SSI inspection. The compliance time for accomplishment of this inspection must be measured from the last inspection accomplished by the previous operator. After each inspection has been performed once, each subsequent inspection must be performed per the new operator's schedule and inspection method.

2. For airplanes that have not been inspected per this proposed AD, the inspection of each SSI must be accomplished either prior to adding the airplane to the air carrier's operations specification, or per a schedule and an inspection method approved by the FAA. After each inspection has been performed once, each subsequent inspection must be performed per the new operator's schedule.

Accomplishment of these actions will ensure that: (1) an operator's newly acquired airplanes comply with its SSIP before being operated; and (2) frequently transferred airplanes are not permitted to operate without accomplishment of the inspections defined in the SSID.

Inspections Accomplished Previously

Paragraph (f) of this proposed AD merely provides approval of Revision A of the SID, dated September 2000, as acceptable compliance with the requirements of paragraph (b) of this proposed AD for inspections accomplished prior to the effective date of the proposed AD.

Acceptable for Compliance

Paragraph (g) of this proposed AD also provides approval of McDonnell Douglas Report No. MDC 91K0263, "DC–9/MD–80 Aging Aircraft Repair Assessment Program Document," dated July 1997, as acceptable compliance with the requirements of paragraphs (b) and (d) of this proposed AD for repairs and inspection/replacement for certain repairs to the fuselage pressure shell accomplished prior to the effective date of the proposed AD.

Interim Action

This is considered to be interim action. The FAA is currently considering requiring damage tolerancebased inspections and procedures that include all major structural RAMs, which may result in additional rulemaking. That rulemaking may include appropriate recommendations from the previously mentioned FAA team and a public meeting on how to address RAMs.

Cost Impact

There are approximately 1,167 Model DC–9–80 and MD–88 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 665 airplanes of U.S. registry and 18 U.S. operators would be affected by this proposed AD.

Incorporation of the SID program into an operator's maintenance program is estimated to necessitate 1,062 work hours (per operator), at an average labor rate of \$65 per work hour. Based on these figures, the cost to the 18 affected U.S. operators to incorporate the SID program is estimated to be \$1,242,540.

The recurring inspection costs in this proposed AD are estimated to be 362 work hours per airplane per year, at an average labor rate of \$65 per work hour. Based on these figures, the recurring inspection costs are estimated to be \$25,530 per airplane, per inspection, or \$15,647,450 for the affected U.S. fleet.

Based on the above figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$1,242,540 for the first year, and \$15,647,450 for each year thereafter. These "total cost impact" figures assume that no operator has yet accomplished any of the requirements of this AD.

Additionally, the number of required work hours for each proposed inspection (and the SID program), as indicated above, is presented as if the accomplishment of those actions were to be conducted as "stand alone" actions. However, in actual practice, these actions for the most part will be accomplished coincidentally or in combination with normally scheduled airplane inspections and other maintenance program tasks. Therefore, the actual number of necessary additional work hours will be minimal in many instances. Further, any cost associated with special airplane scheduling can be expected to be minimal.

Regulatory Impact

The regulations proposed herein 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. Therefore, it is determined that this proposal would not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that 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); and (3) if promulgated, 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. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding the following new airworthiness directive:

McDonnell Douglas: Docket 2000–NM–110– AD

Applicability: Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-

9–87 (MD–87) and MD–88 airplanes, certificated in any category.

Revision of the Maintenance Inspection Program

(a) Within 12 months after the effective date of this AD, incorporate a revision into the FAA-approved maintenance inspection program that provides for inspection(s) of the Principal Structural Elements (PSEs), in accordance with Section 3 of Volume I, Revision B, dated March 2003, of Boeing Report No. L26–022, "MD–80 Supplemental Inspection Document (SID)." PSEs are also specified in the SID. Unless otherwise specified, all references in this AD to the "SID" are to Revision B dated March 2003.

Non-Destructive Inspections (NDIs)

(b) For all PSEs listed in Section 3 of Volume I of the SID, perform an NDI for fatigue cracking of each PSE in accordance with the NDI procedures specified in Section 2 of Volume II of the SID, at the times specified in paragraph (b)(1), (b)(2), or (b)(3) of this AD, as applicable.

(2) For airplanes that have reached or exceeded three quarters of the fatigue life threshold ($^{3}/_{4}N_{th}$), but less than the threshold (N_{th}), as of the effective date of the AD: Perform an NDI inspection prior to reaching the threshold (N_{th}), or within 18 months after the effective date of this AD, whichever occurs later. Thereafter, after passing the threshold (N_{th}), repeat the inspection for that PSE at intervals not to exceed $\Delta NDI/2$.

(3) For airplanes that have reached or exceeded the fatigue life threshold (N_{th}) as of the effective date of the AD: Perform an NDI inspection within 18 months after the effective date of this AD. Thereafter, repeat the inspection for that PSE at intervals not to exceed Δ NDI/2.

Reporting Requirements

(c) All negative, positive, or discrepant findings (e.g., differences on the airplane from the NDI reference standard, such as PSEs that have been repaired, altered, or modified) of the inspections accomplished under paragraph (b) of this AD, must be reported to Boeing, at the times specified in, and in accordance with the instructions contained in, Section 3 of Volume I of the SID. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

Corrective Actions

(d) Any cracked structure of a PSE detected during any inspection required by paragraph (b) of this AD must be repaired before further flight in accordance with an FAA-approved method. Accomplish follow-on actions described in paragraphs (d)(1), (d)(2), and (d)(3) of this AD, at the times specified.

(1) Within 18 months after repair, perform a damage tolerance assessment (DTA) that defines the threshold for inspection of the repair and submit the assessment for approval to the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

(2) Prior to reaching 75% of the threshold, submit the inspection methods and repetitive inspection intervals for the repair for approval by the Manager of the Los Angeles ACO.

(3) Prior to the threshold determined in paragraph (d)(1) of this AD, incorporate the inspection method and repetitive inspection intervals into the FAA-approved structural maintenance or inspection program for the airplane.

Note 1: For the purposes of this AD, the FAA anticipates that submissions of the damage tolerance assessment of the repair, if acceptable, should be approved within six months after submission

Inspection for Transferred Airplanes

(e) Before any airplane that is subject to this AD and that has exceeded the applicable compliance times specified in paragraph (b) of this AD can be added to an air carrier's operations specifications, a program for the accomplishment of the inspections required by this AD must be established per paragraph (e)(1) or (e)(2) of this AD, as applicable.

(1) For airplanes that have been inspected per this AD, the inspection of each SSI must be accomplished by the new operator per the previous operator's schedule and inspection method, or the new operator's schedule and inspection method, at whichever time would result in the earlier accomplishment date for that SSI inspection. The compliance time for accomplishment of this inspection must be measured from the last inspection accomplished by the previous operator. After each inspection has been performed once, each subsequent inspection must be performed per the new operator's schedule and inspection method.

(2) For airplanes that have not been inspected per this AD, the inspection of each SSI required by this AD must be accomplished either prior to adding the airplane to the air carrier's operations specification, or per a schedule and an inspection method approved by the Manager, Los Angeles ACO, FAA. After each inspection has been performed once, each subsequent inspection must be performed per the new operator's schedule.

Inspections Accomplished Before the Effective Date of This AD

(f) Inspections per Boeing Report No. L26– 022, "MD–80 Supplemental Inspection Document (SID)," Revision A, dated September 2000, accomplished prior to the effective date of this AD, are acceptable for compliance with the requirements of paragraph (b) of this AD.

Acceptable for Compliance

(g) McDonnell Douglas Report No. MDC 91K0263, "DC-9/MD-80 Aging Aircraft Repair Assessment Program Document," dated July 1997, provides inspection/ replacement programs for certain repairs to the fuselage pressure shell. These repairs and inspection/replacement programs are considered acceptable for compliance with the requirements of paragraphs (b) and (d) of this AD for repairs subject to that document.

Alternative Methods of Compliance

(h) In accordance with 14 CFR 39.19, the Manager, Los Angeles ACO, is authorized to approve alternative methods of compliance (AMOCs) for this AD.

Issued in Renton, Washington, on October 1, 2003.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service. [FR Doc. 03–25493 Filed 10–7–03; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-92-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A319, A320, and A321 Series Airplanes Equipped with Certain Litton Air Data Inertial Reference Units

AGENCY: Federal Aviation Administration, DOT. **ACTION:** Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Airbus Model A319, A320, and A321 series airplanes equipped with certain Litton air data inertial reference units (ADIRU). This proposal would require modifying the shelf (floor panel) above ADIRU 3, and for certain airplanes modifying the polycarbonate guard which covers the ADIRUs, and the ladder located in the avionics compartment, as applicable. This action is necessary to prevent failure of ADIRU 3 during flight, which could result in loss of one source of critical attitude and airspeed data and reduce the ability of the flightcrew to control the airplane. This action is intended to address the identified unsafe condition.

DATES: Comments must be received by November 7, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002–NM– 92-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anmnprmcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2002-NM-92-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in the proposed rule may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Tim Dulin, Aerospace Engineer, International Branch, ANM–116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–2141; fax (425) 227–1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

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• Include justification (*e.g.*, reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic,

environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002–NM–92–AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2002–NM–92–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

The Direction Générale de l'Aviation Civile (DGAC), which is the airworthiness authority for France, notified the FAA that an unsafe condition may exist on certain Airbus Model A319, A320, and A321 series airplanes equipped with certain Litton air data inertial reference units (ADIRU). The DGAC advises that operators have reported that "NAV IR FAULT" messages have occurred during takeoff on several of these airplanes due to failure of ADIRU 3. Investigation revealed that vibrations during takeoff may cause contact between ADIRU 3 and the shelf (floor panel) above it, due to minimal clearance between the shelf and the ADIRU. Such contact may cause excessive vertical acceleration, which could result in failure of ADIRU 3. Due to its location on the shelf, ADIRU 3 is more sensitive to vibration than the other two ADIRUs. Failure of ADIRU 3 during flight could result in loss of one source of critical attitude and airspeed data and reduce the ability of the flightcrew to control the airplane.

Explanation of Relevant Service Information

Airbus has issued Service Bulletin A320–25–1248, dated February 16, 2001, which describes procedures for modifying the shelf (floor panel) above the Litton ADIRUs by installing shims on the webs of the shelf support structure in the avionics rack. In addition, for certain airplanes, the service bulletin includes procedures for modifying the polycarbonate guard