

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 notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 93-NM-219-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-103, Attention: Rules Docket No. 93-NM-219-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

In April 1988, a transport category airplane managed to land after tiny cracks in rivet holes in the upper fuselage linked together, causing structural failure and explosive decompression. An 18-foot section ripped from the fuselage. This accident focused greater attention on the problem of aging aircraft.

In June 1988, the FAA sponsored a conference on aging airplane issues, which was attended by representatives of the aviation industry from around the world. It became obvious that, because of the tremendous increase in air travel, the relatively slow pace of new airplane production, and the apparent economic feasibility of operating older technology airplanes rather than retiring them, increased attention needed to be focused on this aging fleet and maintaining its continued operational safety.

The Air Transport Association (ATA) of America and the Aerospace Industries Association (AIA) of America committed to identifying and implementing procedures to ensure continued structural airworthiness of aging transport category airplanes. An Airworthiness Assurance Working Group (AAWG), with representatives from the aircraft operators, manufacturers, regulatory authorities, and other aviation representatives, was originally established in August 1988. The objective of the AAWG was to sponsor "Task Groups" to:

1. Select service bulletins, applicable to each airplane model in the transport fleet, to be recommended for mandatory modification of aging airplanes,
2. Develop corrosion directed inspections and prevention programs,

3. Review the adequacy of each operator's structural maintenance program,

4. Review and update the Supplemental Inspection Documents (SID), and

5. Assess repair quality.

The Task Group assigned to review Lockheed Model L-1011-385 series airplanes completed its work on Item 1 (mandatory structural modifications), above, in June 1990. The Task Group's recommendations are contained in Revision 1 of Lockheed Service Bulletin 093-51-035, "Structures—Aging Aircraft Structural Modifications and Inspections—Collector Service Bulletin," dated December 16, 1991. The FAA issued AD 94-05-01, amendment 39-8839 (59 FR 10275, March 4, 1994), which mandates the installation of the modifications specified in that document.

The Task Group completed its work on Item 2 (corrosion-directed inspections) and developed a baseline program for controlling corrosion problems that may jeopardize the continued airworthiness of the Lockheed Model L-1011 fleet. This program is contained in Lockheed Document Number LR 31889, "Corrosion Prevention and Control Program, TriStar L-1011," dated March 15, 1991. The FAA issued AD 93-20-03, amendment 39-8710 (58 FR 60775, November 18, 1993), which requires the implementation of a corrosion prevention and control program.

The Task Group completed its work on Item 4 (Supplemental Inspection Document) in May 1993 and developed a program for the implementation of a SID program identified in Lockheed Document Number LG92ER0060, "L-1011-385 Series Supplemental Inspection Document," revised January 1994, which recommends structural inspections of older airplanes. The Task Group has identified certain service difficulties that warrant mandatory inspections following mandatory modification of these airplanes. The Task Group considers that these service difficulties can be controlled safely by repetitively inspecting following modification of these airplanes, and that, because of the safety implications, the inspections should be mandatory to assure that all operators perform them. Typically, the addressed unsafe conditions (i.e., fatigue cracking) have occurred infrequently on older airplanes, and the Task Group has a very high degree of confidence in the ability of an inspection program to detect the damage before it impairs safety.

Explanation of Service Information

Lockheed Document Number LG92ER0060, "L-1011-385 Series Supplemental Inspection Document," revised January 1994 (hereafter referred to as "the Lockheed Document"), is the result of a structural re-evaluation conducted by Lockheed. The criteria that were used for this re-evaluation are contained in FAA Advisory Circular (AC) 91-56, "Supplemental Structural Inspection Program for Large Transport Category Airplanes," and Federal Aviation Regulation 25.571 (14 CFR 25.571), amendment 25-45. During this structural re-evaluation, Lockheed examined Structurally Significant Details (SSD), which are structural parts and components that carry significant ground, flight, cabin pressure, or control loads whose failure could affect the safety of the airplane. From these SSD's, Lockheed identified candidate locations for supplemental inspections that have been incorporated into the Lockheed Document.

The Model L-1011-385-3 series airplanes were excluded from this re-evaluation. These newer, long-range airplanes fly less frequently and are neither imminently approaching nor have they exceeded the manufacturer's original fatigue design life goal. (However, as these airplanes accumulate more hours time-in-service, and as the critical area selection is developed and identified, the FAA anticipates that these airplanes will be addressed in future rulemaking actions.)

Specifically, the Lockheed Document describes procedures for supplemental inspections of SSD's for Model L-1011-385-1 series airplanes. This Lockheed Document identifies SSD's in 13 fuselage, one stabilizer, and 14 wing critical areas. The Document also specifies that operators submit the results of these inspections to Lockheed.

The Task Group has reviewed the Lockheed Document, and has recommended it to the FAA for mandatory inspection following mandatory modification to ensure the successful long-term operation of Lockheed Model L-1011-385 series airplanes. The FAA has concurred with the Task Group's recommendations and has determined that AD action is warranted to mandate the inspections and modifications to ensure the continued airworthiness of the Model L-1011-385 fleet. Fatigue cracking in the SSD's specified in the Lockheed Document, if not detected and corrected in a timely manner, could compromise the structural integrity of the airplane.