Proposed Rules

Federal Register
Vol. 60, No. 117
Monday, June 19, 1995

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 95–ANE–09]

Airworthiness Directives; AlliedSignal Inc. TPE331 Series Turboprop Engines

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 AlliedSignal Inc. TPE331 series turboprop engines. This proposal would establish cyclic retirement lives for certain compressor components. This proposal is prompted by manufacturer's engine testing and analysis that indicate that if these compressor components continue in service without an established retirement life, accumulative cyclic effects may result in a fatigue failure. The actions specified by the proposed AD are intended to prevent fatigue failure of engine compressor components and an inflight engine shutdown.

DATES: Comments must be received by August 18, 1995.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 95–ANE–09, 12 New England Executive Park, Burlington, MA 01803–5299. Comments may be inspected at this location between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from AlliedSignal Engines Data Distribution, Dept. 6403/2102–1M, P.O. Box 29003, Phoenix, AZ 85038–9003; telephone (602) 365–2493, FAX (602) 365–2210. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Joseph Costa, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712–4137; telephone (310) 627–5246; fax (310) 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 should 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 notice may be changed in light of the comments received.

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 notice must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 95–ANE–09.'' 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, New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 95–ANE–09, 12 New England Executive Park, Burlington, MA 01803–5299.

Discussion

Following an analysis of the AlliedSignal Inc. Model TPE331–14GR and TPE331–14HR turboprop engines tieshaft aft thread form, the Federal Aviation Administration (FAA) has determined that main shouldered shafts (tieshafts) and forward coupling shafts (stub shafts), installed on AlliedSignal Inc. Models TPE331–14A, -14B, -14F, and -15AW turboprop engines, are subject to a fatigue limit. Engine testing and analysis indicate that if these compressor components, which were previously certified as having unlimited service lives, continue in service without established retirement lives, fatigue failure may result. This condition, if not corrected, could result in fatigue failure of engine compressor components and an inflight engine shutdown.

The FAA has reviewed and approved the technical contents of AlliedSignal Inc. Service Bulletins (SB's): No. TPE331–A72–7128, dated June 10, 1994, No. TPE331–A72–7129, dated June 10, 1994, and No. TPE331–A72–7522, dated February 17, 1995, that describe main shouldered shaft (tieshaft) cyclic life limits; and No. TPE331–72–7130, dated June 17, 1994, No. TPE331–72–7131, dated June 17, 1994, and No. TPE331–72–7523, dated February 17, 1995, that describe forward coupling shaft (stub shaft) cyclic life limits.

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 establish cyclic retirement lives for main shouldered shafts (tieshafts) and forward coupling shafts (stub shafts). The actions would be required to be accomplished in accordance with the SB's described previously.

There are approximately 200 engines of the affected design in the worldwide fleet. The FAA estimates that 150 engines installed on aircraft of U.S. registry would be affected by this proposed AD, that it would take approximately 80 work hours per engine to accomplish the proposed actions, and that the average labor rate is $60 per work hour. Required parts would cost approximately $22,000 per engine for engines where tieshafts and stub shafts are not serviceable. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be $4,020,000.

The regulations proposed herein would not have substantial direct effects on the States, on the relationship