

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 2001-NM-184-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. 2001-NM-184-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

#### **Discussion**

The FAA has received numerous reports indicating that cracking has occurred in the auxiliary spar cap of the lower inboard near the outboard attach bolts on various McDonnell Douglas Model DC-8 airplanes. The cracking occurred on airplanes that have accumulated more than 36,000 total flight hours. Investigation indicates that the cracking appeared to be due to stress corrosion. Such cracking of the auxiliary spar cap, if not detected and corrected, could cause excessive loads on the structure attaching the support fitting of the main landing gear (MLG) to the wing, and result in loss of the MLG.

#### **Explanation of Relevant Service Information**

The FAA has reviewed and approved McDonnell Douglas DC-8 Service Bulletin 57-85, Revision 1, dated July 5, 1991. That service bulletin describes procedures for performing repetitive detailed and dye penetrant inspections to detect stress cracking of the auxiliary spar cap of the lower inboard of the left and right wings. For cracking that is within certain limits, the service bulletin describes corrective actions such as repair or rework and application of corrosion-inhibiting compound, if necessary. For any cracking that is outside the limits specified in the service bulletin, the service bulletin describes procedures for replacing the auxiliary spar cap with either a new spar cap made with 7075-T6 aluminum

or with a new, improved spar cap made with 7075-T73 aluminum. Additionally, for any cracking that is detected at the bathtub end of both forward and aft bolt holes, the service bulletin describes procedures for replacement of those MLG fittings with new or serviceable fittings. Accomplishment of the actions specified in the service bulletin is intended to adequately address the identified unsafe condition.

#### **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 an inspection to determine the material composition of the auxiliary spar cap. If the spar cap is made of 7075-T6 aluminum, the proposed AD would require accomplishment of the actions and procedures specified in the service bulletin described above for the repetitive inspections for cracking, and repair, rework, and replacement of the spar cap if necessary.

Operators should note that the FAA has received information indicating that there may be a parts availability problem in procuring spar caps made of 7075-T73 aluminum. However, we have determined that the repetitive inspections proposed by this AD can be allowed to continue in lieu of accomplishment of the terminating action (replacement of both spar caps with caps made of 7075-T73 aluminum). In making this determination, we consider that, in this case, long-term continued operational safety will be adequately assured by accomplishing the repetitive inspections to detect cracking of the auxiliary spar cap before it represents a hazard to the airplane.

#### **Differences Between This NPRM and the Service Information**

The FAA considers that, prior to performing the inspections and corrective actions described in the service bulletin above, it is necessary to perform an inspection to determine the material composition of the auxiliary spar cap of the lower inboard of the left and right wings. That inspection may be done per a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, or by performing an eddy current test of the auxiliary spar cap per the Non-Destructive Testing Standard Practice Manual MDC-93K0393 (NDTSPM) 06-10-01.006. If the auxiliary spar cap is composed of 7075-T6 aluminum, this proposed AD would require

accomplishment of the actions specified in the service bulletin described above, as applicable.

Additionally, operators should note that, although the service bulletin specifies that the manufacturer may be contacted for disposition of certain cracking outside the limits specified in the service bulletin, this proposal would require the disposition of any such cracking that was detected to be accomplished per a method approved by the FAA.

#### **Cost Impact**

There are approximately 264 airplanes of the affected design in the worldwide fleet. The FAA estimates that 244 airplanes of U.S. registry would be affected by this proposed AD. We estimate that it would take approximately 2 work hours per airplane to accomplish the proposed inspection to determine the material of the spar cap. We estimate that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be \$29,280, or \$120 per airplane, per inspection cycle.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this proposed AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

#### **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