

SUMMARY: This amendment adopts a new airworthiness directive (AD), that is applicable to General Electric Company (GE) CF6–80A1/A3 and CF6–80C2A PMC series turbofan engines. This amendment requires performing either a directional pilot valve (DPV) pressure switch moisture purge procedure and an operational check of the fan reverser or replacing the DPV assembly with a serviceable assembly and performing an operational check of the fan reverser. Thereafter, this AD requires one of these actions on a repetitive basis. This amendment is prompted by a review of fan reverser safety analyses resulting from the discovery of an undetectable failure mode of the DPV pressure switch on certain GE CF6–80C2A and CF6–80A1/A3 engine models. The actions specified by this AD are intended to prevent inadvertent fan reverser deployment, which, if it occurred in-flight, could result in loss of control of the airplane.

DATES: Effective July 23, 2003. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 23, 2003.

ADDRESSES: The service information referenced in this AD may be obtained from Middle River Aircraft Systems, Mail Point 46, 103 Chesapeake Park Plaza, Baltimore, MD, 21220–4295, telephone: (410) 682–0094; fax: (410) 682–0100. This information may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Karen Curtis, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803–5299; telephone (781) 238–7192; fax (781) 238–7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that is applicable to General Electric Company (GE) CF6–80A1/A3 and CF6–80C2A PMC series turbofan engines was published in the **Federal Register** on June 21, 2002 (67 FR 42202). That action proposed to require performing either a directional pilot valve (DPV) pressure switch moisture purge procedure and an operational check of the fan reverser, or replacing the DPV assembly with a serviceable assembly and performing an operational check of the fan reverser.

Thereafter, that action proposed to require one of these actions on a repetitive basis in accordance with Middle River Aircraft Systems Alert Service Bulletins (ASBs) CF6–80A1/A3 SB 78A4030, dated April 4, 2002 or CF6–80C2A PMC SB 78A1118, dated April 4, 2002.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request to Revise Applicability Statement

One commenter requests that the applicability statement be revised to reference the left-hand fan reverser halves associated with the engines instead of the engine models themselves. The commenter believes that the DPV assembly is not a part of the engine, but is instead a part of the left-hand fan reverser half. The commenter notes the fact that the reverser halves and engines can be removed or installed separately.

The FAA does not agree. The FAA acknowledges that in service the engines and fan reversers can be separated, with the possibility of reversers remaining installed on-wing, while different engines are installed. However, the fan reverser assembly and, therefore, the DPV are part of the engine (14 CFR part 33) type design. The applicability to the engine model is, therefore, appropriate. No changes will be made to the AD as a result of this comment.

Request to Add Isopropyl Alcohol as an Alternate to Acetone

One commenter requests that isopropyl alcohol be allowed as an acceptable alternate to the acetone solvent listed in the consumables of the ASBs as the fluid used for purging moisture from the DPV pressure switch assemblies. The commenter notes that some airports may restrict the use of acetone. The commenter also notes that the DPV assembly manufacturer has agreed that alcohol is an acceptable alternate for acetone for the purposes of accomplishing the moisture purge service bulletins.

The FAA agrees that isopropyl alcohol is an acceptable alternate for acetone for this application. The FAA, GE, and the component manufacturer, previously identified this issue and the ASBs were revised on August 23, 2002, to allow the use of isopropyl alcohol. The compliance section of this final rule

AD has been revised to add Revision 1 to each of the ASBs.

Alternative for Replacement of Serviceable DPV

One commenter requests that deactivation of the fan reverser be allowed as an alternative to replacement with a serviceable DPV. The commenter cites a previous AD (99–18–19) that allowed deactivation instead of a DPV leak check inspection.

The FAA agrees and the final rule is revised to allow deactivation. Limitations for operation with one or more reversers deactivated have also been added and are consistent with the previous AD.

Request to Rewrite Description of the Failure Sequence

One commenter requests that the description of the failure sequence in the discussion section of the NPRM preamble be reworded to clarify that an additional failure is required in order for the undetectable DPV pressure switch freezing failure to result in an inadvertent deployment (IAD). The commenter believes that the current statement is misleading. The commenter believes that in addition to the pressurization failure, a directional failure is required before an IAD can occur.

The FAA does not agree. While the FAA agrees that the wording could have been clearer, the requested change does not affect the conclusion that an unsafe condition has been identified. In addition, the Discussion section details are not repeated in the final rule after an NPRM, and therefore, the AD remains unchanged as a result of this comment.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.