



SUBJ: Engine Fuel and Control: FADEC Fuel Metering Valve Resolver
Feedback Faults

SAIB: NE-10-37
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This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) advises the owners and operators of airplanes equipped with **General Electric Company (GE) CF6-80C2 series turbofan engines** of the potential for engine in-flight shutdowns (IFSDs). This SAIB applies to GE CF6-80C2 series engines controlled by a Full Authority Digital Electronic Control (FADEC) in any airplane configuration, except Boeing 747 and 767 airplanes that have incorporated FADEC software version 8.2.R. These engines are installed on Boeing 747, 767, Airbus A300, and McDonnell Douglas MD-11 airplanes. At this time, the airworthiness concern is not an unsafe condition that would warrant airworthiness directive action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

The potential engine IFSDs addressed by this SAIB are due to feedback faults on both FADEC channels from the Fuel Metering Valve (FMV). A single-channel FMV feedback fault is not annunciated to the crew and is recorded only in the maintenance computer. The maintenance computer overwrites the recorded fault every 64 engine cycles, so an intermittent fault may go unnoticed if the maintenance computer is not read while the fault is active and recorded. A dual-channel FMV feedback fault will cause an uncommanded engine IFSD.

Recommendations

To prevent a single-channel intermittent fault from progressing to a dual-channel fault and subsequent IFSD, it is recommended that the maintenance computer be queried at more frequent intervals. The maximum recommended maintenance computer review interval is every 1,000 flight hours. If an FMV feedback fault message is found in the maintenance computer, disposition the fault using the appropriate aircraft Fault Isolation Manual (FIM). If no cause is found for the FMV fault, replace the Hydromechanical Unit on the engine. For Boeing 767 applications, see GE CF6-80C2 Service Bulletin No. CF6-80C2 S/B 73-0372 for information on detecting FMV feedback faults and positioning the hardware if a fault is found.

Additionally, FADEC software version 8.2.R is available for engines installed on Boeing 747 and 767 applications. FADEC software version 8.2.R latches the FMV feedback fault and will prevent the maintenance computer from automatically overwriting fault-related information. For engines installed on Boeing 747 and 767 series airplanes, we recommend installing FADEC software version 8.2.R or more recent version, as an additional safety measure to prevent IFSDs due to dual-channel FMV feedback faults. Once FADEC software version 8.2.R or more recent version is installed, the reduced maintenance computer check interval would no longer be necessary.

For Further Information Contact

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For Related Service Information Contact

GE Aviation Operations Center, telephone (513) 552-3272; or GE Aviation Customer Web Center, on the Web at <https://customer.geae.com>.