FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: NE-10-47
SUBJ: Turbine Engine Compressor Section **Date:** August 30, 2010

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts you, owners, operators, and certificated repair facilities of airplanes equipped with **Pratt & Whitney Canada Corp. PT6A-114 and PT6A-114A series turboprop engines** of the potential for engine in-flight shutdowns (IFSDs) as a result of premature failure of compressor turbine (CT) blades. These engines are installed on Cessna Aircraft Company 208 and 208B Caravan 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 operating the engine beyond the power settings specified in the respective Aircraft Flight Manual (AFM) and/or inadequate maintenance practices. Operating the engine above the specified AFM limits during climb and cruise has largely contributed to incidents of accelerated CT blade creep and a reduction in the operating life of the blades. Failure to comply with operating procedures is a significant contributor to CT blade failure.

Recommendations

To prevent CT blade failure and reduce blade distress, we recommend the detection and control of hot section sulfidation, oxidation, and blade erosion. This is done in accordance with the Engine Maintenance Manual recommendations for periodic fuel nozzle maintenance, concurrent borescope inspections of hot section components including CT blade and vane airfoils, engine condition trend monitoring, and regular turbine washing per engine maintenance manual recommendations.

For Further Information Contact

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For Related Service Information Contact

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