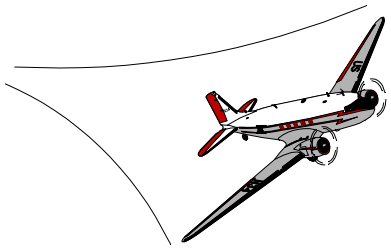
SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department
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This is issued for informational purposes only and any recommendation for corrective action is not mandatory.

INTRODUCTION: The purpose of this Special Airworthiness Information Bulletin is to alert repair stations, owners/operators, and Principal Maintenance Inspectors in the Federal Aviation Administration (FAA) Flight Standards District Offices (FSDO's) to the importance of using the enhanced inspection criteria provided for JT15D-1 and JT15D-4 high pressure compressor (HPC) impellers by temporary revisions (TR) TR 72-20 and TR 72-21 to Pratt & Whitney Canada (PWC) overhaul manual (OHM), Part Number (P/N) 3017543. These TR's were issued as a result of the investigations into two uncontained JT15D-1 impeller failures which occurred during 1996.

AFFECTED PRODUCTS: All Pratt & Whitney Canada JT15D-1/ -1A/ -1B/ -4/ - 4B/ -4D series engine models installed on the following aircraft; Aerospatiale Corvette model 100, Cessna Citation I models 500 and 501, Cessna Citation II models 550 and 551, Cessna Citation SII model 550, Mitsubishi MU-300/Diamond I and IA.

BACKGROUND: Two PWC JT15D-1 engines experienced uncontained failures caused by the liberation of a significant piece of the HPC impeller rim during 1996. In both events the impeller pieces penetrated the unpressurized portion of the fuselage adjacent to the engine. The investigation into these two events has indicated that the liberations were probably caused by surface irregularities on the back face of the impeller, which resulted in crack initiation and propagation to failure. The cause of these irregularities has not yet been determined, but the investigation has indicated that they probably existed and were not detected during the last overhaul of these two engines.

As a result of this investigation, PWC has provided more detailed impeller inspection information to improve the inspection process and minimize the risk of similar liberation events in the future. This enhanced impeller inspection information has been issued in TR 72-20 and TR 72-21 to PWC OHM P/N 3017543. This manual is applicable to the JT15D-1/ -1A/ -1B/ -4/ -4B and -4D series engine models. This information details various areas of the impeller including, and in addition to, the back face. It also includes instructions for handling the impeller and for repair of surface irregularities. To minimize the risk of JT15D-1 and JT15D-4 series engine impeller failures, the information provided in these TR's should be used during engine overhauls. TR 72-20 and TR 72-21 are expected to be included in PWC OHM P/N 3017543 at the next revision.

RECOMMENDATIONS: Repair stations, owners/operators and FAA FSDO's should ensure that the enhanced impeller inspection, handling and repair instructions introduced by TR 72-20 and TR 72-21 to PWC OHM P/N 3017543 are complied with during the overhaul of JT15D-1, and JT15D-4 series engines. Copies of TR 72-20 and TR 72-21 may be obtained from:

Pratt & Whitney Canada, Inc.
ATTN: Alicia Payne
1000 Marie - Victorin
Longueuil, Quebec, Canada J4G 1A1

FOR FURTHER INFORMATION CONTACT:

Richard Woldan, Program Manager, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803, Telephone (617) 238-7136, Fax (617) 238-7199.