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Dated: 13th December, 2016

Dear Sir,

RESTORATION OF ATR AIRCRAFT OPERATION

1. Due to serious nature of incidents on the fleet of ATR, PCAA has reviewed the complete system for maintenance of ATR in PIAC. As a preventive measure, shakedown inspections of all ATR aircraft are in progress. The technical records of all aircraft have also been reviewed and some significant observations have been noticed. The results of audits conducted by Airworthiness field offices are indicating shortcomings in maintenance, quality assurance and Airworthiness Management System of PIAC. The safe operation of ATR aircraft requires not only compliance with regulatory requirements but also with recommendations of OEM of aircraft and its engines.

2. The engine trend analysis and the health monitoring of engines is the prime responsibility of PIAC. PCAA collected the statistical data of total engines failed since the induction of ATR aircraft. The analysis of data is reflecting an alarming trend of engine failures due to HPT blades, Main Bearings, Surging and Oil system issues. In 2007, at the time of induction of ATR aircraft, the HPT blades hard time life given by OEM P&W was 15000 cycles. If an average rate of utilization per cycle is taken as 01FHr, then total life of HPT blades should have been 15000FHrs but within a span of (04) four years, M/s PIAC had (06) six in-flight shutdowns, due to which, on the recommendations of OEM, PIA had agreed to reduce the life of Hot Section components to 5000 FHrs. Even with adoption of program for replacement of HPT blades at 5000 FHrs, the critical issue of In-flight shutdown could not be controlled. As per data for premature failure of PW 127 engines, PIAC had 20 incidents of In-flight shutdowns due to HPT blades failures. It is evident from the records that beside turbine blades numbers of engines failed due to Bearings Failure, High EGT, Surging of compressors, Seizure of Impellers, Breaking of Spline Shaft of Accessory Gear Box, etc. Total cases of schedule/un-schedule engine removals were 90 and out of these, most of the cases are attributed to core engine component failures.

3. Please note that PCAA is doing its best to assist PIAC in evaluation of the current status of ATR aircraft fleet by performing the Shakedown Inspections but the inspections of internal conditions of ATR engines is beyond our scope. It is either the PIAC engine specialist staff or the representatives of OEM, who can provide the true picture of internal conditions of all the installed engines.

4. All the observations made during Shakedown inspections need to be addressed on priority for early restoration of ATR fleet operation. However, clearance of engine for operation resumption of ATR be sought through technical expert from OEM and Qualified staff of PIAC.

Your's Sincerely

d/c

(NADEEM SHARIF PASHA)
Deputy Director General (Reg.)
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To,

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Internal:

- Secy. to Addl. DGCAA
- SO(1) to DGCAA