

## EXECUTIVE SUMMARY

## AIRCRAFT ACCIDENT INVESTIGATION

KC-10, S/N 79-1713

McGUIRE AIR FORCE BASE, NJ

7 JUNE 2001

On 7 June 2001, a KC-10, S/N 79-1713, assigned to the 32 ARS, 305 AMW, McGuire AFB returned from a C-check at Boeing Aerospace Support Center (BASC), San Antonio, TX. During the acceptance inspection metal chips and shavings were found in the #2 engine, S/N 517563. Inspection of the engine revealed damage to the compressor section. The chips and shavings were sent to Wright-Patterson AFB for analysis. The damaged compressor blades were sent to Failure Analysis Service Technology, Inc for analysis. There were no injuries or damage to private property as a result of this mishap.

When the engine was being disconnected, three panel screws were found lying on the engine. Two were lying at the top of the engine fan case and the third was lying in the oil-servicing scupper. A ballpoint pen was also discovered on the left hand side engine accessory gearbox mount link. Further investigation revealed that a Boeing employee lost a 1/4" socket while working on the #2 engine during the C-check at BASC.

Inspection of the metal chips and shavings revealed some low alloy steels, which are generally not used in aircraft engine applications. The analysis supports the conclusion that a foreign object was ingested into the engine.

The primary cause of the mishap was due to foreign object debris (FOD) entering the engine from the acceleration bleed valves. I believe that the FOD in question was a 1/4" socket and an undetermined number of metal screws. I believe the FOD was allowed into the engine during the C-check inspection conducted at the BASC in San Antonio, Texas.

Under 10 U.S.C. 2254(d), any opinion of the accident investigators as to the cause of, or the factors contributing to, the accident set forth in the accident investigation report may not be considered as evidence in any civil or criminal proceeding arising from an aircraft accident, nor may such information be considered an admission of liability by the United States or by any person referred to in those conclusions or statements.