

EXECUTIVE SUMMARY
AIRCRAFT ACCIDENT INVESTIGATION
KC-10, TAIL NUMBER 86000035
YOKOTA AB, JAPAN

22 JUN 01

On 21 Jun 01 a KC-10A, tail number 86-0035, assigned to the 32nd ARS, 305 AMW, McGuire AFB, NJ departed Yokota AB, Japan enroute to Changi International Airport, Singapore. During the flight, the #2 engine exhaust gas temperature (EGT) "failed a coupon" indicating 40-50 degrees higher than #1 or #3 engine; the three previous coupons also registered elevated EGT for that engine. The crew decided to J-divert (return to base for maintenance reasons) into Yokota to address the engine malfunction rather than proceed to Singapore. On 22 Jun 01 during an engine diagnostic run at Yokota Air Base Japan the engine compressor stalled. Upon inspection of the #2 engine debris was found in the exhaust and boroscope revealed extensive compressor damage requiring an engine change.

The primary cause of the mishap was FOD. The #2 engine ingested a cadmium fastener most likely during an air-refueling training mission on 12-14 Jun 01. The cadmium fastener impacted the leading edge of the LPC-2 booster blade, the HPC IGV and HPC-1 blades #1, #6 and #29. The fastener initiated a fatigue crack in the HPC-1 #1 blade. The blade fractured due to fatigue approximately 17 hours later, most likely during the engine run. The liberated blade traveled downstream, damaging the compressor to the point of causing the stalls on 22 Jun 01.

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.