

EXECUTIVE SUMMARY

AIRCRAFT ACCIDENT INVESTIGATION

F-16C, S/N 87-0330

CANNON AIR FORCE BASE, NEW MEXICO

21 MARCH 2001

On 21 March 2001, at 1105 Mountain Standard Time, an F-16C aircraft, S/N 87-0330, experienced engine failure approximately eight minutes after take-off and impacted the ground on the Melrose Bombing Range, approximately 21 miles west of Cannon AFB, New Mexico. The mishap aircraft (MA) and mishap pilot (MP) were assigned to the 522 Fighter Squadron, 27 Fighter Wing, Cannon AFB, New Mexico. The MA was totally destroyed upon impact, with the loss valued at \$19,611,592.59. The MP ejected safely and sustained minor injuries, none requiring medical treatment. There was no damage to government or private property, and there were no civilian injuries in this mishap.

The MP was flying the second sortie of a two-sortie training profile, which included a four-ship low altitude intercept training sortie. While in a 90-degree right turn, the MP heard a loud bang and felt the whole aircraft vibrate. The MP then heard a series of three or four more bangs, accompanied by vibration and RPM rollback indicating engine failure. The MP turned the MA towards Cannon AFB, the closest airfield, then accomplished three unsuccessful attempts to restart the engine. Being at low altitude and unable to restart the engine, the MP ejected from the aircraft.

There is clear and convincing evidence the number 3 bearing cage fractured, leading to bearing contact with both the inner and outer race surfaces, bearing spall, and eventual complete failure of the number 3 main thrust bearing. This failure, in turn, led to an aftward shift of the compressor, causing blade-to-vane contact, fire, and ultimately engine seizure. Post-impact examination of the recovered wreckage indicates the aircraft was structurally intact and all aircraft systems, except the engine, were operating within operational parameters prior to ground impact.

There is substantial evidence that the failure to perform a proper maintenance preflight inspection and the inability to identify filter contamination prior to the flight substantially and directly contributed to the mishap.

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.