

EXECUTIVE SUMMARY

AIRCRAFT ACCIDENT INVESTIGATION F-16CG, S/N 89-2115 HILL AIR FORCE BASE, UTAH 30 MARCH 2006

On 30 March 2006, at 1415 hours Mountain Daylight Time (2115 Zulu), an F-16CG aircraft, serial number 89-2115, crashed approximately 30 nautical miles southwest of Hill Air Force Base (AFB), Utah, in an unpopulated dry portion of the Great Salt Lake. The Mishap Aircraft (MA) and Mishap Pilot (MP), assigned to the 421st Fighter Squadron, 388th Fighter Wing, Hill AFB, Utah, were participating in a training mission when the MA experienced an engine compressor stall approximately one hour and five minutes after takeoff. Although the stall initially cleared, the MA was unable to produce the thrust required to maintain level flight. The MP ejected safely and sustained only minor scratches and bruises. There were no civilian injuries or damage to private property. The state land where the aircraft impacted experienced only transient apertures from the impact, and all environmental hazards were contained within eight hours.

The mishap mission was briefed as a four-ship Close Air Support upgrade sortie. As the Mishap Flight was preparing to leave the training range, the MP received both auditory cues and cockpit indications of an engine compressor stall. The MP jettisoned his stores, began an immediate climb, and attempted to clear the stall. The engine stall cleared, but the aircraft still exhibited vibrations at all power settings, with extreme vibrations and subsequent engine stall indications at power settings above approximately 85%. When the MP determined he could no longer maintain level flight he initiated a turn toward dry land to avoid ejection over the waters of the Great Salt Lake. The MP ejected over land and sustained only minor injuries during the ejection. The MA was destroyed on impact. The MP was recovered by a civilian Life Flight helicopter from the University of Utah Medical Center.

The primary cause of the mishap, supported by clear and convincing evidence, was the failure of the Number 4 bearing assembly within the General Electric (GE) F110-GE-100 engine. This failure caused turbine blade-to-shroud interference as evidenced by severe compressor blade tip rub and grooving of the honeycomb seals, which resulted in engine degradation and reduced efficiency to a point insufficient for providing the thrust required to maintain level flight. Distance to the nearest recovery field was beyond the MA's glide capabilities, negating any chance of safely recovering the MA. Post-impact examination of the recovered wreckage indicated the aircraft was structurally intact and all aircraft systems, except the engine, operated normally prior to ground impact.

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 the accident, nor may such information be considered an admission of liability of the United States or by any person referred to in those conclusions or statements.