

**EXECUTIVE SUMMARY
AIRCRAFT ACCIDENT INVESTIGATION
F-16D, SN 84-1319
LUKE AIR FORCE BASE, ARIZONA
4 DECEMBER 2006**

On 04 December 2006, at 0831 local time (1531 Zulu), the mishap aircraft (MA), an F-16D, serial number 84-1319, crashed on the Barry Goldwater Range approximately 18 miles south of Gila Bend, Arizona. The MA and mishap crew (MC) were assigned to the 62d Fighter Squadron, 56th Fighter Wing, Luke Air Force Base (AFB), Arizona, and were part of a Surface Attack (SA) upgrade mission. The MC ejected safely. There were no civilian injuries or damage to private property.

The Mishap Pilot (MP) and the Mishap Instructor Pilot (MIP) were on a Surface Attack profile and had just completed multiple high altitude bombing patterns. While setting up for low altitude bombing patterns, the MC heard a loud bang and experienced decreasing thrust. The MC turned towards Gila Bend auxiliary airfield, informed the lead aircraft over the radio that they had an engine problem, and attempted two engine restarts.

The MC, having confirmed that the engine was unresponsive and recognizing that the MA was at too low an altitude to make it to Gila Bend, safely ejected and sustained no injuries. The MA was destroyed on impact with a loss valued at approximately \$21 million. The MA impacted on government property.

Clear and convincing evidence establishes that a material failure in the diffuser case was the root cause of a chain of events that caused the MA to enter a non-recoverable engine stagnation and crash. Through post-crash analysis, it was determined that the diffuser case failed due to fatigue in the upper side of the weld on the combined AP4/igniter boss on the right hand side of the engine. The MC correctly determined that the engine could not be restarted and the aircraft could not be recovered. The MC safely ejected.

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.