

EXECUTIVE SUMMARY  
AIRCRAFT ACCIDENT INVESTIGATION  
F-16C, S/N 84-1296  
LUKE AIR FORCE BASE, ARIZONA  
26 OCTOBER 2006

On 26 October 2006, at 1500L (2200Z), the mishap aircraft (MA), an F-16C, S/N 84-1296, experienced an engine fire during takeoff. The MA, assigned to the 62d Fighter Squadron (62 FS), 56th Fighter Wing (56 FW), Luke AFB, AZ, was lead of a two-ship afterburner formation takeoff and basic fighter maneuver sortie.

Shortly after selecting afterburner for takeoff, the MA experienced an engine explosion followed by an engine fire. The mishap pilot (MP) aborted on the runway and egressed from the MA. The MA sustained significant damage and was declared a total loss valued at approximately \$22 million.

Clear and convincing evidence establishes the cause of the explosion as third stage fan disk failure. A region of overstress existed in a bolt hole of the third stage fan disk, which caused the bolt hole to fracture. This bolt hole fracture caused the other parts of the third stage fan disk to fracture during the initial power up for takeoff. These pieces of the engine created exit holes in the airframe. The openings penetrated the fuel tank and ignited a fire. A fuel fed fire damaged the engine and aft portion of the airframe.

The MP followed emergency procedures and safely ground egressed from the MA on the runway. The MP did not sustain any injuries. The Luke AFB fire department extinguished the fire at approximately 1510L, without any injury to personnel or equipment.

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 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.