

## EXECUTIVE SUMMARY

### AIRCRAFT ACCIDENT INVESTIGATION

#### F-15E STRIKE EAGLE, T/N 90-0254 SOUTHWEST ASIA 3 MAY 2012

On 3 May 2012 at approximately 0718Z/1118L the mishap aircraft (MA), an F-15E, tail number (T/N) 90-0254, forward deployed with the 391<sup>st</sup> Expeditionary Fighter Squadron (EFS) to the 380<sup>th</sup> Air Expeditionary Wing (AEW), Southwest Asia, impacted the ground approximately 65 nautical miles south of the host nation Air Base (AB). The mishap sortie was a training mission deployed under a Theater Support Package to the United States Central Command (CENTCOM) Area of Responsibility (AOR). The crash occurred in an unpopulated area and the mishap aircraft was destroyed with a loss valued at \$45,538,495.76. The mishap crew (MC) safely ejected from the aircraft with no injuries and was quickly recovered by host nation search and rescue forces. No known civilian injuries resulted from the mishap, and only minimal damage to a few irrigation lines occurred. There was little media interest following the initial reports of the mishap.

On 3 May 2012 at 0629Z/1029L, the MA took off from the host nation AB, for a routine training sortie simulating enemy fighter tactics (Red Air) against friendly forces (Blue Air). The MC was flying as a wingman in a package of six F-15Es acting as Red Air. The MC's objective was employment of notional ordnance on a point defended by Blue Air. At 1050L the training profile began. At 1116L the mishap pilot (MP) initiated a climb from 2400 feet (ft.) to 10,000 ft. to meet airspace requirements and advanced the throttle to the maximum afterburner setting. Soon after, the MC heard a loud bang and received indications of an overheat condition in the right engine and shut it down. Near simultaneously, the MC began to experience significant uncommanded right roll and yaw of the aircraft. At 1117L, the MP jettisoned all external aircraft stores in an attempt to improve aircraft controllability; this had no apparent effect and the MP continued to struggle with the aircraft. Quickly following, the MC received indications of a fire in the right engine and Aircraft Mounted Accessory Drive. The MP employed the fire extinguisher system into the right engine. The MA then experienced complete electrical system and communications failure. With the aircraft at the prescribed uncontrolled bailout altitude and fire continuing to burn in the right engine compartment the MP used hand signals to command bailout. The MC safely ejected from the MA. The MA crashed 10-20 seconds later.

The Accident Board President found by clear and convincing evidence the cause of the mishap was catastrophic failure of the right engine. The cause of the engine failure, by clear and convincing evidence, was a rare ignition of the titanium components within the engine resulting in an extremely destructive fire. This fire led to associated failure of critical hydraulic systems, which by a preponderance of the evidence, was a substantially contributing factor to the mishap. The loss of the right engine and critical hydraulic systems made the aircraft uncontrollable and resulted in the eventual crash.

*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, if any, 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.*