EXECUTIVE SUMMARY

F-16C, T/N 85-1413
NELLIS AIR FORCE BASE, NEVADA
28 JUNE 2011

On 28 June 2011, at 1716 local time, an F-16C aircraft, tail number (T/N) 85-1413, impacted the ground approximately 95 miles north of Nellis Air Force Base (AFB), while participating in a training mission. The mishap pilot (MP) was killed. The MP was assigned to the 53rd Wing out of Eglin AFB, but was based at Nellis AFB with the 422d Test & Evaluation Squadron (TES). The mishap aircraft (MA) belonged to the 57th Wing at Nellis AFB. The MP was flying a basic fighter maneuver (BFM) training mission with a mishap wingman (MW) in a second F-16C. The MW is assigned to the United States Air Force Warfare Center, but flies missions with the 422 TES. The MA was completely destroyed upon impact, with a loss valued at $21,298,607. The MA crashed in an unpopulated Bureau of Land Management wilderness area causing incidental damage to a small area of vegetation but no damage to property.

The primary purpose of this mission was to provide a final proficiency training sortie for the MP prior to his start at USAF Weapons Instructor Course (WIC), which was to begin the following week. The MP was focused on WIC preparation and needed one more sortie to complete the attendance prerequisites.

The mishap occurred during F-16 simulated air-to-air combat engagements between the MP and MW. The training engagements subjected the pilots to high levels of sustained gravitational forces (G forces, or Gs) of up to 9 Gs, often at high G onset rates (greater than 6 Gs per second). Twenty-six minutes into the mission, during a planned high-speed turning maneuver likely involving 8 or more Gs, the MA stopped maneuvering and began a steep descending flight path consistent with an aircraft no longer being controlled by the pilot. The MA impacted the ground. There was no evidence of an attempt by the MP to eject or to maneuver the MA prior to impact.

The AIB President found clear and convincing evidence to conclude the cause of the mishap was a G-Induced Loss of Consciousness (G-LOC) experienced by the MP during the high G maneuver. The AIB President found by a preponderance of the evidence that the MP did not adequately perform an anti-G straining maneuver (AGSM) which led to the G-LOC. A preponderance of evidence indicates the MP had excessive motivation to succeed during his fourth engagement and had slight fatigue, which resulted in the MP not adequately performing an AGSM. Furthermore, the MA was in a clean configuration (minimal external stores) that would have enabled a higher G onset rate than what the MP was used to flying. The AIB President found no evidence the MP's physical or mental condition, or Operations' supervision and training contributed to the accident. Additionally, a thorough review of maintenance procedures revealed no problems or adverse trends which could have contributed to the accident.