

EXECUTIVE SUMMARY
AIRCRAFT ACCIDENT INVESTIGATION
F-16CG, S/N 89-2031
112th EXPEDITIONARY FIGHTER SQUADRON, BALAD AIR BASE, IRAQ
15 JUNE 2007

On 15 June 2007, at approximately 0027 hours local time (L), an F-16CG fighter aircraft, S/N 89-2031, crashed shortly after takeoff, approximately 5.5 nautical miles from the departure end of runway 32, Balad Air Base (AB), Iraq. The mishap aircraft (MA) was assigned to the 112th Expeditionary Fighter Squadron (EFS), deployed from the 138th Fighter Wing, Oklahoma Air National Guard, Tulsa, Oklahoma. The mishap pilot (MP) was assigned to the 112th EFS and deployed from the 180th Fighter Wing, Ohio Air National Guard, Toledo, Ohio to the 332d Air Expeditionary Wing, Balad AB, Iraq. The MA was destroyed upon ground impact. The MP made no attempt to eject and died immediately on impact. No personnel or objects on the ground were injured or destroyed during the crash.

The mishap sortie began as a night close air support mission. Approximately 90 seconds after takeoff roll, the MP deviated from the planned climbout by initiating a level off at 4,500 feet mean sea level (MSL). The MA entered a slow, insidious right hand bank to 36.6 degrees right wing down. When the MP recognized the right bank, he made an aggressive roll correction toward wings level attitude. Under night instrument meteorological conditions (IMC), this rapid correction created a physiological condition commonly referred to as "the leans" which produced a sensation to the MP that he was overcorrecting to the left. After the correction towards wings level, the MP then diverted his attention away from his instrument crosscheck. The MA began another slow right hand roll to approximately 120 degrees right wing down attitude. Absent a discernable horizon, this imperceptible angular acceleration would leave the MP feeling as if the aircraft was maintaining a wings level attitude.

An altitude alert aural warning at approximately 4,000' above ground level brought the MP's attention back to his instrument crosscheck. The MP interpreted the "ALTITUDE-ALTITUDE" voice warning and the false sensation of wings level as a pitch problem and immediately applied aft stick pressure resulting in approximately positive 2 Gs pull increasing the rate of descent. The MP did not make any significant bank angle corrections, reinforcing the conclusion that he did not perceive the insidious roll that led to an overbank condition. In the final two seconds of the mishap sequence, the MP recognized the overbank situation and began an appropriate nose low recovery by rolling toward the horizon and increasing back stick pressure. The MP did not have sufficient altitude to complete the recovery maneuver prior to ground impact. The aircraft impacted the ground, and the MP sustained fatal injuries.

By clear and convincing evidence, the cause of the mishap was spatial disorientation resulting from the MP's aggressive roll correction shortly after initiating a level off maneuver and the inability to establish an effective crosscheck while operating in the low altitude environment. I further find sufficient evidence that the night instrument meteorological (IMC) conditions, which offered no visible horizon were substantially contributing factors.

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