## **EXECUTIVE SUMMARY**

Aircraft Accident Investigation F-16CJ, Blk 52, S/N 90-0809 and F-16CG, Blk 42, S/N 88-0542 Nellis Air Force Base, Nevada 8 August 2000

On 8 August 2000, at 1643L, PDT (2343 Zulu), an F-16CG, S/N 88-0542 (mishap aircraft 2 (MA-2), call sign VIPER 4), crashed west of Mormon Peak, 19 miles north of Moapa, Nevada (N36°58'74/W114°31'), after colliding with an F-16CJ, S/N 90-0809 (MA-1, call sign VIPER 1). Both the F-16s were assigned to the 422<sup>nd</sup> Test and Evaluation Squadron, 53<sup>rd</sup> Wing, Nellis Air Force Base, Nevada. Both aircraft were part of a mission of four aircraft, supporting a test upgrade tactical intercept syllabus sortie for the number two aircraft. MA-1, which sustained damage to the left wing and pylon and minor damage to the rudder, was able to land. The pilot of MA-2 ejected safely, with minor injures. MA-2 impacted the northwest slopes of the Mormon Mountains without causing any civilian property damage or injuries.

MA1 and MA2 were flying in opposing two-ship elements. VIPER 1 (MA-1), leading VIPER 2 in the 422 TES upgrade program, was engaging VIPER 3 and VIPER 4 (MA-2, of the second element), in a visual identification scenario. The second element was simulating MIG-29 aircraft. The second element had radar locks on the first element, forcing VIPER 1 and VIPER 2 into defensive reactions. VIPER 1 then lost radar situational awareness on the second element. During the maneuvering, VIPER 2 lost sight of VIPER 1 and never regained visual contact. After defensive maneuvering, VIPER 1 (MA-1) turned in the direction of the opposing aircraft. He automatically locked VIPER 3 and flew pure pursuit geometry, resulting in a flight path conflict with VIPER 4. Meanwhile, VIPER 4 had gained a tally on VIPER 2 and was committing to a short-range engagement; however, he was unable to see VIPER 1 underneath his aircraft. VIPER 1's aircraft (MA-1) collided with VIPER 4's aircraft (MA-2) with approximately 130 degrees of aspect. The left wing tip and pylon of MA-1 impacted the center portion of MA-2's left wing and then the horizontal stabilizer, causing them to separate. MA-2 was uncontrollable and was destroyed on impact.

There is clear and convincing evidence that this mishap was caused by VIPER 1's failure to clear his flight path or stop the engagement, after entering his opponent's pre-planned altitude block in violation of training rules. VIPER 1 did not have adequate situational awareness. Three factors substantially contributed to the mishap. First, VIPER 1 suffered from channelized attention. Second, VIPER 1 misinterpreted the situation leading to inadequate visual lookout and bad assumptions about his actual aircraft position. Third, the second element (VIPER 3 and 4) was complacent about exercising good communication.

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.