

UNITED STATES AIR FORCE AIRCRAFT ACCIDENT INVESTIGATION BOARD

EXECUTIVE SUMMARY

F-15E STRIKE EAGLE, T/N 91-000304 NEAR BENGHAZI, LIBYA 21 MARCH 2011

On 21 March 2011, at approximately 2129 hours Zulu (Z), an F-15E Strike Eagle, tail number 91-000304, departed controlled flight and entered into an unrecoverable spin during a night combat mission in support of Operation ODYSSEY DAWN. The mishap aircraft (MA), operated by the 492d Expeditionary Fighter Squadron based out of Aviano Air Base (AB), Italy (IT), was destroyed on ground impact in an unpopulated area near Benghazi, Libya. The mishap aircrew (MC), consisting of the mishap pilot (MP) and the mishap weapons system officer (MW), ejected safely with minor injuries and was recovered by friendly forces. Financial loss of the MA and associated equipment totaled \$48,190,996.50. There were no known civilian injuries or damage to other property.

At 1713Z, the MC performed a standard takeoff from Aviano AB, IT, for night contingency operations over Libya. The MA was number two (wingman) of two F-15Es in formation. At 2104Z, after refueling uneventfully a second time, the MC proceeded on its mission tasking. Within five minutes, the MC relayed a fuel imbalance of 2,500 pounds trapped in the right external tank. At 2111Z and again at 2112Z, the MC reported that the trapped fuel was feeding slowly. At 2127Z, with the MA advancing approximately two miles ahead in the formation, the two aircraft released munitions and attempted target egress by executing a turn away from each other. At 2128Z, the MC radioed they were in a spin, a "Mayday" call followed, and at 2129Z, the MC ejected from the MA.

The Accident Investigation Board President found by clear and convincing evidence that the cause of the mishap was the MA's sudden departure from controlled flight during a combat egress maneuver when the MP momentarily exceeded aircraft controllability performance parameters. There was sufficient evidence to determine that one or a combination of the following factors substantially contributed to the mishap: (1) ambiguous F-15E technical order guidance concerning maneuvering limitations with aircraft lateral asymmetry while configured with external stores; (2) unknown or misunderstood combat-loaded F-15E aircraft performance while operating at or above 30,000 feet mean sea level; and (3) unpublished, therefore, unfamiliar dynamic lateral directional stability as a function of external stores asymmetry caused by weapons release.

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 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.