

EXECUTIVE SUMMARY

ACCIDENT INVESTIGATION BOARD REPORT MQ-1B PREDATOR, S/N 06-3161 NORTHWEST OF KANDAHAR AIRFIELD, AFGHANISTAN 20 NOVEMBER 2009

On 20 November 2009, shortly after 1708 Greenwich Mean Time (GMT), an MQ-1B Predator remotely-piloted aircraft (RPA), serial number 06-3161, impacted the ground 7 miles northwest of Kandahar Airfield (KAF), Afghanistan, while conducting a combat support mission in support of Operation ENDURING FREEDOM. The RPA was an asset of the 432d Air Expeditionary Wing, Creech Air Force Base, Nevada. It was destroyed on impact, and the cost of the aircraft damage was \$4,588,282. There were no reported injuries and there was no known damage to other government or private property.

After normal maintenance and pre-flight checks, the RPA departed KAF at 1648 GMT for its mission. The RPA was being flown by a Launch and Recovery Element (LRE) mishap crew (MC), consisting of a pilot and a sensor operator. At 1708 GMT, the MC experienced a lost link condition with the RPA. A lost link condition refers to a situation in which Predator aircraft cannot transmit or receive data or commands from any control element via satellite or line of sight communications. All attempts by the MC and datalink specialists to reestablish a communications link with the RPA were unsuccessful. At the same time as the lost link condition occurred, Air Traffic Control (ATC) lost the RPA's transponder signal and the radar image of the aircraft.

The wreckage was located on 28 December 2009, 7.2 nautical miles northwest of KAF, near its last recorded position. Since the RPA could not initially be located and exhaustive efforts were made to reestablish a link with the aircraft; the RPA was not declared lost until 0200 GMT on 22 November 2009 when it would have run out of fuel. Previous Air Force references to this accident have used a 22 November 2009 mishap date. This report uses the actual mishap date of 20 November 2009.

The Accident Investigation Board President determined, by clear and convincing evidence, that the cause of this mishap was a catastrophic electrical system failure. The failure was most likely caused by a short circuit in an alternator cable in the 28 volt power system. A catastrophic electrical failure accounts for the lost link condition, the loss of the transponder signal, the inability of the aircraft to perform its preprogrammed emergency mission and is supported by the fact the wreckage was found near its last known position. The loss of electrical power resulted in loss of control of the RPA and its subsequent 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 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.