

EXECUTIVE SUMMARY

AIRCRAFT ACCIDENT INVESTIGATION

MQ-1B, 03-3115, JOINT BASE BALAD, IRAQ

1 AUGUST 2008

On 1 August 2008, at approximately 0905 local (L) time, an MQ-1B Predator aircraft, tail number 03-3115, crashed within five miles of Joint Base Balad, Iraq while participating in a combat support mission in support of Operation IRAQI FREEDOM. It was forward deployed from the 432d Wing, Creech Air Force Base, Nevada. The aircrew from the 332d Air Expeditionary Wing flew the mishap remotely piloted aircraft (MRPA) from a Launch and Recovery Element ground control station (GCS) at Joint Base Balad, Iraq. The MRPA and its armament of two Hellfire missiles caught fire upon impact, resulting in a loss of government property valued at \$4.0 million. There were no injuries and there was no damage to other government or private property.

After normal maintenance and pre-flight checks, the MRPA taxied and departed at approximately 0845L. Approximately 10 minutes into the flight, as the MRPA was approaching an altitude of 4,000 feet, the Multi-spectral Targeting System camera automatically reset itself, followed by lost video on the heads up display, followed by lost link. The mishap crew (MC) confirmed high system amperes, warning buzzers, red indications and red power supply indications, PCM failure warning, flight computer warning, noticeable aircraft nose dip, no Identify Friend or Foe, and lost link. The MC initiated the 2,000 feet Above Ground Level checklist, called the data link specialist, adjusted the antennas, moved to a different GCS, and contacted Balad Air Traffic Control, all in an attempt to reestablish contact with the MRPA. The MRPA crashed a short distance from where the MC lost link. The MC followed all preflight, takeoff and in-flight procedures in a proficient manner, as well as attempting to reestablish downlink procedures.

The Accident Investigation Board President determined by clear and convincing evidence that the cause of the MRPA was an aircraft electrical system short circuit with component failure in Alternator Number 1 (Alt #1), in the power cable that connects the Alt #1 to the Dual Alternator Regulator (DAR), or upstream of the current sensor in the DAR itself. Ultimately, electrical fluctuations to the primary control module and other critical components resulted in loss of control of the MRPA and the 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.