

## EXECUTIVE SUMMARY

### ABBREVIATED AIRCRAFT ACCIDENT INVESTIGATION (AAIB) MQ-1B T/N 07-3220, Islamic Republic of Afghanistan 14 APRIL 2012

On 14 April 2012, at 03:41:13 Zulu (Z) time, the mishap remotely piloted aircraft (MRPA), an MQ-1B Predator, tail number (T/N) 07-3220, crashed in the Nangarhar Province, Islamic Republic of Afghanistan while attempting to return to Jalalabad Airbase. Destruction of the MRPA with one missile was assessed to be a financial loss of \$3,832,053.18. No injuries, damage to other government property, or damage to private property resulted from the mishap.

The aircraft belonged to the 57th Wing at Nellis Air Force Base (AFB), Nevada, but was deployed at the time in support of Operation ENDURING FREEDOM. The crew flying the aircraft at the time of the mishap was from the 162 Reconnaissance Squadron (RS) at Springfield Air National Guard Base (ANGB), Ohio. The 62d Expeditionary Reconnaissance Squadron, Detachment 1, provided the maintenance support.

Following normal pre-flight checks, the MRPA taxied and took off from Jalalabad Airbase at 02:12Z. The Launch and Recovery Element (LRE) handed off the MRPA to the Mission Control Element (MCE) uneventfully at 02:19Z. Sixty eight minutes later, the MRPA experienced a significant loss of power. With this loss of power, the MRPA started a descent in accordance with its autopilot programming, which maintains airspeed by sacrificing altitude. The Mishap Sensor Operator (MSO) noticed the descent, and the MP attempted to return the MRPA to its assigned altitude. The engine continued to lose power and the MP analyzed this as an engine failure. The MCE crew accomplished all the critical action procedure steps (CAPS) for an engine failure as they turned the MRPA back towards Jalalabad Airbase. The MCE coordinated with the LRE for handback of the MRPA and coordinated with the 432d Wing Operations Center (WOC) Director for guidance if the MRPA could not be successfully returned to the Airbase. At approximately 03:30Z the MCE crew determined that the MRPA could not successfully be returned to the airbase and, following the guidance received from the WOC Director, purposely flew the MRPA into the ground. Impact occurred at 03:41:13Z on an unpopulated mountainside approximately 20 nautical miles (nm) short of the airbase. The MRPA was a total loss with some damaged portions recovered.

The AAIB President determined by clear and convincing evidence that the cause of the mishap was engine failure. By a preponderance of the evidence, the AAIB president found that a substantially contributing factor to this single point failure was a unique data and power cable, because there was no other point on this particular MQ-1B that the two ignition circuits came together, because of redundancy upgrades to the ignition system accomplished in the past.

*Under 10 U.S.C. 2254(d), the opinion of the accident investigators as to the cause of, or the factors contributing to, the accident set forth in the accident investigation report, if any, 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.*