EXECUTIVE SUMMARY

AIRCRAFT ACCIDENT INVESTIGATION
EQ-4B, T/N 04-2017, Afghanistan
20 AUGUST 2011

On 20 August 2011, at approximately 1711 Zulu (Z) time, the mishap remotely piloted aircraft (MRPA), EQ-4B Global Hawk, tail number (T/N) 04-2017, crashed in Afghanistan, 9.4 hours after takeoff, while conducting a tasked communications relay mission. No injuries, damage to other government property, or damage to private property occurred as a result of the mishap.

The aircraft was assigned to the 9th Reconnaissance Wing at Beale Air Force Base (AFB), California, and was forward deployed to the 380th Air Expeditionary Wing in support of Operation ENDURING FREEDOM. The pilot flying the aircraft at the time of the mishap (MP1) was from the 12th Reconnaissance Squadron, Beale AFB, CA.

After normal pre-flight checks, the MRPA taxied and departed a Forward Operating Base (FOB) at 0745Z. Handover procedures from the Launch and Recovery Element pilot to the Mission Control Element (MCE) pilot were uneventful. At 1707Z, MP1 lost satellite link with the MRPA approximately 105 nautical miles (nm) northwest of Kandahar, Afghanistan with no other abnormal indications. The remote site operating the MRPA payload simultaneously lost all links with the payload. The MP1 ran appropriate lost link procedures, but was unable to reestablish communication with the MRPA. Off-board radar tracks showed that the MRPA departed controlled flight and started a high-speed descent approximately 25 seconds after losing satellite link with the MCE. 3 minutes later, the MRPA impacted remote, deserted terrain approximately 4 nm from its last reported position and was destroyed. The estimated loss is valued at $72.8M.

The Accident Investigation Board President could not find a cause supported by clear and convincing evidence; however, the Board President determined by a preponderance of the evidence that a substantially contributing factor was the failure of a single Line Replaceable Unit (LRU). Specifically, a partial separation of the LRU-X-1 JX connector led to interruption of electrical power to aileron and spoiler flight control actuators, rendering the aircraft uncontrollable. To keep this report unclassified and releasable, the generic term LRU or LRU-X-1 is used throughout, in lieu of naming the specific failed component. The Board President was not able to determine the exact cause of the LRU failure since the MRPA's avionics were not recovered from the crash site. The Board President also found, by a preponderance of the evidence, that LRU installation methods were a contributing factor in the mishap.

Under 10 U.S.C. 2254(d), the opinion of the accident investigator 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.