

**EXECUTIVE SUMMARY**  
**AIRCRAFT ACCIDENT INVESTIGATION**

**MQ-1L, S/N 06-003163**  
**ALI AIR BASE, IRAQ**  
**29 NOVEMBER 2007**

On 29 November 2007, at 0800 Zulu (Z), approximately 1-hour into an otherwise uneventful flight, an MQ-1L Predator Remotely Piloted Aircraft (RPA), S/N 06-003163, impacted the ground in an uninhabited area approximately 37 miles northwest of Ali Air Base (AB), Iraq. The Mishap RPA (MRPA) was on an intelligence, surveillance and reconnaissance mission in support of Operation IRAQI FREEDOM. The MRPA was forward deployed to Ali AB from the 432d Reconnaissance Wing (RW), Creech AFB, Nevada. An aircrew from the 361st Expeditionary Reconnaissance Squadron, 407th Air Expeditionary Group, 332d Air Expeditionary Wing launched the MRPA from the Launch and Recovery Element in Iraq. An aircrew from the 196th Reconnaissance Squadron, 163d RW, California ANG, was controlling the MRPA via satellite links from a Ground Control Station (GCS) located at March ARB, California when it crashed.

All maintenance and preflight activities were normal. Approximately 36-minutes after an uneventful launch, the Mishap Crew (MC), consisting of the Mishap Pilot and the Mishap Sensor Operator, assumed control of the MRPA after a change-over briefing. The MC was current and qualified to conduct the mission.

At 0731Z, 26-minutes after the MC assumed control of the MRPA, the Primary Control Module (PCM) onboard the MRPA began reporting communication errors with the Right Tail Computer Board (RTCB). Soon afterward, the PCM declared a lost communication condition with the RCTB, and approximately 4-seconds later the aircraft initiated a preprogrammed self-termination function. This caused the MRPA to rapidly pitch up followed by a steep nose-down pitch with a yaw rate of approximately five degrees per second nose-right. This flight attitude continued until the MRPA impacted the ground 85-seconds later. Afterwards, fighter aircraft destroyed the wreckage for security purposes. The MRPA was completely destroyed with the loss valued at approximately \$3,828,000.00. There were no deaths, injuries or property damage associated with the mishap.

The Accident Investigation Board President determined, by clear and convincing evidence, the primary cause of the mishap was a failure of the RS-422 receiver. The failure caused a loss of communication between the right tail board receiver and the PCM. Due to the loss of communication, the MRPA executed a preprogrammed flight termination command. Due to the destruction of the MRPA wreckage, no determination could be made regarding the specific nature of the RS-422 receiver failure.

**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.**