

**EXECUTIVE SUMMARY**  
**AIRCRAFT ACCIDENT INVESTIGATION**  
**MQ-1L, "PREDATOR," S/N 03-3103**  
**AT A DEPLOYED LOCATION**  
**ON 14 JANUARY 2005**

On 14 January 2005, at an undetermined time, an MQ-1L, Predator, S/N 03-3103, crashed at a forward location. The MQ-1L, assigned to the 15th Reconnaissance Squadron, 57th Wing, Nellis Air Force Base, impacted the terrain in a forward location in support of Operation ENDURING FREEDOM. The crash was in an unpopulated area and there were no reported injuries, fatalities, or media interest. The aircraft was damaged beyond economical repair and the loss is valued at \$3,579,320. There were no reported injuries or damage to private property.

The mishap aircraft (MA) had been conducting normal reconnaissance operations through the first eight hours into the mission. Shortly thereafter, the ground control station experienced a control rack lockup. This is a malfunction of the computer control system similar to that experienced on home computers. The mishap pilot called for technical assistance. When the technical representatives arrived, the pilot's control rack rebooted. Subsequently, there were problems with the mishap sensor operators control rack and the decision was made to reboot both control racks. At approximately this same time, command links were severed by the communications technician with the MA and it began to execute its lost link emergency profile. Immediately after the control rack reboots and at approximately 8.6 hours into the mission, all communications links via the Ku satellite system were lost. None of the ground control stations ever regained command and control communications connectivity with the MA for the duration of the flight. Radar position reports indicate the MA flew its lost link profile until approximately 13.5 hours into the mission at which time, the aircraft appeared to turn and reinitiate the lost link profile. At 20.9 hours into the mission, the aircraft was last seen, apparently flying the lost link profile it had flown previously with the exception of the altitudes (17,000 ft vs 20,000 ft). The aircraft eventually impacted the ground approximately 16 nautical miles from its last known position.

There is clear and convincing evidence that the primary cause of this mishap was the loss of all control of the MA which led to its eventual crash due to fuel starvation. The definition of "loss of all control" in this case refers to: 1) actual control of the aircraft through any of the command links and; 2) knowledge of what the aircraft would do when the command links were lost. Significant contributing factors supported by substantial evidence include incorrect procedures, data corruption, hardware failure, training, miscommunication, OPTEMPO, and supervision.

*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 an aircraft accident, nor may such information be considered an admission of liability by the United States or by any person referred to in those conclusions or statements.*