

## EXECUTIVE SUMMARY

### AIRCRAFT ACCIDENT INVESTIGATION

MC-130H, S/N 87-00127

Tirana, Albania

31 March 2005

On 31 March 2005, at approximately 1805Z, an MC-130H, S/N 87-00127, crashed in a remote location approximately 50 nautical miles southeast of Tirana, Albania. The aircraft, assigned to the 7<sup>th</sup> Special Operations Squadron, of the 352<sup>nd</sup> Special Operations Group, RAF Mildenhall, UK, was on a training mission as part of a Joint Combined Exercise Training authorized by Special Operations Command Europe. All nine crewmembers on board the aircraft were killed in the mishap. There were no passengers. The aircraft and all associated equipment were damaged beyond repair. Since the crash occurred in a remote location, there were no civilian injuries and no damage to other government or private property.

The Mishap Aircraft, call sign WRATH 11, was one of 2 MC-130Hs and one MC-130P flying training missions in Albanian airspace. The planned mission profile included training in night mountainous NVG (Night-Vision Goggle) and Terrain Following/Terrain Avoidance low-levels, airdrops, Self-Contained Approaches and NVG landings at Gjader Airfield in northern Albania.

While conducting NVG low-level operations at an altitude of approximately 1100 feet above sea level over 800-foot-high terrain, the Mishap Crew did not identify and utilize what would have been the necessary start climbing point to climb over a 5500 foot saddle that was the controlling terrain along that leg of their flight.

At approximately 1 minute and 20 seconds before impact, the Mishap Navigator (MN) pointed out the terrain and expressed his concern about their ability to climb over it. The Mishap Pilot (MP) then initiated a climb with a reduced power setting. During this period, despite realizing their situation, the Mishap Crew did not utilize all available power. The Mishap Co-Pilot (MCP) turned on the Terrain Following (TF) system and immediately received an obstacle warning.

While still in a low power management condition, in an attempt to fly out of the situation, the Mishap Pilot began to turn the aircraft to the right, continuing to lose speed, ultimately stalling the aircraft approximately 200 feet above the terrain. The Mishap Aircraft impacted the ground near a ridgeline at approximately 5700 feet above sea level.

The Accident Investigation Board (AIB) President found by clear and convincing evidence that the accident was caused by a loss of situational awareness on the part of the entire Flight Deck Crew that placed the aircraft in a low energy climb situation with respect to the surrounding mountainous terrain. In responding to this situation, the Mishap Crew failed to use all available power and stalled the aircraft during the final turning climb, resulting in a loss of aircraft control and almost immediate impact with the terrain.

The AIB President further found that additional factors contributed to the mishap, including the Mishap Crew's failure to identify, brief, and fly appropriate start climb points, as required by standard NVG low-level procedures; the MP and MCP's focus on terrain masking, vice terrain avoidance; the transfer of navigation duties from the MN to the Mishap Electronic Warfare Officer and the failure of the MN to make timely navigation inputs during the crucial leg of the flight; the overestimation of the aircraft's climb capabilities based upon negative transference by the crew of their experiences in less severe terrain; and low visibility due to unexpected and unpredicted clouds and the very low level of illumination.

*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.*