

## **EXECUTIVE SUMMARY**

### **AIRCRAFT ACCIDENT INVESTIGATION**

**MH-53M, S/N 73-1648  
HURLBURT FIELD, FLORIDA  
22 MAY 2003**

On 22 May 2003, at 1635 local time [1335 Greenwich Mean Time (GMT)], an MH-53M helicopter, serial number (S/N) 73-1648, sustained damage to its main rotor system and associated dynamic components just prior to landing at an overseas operating location. The MH-53 helicopter was assigned to the 20<sup>th</sup> Special Operations Squadron, 16<sup>th</sup> Special Operations Wing, Hurlburt Field, Florida. The mishap aircraft (MA) was returning to its staging base after completing a classified mission. No personnel injuries or damage to private property resulted from the accident.

The MA departed the deployed location at 0955 local time (0655 GMT) to conduct an operational mission. According to witness interviews, all phases of the mission were uneventful until final approach to the staging base. The MA was the second aircraft in a four-ship formation of U.S. Air Force and Marine Corps helicopters. At approximately 20 to 30 feet above ground level, with the aircraft commander at the controls, a loud bang was heard. Almost immediately, the crew felt a moderate lateral vibration in the aircraft and noticed that a cockpit Blade Pressure warning light was illuminated, telling the crew there was a problem with one or more main rotor blades. The crew landed the aircraft and reduced the power setting. The lower power setting eliminated much of the lateral vibration, and the crew determined it was safe to taxi the helicopter to their designated parking spot and shutdown the engines and rotors.

Once the aircraft was shutdown, aircrew and maintenance personnel inspected the aircraft and found two damaged main rotor blades. After a more in-depth inspection of the aircraft, maintenance crews discovered that one set of main rotor head balance weights and the associated mounting bracket and bolts was missing. Maintenance personnel went to the landing area and found the missing weights, bracket and bolts.

By clear and convincing evidence, the cause of this mishap was the failure of the mounting bracket bolts, which allowed the bracket and weights to break away from the aircraft and strike the main rotor system, resulting in damage to the aircraft.

**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.**