

EXECUTIVE SUMMARY

MISSILE HANDLING ACCIDENT INVESTIGATION

MINUTEMAN III INTERCONTINENTAL BALLISTIC MISSILE (ICBM) (LGM-30),
SERIAL NUMBER (S/N) 72-312
THIRD STAGE ROCKET MOTOR CARRIAGE, S/N 0000046

MINOT AIR FORCE BASE, NORTH DAKOTA
24 OCTOBER 2003

On 24 October 2003, at approximately 0900 CDT, 1400 Zulu, a Minuteman (MM) III ICBM (S/N 72-312) and its associated Third Stage Rocket Motor Carriage (S/N 0000046) were damaged during a Propulsion Replacement Program (PRP) missile emplacement at launch facility F-06 in the 91st Space Wing (91 SW), Minot AFB, ND, missile complex.

The damage to the Third Stage Rocket Motor (S/N CS31090) and associated carriage occurred when a Missile Handling Team (MHT) moved the missile aft inside a Transporter-Erector from the transportation mode to the emplacement mode with both passenger-side third stage tie-downs installed. No injuries occurred. The ICBM System Program Office (SPO) requested that 91 SW return the missile for damage assessment. SPO engineers observed the following damage to the third stage rocket motor: roll control valve delaminations; polish marks on the roll control valve; chipped thrust termination stack phenolic; primer cracks; and unusual indentations at the Y-joint. SPO engineering analysis of this damage was significant enough for them to conclude the motor was no longer flight worthy because they had no confidence in the structural integrity of the motor. The value of the third stage motor was assessed at \$1,100,00.00. Damage to the third stage carriage was assessed at \$1,568.00.

The Accident Investigation Board (AIB) President, by clear and convincing evidence, finds the cause of the mishap was failure of Mishap Team Member (MTM) #1 and MTM #3 to remove two carriage tie-downs on the third stage carriage on the passenger side of the Transporter Erector (T-E). This impeded free movement of this carriage, resulting in damage to the MM III third stage motor and third stage carriage.

The AIB President also identified several contributing factors, substantiated by evidence, which created an environment leading to this mishap. These factors were, a failure to conduct maintenance in the manner it was trained, a sense of overconfidence in the MHT, a disruptive task flow while conducting maintenance, and complacency in the management of the 91st Missile Maintenance Squadron (91 MMXS).

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 for 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.