

EXECUTIVE SUMMARY

AIRCRAFT ACCIDENT INVESTIGATION BOARD (AIB)

E-4B, T/N 73-1676 OFFUTT AIR FORCE BASE, NEBRASKA 12 MAY 2010

On 12 May 2010, at approximately 2310 local time, an E-4B aircraft, tail number (T/N) 73-1676, struck its tail approximately 1,300 feet past the threshold of runway 30 at Offutt Air Force Base (AFB), Nebraska (NE), after completing a National Airborne Operations Center (NAOC) Alert weather avoidance mission. No injuries or lost work were incurred by the Mishap Crew (MC). The mishap aircraft (MA) is based at Offutt AFB, NE, and assigned to the 1st Airborne Command and Control Squadron of the 55th Operations Group, 55th Wing, to provide the President and Secretary of Defense with a survivable command center for directing United States forces during all conditions of peace and war, and for supporting the federal government during military, national, and natural emergencies. The MA was damaged on the underbody of the tail section upon impact, and the mishap caused no damage to the runway. Damage was estimated at \$3.1 million.

Two hours and 32 minutes after takeoff, Mishap Pilot 1 (MP1) flew an uneventful, stable, on speed precision approach to short final. Digital flight data recorder (DFDR) information and testimony reveal that on short final, MP1 flew a slightly low glide path with a higher than normal descent rate. MP1 applied a large pitch-up control movement to the yoke at approximately 30 feet above touchdown, culminating in a firm touchdown at a 9-degree pitch angle and a subsequent bounce. During the bounce, MP1 applied back pressure to the yoke, increasing the aircraft pitch angle to 11 degrees as the aircraft settled back to the runway about 800 feet past the first touchdown point, resulting in the tail of the aircraft impacting the runway 2-3 feet right of the centerline, approximately 1,300 feet past the threshold. MP1 and the MC brought the MA to a stop on the runway, ensured the MA was safe for taxiing, and exited the runway uneventfully.

The Aircraft Investigation Board (AIB) president found by clear and convincing evidence the cause of the mishap was pilot error by MP1 and Mishap Pilot 2 (MP2). During the bounce, MP1 increased the pitch angle of the MA to more than twice the pitch angle specified by the flight manual for landing, resulting in the tail striking the runway nearly simultaneously to the landing gear. As the Aircraft Commander for the sortie, MP2 did not ensure the safe and effective conduct of the flight, giving no input to MP1 during the landing, bounce, and second touchdown. Additionally, the AIB president found as contributing factors that the E-4B flight manual and training programs did not state, discuss, or address any risk of tail strikes during landings or bounce recovery and that the manufacturer did not provide the Air Force information concerning risks of tail strikes for 747 aircraft during landing or bounce recovery. Weather, crew rest, fatigue, personal, professional, mission, or flight distracters, navigational aids and lighting systems, maintenance, and the MA were not factors.

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.