

**United States Air Force Accident Investigation Board Report
Class-A Mishap, Bamako, Mali, 19 November 2009**

EXECUTIVE SUMMARY

On 19 Nov 09, at 1229 Zulu (Z or Greenwich Mean Time), a Bombardier DHC-8/Q200, serial number 97-0500, tail number N355PH, assigned to the 524th Special Operations Squadron, 27th Special Operations Wing, Air Force Special Operations Command, departed Nouakchott airport, Mauritania, en route to Bamako-Senou (Bamako) airport, Mali, to conduct a passenger and cargo transportation sortie in support of United States Africa Command. The mishap crew (MC) had been tasked to arrive at Bamako to transload passengers to another aircraft. At 1514Z, the mishap aircraft (MA) crash-landed in an isolated field approximately 61 miles north-northwest of Bamako and approximately seven miles west of its emergency divert airstrip, Kolokani, Mali. The MC consisted of the mishap aircraft commander (MAC), mishap copilot (MCP) and the mishap loadmaster (ML). The MAC controlled the MA during the crash sequence. The MC and all six passengers suffered at least minor injuries; one passenger suffered severe injuries. The MA was a total loss with a cost estimate of \$7,000,000. There was minor damage to the ground. This is considered incidental damage to property not owned by the United States government.

The MA arrived at Nouakchott at 1202Z. The MC had diplomatic clearance to on-load 4000 liters of fuel. Although two fuel trucks arrived, the mishap pilots determined fuel was not necessary and the MAC decided not to refuel. The MA departed at 1229Z with a target passenger transfer time of 1430Z. This gave the MC two hours to reach a destination that was two hours and 35 minutes away (using a normal DHC-8/Q200 profile). The MC climbed to 24,000 feet (ft). During climbout the MC had indications of a fuel shortage. At 1323Z, the MC climbed to 25,000 ft. At 1341Z, 280 miles prior to Bamako, the MC began a descent. At 1435Z, 105 miles prior to Bamako, the MC leveled off at 6,000 ft. At 1452Z, the MAC directed the MCP to divert northeast to Kolokani, an airstrip 12 miles closer than Bamako. He also directed a gradual descent. At 1509Z, the #2 (right) engine shut down due to fuel exhaustion. At 1514Z, 29 seconds prior to impact, the #1 (left) engine began to shut down due to fuel exhaustion.

The MC was current and qualified in the MA and the mission. All maintenance personnel involved with the servicing and launching of the MA were trained and qualified. A thorough review of the aircraft and maintenance records revealed that neither the condition of the MA, nor the performance of any maintenance procedures played a role in the accident.

The Accident Investigation Board (AIB) President found by clear and convincing evidence that the cause of this mishap was the MA running out of fuel due to the MAC's and MCP's failure to properly fuel plan and then refuel the MA at Nouakchott with a sufficient amount to reach their destination. Once airborne, despite indications of a fuel shortage, the MC did not divert to a suitable alternate airport early enough in the sortie to avoid this mishap. The AIB President also found sufficient evidence to conclude the following factors substantially contributed to the mishap: insufficient mission and flight planning; faulty decision-making; complacency; task misprioritization; channelized attention; and the MC pressing to meet mission demands.

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.