



AIB Bulletin

AIB Bulletin No. 3 **Ref.:** CAV/ACC/3/01 **Category:** 1.3
Aircraft Type: Cessna 206 **Reg.** 5H-MTJ **Serial No.** 06442
No. & type of Engines: One Continental IO-520F
Year of Manufacture: 1983
Date and Time (UTC): 16 March 2001 at 0602 hours
Location: Haeseny, Yaedampay village, Mbulu District, Tanzania
(Lat 03° 59'S Long 035° 27'E)
Type of Flight: Air charter (Missionary)
Persons on Board: Crew - 1 **Passengers -** 4
Injuries: Crew - 1 serious **Passengers -** 4 serious
Nature of Damage: Aircraft completely destroyed by impact with the ground
Commander's Licence: CPL
Commander's Age: 43 years
Commander's Experience: 1795 hours of which 795 were on type
Last 90 days 92 hrs
Last 28 days 26 hrs
Information Source: Telephone call from Dar es Salaam ATS

ALL TIMES UTC

History of the Flight

The aircraft took off from Haidom airstrip, Mbulu District at 0536 hours for a visual flight rules flight to Arusha. It was carrying one pilot and four passengers. The fuel endurance was 2:50 hours. The aircraft loadsheet showed that there were also 55kg of baggage onboard the aircraft. The estimated time of arrival at Arusha was 0631 hours.

The pilot said that at the time of take-off from Haidom the skies were clear with few clouds. There was an easterly wind but there was no precipitation.

5H-MTJ climbed to FL 075 and set course for Arusha (065 degrees). He raised the Dar es Salaam Area Control Center at 123.3 MHz and obtained the weather information for Arusha as FEW 300FT BKN 1600FT East Wind/10kt QNH 1018.

The Bulletin contains facts relating to the accident which have been determined up to the time of issue. This information is published to inform the public and the aviation industry of the general circumstances of the accidents at the preliminary/stage and must necessarily be regarded as tentative and subject to alteration or correction if additional evidence becomes available.

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Shortly before 0600hrs (9:00am local time) he encountered bad weather. The cloud base was observed to be 600-800ft agl. The pilot testified that since the Cessna 206 was not approved for IFR flights he could not fly above the clouds. This meant that he had to fly below the weather whilst keeping track of the terrain.

For this he had to use his company procedure for flying over mountainous terrain which called for the selection of 20degrees flaps and engine speed of 2550RPM. This brought the airspeed to 80kt.

The pilot was very experienced in flying over the terrain of northern Tanzania. Whilst maintaining a terrain clearance of 500-600feet he realized that the weather straight ahead was deteriorating further and he had to steer north to look for a VFR route to Arusha. Below the aircraft there were two valleys and as the northerly flight progressed he observed a knoll straight ahead. He immediately initiated a turn to the left with a 45 degrees bank. Two-thirds of the way into the turn the stall warning horn came on and the aircraft sunk rapidly. The pilot estimated the rate of sink at about 1000feet per minute. 5H-MTJ hit the ground on the side of a hill, bounced twice and ground looped before it came to rest overlooking the valley about 80 metres beyond the point of the initial impact.

There was no fire but the aircraft was completely destroyed by the impact with the ground. All the five occupants sustained spinal and other injuries and were rescued by villagers. Battery power remained available and the pilot raised his company base at Dodoma on his HF radio. A rescue helicopter from Nairobi arrived at 0929 hours and transported the injured persons to Haidom hospital.

Examination of the Wreckage

Examination of the wreckage showed that the nose wheel probably hit the ground first followed by the propeller, the baggage pod and the right wing. These together with the engine cowlings separated and were found along the wreckage trail near the point of the initial impact. The damage to the propeller indicated that it was under power at the time of impact. The engine separated from the fuselage in the accident sequence with all connections severed except the propeller control unit cable.

The right wing having struck the ground on impact was bent upward at half of the way outboard of the lift strut which was itself bent midway outwards. The left wing was not damaged. The fuselage was distorted at a number of stations. The damage to the tail plane was relatively minor.

Injuries to Persons

All the passengers had full harness during the flight. The pilot's seat was found broken. All the four seat support members had sheared in overload. The pilot's lap strap and shoulder harness failed but he was saved from head injuries by his helmet. The co-pilot's seat slipped forward on its rails on impact and the shoulder stop failed. This was probably the reason for the occupant's face and cheek bone injuries.

The right main door appears to have separated on the first impact with the ground. The right seat in the middle row also detached from the rails and the occupant remained suspended by the straps. The left middle seat broke its latch but remained in its rails. Its occupant had no facial injuries. The same was repeated for the right rear seat and its occupant.

The Crash Site

The aircraft collided with the ground at the side of a hill overlooking a valley at Haeseny in Yaedampay village, Tumati ward in Mbulu District, Arusha Region. The elevation was 7200 feet. The surface is plain grass with maize plantations at its edge. However, there was no damage to the maize crop. A number of airmen have reported to have encountered downdrafts of varying degrees in this area. Arusha region is well known for low cloud and fog mostly occurring during morning hours and clearing gradually as the day progresses.

The circumstances of this accident are being investigated.

