

No. 17

Compañía Abaroa, Douglas C-47A, CP-710, accident at Alcoche - Nor Yungas - La Paz, Bolivia, 10 September 1962. Accident report released by the Director General of Civil Aviation, Bolivia, 16 January 1963.

1. Historical1.1 Circumstances

The aircraft was on a non-scheduled domestic flight from Caranavi to Rurrenabaque. It took off from Caranavi with 2 crew and a combined payload of 2 passengers and cargo at 0806/10 hours local time. The aircraft flew for 7 minutes on a true heading of approximately 320°. When it was over Alcoche, 21 km from Caranavi, at an estimated altitude of 3 500 - 4 000 ft, ground witnesses noticed the left engine ceased functioning and that an increase of power was applied to the other engine. The aircraft was then seen to be flying with the right wing ahead of the left and a few seconds later the aircraft started turning left towards the widest part of the valley in which the aircraft was flying. During the turn the aircraft assumed an almost inverted attitude but it recovered. From the flight path described by witnesses the nose of the aircraft went up twice before going into a 180° change of direction, and before crashing into the river. The aircraft struck the surface in a level attitude with a high rate of vertical descent. There was no forward movement on impact. The force of impact was so great as to flatten the lower surface of the left wing and the fuselage. The floor of the fuselage was forced to the ceiling. There was no sign of collision damage along the leading edge of the wing. The time of the accident was 0813/17.

1.2 Damage to the aircraft

The aircraft was destroyed on impact.

1.3 Injuries to persons

All occupants, 2 crew and 2 passengers, were killed in the accident.

2. Facts ascertained by the Inquiry2.1 Aircraft information

The Certificate of Airworthiness was valid until 3 July 1963. The records of the aircraft, engines, propellers and components show that it was adequately maintained. A 100-hour check of the aircraft and engines had been completed by 9 September. The weight of the aircraft at take-off was 10 917.2 kg, well within the permissible limit.

2.2 Crew information

The pilot-in-command, age 46, held a valid commercial pilot licence. He had 7 692 hours flight time of which 5 500 hours were in C-47A aircraft.

The co-pilot, age 29, held a private pilot's licence and had Directorate authorization to fly in the capacity of co-pilot only. He had a total of 398 hours flight time of which 155 hours were in C-47 aircraft.

2.3 Weather information

Ceiling and visibility were unlimited at the time.

2.4 Navigational aids

N/A.

2.5 Communications

None were recorded in the report.

2.6 Aerodrome installations

The height above sea level is not recorded in the report.

2.7 Fire

Fire did not occur.

2.8 Wreckage

N/A.

3. Comments, findings and recommendations

3.1 Discussion of the evidence and conclusions

Not given by the report other than the information that the inspection and dismounting of the engines had yet to take place.

3.2 Probable cause

The primary cause of the accident was the failure of the left engine and execution of a sharp 180° turn to the left of the original flight path. This was the only possible manoeuvre since the valley ahead narrowed and a turn to the right could not be effected because the aircraft was close to - and below the altitude of - a mountain on that side. Furthermore, this manoeuvre was the only one permitting the aircraft to reach that part of the river which appeared most suitable for ditching.

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