

No. 2

Philippine Air Lines, Inc., DHC-3 Otter, PI-C51, accident at Sibuco Point, Zamboanga del Norte, Philippines, on 20 May 1964. Report undated, released by the Civil Aeronautics Administration, Department of Public Works and Communications, Republic of the Philippines.

1. - Investigation1.1 History of the flight

Flight F26/25 was a scheduled domestic flight originating at Zamboanga Airport at 0650 hours for Siocon, where it landed at 0730 hours. Due to unfavourable weather conditions, the pilot decided to return direct to Zamboanga instead of flying the following schedule: Siocon-Liloy-Dipolog-Liloy-Siocon-Zamboanga. At approximately 0810 hours the aircraft took off from Siocon. The take-off and climb were normal, and no operating difficulty was reported by the pilot. The aircraft crashed at Sibuco Point while flying in heavy rain on a heading of 205° towards Zamboanga. The co-ordinates of the accident site were 7°15'3"N, 122°01'E. The accident occurred at approximately 1000 hours.

1.2 Injuries to persons

| Injuries | Crew | Passengers | Others |
|-----------|------|------------|--------|
| Fatal | 1 | 10 | |
| Non-fatal | | | |
| None | | | |

1.3 Damage to aircraft

The aircraft was destroyed by the impact and ensuing fire.

1.4 Other damage

No other damage was incurred.

1.5 Crew information

The pilot-in-command, aged 32, was the only crew member aboard. He held an airline transport pilot's licence with ratings on the DC-3 and DHC-3 and a valid radio-telephony licence. He had been checked out on the DC-3 and DHC-3 by CAA check pilots. He had flown a total of 4 163 hours, including 342 hours on the DHC-3 Otter. He had satisfactorily passed a route qualification check prior to his assignment as DHC-3 captain in that part of Mindanao. He qualified as DHC-3 captain on 22 January 1964. At the time of the accident, his medical certificate was current with no waivers.

1.6 Aircraft information

The aircraft had a certificate of airworthiness valid until 20 August 1964.

It had undergone all the periodic checks and progressive inspections laid out in the DHC-3 maintenance manual, and was properly released for the flight by a licensed airframe and engines mechanic. It had a total flying time of 7 197 hours, including 1 012 hours since the latest overhaul.

The aircraft carried a total pay load of 742 kg, which was less than the maximum permissible of 842 kg.

Prior to take-off at Zamboanga Airport, the aircraft was serviced with fuel for 7 hours.

The type of fuel being used was not stated in the report.

1.7 Meteorological information

The weather conditions prevailing in Western Mindanao were considered unfavourable for VFR flights. There was a heavy squall in the vicinity of the crash area at the time of the accident.

1.8 Aids to navigation

The aircraft was only rated for VFR flights, and there were no navigational aids aboard.

1.9 Communications

VHF and HF.

1.10 Aerodrome and ground facilities

Not pertinent to this accident.

1.11 Flight recorders

Not mentioned in the report.

1.12 Wreckage

No details on the side of the accident were mentioned in the report.

1.13 Fire

A fire followed impact.

1.14 Survival aspects

Two of the passengers were thrown out 10 ft from the final impact point. The pilot was found strapped in his seat.

1.15 Tests and research

No information was contained in the report.

2. - Analysis and Conclusions

2.1 Analysis

The aircraft hit a molave tree at 200 ft AMSL while in a left bank. The left wing was severed from the aircraft and the leading edge of the vertical stabilizer was severely damaged. The nose section then hit another tree before finally settling on the ground at an approximate 30-degree angle. The condition of the wreckage showed that the aircraft collided with the trees and terrain under power.

From the evidence gathered there was nothing to indicate that there was malfunctioning of the airframe and engine and/or components. Furthermore, no operating difficulty was reported by the pilot and the sound of the engine was reported as normal by witnesses.

There was heavy rain and strong winds in the area of the crash at the time of the accident. Visibility was limited to almost zero. This was most probably the reason that led the pilot to "hug" the coastline at low altitude, especially as the aircraft was not equipped with sufficient navigational instruments for an IFR flight. The pilot must, therefore, have resorted to visual flying, following the coastline, to reach his destination. With almost zero visibility, he lost track of the shoreline and the aircraft collided with trees and subsequently struck the terrain.

The PAL radio operator at Zamboanga received a blind garbled transmission from the pilot at approximately 0957 hours. Presumably the pilot must have attempted to report the bad weather he was in. The radio operator called up the aircraft immediately but received no answer. The accident might, therefore, have occurred shortly after the transmission was made.

2.2 Conclusions

Findings

The air carrier, the aircraft and the pilot were all properly certificated. There was nothing to indicate that the aircraft was not in an airworthy condition prior to the accident. It was properly loaded.

The flight was conducted at a relatively low and unsafe altitude over the jagged shoreline.

There was no known engine malfunctioning or operating difficulty reported by the pilot.

Due to heavy rain there was very limited visibility, almost zero, at the scene of the accident.

The aircraft collided with trees.

The aircraft was totally destroyed by impact and the fire which followed.

There were no survivors.

Cause or
Probable cause(s)

The pilot continued to fly VFR into unfavourable weather over the jagged shoreline with practically zero visibility due to heavy rain.

There was a heavy squall at the time and at the scene of the accident. Weather conditions in the Western Mindanao area during the day of the accident were generally unfavourable for VFR flights. When the pilot took off from Siocon the ceiling at the destination, Zamboanga, was below IFR minima.

3. - Recommendations

It was recommended that:

- (a) PAL Otter aircraft should be equipped with an ADF and a more powerful HF; and
- (b) PAL should exercise closer supervision over pilots based at Zamboanga.

4. - Action taken

Shortly after the accident, the CAA suspended the operations of the Otter pending compliance with the recommendations. .
