No. 42

Panair do Brasil S. A., DC-7, PP-PDO, accident at Recife Airport, Pernambuco, Brazil on 1 November 1961. Report released by the Brazilian Air Ministry (SIPAer).

Circumstances

The aircraft, coming from Lisbon, Portugal with a stop at Ilha do Sal, contacted Recife Control Tower at 0505Z. While flying at night in good visibility the flight received instructions for landing and was to call again on the "wind leg". Reporting as requested, authorization for landing was given, and the aircraft was asked to notify when on "final". Thirty seconds thereafter it collided with high (84 m) ground to the right of the centreline of the runway in use, 2 720 m from the runway threshold. The aircraft was destroyed by fire. Thirty-eight passengers and 7 crew members were killed.

Investigation and Evidence

Crew Information

The pilot-in-command had a total of 16 243 hours flying experience, 1 004 of which were on the DC-7 and 4 796 hours were night flying.

The first officer had logged a total of 20 944 hours including 193 hours on DC-7 aircraft, 930 hours on DC-6's and 6 620 hours of instrument flight.

The pilot-in-command and the first officer held valid IFR ratings and were physically fit, and both were familiar with the topography of the area where the accident occurred.

The Aircraft

The aircraft's maintenance reports for the 30 days prior to the accident give no indication as to the possible cause of the accident.

Weather

Weather bulletins issued before, at the time of, and after the accident do not reveal any conditions which might have led to the accident.

Lighting and runway lights

The threshold and runway lights were all in operation. The night in question was dark, and there was no moonlight.

Obstruction lights on the approach area

Referring to the elevations of the approach area to Runway 15, as shown in Figure 20, it is noted that there are five points above that area (A, B, C, D, E), which measure 16.10 m, 24.40 m, 22.90 m 26.00 m and 29.80 m, respectively. In accordance with Annex 14, Part IV, paragraph 3.1.1. these five points should be marked. However, only two points (A and B) have obstruction lights installed, and on the night of the accident only the light in B was operating.

It is observed that at the impact point, if the aircraft had performed an IFR approach, it should have been at an altitude of 210 m as it had practically reached the critical point in the pattern. Performing a visual approach, it should have begun the long final approach and should have been at the minimum altitude of 160 m.

Analysis of Statements of Survivors and Witnesses

Survivors who could testify (this included two stewards) were unanimous in stating that the flight was normal up until the time of the accident.

Eyewitnesses stated that the aircraft flew too low. One of the witnesses was approximately 7 km from the aerodrome, i.e. far from the traffic area.

Through reconstruction of the flight, it was concluded that the pilot performed a direct entry into the "base leg", flying too low and out of the regular traffic pattern, in spite of the fact that he reported "wind leg".

Wreckage examination

As the aircraft was destroyed by fire, little wreckage remained to be investigated. However, in view of the arrangement of the existing parts, it was concluded that the aircraft was intact before impact.

Probable Cause

The accident was caused by pilot errors, i.e. improper evaluation of distance, flying a non-standard traffic pattern by night and failing to observe altitude minima during the final approach.

A contributing cause was the improper night marking of obstructions along the approach path towards runway 15.

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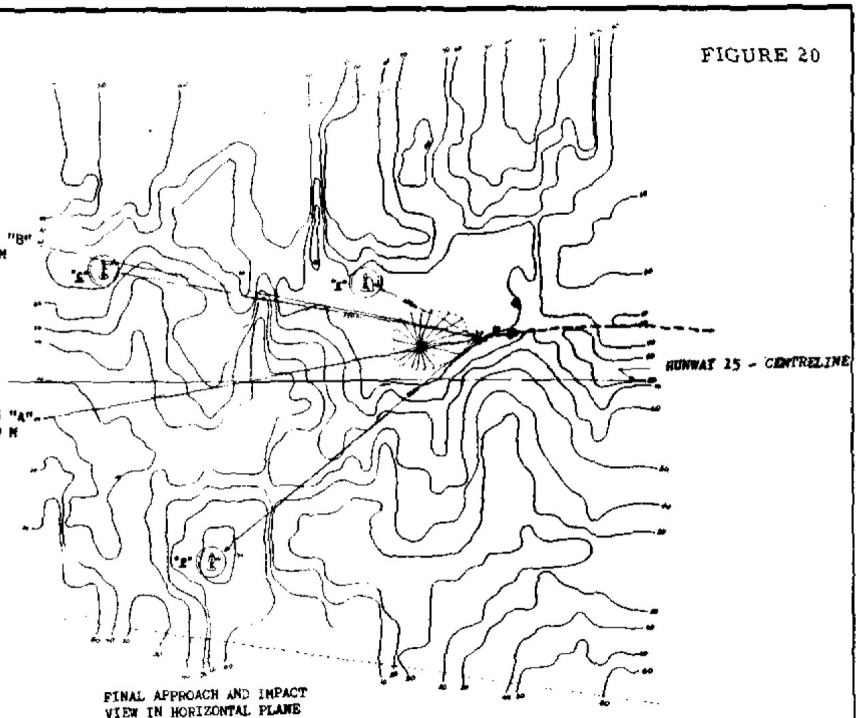
DC-7, PP-PDO
1/11/61

FIGURE 20

APPROXIMATE LOCATION OF WRECKAGE



FINAL APPROACH AND IMPACT
VIEW IN HORIZONTAL PLANE