

No. 41

Deccan Airways, Dakota VT-AXE, crashed on 19 February 1952  
at Sonagaon Airport, Nagpur, India, Gov. of India, Ministry  
of Communications Accident Report.

Circumstances

While on the final approach to land the aircraft was observed by the Aerodrome Operator on duty at the Control Tower. Both the aircraft landing lights were "on", but the operator noticed that the aeroplane was coming in unusually low and drew the attention of the Duty Officer to it. Subsequently, the aircraft assumed a steeply banked attitude with the port wing down and crashed at 0223 hours at a point 2000 feet from the end of runway 27 and directly in line with it. Fire broke out on impact. 12 passengers and 3 crew members required medical treatment but the pilot and one passenger could not be removed from the aircraft and the radio officer expired subsequently in hospital.

Investigation and Evidence

The aircraft initially struck a Simul tree at a height of 58 feet above ground level. At impact the aircraft was substantially in level attitude laterally and longitudinally. Both the engines were under power and the aircraft was trimmed for approach to land. The undercarriage and flaps were down for the landing.

The radio antenna mounted at the bottom of the fuselage was torn free on the tree. The impact resulted in a drop in forward speed and the aircraft lost height rapidly maintaining its direction of flight with the port wing dropping. The port wing impacted 4 small palm trees 500 feet from the point of initial impact with the simul tree and the aircraft swung to the left and crashed in a nose-down attitude immediately afterwards into a deep nullah running at right angles to the direction of flight.

Both the ignition switches were on and the power setting denoted an engine assisted power approach. There was no evidence of malfunctioning of any aircraft or engine components prior to the crash.

The co-pilot survived the accident and reported that he had seen the obstacle before it was struck. On being questioned as to whether it was not his responsibility to warn the pilot when he knew that something was going wrong he replied that he dare not interfere with the captain's flying as he was only a co-pilot. (Total 771 hours - 280 Dakota at night as co-pilot.)

The aircraft carried 400 Imperial gallons of petrol and 42 gallons of oil at the time of take-off from Madras. This was more than adequate for the intended flight to Nagpur which was expected to take 3-1/2 hours.

It has been established that all the available facilities were working satisfactorily on the night of 18/19 February 1952.

The pilot approached the aerodrome from a southerly direction. When fairly close, he was twice warned by the Air Traffic Control to make a wide approach so as to enable the preceding aircraft to clear the runway in use. This manoeuvre probably put the aircraft at a longer distance away from the aerodrome when he turned in on the final approach that what the pilot would be accustomed to. When within the approach control zone of Nagpur aerodrome, the pilot should, according to the company's regulations, have set the sub-scale of his altimeter at the QFE reading passed to him by Air Traffic Control. Up to the time of entry into the approach control zone, the general procedures, to which Deccan Airways adhered, is to set the sub-scale to QNH of the destination aerodrome. The QNH reading for Nagpur at the time was 29.35 inches.

The sub-scale of the captain's altimeter was set at QNH, which prevented the captain from obtaining a direct reading of his height above aerodrome level.

The committee is unable to offer an explanation why the pilot failed to observe the obstruction ahead in sufficient time to take corrective action. It was noted during the investigation that the pilot had had a rest of 39 hours since he had completed two consecutive night flights between Madras and Delhi. This was not in accordance with the company's practice, which was to give two nights off after a pilot had flown two nights consecutively on the night airmail service.

The saving of the large number of lives was due to the prompt warning and efficient rescue work.

#### Recommendations

It is recommended that:-

- 1) there should be strict enforcement and checking of operating procedures as laid down in the Company's Operating Instructions and more effective supervision over the flying habits of aircrews;
- 2) in selecting the aircrew for the operation of the night airmail service, it should be ensured that not only the captain but also the co-pilots are of proved ability and possess long and mature experience of air transport flying;

- 3) the question of crew fatigue particularly on night services should be studied in consultation with experts on aeronautical medicine;
- 4) normally, for landing at night, the requirement to make a circuit or a partial circuit of the aerodrome should not be waived;
- 5) every effort be made to accelerate the provision of high intensity runway and approach lighting at Nagpur, regarding which the committee noted, action had already been initiated by the Civil Aviation Department.

#### Probable Cause

The accident was due to errors of judgment by the pilot when attempting landing during night. He misjudged the approach, undershot and hit the top branches of a tree.

The setting of the pilot's altimeter to QNH, rather than the customary QFE during the final approach was a contributory factor.