

No: 6/90

Ref: EW/G90/04/02

Category: 1a

Aircraft Type and Registration: De Havilland DHC-7-110, G-BRYC

No & Type of Engines: 4 Pratt and Whitney PT6A-50 turboprop engines

Year of Manufacture: 1981

Date and Time (UTC): 1 April 1990 at 1848 hrs

Location: Stand B19, London Heathrow Airport

Type of Flight: Passenger Transport

Persons on Board: Crew - 4 Passengers - 45

Injuries: Crew - None Passengers - None Others - 1 fatal

Nature of Damage: None to the aircraft

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 42 years

Commander's Total Flying Experience: 11,926 hours (of which 1,404 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot and investigation by the Heathrow Airport Police.

The aircraft was on Stand B 19 at London Heathrow Airport. The flight preparations were running according to schedule and there was no evidence of a need to rush the normal procedures. Following the starting of Nos 4 and 1 engines, the commander requested of the supervising ground engineer that the ground power supply should be removed. The ground engineer was in voice communication with the cockpit via a long intercom lead which allowed him to move freely round the nose of the aircraft.

The engineer signalled for the Ground Power Unit (GPU) to be disconnected and observed an operator of that unit walk away from the aircraft with the electrical cable in tow. He therefore, as is normal procedure, positioned himself on the left of the nose where he could be seen by the commander in case of intercom failure. From this position he was unable to see the aircraft's right main landing gear, but had reason to believe was free of obstruction. The tug driver, seated on the right side of his cab, was also unable to see the right main landing gear.

On the commander's request for push-back, the ground engineer asked him to release the brakes and signalled the tug driver to begin push-back. Almost immediately, the commander felt a bump, not an unusual occurrence at the start of a push-back, but the ground engineer suddenly "became agitated" and signalled the tug to stop, whilst informing the commander that someone had been run over and that the

aircraft was going to be pulled forward again. The commander therefore called ATC and requested the attendance of an ambulance.

A GPU operator had remained, unobserved, immediately behind the right main wheel of the aircraft at the start of the push-back and had been trapped by the toes and progressively run over by the aircraft wheel. He was put aboard the ambulance, but did not survive the journey to hospital.

The Metropolitan Police at Heathrow conducted a very thorough investigation into the accident and produced the following data:

- a) For the majority of BA handled operations, the GPU is operated by only one 'handler'. For this operation there were two.
- b) It was twilight and both handlers were of similar appearance, of approximately the same size and were dressed identically.
- c) This aircraft's external power socket had a cover which was very difficult to close and was at a height which required this particular handler to use full stretch whilst standing precisely behind the main wheel.
- d) There was little standardisation in the manner in which the GPU was handled. Normally, in this particular operation, when the order for the removal of ground power is received, handler 'A' operates the switches on the GPU and pulls in the cable in order to stow it. Handler 'B' unplugs the cable, fastens the small cover and carries the cable plug back to the GPU. He is, therefore, the only person walking around under that wing.

In the event, when the ground engineer signalled the removal of ground power, he observed B go to the socket and unplug the cable. The next thing he saw was a handler, whom he assumed to be B, dragging the cable back to the GPU. In fact it was A who, having completed the electrical switching, had seen that B was having difficulty fastening the socket cover, so had walked out from the GPU and taken the cable from him, leaving B still positioned behind the wheel.