Pilot incapacitation, Boeing 757-2T7, G-BYAM, 28 January 1996

Micro-summary: **The captain of this Boeing 757-2T7 collapsed during descent.**

Event Date: **1996-01-28 at 1705 UTC**

Investigative Body: **Aircraft Accident Investigation Board (AAIB), United Kingdom**

Investigative Body's Web Site: **http://www.aaib.dft.gov/uk/**

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Boeing 757-2T7, G-BYAM, 28 January 1996

AAIB Bulletin No: 4/96 Ref: EW/A96/1/2 Category: 1.1

Aircraft Type and Registration: Boeing 757-2T7, G-BYAM

No & Type of Engines:2 Rolls-Royce RB211-535E4 turbofan engines

Year of Manufacture:1987

Date & Time (UTC):28 January 1996 at approximately 1705 hrs

Location: Approaching Malaga Airport in Spain

Type of Flight: Public Transport

Persons on Board: Crew - 9 Passengers - 218 + 2 infants

Injuries: Commander died during or shortly after the flight

Nature of Damage: None

Commander's Licence: Airline Transport Pilot's Licence

First officer's Licence: Airline Transport Pilot's Licence

Commander's Age:54 years

First officer's age:39 years

Commander's Flying Experience:17,600 hours (of which 5,700 were on type)

Last 90 days - 105 hours

Last 28 days - 39 hours

First officer's Flying Experience:10,750 hours (of which 2,470 were on type and 6,120 were flying rotary winged aircraft)

Last 90 days - 126 hours

Last 28 days - 28 hours

Information Source: AAIB Field Investigation

Synopsis

Whilst conducting a flight from Luton to Malaga, with the first officer as the handling pilot, the aircraft commander collapsed during the descent from cruising level shortly before the approach to Malaga Airport. The first officer was able to make a safe landing.

History of the flight

The commander is reported to have been in good health and spirits both before and during the flight and, prior to the event, he had displayed no signs of fatigue, tiredness or personal distress. He had last been examined by an Authorised Medical Examiner on 1 September 1995 when his Class 1 medical certificate was renewed. This examination would have included an Electrocardiogram (ECG) reading.

The flight, which was otherwise uneventful, took off on schedule at 1440 hrs, with the first officer as the handling pilot. It was planned to land at Malaga at 1715 hrs. From its cruising level of FL 370, the flight was initially cleared to descend to FL 330 at 1626 hrs. Then, at about 1645 hrs it was re-cleared to FL 70. At about 1705 hrs, as the aircraft was descending through about FL 150, the crew was given a radar heading of 180° to position for a direct intercept of the ILS for Runway 14 at Malaga. At this time, although nothing had been said, the first officer noticed that the commander appeared to be struggling for breath and so he pressed the cabin crew call button twice to summon assistance.

The No 1 cabin attendant heard the double chime and picked up the interphone to hear the first officer ask for assistance. She went into the flight deck and, seeing the commander slumped and apparently unconscious, pulled him upright and locked his harness. She then slid his seat back, reclined it and removed his feet from the rudder pedals. She also loosened his collar and tie and, having selected 100% oxygen, placed his crew oxygen mask on him.

The No 2 cabin attendant, who had also listened to the interphone, came onto the flight deck with a 'therapeutic' oxygen set and then returned to the cabin to make a PA asking for any doctor or medically qualified person to make themselves known. The No1 attendant, believing that she heard the commander making small noises, felt for a pulse in his neck, but she was unable to detect any pulse. The No 2 attendant then escorted a nurse onto the flight deck but she was equally unsure whether there was a very faint pulse or none at all. Having tried unsuccessfully to strap the nurse into the jump seat, the attendants tried to fold down the left observer's seat but this was not possible because of the commander's rearward seat position. As the landing was by then imminent, the No 2 attendant returned to the cabin and took charge. The nurse returned to her seat, with the intention to return immediately after landing, and the No 1 attendant stayed with the commander.

When, as instructed, the first officer changed radio frequency to Malaga radar, he informed them that there was a medical emergency on board and that medical assistance would be needed on landing. He stated his intention to stop the aircraft on the runway as there was no steering tiller for the right hand seat and aircraft steps would be required to attend to the casualty. After repeating his request he added that it was the commander who was incapacitated. He was then re-cleared to 5,500 feet and a little later, he asked whether he was cleared for the ILS. He was instructed to turn left onto 165° for the intercept. Just as the aircraft levelled at 5,500 feet the terrain closure rate warning of the Ground Proximity Warning System (GPWS) sounded. This quickly turned into the 'hard' warning "PULL UP, PULL UP". The GPWS appears to have been triggered by the aircraft's flight path over a 4,000 foot ridge to the north-east of the field; the radio altimeter indications did not descrease below 1500 feet at this stage. The first officer immediately disconnected the autopilot, applied power and climbed to about 6,000 feet, where the aircraft broke cloud and he

levelled off. The flight director captured the localiser at about 12 nm DME, some 2,000 feet above the glideslope and, as the first officer could then see the ground and the airfield, he initiated a fairly steep descent, using FLAP 5°,spoilers and landing gear. He retracted the spoilers and extended flap progressively as the aircraft settled on the glideslope and he made a normal landing. With the rudder pedal steering, he was able to turn onto a high-speed turn-off, where he brought the aircraft to a standstill, started the APU and shut down the engines.

When the cabin crew disarmed and opened the doors, a paramedic was waiting but, as the steps had not arrived, he was unable to board the aircraft. The steps arrived two or three minutes later and the paramedic boarded and went onto the flight deck, where the Nos 1 and 2 attendants, together with the nurse, were taking turns to apply Cardio-Pulmonary Resuscitation (CPR). The nurse then went aft and the paramedic gave the commander an adrenaline injection. The first officer then told the cabin crew to close the doors and the aircraft was towed to the parking area whilst the crew continued with CPR. An ambulance arrived and a stretcher was brought to take the commander, accompanied by the No 1 attendant,to the local hospital, where he was taken to the intensive care unit. A few minutes later, it was announced that he had died. A post mortem examination of the commander was performed by the Spanish medical authorities and a full report is awaited.
The Spanish civil aviation authorities asked the AAIB to investigate and report on the circumstances of the incident under the provisions of the Convention on International Civil Aviation.