

No: 2/92

Ref: EW/C91/11/1

Category: 1a

Aircraft Type and Registration: 1. Airbus A310-221, HB-IPA
2. Boeing 757-236, G-BMRI

No & Type of Engines: 1. 2 JT9D-7R4D1 turbofan engines
2. 2 Rolls-Royce RB211-535C-37 turbofan engines

Year of Manufacture: 1. 1983
2. 1989

Date & Time (UTC): 25 November 1991 at 0815 hrs

Location: Stand E36, Terminal 2, London Heathrow Airport

Type of Flight: Public Transport

Persons on Board: 1. Crew - 10 Passengers - 99
2. Crew - 9 Passengers - 172

Injuries: None

Nature of Damage: 1. Damage to left wing tip and trailing edge
2. Damage to right rear fuselage and tailplane

Commander's Licence: 1. Airline Transport Pilot's Licence (Switzerland)
2. Airline Transport Pilot's Licence

Commander's Age: 1. 51 years
2. 47 years

Commander's Flying Experience: 1. 13,890 hours (of which 3,900 were on type)
2. 8,500 hours (of which 250 were on type)

Information Source: AAIB Field Investigation

The Boeing 757 had originally been dispatched from stand E36, but was returning to the same stand, as instructed by ATC, in order to have a technical fault rectified prior to departure. Meanwhile, the Airbus crew requested pushback clearance from the Ground Movement Controller. The Airbus was positioned on stand E5, which was on the opposite side of the cul-de-sac to the stand allocated to the Boeing 757. The controller observed that the Boeing 757 had passed behind the Airbus, turned onto the E36 stand centreline, and was moving towards its parking position. With only limited visibility of the Echo cul-de-sac from the control desk, the controller assumed that the parking manoeuvre would be completed normally, and therefore issued an unconditional pushback clearance to the Airbus, which proceeded to move back from its stand powered by a tug.

Pushback was being supervised by a ground engineer, who was positioned on the left side of the Airbus, and connected to the aircraft's interphone system. The only other ground crew involved in the pushback was the tug driver, who had only very limited visibility around the aircraft. Both the tug driver, and the ground engineer, had previously observed the Boeing 757 pass behind the Airbus and turn onto the E36 stand centreline. Both assumed that it would complete its parking procedure normally.

During the pushback, the Airbus pilot requested clearance for starting the right engine from the ground engineer. He replied that it was clear to do so, and the start cycle commenced. It was normal practice for the ground engineer to monitor rotation of the engine LP (low pressure) fan during the start sequence to ensure free rotation. With the left wing tip being outermost in the direction of turn, his attention was therefore divided between monitoring the left wing tip clearance, and the right engine rotation. As the Airbus was being turned towards the taxiway centreline, the ground engineer observed that the Airbus wing tip was passing under the tailplane of the Boeing 757. He attempted to stop the Airbus by advising the flight deck crew and signalling to the tug driver, whose attention was focussed on the correct positioning of the aircraft's nosewheel. This action came too late, and the wing tip of the Airbus impacted on the underside of the Boeing 757 tailplane and rear right fuselage, causing substantial damage in these areas, and to the Airbus wing tip and outboard trailing edge. Both aircraft remained in their respective positions. There was no fire, and all passengers were deplaned normally by the use of mobile steps. The emergency services were promptly in attendance.

Subsequent debrief of the Boeing 757 crew revealed that as the aircraft approached the centreline of stand E36, it was noted that the stand entry guidance system was not illuminated. The crew therefore elected to stop the aircraft on the correct centreline, but short of the correct parking position, to await marshalling, or the illumination of the stand entry guidance system by a dispatcher. The crew attempted to inform ATC that the aircraft was not fully docked, but intensity of RTF traffic was such that the call could not be initiated immediately. However, the aircraft was stationary for less than one minute before the Captain was able to initiate the call. He was in the process of transmitting the facts of the situation to ATC at the exact time of the impact.

From subsequent measurements at the scene, the tail of the Boeing 757 was found to be protruding approximately twenty one metres into the taxiway beyond the end boundary marking of the E36 stand (See diagram). The overall length of the Boeing 757 to the rear of the fuselage is 46.9 metres.

Illumination of the stand entry guidance systems at Heathrow is the responsibility of the aircraft dispatchers. Operation of the switch then initiates a timer, which turns the guidance lights off again after a nominal twenty minute period. The return of the Boeing 757 to the parking stand was notified

on the company operations frequency in good time, but a lack of available dispatchers at the time meant that allocation of someone to meet this aircraft was delayed until after the collision had occurred.

