

**INCIDENT**

<b>Aircraft Type and Registration:</b>	Boeing 747-400, ZS-SAV	
<b>No &amp; Type of Engines:</b>	4 turbofan engines	
<b>Year of Manufacture:</b>	N/K	
<b>Date &amp; Time (UTC):</b>	7 December 1994 at 0700 hrs	
<b>Location:</b>	Stand B25 at London Heathrow Airport	
<b>Type of Flight:</b>	Public Transport	
<b>Persons on Board:</b>	Crew - 18	Passengers - 343
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	Minor to number two engine pylon	
<b>Commander's Licence:</b>	Airline Transport Pilot's Licence	
<b>Commander's Age:</b>	52 years	
<b>Commander's Flying Experience:</b>	16,000 hours (of which 2,000 were on type) Last 90 days - N/K Last 28 days - N/K	
<b>Information Source:</b>	AAIB Field Investigation	

The aircraft landed at Heathrow at 0633 hrs after a direct flight from Johannesburg. It was allocated Stand B25 which is located in a cul-de-sac to the north east of Terminal 1. Stand B25 is a dual purpose stand which can accommodate either one 747 size aircraft or two 737 size aircraft. On the morning of the accident, B25 Left was occupied by a 737 which developed a technical problem which prevented it leaving the stand on time. The 747 was therefore held outside the cul-de-sac waiting for the 737 to clear the stand. At 0655 hrs the 737, which was now serviceable, was given permission to push back and instructed to hold at the blind end of the cul-de-sac to allow the 747 to enter the stand.

One Passenger Loading Bridge serves both B25 Left and B25 and it is standard practice to reposition it in the parking box for B25 after the departure of aircraft from B25 Left. The dispatcher responsible for the 737 was in the process of repositioning the bridge when she noticed that an illegally parked vehicle was in the way. She assessed that by raising the bridge to clear the vehicle, she would be able to park it in its correct position. Meanwhile, the dispatcher responsible for the 747 had switched on

the Stand Guidance System (SGS) which indicated to the commander of the 747 that the stand was clear and that he was cleared to self-park. The switches for the SGS for B25 are located in the Terminal building at the head of the Passenger Loading Bridge from where it is not possible to see the parking area. The 747 dispatcher then proceeded to the head of the Bridge where he joined the 737 dispatcher.

When the 747 dispatcher arrived at the head of the Bridge, the Bridge was still in an intermediate position between its two approved parking areas and the 747 was entering the Stand. At this point, the 737 dispatcher considered that the inboard engine of the 747 would make contact with the Bridge and she ran to the Terminal with the intention of switching on the Stop Short sign or attempting to warn the 747 Commander by some other means. In the event, she did neither. When the 747 dispatcher realised that there was a possibility of a collision, he attracted the attention of the Ground Engineer and made the crossed arms signal indicating that the 747 should stop. The Ground Engineer repeated the signal to the flight deck crew, but by this time the aircraft was too close for the signal to be seen by either pilot.

The aircraft stopped eight inches short of the stop line and it was thought initially that there had been no contact between the aircraft and the bridge. Consequently, the 747 dispatcher proceeded to reposition the bridge onto the aircraft. It was subsequently discovered that there had been contact between the aircraft and the bridge resulting in a four inch gash in the number two engine pylon. By this time, the illegally parked vehicle had been moved and could not be traced.

The stands at Heathrow do not have any means by which ground personnel can indicate to flight deck crews the need for them to stop the aircraft in an emergency. During the latter stages of the parking manoeuvre when a collision is most likely, the flight deck crew's attention is focused on the SGS and the height of the flight deck causes the crew to lose sight of the ground engineer who is not yet in voice contact with them. Following an accident that occurred while parking on a stand at Heathrow on 9 April 1992, the AAIB recommended that the CAA investigate the introduction of an 'emergency stop' indicating system to be activated in the event of an unforeseen occurrence where the aircraft is required to stop urgently (AAIB Recommendation 92-52). As a result of another parking accident at Heathrow on 4 December 1992, the AAIB recommended that the CAA expedite their implementation of Recommendation 92-52. This was AAIB Recommendation 93-18. Having consulted with the relevant industry committee, the CAA decided not to implement the AAIB recommendations on the grounds that the number of parking accidents would not be significantly reduced by the introduction of such a system. However, the industry committee is continuing its study of a variety of issues relating to ramp safety, including the location of ramp guidance controls, and the outcome of its work is expected to be published in the near future.