

## Cessna Citation X 750, N999CX

<b>AAIB Bulletin No:</b>	<b>10/2000</b>	<b>Ref:</b>	<b>EW/G2000/07/27</b>	<b>Category:</b>	<b>1.1</b>
<b>Aircraft Type and Registration:</b>	Cessna Citation X 750, N999CX				
<b>No &amp; Type of Engines:</b>	2 Rolls-Royce Allison AE 3007C turbofan engines				
<b>Year of Manufacture:</b>	1999				
<b>Date &amp; Time (UTC):</b>	29 July 2000 at 0955 hrs				
<b>Location:</b>	London Heathrow Airport				
<b>Type of Flight:</b>	Ferry Flight				
<b>Persons on Board:</b>	Crew - 2 - Passengers - None				
<b>Injuries:</b>	Crew - None - Passengers - N/A				
<b>Nature of Damage:</b>	Left wing-tip navigation light lens housing broken				
<b>Commander's Licence:</b>	Airline Transport Pilots Licence (FAA)				
<b>Commander's Age:</b>	43 years				
<b>Commander's Flying Experience:</b>	3,714 hours (of which 550 were on type)				
	Last 90 days - 115 hours				
	Last 28 days - 23 hours				
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot, and additional information submitted by Heathrow Airport Limited				

The aircraft, a swept wing business jet, was being marshalled into a parking space at Heathrow Airport's business jet parking area. The parking manoeuvre required a 230° right turn from a heading of north to face to the south-west. The turn was to be completed in stages with, during the last 140° of turn, the left wing-tip in close proximity to a blast wall.

The marshaller initially positioned himself at the aircraft's final parking position and marshalled it northwards along the taxiway. As the aircraft approached the required turning point the marshaller signalled it to turn to the east and repositioned himself close to the blast wall to ensure wing tip clearance during turns toward the south. Having further turned the aircraft on to a south-easterly heading and satisfied himself that there was sufficient clearance, the marshaller moved away from the wall and signalled the aircraft to turn further towards the south. During the turn the left wing-tip contacted the vanes of the blast wall and sustained damage to the left navigation light. The commander felt the contact from the cockpit and immediately brought the aircraft to a halt and shutdown the engines.

The Cessna 750 Citation X has wing sweep of  $37^\circ$  and a wing span of 19.38 metres (63 feet 7 inches). The Aircraft Flight Manual shows that for turns on the ground using only nosewheel steering the aircraft pivots around either the left or right main wheels, depending on the direction of turn. For small turns the wing tip describes an arc which extends 0.86 metres (2 feet 10 inches) beyond its straight line track. For a  $180^\circ$  turn the wing tip describes a semi-circle of 24.64 metres (80 feet 10 inches) diameter which is 5.25 metres (17 feet 3 inches) greater than the aircraft's wing span.