

**INCIDENT**

<b>Aircraft Type and Registration:</b>	Embraer 135, LX-LGK
<b>No &amp; Type of Engines:</b>	2 Rolls Royce AE3007 A3 turbofan engines
<b>Year of Manufacture:</b>	2005
<b>Date &amp; Time (UTC):</b>	1 January 2006 at 1915 hrs
<b>Location:</b>	London City Airport
<b>Type of Flight:</b>	Public Transport (Passenger)
<b>Persons on Board:</b>	Crew - 4                      Passengers - 29
<b>Injuries:</b>	Crew - None                      Passengers - None
<b>Nature of Damage:</b>	Two small punctures in the aircraft skin
<b>Commander's Licence:</b>	Airline Transport Pilot's Licence
<b>Commander's Age:</b>	33 years
<b>Commander's Flying Experience:</b>	6,525 hours (of which 3,811 were on type) Last 90 days - 203 hours Last 28 days - 71 hours
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot

**Synopsis**

The aircraft's parking brake was not set prior to engine start. After engine start, ground crew removed the chocks and the aircraft rolled forwards and struck ground equipment.

**History of flight**

After they had parked the aircraft on stand and chocks had been inserted, the flight crew noticed that the brake temperatures were close to the amber range, indicating the brakes were hot. To assist cooling of the brakes during the turnaround, the parking brake was selected OFF. A Ground Power Unit (GPU) and its tractor were positioned approximately one metre in front of the aircraft. The weather was windy, with rain, and it was dark.

As departure time approached, a single member of the ground crew arrived to assist in the aircraft's departure. The communication between flight crew and the ground crew was to be by hand signals; no headset was provided.

The flight crew completed the appropriate checks in preparation for engine start, but did not select the parking brake ON (the commander later attributed this oversight to human error). This omission was not identified by either pilot during the before start checklist. The engines were started and the commander signalled to the ground crew that the chocks should be removed. The ground crew removed the chocks from

behind the wheels without difficulty, but had to strike the chocks in front of the wheels with another chock to displace them. With the chocks removed, the aircraft began to move forward slowly. It collided with the GPU and its tractor, damaging the aircraft skin in two places. Recognising that a collision had taken place, the commander stopped the aircraft and applied the parking brake. The commander reported that the dark and rainy conditions had prevented him realising that movement had taken place, until the collision occurred, and that in the absence of headset communication the ground crew was unable to instruct the commander to apply the brakes.

The operator believes that this incident would not have occurred if procedures had required the ground crew to use headset communication (or required two ground crew where hand signals were used), or if ground crew were required to obtain confirmation that the parking brake was set prior to engine start, or if the tractor and GPU had not been parked close in front of the aircraft. The operator is in discussion with the ground handling service provider on these matters.