

Accident to Boeing 777-236, G-YMMM at London Heathrow Airport on 17 January 2008 - Initial Report

Initial Report **AAIB Ref: EW/C2008/01/01**

Accident

Aircraft Type and Registration:	Boeing 777-236, G-YMMM
No & Type of Engines:	2 Rolls-Royce RB211 Trent 895-17 turbofan engines
Year of Manufacture:	2001
Date & Time:	17 January 2008 at 1243 hrs
Location:	Undershoot RWY 27L, London Heathrow Airport
Type of Flight:	Commercial Air Transport (passenger)
Persons on Board:	Crew - 16 Passengers - 136
Injuries:	Crew - 4 (minor) Passengers - 1 (serious) Passengers - 8 (minor)
Nature of Damage:	Substantial
Information Source:	AAIB Field Investigation

Following an uneventful flight from Beijing, China, the aircraft was established on an ILS approach to Runway 27L at London Heathrow. Initially the approach progressed normally, with the Autopilot and Autothrottle engaged, until the aircraft was at a height of approximately 600 ft and 2 miles from touch down. The aircraft then descended rapidly and struck the ground, some 1,000 ft short of the paved runway surface, just inside the airfield boundary fence. The aircraft stopped on the very beginning of the paved surface of Runway 27L. During the short ground roll the right main landing gear separated from the wing and the left main landing gear was pushed up through the wing root. A significant amount of fuel leaked from the aircraft but there was no fire. An emergency evacuation via the slides was supervised by the cabin crew and all occupants left the aircraft, some receiving minor injuries.

The AAIB was notified of the accident within a few minutes and a team of Inspectors including engineers, pilots and a flight recorder specialist deployed to Heathrow. In accordance with the established international arrangements the National Transportation Safety Board (NTSB) of the USA, representing the State of Design and Manufacture of the aircraft, was informed of the event. The NTSB appointed an Accredited Representative to lead a team from the USA made up of investigators from the NTSB, the FAA and Boeing. A Boeing investigator already in the UK joined the investigation on the evening of the event, the remainder of the team arrived in the UK on Friday 18th January. Rolls-Royce, the engine manufacturer is also supporting the investigation, an investigator having joined the AAIB team.

Activity at the accident scene was coordinated with the Airport Fire and Rescue Service, the Police, the British Airports Authority and British Airways to ensure the recovery of all relevant evidence, to facilitate the removal of the aircraft and the reinstatement of airport operations.

The flight crew were interviewed on the evening of the event by an AAIB Operations Inspector and the Flight Data Recorder (FDR), Cockpit Voice Recorder (CVR) and Quick Access Recorder (QAR) were removed for replay. The CVR and FDR have been successfully downloaded at the AAIB laboratories at Farnborough and both records cover the critical final stages of the flight. The QAR was downloaded with the assistance of British Airways and the equipment manufacturer. All of the downloaded information is now the subject of detailed analysis.

Examination of the aircraft systems and engines is ongoing.

Initial indications from the interviews and Flight Recorder analyses show the flight and approach to have progressed normally until the aircraft was established on late finals for Runway 27L. At approximately 600 ft and 2 miles from touch down, the Autothrottle demanded an increase in thrust from the two engines but the engines did not respond. Following further demands for increased thrust from the Autothrottle, and subsequently the flight crew moving the throttle levers, the engines similarly failed to respond. The aircraft speed reduced and the aircraft descended onto the grass short of the paved runway surface.

The investigation is now focussed on more detailed analysis of the Flight Recorder information, collecting further recorded information from various system modules and examining the range of aircraft systems that could influence engine operation.