

SERIOUS INCIDENT

Aircraft Type and Registration:	Airbus A320-214, G-EZUH	
No & Type of Engines:	2 CFM CFM56-5B4/3 turbofan engines	
Year of Manufacture:	2011 (Serial no: 4708)	
Date & Time (UTC):	16 July 2015 at 1435 hrs	
Location:	London Luton Airport	
Type of Flight:	Commercial Air Transport (Passenger)	
Persons on Board:	Crew - 6	Passengers - 178
Injuries:	Crew - None	Passengers - None
Nature of Damage:	None	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	41 years	
Commander's Flying Experience:	6,995 hours (of which 4,841 were on type) Last 90 days - 199 hours Last 28 days - 43 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB	

Synopsis

Before pushback, takeoff performance was calculated for a departure using the full length of Runway 08 at London Luton Airport. When the aircraft was at the holding point, prior to takeoff, it became apparent that an intersection departure may be required, due to an aircraft holding on the runway threshold. The performance was recalculated for this, with a change in flap setting. The aircraft then took off from Intersection Bravo with performance calculated assuming the full length of the runway was available.

History of the flight

The aircraft was on a scheduled flight from London Luton Airport to Montpellier Airport, France. The co-pilot was to be the pilot flying and commander the pilot monitoring.

Prior to pushback the commander calculated the takeoff performance figures for a departure from Runway 08, assuming its full length was available and the use of FLAP 1, using his Electronic Flight Bag (EFB). These were crosschecked by the co-pilot and entered into the aircraft's Flight Management Guidance Computer (FMGC).

When the aircraft reached Holding Point Bravo One there was an aircraft holding on the threshold of Runway 08. This aircraft was advised by ATC that there was a problem obtaining its clearance from the next ATC sector. The commander of G-EZUH asked ATC if it would be appropriate to plan for a takeoff from Intersection Bravo One; they advised it was.

The commander then calculated the takeoff performance for Runway 08 using $FLAP\ 2$ and the full length of Runway 08. This was crosschecked by the co-pilot, with an emphasis on the change in configuration to $FLAP\ 2$. The new takeoff speeds and engine thrust setting were entered into the FMGC.

The takeoff proceeded normally but, as the aircraft approached V_1 , the commander noticed that the remaining runway was shorter than expected so he decided to commit to the takeoff without adjusting the engine thrust. The aircraft became airborne with approximately 180 m of runway remaining. The pilots discussed the takeoff en route and re-calculated the takeoff performance, and realised that the engine thrust setting and takeoff speeds used were incorrect. The remainder of the flight was uneventful.

Commander's comments

The commander later commented that he did attempt to change the runway selected to reflect a departure from Intersection Bravo. However it is likely that, when trying to select this, Runway 08 remained selected due to the combination of his finger size and the calibration of the EFB's touch screen. He also believed he was distracted from confirming the runway selection by the need to confirm the change in the flap setting with the co-pilot.

Airport information

The following are the applicable distances of Runway 08 at London Luton Airport:

Runway designator	TORA ¹	ASDA ²
08	2,162 m	2,162 m
08 - Takeoff from Intersection Bravo	1,688 m	1,688 m

Recorded data

The aircraft's Flight Data Monitoring system captured the incident, showing that the aircraft departed from Runway 08 at Intersection Bravo, at a takeoff weight of 67.8 tonnes and a takeoff distance available of 1,688 m. As the aircraft accelerated through an estimated V_1 of 132 KIAS there was about 580 m of runway remaining. At initiation of rotation, at 142 KIAS, approximately 430 m of runway remained, and the aircraft became airborne at 148 KIAS with approximately 180 m of runway remaining. The aircraft passed over the runway end at a height of 117 ft, as measured by the aircraft's radio altimeter.

Other recent events

G-EZIV

On 16 October 2015 an Airbus A319, registration G-EZIV, took off from Runway 21 at Lisbon Airport, Portugal with takeoff performance calculated using Runway 03.

Footnote

¹ TORA – Take Off Run Available.

² ASDA – Accelerate Stop Distance Available.

G-EZAA

On 25 June 2015 an Airbus A319, registration, G-EZAA, took off from Intersection Bravo on Runway 25 at Belfast International Airport with takeoff performance calculated using the full length of Runway 07.

Both these incidents are the subject of separate investigation by the AAIB.

Safety actions

As a result of this and other recent incidents the operator will publish an article in the next edition of its *Flight Safety Bulletin* outlining their severity and the hazards of not crosschecking all performance calculations.

Also, the operator has added a briefing note on all of its Operational Flight Plans highlighting the importance of crosschecking takeoff performance calculations when changes are made as a result of intersection departures or other last-minute changes to aircraft configuration or takeoff distances.