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## Birdstrike on takeoff roll, Boeing 737-73V, G-EZJX

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**Micro-summary:** This Boeing 737 hit birds on takeoff, prompting a successful abort and subsequent evacuation.

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**Event Date:** 2004-12-05 at 0733 UTC

**Investigative Body:** Aircraft Accident Investigation Board (AAIB), United Kingdom

**Investigative Body's Web Site:** <http://www.aaib.dft.gov/uk/>

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**INCIDENT**

<b>Aircraft Type and Registration:</b>	Boeing 737-73V, G-EZJX	
<b>No &amp; Type of Engines:</b>	2 CFM56-7B20 turbofan engines	
<b>Year of Manufacture:</b>	2003	
<b>Date &amp; Time (UTC):</b>	5 December 2004 at 0733 hrs	
<b>Location:</b>	Newcastle Airport, Tyne and Wear	
<b>Type of Flight:</b>	Public Transport (Passenger)	
<b>Persons on Board:</b>	Crew - 5	Passengers - 96
<b>Injuries:</b>	Crew - 1 (Minor)	Passengers - None
<b>Nature of Damage:</b>	None	
<b>Commander's Licence:</b>	Airline Transport Pilot's Licence	
<b>Commander's Age:</b>	34 years	
<b>Commander's Flying Experience:</b>	5,400 hours (of which 4,950 were on type) Last 90 days - 140 hours Last 28 days - 34 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

At 0733 hrs the aircraft commenced a takeoff from Runway 25, which was 2,329 metres (7,640 feet) in length. The weather conditions were good with a surface wind from 270° at 10 kt, visibility of 20 km, temperature 7°C and the local sunrise was due at 0813 hrs. At a speed of around 115 kt the flight crew saw a flock of birds ahead on the runway and almost at the same time heard a loud 'bang', felt vibration through the aircraft and noticed the number one engine surge. The commander rejected the takeoff at a speed of 122 kt ( $V_1$  was 127 kt), and brought the aircraft to a stop on the runway. From the position at which the aircraft came to a stop there was 1,067 metres (3,500 feet) of remaining runway length. The crew contacted the Airport Fire Service on frequency 121.6 MHz to check on the condition of the aircraft. They were advised that there was some smoke from the right main landing gear and so the commander decided to disembark the passengers on the runway. The aircraft was subsequently towed to the parking area.

An engineering inspection found evidence of three impacts with birds, two on the left engine and one on a left wing slat. There was no permanent damage to the aircraft.

The birds were identified as grey partridges, which when airborne typically fly close to the ground. During the winter season grey partridges live in small groups, known as coveys, and inhabit lowland areas of farmland feeding in open grass and vegetation. They are difficult to detect and flush out from long grass.

There are open areas of grass on the airfield which are mown to a grass length of approximately 8 inches (0.25 metres). There were three bird patrols carried out at the airport in the morning prior to the incident, the result for each was recorded in the log as '*nothing to report*'. On the day before this birdstrike incident an airport based Police Officer had gone out to speak with a shooting party, who were close to the northern boundary fence of the airfield, in response to concerns that beaters were driving birds towards the airfield and that guns were being carried close to the airfield. The airport operator has since written to the farmer of the land adjacent to the boundary requesting that shooting activities are not carried out in the vicinity of the airfield.

In the prevailing light conditions the crew would have had little opportunity to see the birds before impact but they were certain that they hit at least one and probably more. With the aircraft approaching  $V_1$  speed the commander had a very short time in which to make his decision whether to continue the takeoff or to stop. The physical evidence of at least one engine suffering damage probably contributed to his decision to stop, and in the event the aircraft came safely to a stop with sufficient runway available.