

ACCIDENT

Aircraft Type and Registration:	Boeing 737-8AS, EI-GDZ	
No & Type of Engines:	2 CFM56-7B26E turbofan engines	
Year of Manufacture:	2018 (Serial no: 44820)	
Date & Time (UTC):	30 April 2018 at 1035 hrs	
Location:	London Stansted Airport	
Type of Flight:	Commercial Air Transport (Passenger)	
Persons on Board:	Crew - 7	Passengers - 170
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damage to the left elevator	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	48 years	
Commander's Flying Experience:	19,300 hours (of which 5,800 were on type) Last 90 days - 395 hours Last 28 days - 51 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft was being pushed back prior to engine start and was to stop abeam Stand 50R. The groundcrew did not stop the aircraft at the allotted place, which caused the aircraft's elevator to contact the blast fence.

History of the flight

The aircraft was parked on Stand 43L at Stansted Airport, and because it was unable to make a Calculated Take Off Time (CTOT) of 0845 hrs a new CTOT of 1005 hrs was allocated. The crew requested to "PUSH AND HOLD" which was granted by the ground controller who added, "PUSH ACROSS TO THE EAST LINE, ABEAM STAND 50R. DO NOT START ENGINES". These instructions were repeated to the groundcrew. During the pushback, ATC informed the crew of a new CTOT, very close to the present time. The crew informed the groundcrew and advised them that they would start engines after the pushback. Approaching the end of the pushback, the flight crew felt the tug stop abruptly. The commander asked the groundcrew if everything was alright and the groundcrew responded that they had pushed the aircraft too close to the blast fence and were going to pull it forward. The Senior Cabin Crew member called the flight deck on the interphone and informed them that she and the cabin crew seated at the rear of the aircraft felt that the tail of the aircraft had struck something. The commander checked with the groundcrew, who thought it hadn't, but the commander contacted engineering who sent out an engineer. On inspection, damage was found to the trailing edge of the left elevator. The commander called the ground controller and informed

them of the collision. The Fire Service attended and, following an inspection, determined that there was no immediate danger to the aircraft or passengers, which was also confirmed by the engineer. The aircraft was towed to Stand 50L and the passengers disembarked using the air stairs.

Parking area

The aircraft was parked on stand C43L with the headset operator on the right side of the aircraft, in communication with the flight deck and the tug driver in his driving position. The weather was described as poor visibility with strong winds and heavy rain causing standing water, reflecting the airport lights and making the ground markings difficult to see. The intended stands and taxi lines are shown at Figure 1.

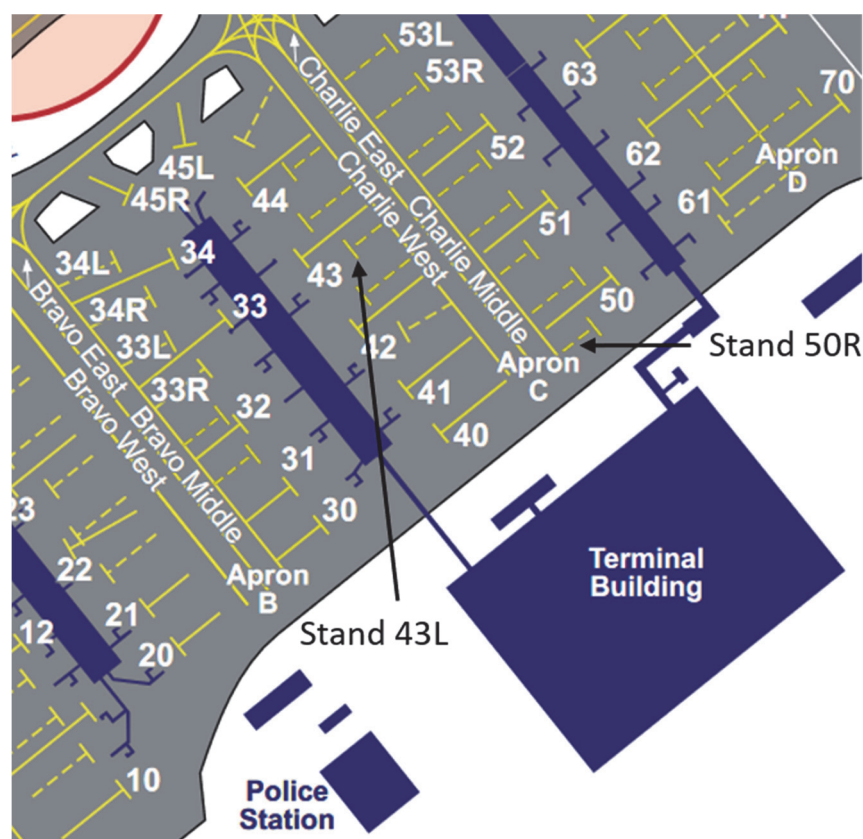


Figure 1

Parking stands and taxi lines with 50R being closest to the blast fence.

A person in a vehicle, which was not connected with the aircraft manoeuvring, witnessed the incident and pointed out the damage to the groundcrew. The company engineer, airfield operations vehicle and airport Rescue and Fire Fighting Service (RFFS) attended promptly and, once they declared the aircraft safe to be moved, it was positioned onto stand 50L and the passengers disembarked.

Recorded information

Closed-circuit Television (CCTV) of the event showed that the aircraft was pushed back but moved slightly from side to side as the tug driver attempted to locate and follow the taxi line. When the tail of the aircraft contacted the blast fence, the tug stopped and then reversed a short distance before becoming stationary. The images in Figures 2 to 6 were taken from the CCTV recording.



Figure 2

Initial pushback from the Stand 43L



Figure 3

The aircraft approaching the taxi line with the headset person on the right side of the aircraft



Figure 4

The aircraft established on the taxi line



Figure 5

The aircraft contacting the blast fence



Figure 6

The aircraft contacting the blast fence from a different camera angle

Pushback ground crew

The aircraft operator reported to the AAIB that the tug driver had highlighted the difficulty of identifying the taxiway line marking due to the surface water, which led to his loss of bearings. He also stated that he did not feel the impact of the collision from his position inside the tug, which was why he was not aware of what had happened. The headset operator was unsure of the term 'abeam' and thought that abeam was based on the position of the pilot's window. This position, he thought, would allow enough clearance behind the aircraft from the blast fence and so he did not attempt to stop the pushback. He advised the tug driver that he thought the aircraft had struck the fence, and the tug driver pulled the aircraft forward. The headset operator was still in his training period and was being assessed by the tug driver but operating on his own alongside the aircraft.

Discussion

The clearance was to carry out a pushback of the aircraft to abeam Stand 50R and the headset operator believed this would be when the pilot's window was in line with the stand. The pushback continued until the elevator struck the blast fence but the relative positions of the pilot's window and the stand were not determined at this point.

The poor weather, light and poor clarity of the taxi line as seen by the tug driver meant that all his attention was focussed on his task. This and his restricted viewpoint from the nose of the aircraft prevented him from monitoring the actions of the headset operator and being aware of the proximity of the tail to the blast fence.