ACCIDENT

Aircraft Type and Registration:	Airbus A320-214, G-MRJK
No & Type of Engines:	2 CFM 56-5B4/2P turbofan engines
Year of Manufacture:	1999 (Serial no: 1081)
Date & Time (UTC):	30 May 2012 at 0624 hrs
Location:	London Luton Airport
Type of Flight:	Commercial Air Transport (Passenger)
Persons on Board:	Crew - 6 Passengers - 180
Injuries:	Crew - None Passengers - None
Nature of Damage:	G-MRJK - Right stabilizer G-OZBM - APU tail cone
Commander's Licence:	Airline Transport Pilot's Licence
Commander's Age:	48 years
Commander's Flying Experience:	10,512 hours (of which 6,317 were on type) Last 90 days - 26 hours Last 28 days - 16 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB

Synopsis

G-MRJK was being pulled forward onto the taxiway centreline after pushback from Stand 43 at London Luton Airport when it collided with G-OZBM, parked on Stand 46 directly behind it. Both aircraft were damaged.

History of the flight

The tug intended to push G-MRJK from Stand 43, on the East Apron, would not start. The only available replacement tug and towbar, which were the largest operated by the handling agent and approximately 2.5 m longer than the original equipment, were brought to the stand and the pushback commenced. A headset operative was in attendance. The weather was clear with a low sun.

Initially, G-MRJK was pushed back and to its left towards a blast fence, so that its tail pointed into the south-west corner of the East Apron. The headset operative stood to the aircraft's left in order to monitor the proximity of the blast fence and maintain visual contact with the aircraft commander. When the aircraft was pointing into the corner the tug driver judged that its main landing gear had not crossed the rear of a stand road that passes behind Stands 46 to 48, and that the nosewheel had not crossed the taxiway centreline. G-MRJK was then pulled forward to line up with the taxiway centreline so that it could exit the East Apron under its own power. As G-MRJK was being pulled forward its right horizontal stabilizer made contact with the APU tail cone of the

unoccupied G-OZBM, which was on Stand 46 directly behind Stand 43. Figure 1 shows layout of the East Apron and the approximate position of each aircraft at the point of collision.

A passing dispatcher who witnessed the pushback thought that the aircraft would collide just before G-MRJK was stopped. As it was pulled forward he saw a small object fall off one of the aircraft and raised the alarm to the pushback team, via his manager, after the aircraft had come to a stop prior to the tug being disconnected. Neither pilot on G-MRJK felt the impact, nor did the tug driver.

G-MRJK sustained significant damage to its right horizontal stabilizer, G-OZBM sustained a scrape to its tail cone.

This was the first recorded pushback incident on the East Apron.

Pushback procedures

The pushback was 'S' shaped, 'non-standard' and different from the pushback modelled for this stand by the airport operator. The pushback model had not been shared with the handling agent, however. The airport operator commented that the choice of pushback was a matter of airline, handling agent or tug driver preference.

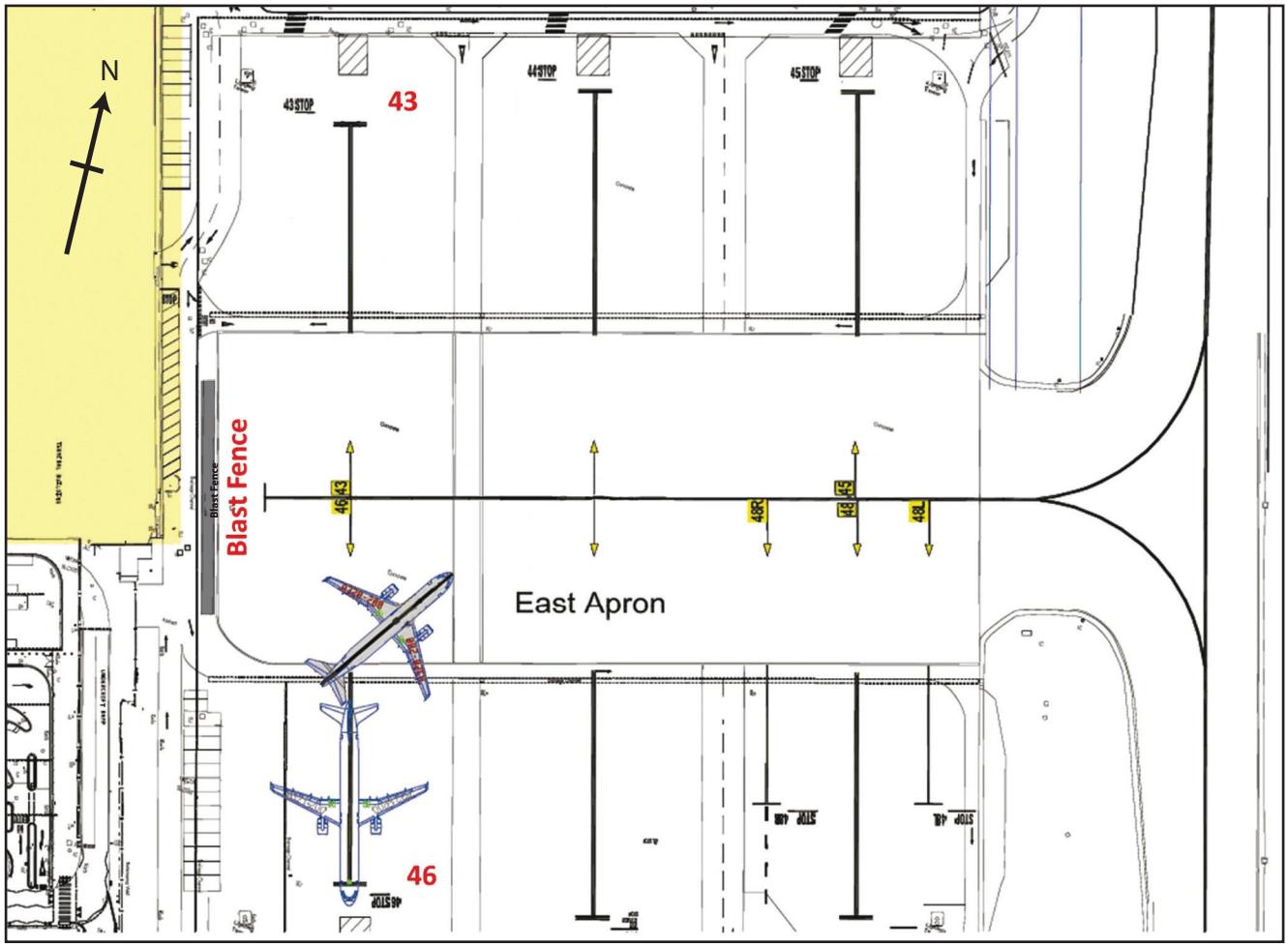

Figure 1

Approximate position of the aircraft at the time of the collision.

The handling agent had not performed a risk assessment of pushbacks from individual stands where a 'non-standard' pushback was required, as was the case on the East Apron.

It was commonly accepted that, to ensure the tail of an aircraft did not encroach the rear of the stand road opposite, the aircraft's nosewheel should not cross the taxiway centreline during pushback. This was not a formal procedure, however, and the handling agent noted that it was sometimes necessary to push the nosewheel over the centreline in order to position an aircraft.

An airport instruction existed requiring an individual at the back-of-stand roadway to stop traffic prior to an aircraft crossing the road when being pushed back. After this incident the handling agent considered placing another person on the other side of the taxiway on the opposite road but during trials found that such a person could not be seen by the pushback team and would not be useful. There was no local instruction requiring one.

The handling agent reported that its training package did not state clearly that, if a pushback driver was unsure of the clearance of an aircraft, the driver should stop the pushback and check.

Ground handler's comments

The tug driver and headset operative stated that the rising sun was very bright and glare off the taxiway affected their vision during the pushback to such an extent that it was difficult to determine the position of the rear of the aircraft relative to the rear of stand road and the taxiway centreline; neither was in possession of sunglasses.

Tug driver

The tug driver commented that at the time of the incident he was suffering from the symptoms of a cold and felt tired, coming to the end of a night shift which started at 2000 hrs the previous evening and during which he had not had a break. However, he did not think this impaired his judgement.

He added that he had, on several occasions, pushed aircraft from Stand 43 while Stand 46 was occupied, without incident and using the same method and reference point to determine when to stop the aircraft. He was aware that the aircraft's nosewheel should not cross the taxiway centreline and believed it had not done so on this occasion.

Discussion

During the pushback the tug driver and headset operative were dazzled by glare from the sun reflected off the taxiway, which meant that they could not see the rear of the aircraft clearly. Their ability to judge the manoeuvre may also have been affected by the use of a tug and towbar combination longer than that to which they were accustomed. Consequently, the rear of the aircraft was pushed back over the rear of stand road where it encroached into Stand 46. The tug driver was tired and had symptoms of a cold, which may have affected his judgement.

Safety actions

As a result of this incident the aircraft handling agent has stopped using the long tug and towbar to pushback aircraft on the East Apron. It will also conduct risk assessments of all 'non-standard' pushbacks at every airport where it operates.

The handling agent will amend its driver training package to state clearly that if a tug driver is unsure of the clearance of the aircraft, he should stop the pushback and check.

The airport operator's pushback models have been shared with the handling agent and will be used in training to increase pushback driver awareness.