

Boeing 737-5Q8, G-BVZH, 25 January 2002

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Category:

INCIDENT

Aircraft Type and Registration:	Boeing 737-5Q8, G-BVZH	
No & Type of Engines:	2 CFM56-3C1 turbofan engines	
Year of Manufacture:	1991	
Date & Time (UTC):	25 January 2002 at 1905 hrs	
Location:	London Heathrow Airport, Stand C28	
Type of Flight:	Public Transport	
Persons on Board:	Crew - 6	Passengers - 70
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damage to left engine cowling	
Commander's Licence:	Airline Transport Pilots Licence	
Commander's Age:	56 years	
Commander's Flying Experience:	17,400 hours (of which 3,000 were on type)	
	Last 90 days - 188 hours	
	Last 28 days - 65 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by AAIB	

The aircraft was taxiing on to Stand C28 at the end of a revenue flight from Europe. It was dark and the commander reported that the weather was severe, with driving rain and a strong southerly wind. With the windscreen wipers on, visibility was described as "intermittently distorted".

Parking on Stand C28 required the aircraft to turn through approximately 110° off the taxiway. The commander stated that difficulty was experienced in finding the stand centreline, because the yellow paint line was difficult to see in the prevailing conditions. He reported that the time it took to establish the aircraft on the stand centreline distracted him from recognising where to stop the aircraft. Having realised that the aircraft's position "did not feel right", the brakes were applied and the aircraft was brought to a halt from a speed of 1 kt. The aircraft's nosewheel had overshot the

parking position indicated for a Boeing 737 and stopped on the Boeing 757 mark. In doing so, the top of the left engine cowling contacted the underneath of the air-bridge.

In his report, the commander commented that it was possible to confuse the B737 and B757 identification labels on the Parallax Aircraft Parking Aid (PAPA), because of their similarity, and the poor state of the PAPA's lighting. He reported that the illumination for the labels had been degraded by the presence of green mould on the associated light cover, and that the vertically mounted white fluorescent alignment light was too bright. The representation of the stand on the aerodrome ramp chart was given as a further causal factor. This was interpreted as showing a turn of 90° off the taxiway for nose-in parking, instead of the greater angle that was required. Also, examination of the stand showed the yellow paint markings to be worn.

Discussion

Referring to *Stand Guidance*, the aerodrome charts used by the operator stated:

'Nose-in parking is in operation throughout the terminal areas and in the cargo terminal. Stand centrelines are marked by yellow paint lines. Azimuth and stopping guidance are provided by APIS, AGNIS/PAPA, AGNIS/MIRROR or AGNIS/STOP ARROW(painted on the apron)..... The type of stopping guidance is marked beside the APIS or AGNIS at the head of the stand.'

The Visual Docking Guidance System provided on Stand C28 was AGNIS/PAPA (Azimuth Guidance for Nose-in Stands/Parallax Aircraft Parking Aid). The yellow marking on the taxiway, indicating the stand number and centreline, was correctly aligned and numbered but, in the dark wet conditions that prevailed at the time, this may have been difficult to see. The AGNIS/PAPA was found to be operating correctly, but the lighting for the aeroplane type identification labels on the PAPA's black board was degraded by the presence of some green mould and other dirt. In dark, dry conditions the identification labels were clearly visible from the flight decks of aircraft using this stand. However, in the severe weather described, less than maximum illumination would increase the risk of confusing such similar labels. There is no evidence that the primary indication of correct alignment on the stand, as provided by the AGNIS, was adversely affected by the weather conditions.

Civil Aviation Publication (CAP) 637, entitled Visual Aids Handbook, is a compendium of Visual Aids intended for the guidance of Pilots and Personnel engaged in the handling of aircraft. In the chapter on Visual Docking Guidance Systems (VGDS) it advises that

*'a pilot **should not** assume that a stand is safe to enter simply because the stand VDGS is active or lit. Where ground handling personnel are not present on the stand or if the pilot has any doubt about the position of any equipment on **or NEAR** to the stand, the aeroplane should be stopped immediately and assistance requested.'*

Post Incident Actions

Following this incident, the airport authority has taken action to restore the level of lighting on the PAPA for this stand. The yellow taxiway and apron markings are the subject of a 'rolling' maintenance programme and the operator, acknowledging the crew responsibilities, has organised a programme of further training.

