
ACCIDENT

Aircraft Type and Registration:	ATR 72-202, G-BWDB	
No & Type of Engines:	2 Pratt & Whitney PW124B turboprop engines	
Year of Manufacture:	1995	
Date & Time (UTC):	25 June 2009 at 0925 hrs	
Location:	London Gatwick Airport	
Type of Flight:	Commercial Air Transport (Passenger)	
Persons on Board:	Crew - 4	Passengers - 36
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damage to right rear nose landing gear bay door, door actuating linkages and hinges, tow bar shear pin failed	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	59 years	
Commander's Flying Experience:	7,437 hours (of which 3,500 were on type) Last 90 days - 109 hours Last 28 days - 62 hours	
Information Source:	Aircraft Accident Report Form submitted by the commander, airfield safety reports and further enquiries by the AAIB	

Synopsis

During pushback from its parking stand, prior to the aircraft taxiing for departure, a modified bracket on the towbar struck and damaged the rear right door of the nose landing gear bay.

History of the flight

The aircraft was being operated on a scheduled passenger service from Gatwick Airport to Guernsey. ATC cleared the aircraft to pushback from Stand 9, instructing the crew that the aircraft be positioned far enough back on Taxiway M to be able to turn right into Taxiway Z. The commander passed this information to the ground crew headset operator. However, there was

a misunderstanding and the tug manoeuvred the aircraft in accordance with a standard pushback, positioning it tail first into Taxiway Z. Realising what was happening, the commander instructed the ground crew to stop the pushback. When the aircraft was stationary, the commander instructed the ground crew to tow the aircraft forward onto Taxiway M, facing south, so that it could be pushed back beyond Taxiway Z, thereby complying with the original ATC instruction. While the aircraft was being repositioned, the tow bar came into contact with the one of the nose gear bay doors and a shear-pin failed on the towbar. The tow was stopped and the headset operator reported the aircraft

damage. The commander shut the engines down. The passengers and baggage were returned to the terminal while engineering assistance was sought. Aircraft damage was limited to the nose landing gear right rear door assembly which was removed to allow the aircraft to be flown empty to its base for rectification.

Operator's safety investigation

Investigation by the aircraft operator and ground handling agent determined that an undocumented modification to the tow bar had occurred, probably during the previous

evening. The release cable guide bracket, which was located on the top of the towbar, had been bent from the vertical through an angle of about 45°. In its correct configuration this bracket sits between the nose landing gear bay doors, regardless of towing angle. The modified configuration resulted in the bracket striking the right rear door as the towbar was turned through an angle of about 40°-50° from the centreline of the aircraft. As the tow angle increased, the bracket exerted pressure on the nose bay door, which failed along its hinge line, followed by the tow bar's shear-pin.