

Dornier DO 328-100, G-BWWT

AAIB Bulletin No: 8/99 Ref: EW/C99/4/1 Category: 1.1

Aircraft Type and Registration: Dornier DO 328-100, G-BWWT

No & Type of Engines: 2 Pratt and Whitney PW-119B turboprop engines

Year of Manufacture: 1995

Date & Time (UTC): 15 April 1999 at 0704 hrs

Location: London (City) Airport

Type of Flight: Public Transport

Persons on Board: Crew - 4 - Passengers - 5

Injuries: Crew - None - Passengers - None

Nature of Damage: None

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 45 years

Commander's Flying Experience: 8,300 hours (of which 1,320 were on type)
Last 90 days - 76 hours
Last 28 days - 27 hours

Information Source: AAIB Field Investigation

History of the flight

The Dornier 328 was parked on Stand 1 at London (City) Airport. The weather was CAVOK with a surface temperature of +1°C and a QNH of 999 mb, the surface wind was calm and Runway 28 was the runway in use. At 0657 hrs the First Officer (FO) requested start clearance. The Tower controller cleared the flight to start engines and passed the ATC clearance. At 0702 hrs the Tower controller cleared a SAAB 2000 to land on Runway 28. The Dornier crew then requested taxi clearance and were cleared to taxi to holding point Bravo; this clearance was correctly acknowledged by the FO. At this stage there was a changeover of the Tower controller. The oncoming controller had only the two aircraft on frequency and was aware of their intentions and the clearances issued to them.

As the SAAB touched down, at 0704 hrs, the Tower controller noticed that the Dornier had crossed the holding position markings at Bravo. Just as he commenced a transmission to instruct the Dornier to stop the Dornier did so. The aircraft came to a halt with the main wheels on the lines marking the holding point. The SAAB had landed in the normal position and was now

approximately 250 feet from Bravo and decelerating through about 50 kt. The SAAB passed in front of the Dornier at an estimated speed of 30 kt and cleared the runway at Alpha. It is calculated that the left wing tip of the SAAB passed 10 metres from the nose of the stationary Dornier.

There was now further landing traffic on finals at 4 nm. The Tower controller instructed the Dornier 'enter to backtrack and vacate at Alpha', the FO replied 'enter and backtrack Runway 28'. The Dornier entered the runway and started to turn right towards the threshold of Runway 28. The Tower controller immediately instructed the aircraft 'turn left, go to Alpha', he then told the Dornier to 'hold position' and instructed the landing traffic, now at 3 nm, to Go Around. The Dornier was then told to 'complete a one-eighty on the runway, come off at Alpha, return to Bravo'. The FO replied 'return to Bravo' and the aircraft then turned left and vacated the runway at Bravo. After completing a U-turn in front of Stand 1 the aircraft then repositioned correctly at the holding point at Bravo. When the next aircraft had landed the Dornier was cleared to enter Runway 28 to backtrack and line up. The aircraft was cleared for take off at 0709 hrs.

Actions by the flight crew

When the crew commenced taxiing they intended to hold at Bravo. However, whilst completing the taxi checks they observed a caution and heard an aural warning indicating a malfunction. This distracted the crew and they inadvertently passed the holding point; the commander brought the aircraft to a halt without hearing any transmission from the Tower controller. The associated malfunction was 'Windshield Heat Fail' and the required action by the crew was to select 'WSHLD' 1 and 2 'OFF' and then reselect 'ON' after take off.

The crew interpreted the next instruction 'enter to backtrack and vacate at Alpha' as 'enter Runway 28, backtrack and line up'. As they entered the runway they heard the instructions for them to stop and for the aircraft on finals to Go Around. They then understood that they were to make a 180° turn and clear the Runway at Bravo.

Surface markings and ground lighting

Runway taxi-holding positions (RTHPs) are established on each taxiway leading to a runway in order to protect aircraft on take off and landing by ensuring that other taxiing aircraft and vehicles are held well clear of the runway and, where appropriate, outside the ILS sensitive area. The RTHP at Bravo consisted of two solid and two broken lines laid across the entire width of the taxiway at right angles to the taxiway centreline with the broken lines closer to the runway.

Either side of the RTHP were location signs which each contained two elements of information; in yellow writing on a black background was the letter B signifying point Bravo and in white writing on a red background were the Figures 10 to 28 indicating the orientation of the runway ahead.

A pair of runway guard lights (often referred to as 'Wig-Wags') was located on each side of the taxiway abeam the RTHP; these lights were serviceable and flashing. The purpose of these alternately flashing yellow lights is to provide a warning of the close proximity of the runway. The red stop bar lights were not illuminated since they are not normally used during day, VFR conditions.

Conclusion

The incident was caused when the Dornier crew, having been distracted by a flight deck warning indication, taxied their aircraft beyond the holding point to which they had been cleared. Later, some confusion occurred over the crew's misinterpretation of ATC taxi instructions which precipitated the necessity to instruct landing traffic to go-around.