

**AAIB Bulletin No: 6/93**

**Ref: EW/C93/4/5**

**Category: 1a**

**Aircraft Type and Registration:** SD3-60 Variant 100, G-BLTO

**No & Type of Engines:** 2 Pratt and Whitney PT6A-65R turboprop engines

**Year of Manufacture:** 1984

**Date & Time (UTC):** 30 April 1993 at 1610 hrs

**Location:** Guernsey Airport, Channel Isles

**Type of Flight:** Public Transport

**Persons on Board:** Crew - 3                      Passengers - 27 + 1 infant

**Injuries:** Crew - None                      Passengers - None

**Nature of Damage:** Damage to the right main landing gear tyre and fairing and to the fuselage underside skin and attachments

**Commander's Licence:** Airline Transport Pilot's Licence

**Commander's Age:** 63 years

**Commander's Flying Experience:** 20,000 hours (of which 2,000 were on type)  
Last 90 days - 75 hours  
Last 28 days - 19 hours  
Last 24 hours - 1 hour  
Previous rest - 19 hours

**Information Source:** AAIB Field Investigation

The schedule comprised two return passenger flights from Gatwick to Guernsey. The accident occurred at the end of the first sector when, landing from an Instrument Landing System (ILS) approach to Runway 27 at Guernsey, the right main landing gear of the aircraft struck part of the reciprocal runway Localiser aerial array. The aircraft landed short of the runway but continued onto and along the runway without further event. The ILS localiser for Runway 09 stands seven feet high but, because the terrain slopes upwards towards the threshold of Runway 27, the top of the aerial array, situated 138 metres before the runway threshold, is only one foot above it.

During the course of the afternoon, Guernsey had issued reports and forecasts of reduced visibility and low cloud and the commander had loaded sufficient fuel on the aircraft to allow a diversion back to Gatwick. Whilst descending into Guernsey, the Runway Visual Range (RVR) varied from 900 metres as the aircraft left FL80, to 1,000 metres when at 3,000 feet, to 1,100 metres when at 2,000 feet, back to 1,000 metres and finally to 1,100 metres when the aircraft was on the final

approach. The wind was given as 290°/13 kt and the cloud was subsequently reported as having been 7 oktas at less than 100 feet. The Guernsey aerodrome chart (Aerad D1) warns of the possibility of down draughts and turbulence during the approach to either runway.

The flight data recorder shows that the aircraft intercepted the ILS glide slope at 1,100 feet above threshold height, some 25 kt above the Flap 15° targeted speed of  $V_{AT} + 5$  kt (113 kt) and that the aircraft never became fully stabilised in either pitch or speed during the approach. The commander had decided to use Flap 15° throughout the landing manoeuvre rather than Flap 30° thus obviating the large trim change in the selection or retraction of Flap 30°. The aircraft did however acquire target speed at the decision height of 200 feet agl, at which point the co-pilot called "DECISION" and announced that he could see some approach lights. The commander, who was the handling pilot, continued the approach and, four seconds later, the ground-proximity warning system sounded six 'GLIDESLOPE' warnings (lasting nine seconds). The aircraft touched down about three seconds later, having passed through and destroyed the southern end of the ILS Localiser aerial array with the right main landing gear.

As the aircraft landed, an Airport Fire Officer who was taking RVR readings reported to ATC that the aircraft had apparently hit a runway light, but quickly amended this to say that it was trailing debris behind it. The ATCO immediately sounded the Crash Alarm and the Airport Fire Service, who were already at 'Weather Standby', were able to reach the aircraft when it came to a stop on the runway, as instructed by ATC. There was no fire but the firemen assisted in identifying the damage to both the aircraft and the ILS aerial array.