

Beagle B121 Series 2, G-AXDU

AAIB Bulletin No: 1/97 Ref: EW/G96/10/13 Category: 1.3

Aircraft Type and Registration:	Beagle B121 Series 2, G-AXDU
No & Type of Engines:	1 Lycoming O-320-A2B piston engine
Year of Manufacture:	1969
Date & Time (UTC):	22 October 1996 at 1455 hrs
Location:	Old Warden Aerodrome, Nr Biggleswade, Beds
Type of Flight:	Private
Persons on Board:	Crew - 1 - Passengers - 1
Injuries:	Crew - None - Passengers - None
Nature of Damage:	Nosewheel leg broken; damage to propeller, nose cone and wing tips
Commander's Licence:	Private Pilot's Licence with IMC Rating
Commander's Age:	36 years
Commander's Flying Experience:	258 hours (of which 20 were on type) Last 90 days - 21 hours Last 28 days - 13 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and telephone enquiries by the AAIB

The pilot had planned to fly from Sturgate, Lincolnshire, to Old Warden, Bedfordshire and, prior to departure, he had obtained permission from Old Warden to operate into their airfield. The weather for the flight was good with a light south-westerly wind, visibility in excess of 10 km and a cloud base of 3,500 feet, the temperature was 18°C. On arrival over the airfield the pilot made the normal RTF transmissions but received no answers since the radio is operational only on display days. He then flew a left hand circuit of the airfield to assess the wind velocity which he estimated as being from the west but of insufficient strength to fill out the wind sock. The pilot selected Runway 30 for the subsequent approach which he flew at 75 to 78 kt with full flap; the aircraft touched down 200 metres along the grass runway. When the pilot applied the brakes they appeared to be ineffective; he asked his passenger (a PPL qualified pilot) to try the brakes but they still had little effect. There was insufficient room to conduct a go-around so the pilot continued with his attempts to stop the aircraft. However, the aircraft swung to the right near the end of the runway and came to halt with the nose in a ditch and embedded in a hedge. The pilot shutdown the aircraft and both occupants, who were uninjured, vacated the aircraft via the normal doors. The nosewheel was

subsequently found to have broken off and was lying on the runway at about the point where the aircraft had swung to the right.

Runway 30 at Old Warden has a grass surface with a Landing Distance Available of 733 metres; the pilot described the grass as 'damp'. After the accident the pilot calculated the Landing Distance Required (LDR) as 550 metres for his aircraft weight of 792 kg in the prevailing conditions; this would have increased to 715 metres if an allowance had been made for short, wet grass. However, the figure of 550 metres relates to a dry tarmac surface and translates to 660 metres for a landing on short dry grass. Moreover, these calculations are based on an approach speed of 65 kt, at the maximum landing weight of 873 kg, reducing by 1 kt for every 35 kg below this figure.