ACCIDENT

Aircraft Type and Registration:	Beech Baron, D-IBPN
No & Type of Engines:	2 Continental TSIO 520 WB piston engines
Year of Manufacture:	1982
Date & Time (UTC):	24 May 2009 at 1519 hrs
Location:	Elstree Airfield, Hertfordshire
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - 1
Injuries:	Crew - None Passengers - None
Nature of Damage:	Right landing gear detached, right flap damaged, front wheel detatched
Commander's Licence:	Private Pilot's Licence
Commander's Age:	60 years
Commander's Flying Experience:	824 hours (of which 89 were on type) Last 90 days - 5 hours Last 28 days - 5 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and discussion between the pilot and the AAIB

Synopsis

While landing at Elstree Airfield, the pilot initiated the flare early and the aircraft sank heavily onto the runway. The aircraft began to swing right and, despite the application of full left rudder, ran off the runway and onto the grass. During the deceleration, the right landing gear collapsed, causing the aircraft to swing further to the right, and the nose landing gear collapsed before the aircraft came to rest.

History of the flight

The aircraft departed from Bembridge on the Isle of Wight at 1525 hrs for a flight to Elstree Airfield. The pilot routed via the easterly visual reporting point at Elstree for a straight-in approach to Runway 26. There was excellent visibility, little or no cloud and a light and variable wind. He had 160 gal of fuel on board and, as he approached the runway at about 90 kt, he reduced power and began to flare. The aircraft began to sink and the pilot applied power but not enough to prevent a heavy touchdown just before the threshold numbers. As the aircraft touched down, it began to vibrate and shortly afterwards it veered to the right. Despite the application of left rudder, the aircraft departed the right side of the runway and ran onto the grass. As the aircraft slowed, the right landing gear leg collapsed causing the aircraft to swing further to the right and the right engine stopped

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as its propeller came into contact with the ground. The nose landing gear leg also collapsed before the aircraft came to rest. The pilot and his passenger were both unhurt and vacated the aircraft through the main door.

Discussion with the pilot

The pilot, who would normally land the aircraft at 100 kt on a long runway, decided to land at 90 kt because the landing distance available was only 651 m and the wind was light and variable. He believed that he began the flare and reduced power too early which, given the high quantity of fuel on board, made the aircraft sink significantly. He remembered applying power but not enough to arrest the rate of descent before the aircraft touched down. It was possible that the aircraft landed in a 'three-point' attitude. The pilot did not know why the aircraft began to veer to the right. However, witness marks from the propellers were found subsequently on the runway and it is possible that, if the right propeller hit the ground first, it was enough to initiate the swing. Full left rudder was unable to prevent the aircraft leaving the runway, possibly because it was less effective at the lower approach speed and perhaps because of a significant loss of speed during the heavy landing.

At the time of writing, there had been no engineering inspection that could confirm whether or not damage to the propellers was consistent with the marks on the runway.

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