

AAIB Bulletin No: 12/94

Ref: EW/G94/10/17

Category: 2.3

Aircraft Type and Registration: Campbell Cricket, G-GYRO

No & Type of Engines: 1 Rotax 532 piston engine

Year of Manufacture: 1991

Date & Time (UTC): 15 October 1994 at 1645 hrs

Location: Weston Zoyland Airfield, Somerset

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - Minor Passengers - N/A

Nature of Damage: Nosewheel collapse; impact damage to rotor blades and rotor head; propeller destroyed

Commander's Licence: Student Pilot

Commander's Age: 51 years

Commander's Flying Experience: 72 hours (of which 12 were on type)
Last 90 days - 8 hours
Last 28 days - 6 hours

Information Source: Aircraft Accident Report Form submitted jointly by the pilot and his instructor

The weather at Weston Zoyland was fine but the total lack of any surface wind was a handicap to gyroplanes without pre-rotator equipment such as G-GYRO because of the difficulty in achieving a reasonable rotor speed before beginning the take-off ground roll. The problem was exacerbated to some extent by division of the tarmac runway into two sections: one for gyroplanes and another for model aircraft.

After some 3 1/2 hours of training that day, interspersed with breaks, the student had progressed through four training sessions to the stage of 'high hops' which involved taking off and climbing to about 100 feet agl before reducing power and landing straight ahead. On the final 'hop' the student became airborne before the take-off safety marker and climbed to about 100 feet. In the climb the airspeed was slightly higher than during previous hops and the aircraft penetrated more runway. On seeing the shorter runway length ahead in which to land, the student substantially reduced both engine power and aircraft pitch attitude resulting in a steep approach. The aircraft touched down heavily and nosewheel first before rolling to the left whereupon the rotor and propeller struck the ground. The pilot suffered minor abrasions but was otherwise uninjured.

The student's instructor stated that despite the presence of the model aircraft and the lack of wind, there was sufficient runway length for the 'high hops'. In his opinion, the student's concern that he might overshoot the end of the runway led him to reduce power too much at too low a height. A heavy landing was then inevitable but the aircraft would not probably not have suffered severe structural damage had it remained upright.

Year of Manufacture:	1969
Date & Time (UTC):	10 July 1991 - 0705Z
Location:	Old Student Airfield, Weybridge
Type of Flight:	Public Display
Persons on Board:	1 Pilot, 1 Passenger
Injuries:	1 Pilot - None, 1 Passenger - None
Nature of Damage:	Severe damage to right wing and fuselage
Commander's License:	Commercial Pilot License
Commander's Age:	36 years
Commander's Flying Experience:	300 hours total, 100 hours in this aircraft, 22 hours in this aircraft
Information Source:	Accident Report Form submitted by the pilot and additional AAIB investigation of engine and fuselage

Whilst in the cruise at 1000 feet the aircraft started to yaw rapidly from side to side. The pilot initially suspected a tail rotor problem and moved the collective lever. The aircraft then pitched nose-down and the pilot realised that the engine power was fluctuating. He lowered the collective lever fully and started to look for a suitable landing area. There was a lot of air traffic nearby, however the presence of a helicopter landing site applying the ready attention to the aircraft on the field. The aircraft was constrained into conducting a downwind landing in a field adjacent to the airfield. The aircraft touched down but during the final stages the right engine failed. The aircraft was in a steep climb when the engine failed. The pilot immediately turned the aircraft through 90°. The aircraft remained upright and the helicopter remained upright and the helicopter was able to land via the door.

The maintenance organisation recovered the aircraft to their facility at Kew. After work up the engine fuel system connections were all secured, they removed the fuel system components from the engine. These were then taken to an approved overhaul unit for repair under AAIB supervision.