ACCIDENT

Aircraft Type and Registration:	Grob G115E Tutor, G-BYXD
No & Type of Engines:	1 Lycoming AEIO-360-B1F piston engine
Year of Manufacture:	2001
Date & Time (UTC):	15 September 2009 at 1105 hrs
Location:	Boscombe Down, Wiltshire
Type of Flight:	Training
Persons on Board:	Crew - 2 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Damage to main and nose landing gear, cracked engine mounting frame and damage to firewall in area of nose leg attachment
Commander's Licence:	RAF Flight Instructor
Commander's Age:	43 years
Commander's Flying Experience:	Approx 9,000 hours (of which 440 were on type) Last 90 days - 54 hours Last 28 days - 20 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

Synopsis

Whilst a student pilot was landing on the runway during a practice forced landing exercise, a high rate of descent developed during the flare, so the commander/instructor took control and landed the aircraft from the subsequent bounce. During the landing the aircraft sustained significant damage, 6.5g having been recorded by the on-board meter.

History of the flight

The aircraft was operated by a University Air Squadron, and was on a training flight which was planned to include a practice forced landing (PFL). The forecast wind was 20 kt, from 010°, gusting at 26 kt.

The student was briefed to carry out the PFL on Runway 35; the pattern was flown normally and the student lined up the aircraft with the runway, with land flap selected, at a height of about 500 ft. The commander encouraged the student to lower the nose in order to maintain an airspeed of 75 kt, and a final check of the speed was made just below 100 ft, when it was observed to be slightly over 75 kt. At the appropriate position, the student flared the aircraft to the correct attitude. However, the rate of descent increased suddenly, causing the aircraft to impact heavily on the runway surface. The commander took control and landed the aircraft from the subsequent

bounce. He decided to taxi to the end of the runway, but it became apparent that the wheel brakes and nosewheel steering were not available, these most probably having failed during the hard touchdown. It was later established that the on-board meter had registered a peak normal load factor of 6.5 g during the landing. The commander informed ATC of the situation and brought the aircraft to a halt on an area of grass beyond the end of the runway.

The actual wind was reported as 5 kt higher than forecast. The commander subsequently commented that, given these conditions, he believed that wind shear was a probable cause of the event.