ACCIDENT

Aircraft Type and Registration:	Robin HR200/120B, G-WAVA
No & Type of Engines:	1 Lycoming O-235-L2A piston engine
Year of Manufacture:	2000
Date & Time (UTC):	31 March 2006 at 1505 hrs
Location:	Wellesbourne Mountford Airfield, Stratford-upon-Avon, Warwickshire
Type of Flight:	Training
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Nose landing gear leg and propeller bent; firewall and underside of left wing creased; engine shock loaded
Commander's Licence:	None (student pilot)
Commander's Age:	22 years
Commander's Flying Experience:	32 hours (all on type) Last 90 days - 11 hours Last 28 days - 1 hour
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquires by the AAIB

Synopsis

After a normal landing the aircraft bounced. Subsequently it landed heavily on its nose landing gear, sustaining damage to the landing gear leg, propeller and engine fire wall.

History of the flight

The student pilot had just completed a training sortie with her instructor, during which she flew four visual circuits. All these approaches and landings were assessed as "good" by her instructor who subsequently briefed her for a solo flight during which she was to practise flying visual circuits. This was to be her third solo flight.

Runway 23 was in use. The pilot reported that there was no significant weather. The surface wind was 230º/20 kt gusting 27 kt.

Wind data is recorded every minute from the weather station at Wellesbourne Airfield. A record of the recordings around the time of the accident is shown in Table 1.

Having briefed his student, the instructor monitored the flight from the flying club house, approximately 500 m from the threshold of Runway 23. After an uneventful takeoff, the instructor observed G-WAVA during its first approach.

Time	Average Wind Direction (°M)	Average Speed (kt)	Maximum Gust (kt)
1502	230	12	17
1503	215	13	16
1504	235	16	19
1505	230	20	22
1506	240	18	26
1507	230	21	23
1508	240	19	29

Table 1

Wellesbourne Wind Records

The approach path and airspeed all appeared normal to the instructor. After landing the aircraft bounced slightly. The aircraft then bounced to a height of approximately 10 ft, possibly as a result of a gust of wind. The aircraft then landed heavily on its nose wheel.

The pilot stopped the aircraft on the runway before shutting down the engine and vacating uninjured.

The student pilot could not recall what inputs, if any, she made on to the control column after the initial bounce. Her instructor believes that initially she over controlled on the control column, pushing too far forward and then pulling back slightly before the final landing.

Damage assessment

Inspection by the repair agency revealed that the nose landing gear leg and propeller were bent and the firewall had been creased. The underside of the left wing near the left undercarriage leg was also creased and the engine had been shock-loaded when the propeller touched the runway.

Analysis

The recorded wind information shows that the wind was strong with some large gusts at the time of the accident and a gust probably amplified the aircraft's second bounce. The inexperienced student pilot subsequently over-controlled the aircraft in pitch.

Although there was no appreciable crosswind component, the surface wind conditions were demanding for a student on her third solo flight.