

Australian Government Australian Transport Safety Bureau

Loss of control involving Grob G-115, VH-BFW

Merredin Aerodrome, Western Australia, 4 February, 2014

ATSB Transport Safety Report

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Addendum

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Loss of control involving Grob G-115, VH-BFW

What happened

On 4 February 2014, at about 0700 Western Standard Time a student pilot departed Merredin Aerodrome, Western Australia for his first solo flight to the training area. He was flying a Grob G-115 aircraft, registered VH-BFW (BFW).

The wind was a light easterly when he departed to the north from runway 10. As briefed by his instructor, he conducted steep turns, stalls and practice forced landings.

After about an hour and a quarter he returned to the aerodrome using the correct inbound procedure of overflying

VH-BFW at accident site



Source: Flying school

the field at 3500 ft above mean sea level, prior to joining the circuit. Due to the density of traffic in the circuit, he conducted about three orbits at this level prior to descending and joining crosswind for runway 10. He noted the windsock now indicated a left crosswind, but as there was already an aircraft landing on runway 10, he elected to continue and join for this runway. The student reported the crosswind, downwind and base legs of the circuit all went according to plan, and he was anticipating a good landing.

After completing the pre-landing checks he configured the aircraft for the final approach, including selecting full flap. Once over the runway, he commenced the round out, but soon realised the aircraft was about 15-20 ft above the ground, and too high to continue with the landing. In the next few seconds, he commenced a go around. He applied full power and a small amount of right rudder, but mindful of a previous instruction not to move the elevator forward while close to the ground, did not make any other changes to the aircraft configuration. The application of power caused the nose of the aircraft to rise. It then encountered a gust of wind, which pushed the nose even higher, with a resultant loss of airspeed.

The stall warning started to sound, the aircraft began to sink and the left wing dropped. In an attempt to arrest the sink, the student applied back pressure to the elevator control, and may have applied some aileron and rudder in an attempt to counter the wing drop. With the reduced airspeed, the crosswind moved the aircraft further to the left of the runway. With the stall warning still sounding, the left wing struck the ground and the aircraft spun around pointing south. It then bounced back into the air maintaining its high nose attitude. It struck the ground again and came to rest about 144 metres north of runway10/28 still facing south (Figure 1).

The student exited the aircraft and walked to the main building. The duty platform instructor activated the crash alarm. An instructor who was flying in the circuit landed and attended the scene. He switched off the magnetos and master switch in the damaged aircraft. Staff and emergency services attended soon after. The student was not injured, but the aircraft sustained substantial damage.

Aircraft details

The aircraft had a valid maintenance release at the time of the accident. There had been two recent defects recorded, one concerning the engine, but both had been attended to and signed off by an engineer.



Figure 1: Approximate flight path of VH-BFW

Source: Google earth

Meteorological Information

The flying school provided the following meteorological information.

At the time of the accident the wind velocity at the aerodrome was 070-100 °T at 15 knots with an outside air temperature of 22°C. Visibility was in excess of 10 km and there was no significant cloud. The area 60 forecast which covers Merredin, had a forecast wind at 3000 ft of 050°T at 35 knots until 1100 WST.

The student reported the aircraft encountered light turbulence and some gusts on late final approach to runway 10.

Student pilot comments

Throughout the approach and landing, the student had tried to comply with a previous instruction not to lower the aircraft nose at low level, to avoid damaging the nose wheel.

Operator report

The flying school management provided the ATSB with a report on the accident. The main points are listed below:

- 1. The student's previous lesson had been a dual session revising glide approaches. These approaches use a higher profile than a normal approach, and this may have influenced the student's perception of how high the aircraft was on that day
- 2. Turbulence was present which would have affected aircraft controllability
- 3. The student was concerned about a nose-wheel strike, and did not adjust the aircraft profile during the attempted go-around. This instruction had been issued to counter any tendency to pitch forward with the elevator during the flare and landing phases.
- 4. The student had flown with a number of different instructors during his training. This lack of continuity, coupled with the student having English as a second language, may have

Figure 2: Aircraft damage



Source: Flying school

led to confusion with the instruction he was given regarding the aircraft configuration during a round out and landing, and the profile required for a go-around.

Safety action

Whether or not the ATSB identifies safety issues in the course of an investigation, relevant organisations may proactively initiate safety action in order to reduce their safety risk. The ATSB has been advised of the following proactive safety action in response to this occurrence.

Operator – Flying school

As a result of this occurrence, the flying school has advised the ATSB that they are taking the following safety actions:

Procedure enhancements:

The position of Safety and Quality Manager will now be split into two distinct positions. The incumbent of each position will work separately to maximise safety at the flying school.

A review is also being undertaken of all previously issued organisational Notices to Aircrew (NOTAC) to ensure they are clear and correct.

Management have briefed all flight instructors on the importance of using correct phraseology when briefing and teaching students; as well as the importance of their role to ensure a safe environment for the students.

General details

Occurrence details

Date and time:	4 February 2014 – 0840 WST		
Occurrence category:	Accident		
Primary occurrence type:	Loss of aircraft control		
Location:	Merredin ALA Western Australia		
	Latitude: 31° 31.40' S	Longitude: 118° 19.23' E	

Aircraft details

Manufacturer and model:	Grob - Burkhaart Flugzeubau		
Registration:	VH-BFW		
Serial number:	82042/C2		
Type of operation:	Flying training - solo		
Persons on board:	Crew – 1	Passengers – Nil	
Injuries:	Crew – Minor	Passengers – Nil	
Damage:	Substantial		

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. The ATSB's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in: independent investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; and fostering safety awareness, knowledge and action.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and Regulations and, where applicable, relevant international agreements.

The object of a safety investigation is to identify and reduce safety-related risk. ATSB investigations determine and communicate the safety factors related to the transport safety matter being investigated.

It is not a function of the ATSB to apportion blame or determine liability. At the same time, an investigation report must include factual material of sufficient weight to support the analysis and findings. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

About this report

Decisions regarding whether to conduct an investigation, and the scope of an investigation, are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, a limited-scope, fact-gathering investigation was conducted in order to produce a short summary report, and allow for greater industry awareness of potential safety issues and possible safety actions.