Hard landing involving a Rolladen-Schneider Flugzeugbau LS7-WL, VH-XJJ

What happened

On 15 December 2013, at about 0900 Eastern Daylightsavings Time,¹ the pilot of a Rolladen Schneider Flugzeugbau LS7-WL glider, registered VH-XJJ, attended the daily pilots' briefing at Benalla aerodrome, Victoria.

Following an analysis of the weather forecast and discussion of the day's gliding operations, the pilot planned to head to the north of Benalla. While waiting to be towed aloft, the pilot discussed his plans with the chief flying instructor, who advised the pilot that there would be better lift² to the southeast of the airfield as indicated by the presence of cumulus (Cu) clouds.

Cumulus cloud



Source: Metlink

The pilot then amended his planned flight to follow the Cu clouds and lift to the south-east of Benalla. At about 1320, the glider was launched and climbed to about 4,500 ft above mean sea level, overhead the airfield. The pilot tracked towards a quarry and a series of small hills and then followed the Cu clouds to the south-east. While flying, the pilot maintained a lookout below for suitable paddocks for an outlanding.

Once over the hills, the pilot reported that at about 1430, the wind changed from a south-easterly to a south-westerly direction. The pilot reported that at about the same time, the Cu clouds dissipated and the lift disappeared. The pilot observed that the glider was not within range of a return to Benalla or the last suitable field he had identified, and commenced looking for a suitable field for an outlanding. The pilot identified a field about 1 to 2 NM ahead in a valley. The selected paddock appeared to be suitable, however, when at about 500 ft above ground level (AGL), the pilot observed that the surface had rocks and holes and quickly chose an alternative field.

The alternative field was perpendicular to the planned landing area and the glider would be landing towards the north-east (Figure 1). There was a row of trees on the approach end of the field and a ditch at the far end. The pilot conducted an approach to the field and the glider passed over the trees at about 50 ft AGL. The pilot then attempted to reduce altitude and airspeed by conducting shallow turns and flying diagonally across the field. The glider landed heavily in the north-eastern corner of the field. The pilot sustained a serious injury due to the hard landing and the glider was substantially damaged.

Pilot comments

The pilot provided the following comments:

- he had recently completed a successful outlanding about 2 NM north of Benalla and a 110 NM cross-country flight
- he had a total of 28.5 hours' gliding experience

Eastern Daylight-savings Time (EDT) was Coordinated Universal Time (UTC) + 11 hours.

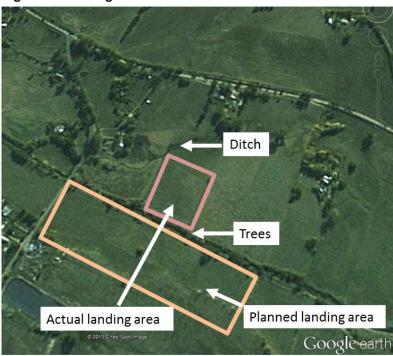
² Lift is a meteorological phenomenon used as an energy source by soaring aircraft and can be gained by using rising air from thermals, ridge lift, wave lift and convergence.

- the decision to head to the south was a combination of confidence from successful previous
 flights and advice from the chief flying instructor; however, flying towards the hills increased the
 risk of having to conduct an outlanding and of having fewer suitable landing areas
- he did not recognise early enough that the lift indicated by the cumulus clouds was not as good as on his previous flight
- outlandings are an inherent part of gliding operations and pilots are taught to remain within range of a safe landing paddock at all times.

Chief flying instructor comment

The chief flying instructor reported that he had conducted a briefing with the pilot prior to the flight, including a discussion of the weather conditions, and a reminder regarding selection of a suitable landing area.

Figure 1: Landing area



Source: Google earth

Safety message

This incident highlights the importance of pilots of recognising their abilities and limitations, and to ensure they feel confident with the planned flight. It is a reminder for glider pilots to keep a constant lookout for suitable fields in which to conduct an outlanding.

General details

Occurrence details

Date and time:	15 December 2013 – 1530 EDT		
Occurrence category:	Accident		
Primary occurrence type:	Hard landing		
Location:	20 km SE of Benalla aerodrome, Victoria		
	Latitude: 36° 42.27' S	Longitude: 146° 07.95' E	

Glider details

Manufacturer and model:	Rolladen-Schneider Flugzeugbau GMBH, LS7-WL		
Registration:	VH-XJJ		
Serial number:	7071		
Type of operation:	Gliding		
Persons on board:	Crew – 1	Passengers – Nil	
Injuries:	Crew – 1 (Serious)	Passengers – Nil	
Damage:	Substantial		