Australian Government
Australian Transport Safety Bureau

Near collision between a Piper PA-25, VH-MLS, and an AMS-Flight DG-303, VH-DGA

Bunyan (ALA), New South Wales, 8 February 2014

ATSB Transport Safety Report
Aviation Occurrence Investigation
AO-2014-022
Final – 27 March 2014

Released in accordance with section 25 of the *Transport Safety Investigation Act 2003*

Publishing information

Published by: Australian Transport Safety Bureau
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Addendum

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Near collision between a Piper PA-25, VH-MLS, and an AMS-flight DG-303, VH-DGA

What happened

VH-MLS

Source: Pilot

On 8 February 2014, at about 1500 Eastern Daylight-savings Time, the pilot of an AMS-flight DG-303 glider, registered VH-DGA (DGA), broadcast on the local gliding club radio frequency that he would return to land at Bunyan[1] aeroplane landing area (ALA), New South Wales, following a local flight of about 90 minutes duration (Figure 2). The glider was about 5 NM east of the aerodrome and on descent from 10,000 ft above mean sea level (AMSL).

About 10 minutes later, the pilot of a Piper PA-25, registered VH-MLS (MLS), broadcast a lining up and rolling call and took off from runway 33 at Bunyan to launch a glider from overhead the aerodrome (Figure 1).

At about 1515, when at about 4,000 ft AMSL, in anticipation of the glider pilot releasing the tow cable, the pilot of MLS turned to look behind the aircraft. He confirmed that the glider had released successfully and, in accordance with standard operating procedures, he then commenced a descending turn to the left.

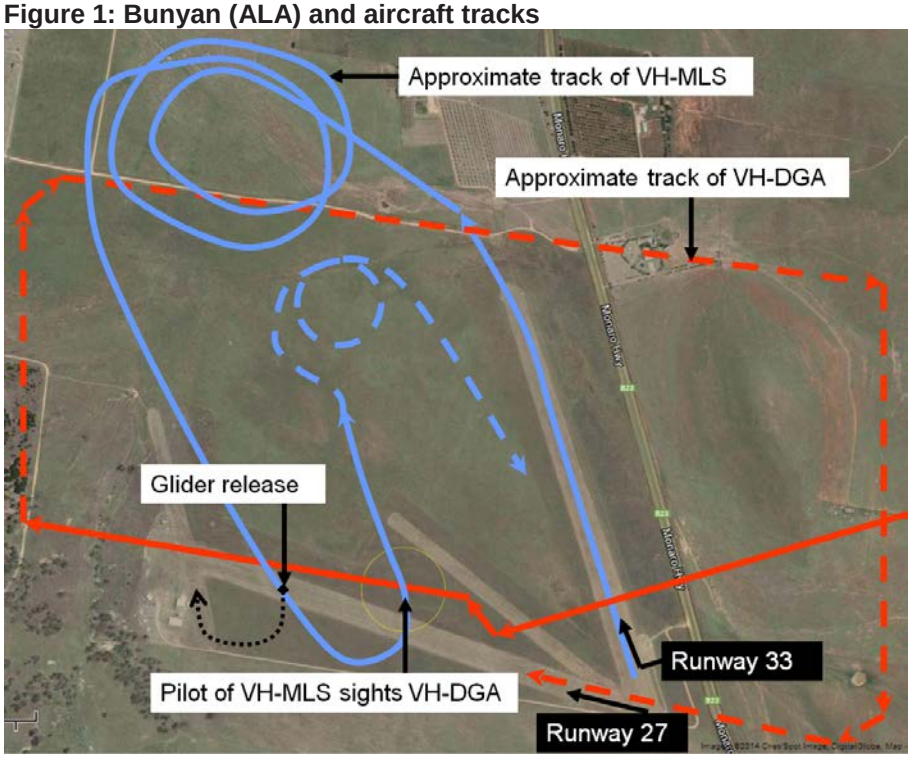
The pilot of DGA sighted MLS release the glider and commence the turn. The two aircraft were at about the same altitude and he then observed MLS with the wings level, he assumed the aircraft would then track straight ahead. He commenced a right turn to increase separation between them, and to track towards the joining point for a right downwind for runway 27. He reported that he assumed the pilot of MLS had sighted DGA at that time, and that he did not see MLS again until it was on downwind.

As the pilot of MLS rolled the aircraft's wings level from the turn, he saw DGA as a white flash passing about 30 ft below him, and reported that he could see the rivets on the glider's airbrakes.

About 25 seconds later, the pilot of DGA broadcast joining downwind for runway 27 and the pilot of MLS responded that he had the glider visual. After landing, the pilot of MLS alerted the pilot of DGA to the incident that had occurred.

[1] The aerodrome was at an elevation of about 2,540 ft above mean sea level.

Figure 1: Bunyan (ALA) and aircraft tracks



Source: Google earth and pilot recollection

Pilot comments: VH-MLS

The pilot of MLS provided the following comments:

- It was important for glider pilots to understand that the glider tow pilot has limited visibility and a high concentration on the task.

Pilot comments: VH-DGA

The pilot of DGA provided the following comments:

- He did not broadcast an inbound call because he was conducting a local flight and was only about 5 NM from the aerodrome with the aerodrome in sight.
- If he had broadcast an inbound call, or communicated directly with the pilot of MLS when he sighted the aircraft, it may have alerted the pilot of MLS to the position of the glider and assisted in maintaining separation between the two aircraft.
- At the same time as he initiated the right turn, the pilot of MLS would probably have been looking to his left prior to commencing a left turn. If he had perceived that MLS was continuing to turn left, he would have maintained heading rather than turning right.

Gliding Australia, NSW Regional Manager Operations comments

The NSW Regional Manager Operations provided the following comments:

- Due to proximity to terrain and associated turbulence, Bunyan (ALA) did not have fixed, prescribed circuit directions.
- Circuits may be flown in either direction, however the gliding club recommended that pilots of the glider tow aircraft descend away from the circuit direction currently in use.

Figure 2: VH-DGA

Source: Operator

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.

Gliding club

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

Fitment of FLARMs

The gliding club is proposing the fitment of FLARMs to all club aircraft. This is an electronic device which selectively alerts pilots of potential collisions between aircraft. It is tailored for the specific needs of small aircraft such as gliders.

Pilot communications briefing

All gliding club pilots will be reminded of the standard procedures with regard to radio communications at a pilots' briefing night.

Safety message

This incident highlights the importance of communication and the limitations of unalerted see-and-avoid principles. Issues associated with unalerted see-and-avoid have been detailed in the ATSB's research report *Limitations of the See-and-Avoid Principle*. The report highlights that unalerted see-and-avoid relies entirely on the pilot's ability to sight other aircraft. Broadcasting on the CTAF is known as radio-alerted see-and-avoid, and assists by supporting a pilot's visual lookout for traffic. An alerted traffic search is more likely to be successful as knowing where to look greatly increases the chances of sighting traffic. The report is available at www.atsb.gov.au/publications/2009/see-and-avoid.aspx.

The ATSB SafetyWatch highlights the broad safety concerns that come out of our investigation findings and from the occurrence data reported to us by industry. One of the safety concerns is safety around non-controlled aerodromes.

The ATSB publication *A pilot's guide to staying safe in the vicinity of non-towered aerodromes*, outlines many of the common problems that occur at non-controlled aerodromes, and offers useful strategies to keep you and other pilots safe. The report found that insufficient communication between pilots and breakdowns in situational awareness were the most common contributors to safety incidents in the vicinity of non-controlled aerodromes.

A copy of the report is available at: www.atsb.gov.au/safetywatch/safety-around-aeros.aspx.

General details

Occurrence details

Date and time:	8 February 2014 – 1515 EST	
Occurrence category:	Serious incident	
Primary occurrence type:	Near collision	
Location:	Bunyan (ALA), New South Wales	
	Latitude: 36° 08.18' S	Longitude: 149° 08.55' E

Aircraft details

Manufacturer and model:	Piper Aircraft Corporation PA-25	
Registration:	VH-MLS	
Serial number:	25-3809	
Type of operation:	Gliding – towing	
Persons on board:	Crew – 1	Passengers – Nil
Injuries:	Crew – Nil	Passengers – Nil
Damage:	Nil	

Glider details

Manufacturer and model:	AMS-Flight D.O.O DG-303	
Registration:	VH-DGA	
Serial number:	3E503 A37	
Type of operation:	Gliding – pleasure / travel	
Persons on board:	Crew – 1	Passengers – Nil
Injuries:	Crew – Nil	Passengers – Nil
Damage:	Nil	

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.