



**Australian Government**

**Australian Transport Safety Bureau**

# Near collision due to runway incursion involving Van's RV-7, VH-VTZ, and Glaser-Dirks DG-400 motor-glider, VH-XJZ

Gympie ALA, Queensland, 27 August 2016

**ATSB Transport Safety Report**  
Aviation Occurrence Investigation  
AO-2016-111  
Final – 22 November 2016

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

#### **Publishing information**

**Published by:** Australian Transport Safety Bureau  
**Postal address:** PO Box 967, Civic Square ACT 2608  
**Office:** 62 Northbourne Avenue Canberra, Australian Capital Territory 2601  
**Telephone:** 1800 020 616, from overseas +61 2 6257 4150 (24 hours)  
Accident and incident notification: 1800 011 034 (24 hours)  
**Facsimile:** 02 6247 3117, from overseas +61 2 6247 3117  
**Email:** [atsbinfo@atsb.gov.au](mailto:atsbinfo@atsb.gov.au)  
**Internet:** [www.atsb.gov.au](http://www.atsb.gov.au)

© Commonwealth of Australia 2016



#### **Ownership of intellectual property rights in this publication**

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia.

#### **Creative Commons licence**

With the exception of the Coat of Arms, ATSB logo, and photos and graphics in which a third party holds copyright, this publication is licensed under a Creative Commons Attribution 3.0 Australia licence.

Creative Commons Attribution 3.0 Australia Licence is a standard form license agreement that allows you to copy, distribute, transmit and adapt this publication provided that you attribute the work.

The ATSB's preference is that you attribute this publication (and any material sourced from it) using the following wording: *Source:* Australian Transport Safety Bureau

Copyright in material obtained from other agencies, private individuals or organisations, belongs to those agencies, individuals or organisations. Where you want to use their material you will need to contact them directly.

#### **Addendum**

Page	Change	Date

# Near collision due to runway incursion involving Van's RV-7, VH-VTZ, and Glaser-Dirks DG-400 motor-glider, VH-XJZ

## What happened

On the morning of 27 August 2016, a Van's RV-7 aircraft, registered VH-VTZ, and a Glaser-Dirks DG-400 motor-glider, registered VH-XJZ, were both prepared for flight from Gympie aircraft landing area (ALA), Queensland.

The pilot taxied the motor-glider from the Gympie ALA glider hangars and back-tracked on the grass alongside runway 14 (Figure 1). Before entering the runway strip, the pilot made a radio broadcast on the common traffic advisory frequency (CTAF) 126.7, that they were entering and back-tracking runway 14. On arrival at the runway threshold, the pilot made another broadcast that they were lining-up on runway 14. The pilot taxied the motor-glider onto the threshold of runway 14 and conducted their engine run-up checks. After about 10–15 seconds, they made a broadcast that they were rolling on runway 14 and released the brakes for take-off.

At about the same time as the motor-glider was backtracking runway 14, the pilot of the RV-7 made a broadcast on the CTAF that they were taxiing from the general aviation hangars. At the runway holding-point, the pilot then made a broadcast that they were entering and back-tracking runway 14 (Figure 1). Neither pilot heard the broadcasts from the other pilot.

The motor-glider started the take-off roll from the threshold of runway 14 and as it approached take-off speed, the pilot noticed the top of another aircraft (RV-7) appear on the horizon. Both pilots applied their aircraft brakes and veered to their right. The aircraft came to a stop next to each other on the runway abeam the glider hangars at about 1110 Eastern Standard Time (EST). The pilots performed a radio check and verified they could hear each other and both were broadcasting on the CTAF 126.7. They then proceeded on their planned flights without further incident.

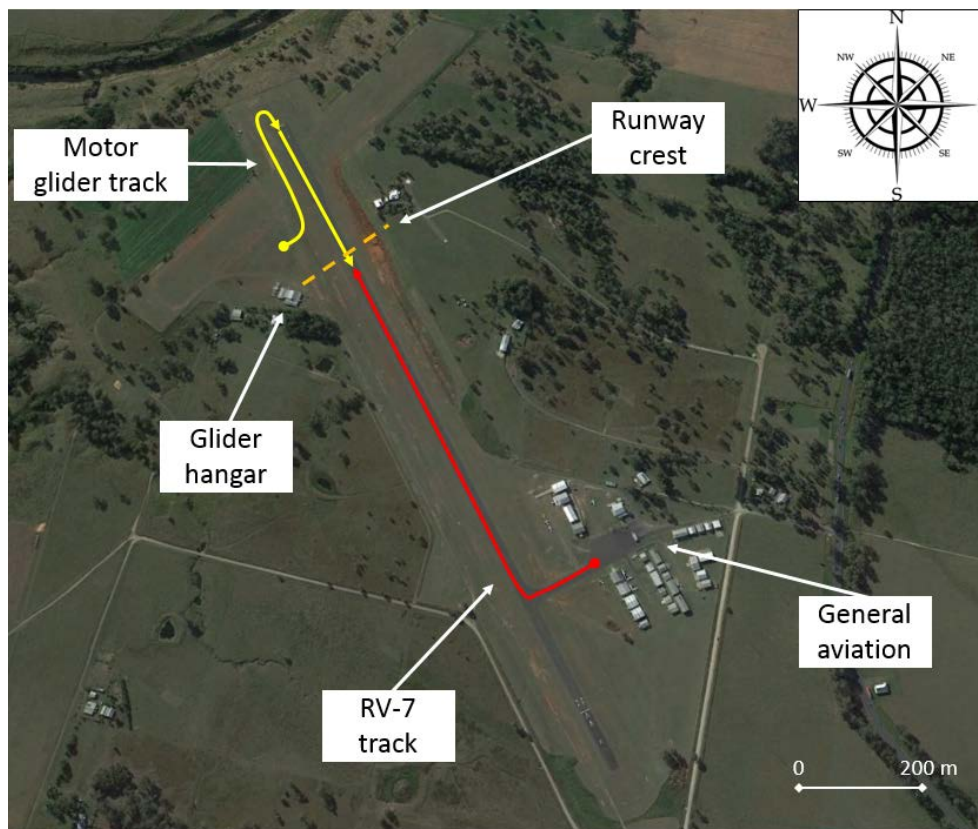
## ***Gympie runway slope***

From the runway 14 threshold, runway 14 slopes upward to a crest, which is in line with the glider hangars (Figure 1). Runway 14 then slopes downhill to the threshold of runway 32. The motor-glider pilot commented that in an aircraft low to the ground, such as a glider, stationed at the threshold of runway 14, the pilot would not be able to see an aircraft such as the RV-7, back-tracking runway 14, until the other aircraft was abeam the glider hangars (Figure 1). The RV-7 pilot commented that when back-tracking runway 14 in their aircraft they cannot see another low profile aircraft, such as a glider, until they are about 300 m from the threshold of runway 14.

## ***Aircraft radios***

The RV-7 has one radio antenna located on the underside of the aircraft. The motor-glider pilot was unsure of the location of their radio antenna, because they are integral to the airframe in order to minimise drag. Both aircraft radio systems are capable of monitoring two frequencies, but can only broadcast on one. Both pilots confirmed they had 126.7 CTAF set and in use as their active frequency at the time of the serious incident. However, the RV-7 pilot commented that their radio microphone may not have been up against their mouth, which would have reduced the volume of their transmissions.

**Figure 1: Gympie ALA and ground tracks of the aircraft**



Source: Google earth, annotated by ATSB

### ***Previous incidents***

Both pilots commented that there have been previous incidents of traffic conflicts between aircraft, which started with missed radio calls when the aircraft were at opposite ends of the main runway (runway 14/32). On these previous occasions, aircraft airborne in the circuit could hear the radio calls of opposite end traffic on CTAF, despite the traffic on the ground not hearing each other.

A search of the ATSB notifications database indicated that in 2016 there were two incidents at Gympie ALA, where the reporter has indicated that a broadcast was either not made, or not heard. It is unknown if terrain shielding contributed to these events.

### **ATSB comment**

The ATSB notes that it is reported that traffic at Gympie ALA is increasing and therefore exposure to the risk presented in this report is increasing. Despite the fact that both pilots made all the required radio calls for their planned operation, a runway conflict occurred. There is currently no reference to the potential for terrain shielding of radio calls in the Gympie ALA Enroute Supplement Australia entry.

### **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.

### ***RV-7 pilot***

As a result of this occurrence, the pilot of the RV-7 has advised the ATSB that they are taking the following safety action:

#### ***Radio checks***

The pilot of the RV-7 indicated they would introduce a radio check broadcast, when circumstances permit, during their start checks to verify their transmission volume and readability.

### ***Aerodrome Operator***

As a result of this occurrence, the Gympie Aerodrome Operator has advised the ATSB that they are taking the following safety action:

#### ***Enroute Supplement Australia***

The Gympie Aerodrome Operator indicated they intend to add a note to the Gympie entry in the Enroute Supplement Australia, under 'Additional Information', to advise pilots that poor radio propagation between aircraft operating on the ground at opposite ends of the main runway may be experienced.

## **Safety message**

A potential accident was avoided by the actions of both pilots who responded to the presence of the other aircraft by braking and veering to the right. Rather than continuing their flights with the assumption the other made a mistake, they performed a radio check with each other to verify there was no fault with their respective aircraft radios.

## **General details**

### ***Occurrence details***

Date and time:	27 August 2016 – 1110 EST	
Occurrence category:	Serious incident	
Primary occurrence type:	Aircraft separation - near collision	
Location:	Gympie ALA, Qld	
	Latitude: 26° 16.97' S	Longitude: 152° 42.12' E

### ***Aircraft details - RV-7***

Manufacturer and model:	Amateur Built Aircraft – Van's RV-7	
Registration:	VH-VTZ	
Serial number:	73097	
Type of operation:	Private – pleasure / travel	
Persons on board:	Crew – 1	Passengers – 1
Injuries:	Crew – 0	Passengers – 0
Aircraft damage:	Nil	

## Aircraft details – DG-400

Manufacturer and model:	Glaser-Dirks – DG-400	
Registration:	VH-XJZ	
Serial number:	4-275	
Type of operation:	Gliding – pleasure / travel	
Persons on board:	Crew – 1	Passengers – 0
Injuries:	Crew – 0	Passengers – 0
Aircraft 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 operations involving the travelling public.

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.