



Australian Government

Australian Transport Safety Bureau

Collision with terrain involving a SOCATA-Groupe Aerospatiale TB-20, VH-JTY

65 km west of Mackay Airport, Queensland, on 28 October 2023

ATSB Transport Safety Report
Aviation Occurrence Investigation
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Addendum

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Preliminary report

This preliminary report details factual information established in the investigation’s early evidence collection phase, and has been prepared to provide timely information to the industry and public. Preliminary reports contain no analysis or findings, which will be detailed in the investigation’s final report. The information contained in this preliminary report is released in accordance with section 25 of the *Transport Safety Investigation Act 2003*.

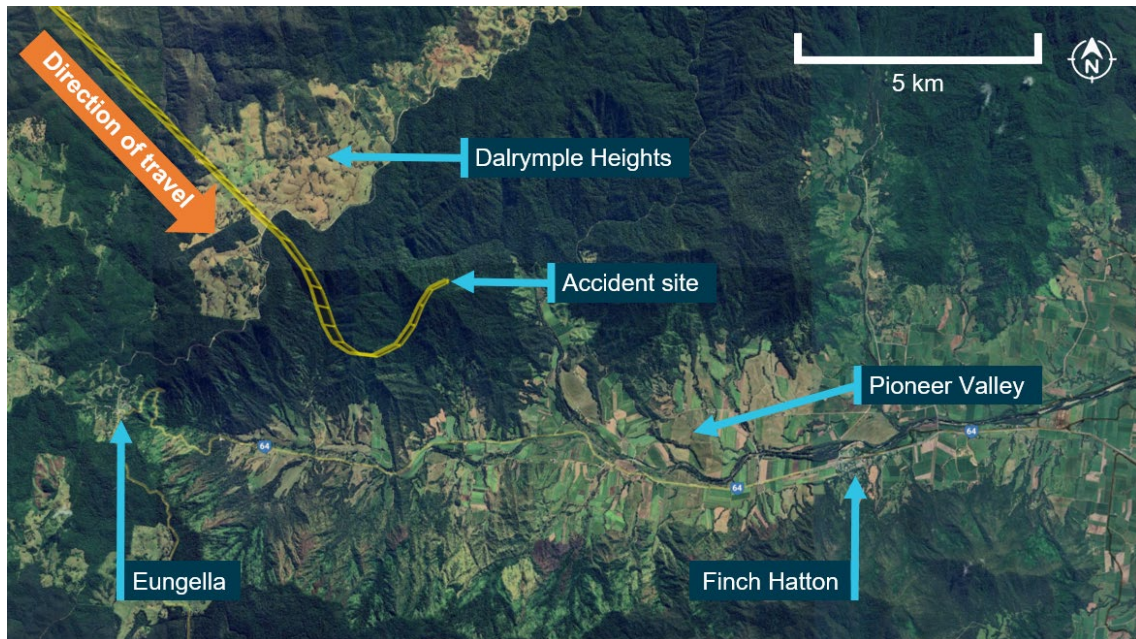
The occurrence

On 28 October 2023, at about 0735 local time, a SOCATA-Groupe Aerospatiale TB-20 (TB-20) registered VH-JTY, departed from Montpellier aircraft landing area,¹ Queensland, for a private flight to Palmyra aircraft landing area² (Figure 1). On board was the pilot and a passenger, who was also a pilot.

A friend of the pilot stated that they made a phone call to the pilot at 0814. The pilot stated that they were at 5,500 ft above cloud and asked about weather conditions at Palmyra airfield. The pilot stated they were passing Dalrymple Heights and on descent and that their intentions were to fly along the Pioneer Valley to Palmyra airfield.

At about 0834, the OzRunways³ flight track (Figure 1) showed that the pilot made a right turn, followed by a left turn before colliding on the northern side of Bull Mountain, at about 1,900 ft above mean sea level. The aircraft was destroyed, and the pilot and passenger were fatally injured.

Figure 1: VH-JTY flight track



Source: Google Earth, OzRunways, annotated by the ATSB

¹ Montpellier aircraft landing area is located about 20 km south-south-east of Townsville Airport.

² Palmyra aircraft landing area is located about 12 km west-south-west of Mackay Airport.

³ OzRunways is an electronic mobile application, utilising approved data for electronic maps, and used for navigation.

Context

Pilot information

The pilot held a valid Private Pilot Licence (Aeroplane) and a Class 2 aviation medical certificate, valid until October 2024. The pilot held a single engine aeroplane rating, and endorsements for manual propeller pitch control and retractable undercarriage. Their last flight review was conducted in July 2023, and at the time of the accident the pilot had about 2,100 hours total aeronautical experience of which about 1,500 hours were in VH-JTY.

Aircraft information

General information

The TB-20 is an all-metal, 5-place, single engine aircraft with fully retractable landing gear. It was powered by a 6-cylinder Lycoming IO-540 fuel-injected engine, driving a 3-blade constant-speed propeller. VH-JTY was manufactured in France in 1985 and was first registered in Australia in April 1987. The pilot had owned VH-JTY since April 2008 (Figure 2).

The last periodic inspection was conducted on 14 December 2022. In January 2023, VH-JTY sustained rudder and vertical fin damage in a ground handling incident. Structural repairs were carried out and the aircraft returned to service on 25 May 2023. At the time of the accident, it had accrued a total time in service of about 5233.4 hours and had flown about 35 hours since the repairs were carried out.

Figure 2: VH-JTY



Source: Simon Coates, modified by the ATSB

Site and wreckage information

- The aircraft wreckage was located in steep mountainous terrain with heavy vegetation, to the north-east of Bull Mountain.
- The aircraft fuselage sustained a heavy impact initially with vegetation and then terrain before becoming significantly disrupted with some components sliding downhill and being consumed by fire.

Wreckage examination

Due to the remote location, extreme terrain, and degradation of the accident site, ATSB has not been able to attend the site. However, Queensland Police Service specialist forensic officers have provided detailed on-site photographic evidence. This has assisted the ATSB with gaining an understanding of the accident site location and layout, as well as an appreciation of the level and type of damage to the aircraft's structure and components.

Photographic evidence review of engine and propeller components indicated that the propeller was under a significant level of power when it impacted with terrain, indicating the engine was almost certainly operational at that time.

Further investigation

To date, the ATSB has:

- examined photographs of the aircraft wreckage
- conducted witness interviews
- examined the maintenance history of the aircraft
- reviewed historic flight data
- reviewed air traffic control recordings.

The investigation is continuing and will include:

- further review of recorded data and recovered components from the accident site
- analysis of available flight data
- analysis of aircraft maintenance and repairs.

Should a critical safety issue be identified during the course of the investigation, the ATSB will immediately notify relevant parties so appropriate and timely safety action can be taken.

A final report will be released at the conclusion of the investigation. Should a critical safety issue be identified during the course of the investigation, the ATSB will immediately notify relevant parties so appropriate and timely safety action can be taken.

Acknowledgements

The ATSB would like to acknowledge the assistance provided by the Queensland Police Service who provided site information and photographs in the course of the on-site phase of this investigation.

General details

Occurrence details

Date and time:	28 October 2023 – 0833 local	
Occurrence class:	Accident	
Occurrence categories:	Collision with terrain	
Location:	65 km west of Mackay Airport, Queensland	
	Latitude: 21.1085° S	Longitude: 148.5556° E

Aircraft details

Manufacturer and model:	SOCATA-Groupe Aerospatiale TB-20	
Registration:	VH-JTY	
Serial number:	516	
Type of operation:	Part 91 General operating and flight rules-Other	
Activity:	General aviation / Recreational-Sport and pleasure flying-Pleasure and personal transport	
Departure:	Montpellier aircraft landing area, Qld	
Destination:	Palmyra aircraft landing area, Qld	
Persons on board:	Crew – 1	Passengers – 1
Injuries:	Crew – 1 fatal	Passengers – 1 fatal
Aircraft damage:	Destroyed	

Australian Transport Safety Bureau

About the ATSB

The ATSB is an independent Commonwealth Government statutory agency. It is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers.

The ATSB's purpose is to improve the safety of, and public confidence in, aviation, rail and marine transport through:

- independent investigation of transport accidents and other safety occurrences
- safety data recording, analysis and research
- 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, as well as participating in overseas investigations involving Australian-registered aircraft and ships. It prioritises investigations that have the potential to deliver the greatest public benefit through improvements to transport safety.

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

Purpose of safety investigations

The objective of a safety investigation is to enhance transport safety. This is done through:

- identifying safety issues and facilitating safety action to address those issues
- providing information about occurrences and their associated safety factors to facilitate learning within the transport industry.

It is not a function of the ATSB to apportion blame or provide a means for determining 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. The ATSB does not investigate for the purpose of taking administrative, regulatory or criminal action.

Terminology

An explanation of terminology used in ATSB investigation reports is available on the ATSB website. This includes terms such as occurrence, contributing factor, other factor that increased risk, and safety issue.