



Australian Government

Australian Transport Safety Bureau

Collision with terrain involving Robinson R44 II, VH-TCF

about 46 km north-east of Tenterfield Airport, New South Wales, on 13 March 2026



ATSB Transport Safety Report
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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 13 March 2026, the pilot of a Robinson R44 II helicopter, registered VH-TCF, planned to conduct a private flight from Gold Coast, Queensland, to Mudgee, New South Wales (NSW), with an intermediate stop at Armidale, NSW, to refuel (Figure 1).

Figure 1: Map showing accident site and key locations



Source: Google Earth, annotated by the ATSB

At about 0834 Eastern Standard Time (EST),¹ the helicopter departed from a private helipad on the Gold Coast. The pilot was the sole occupant of the helicopter.

NSW Police advised that an automated emergency message associated with activation of the pilot's iPhone crash alarm was received at 1046 Eastern Daylight-saving Time (EDT),² about an hour and a quarter after the aircraft departed. In response, a formal search was commenced by NSW Police.

The wreckage was located at 1113 EDT on 14 March 2026 in dense bushland near Paddy's Flat, 46 km north-east of Tenterfield, NSW. The helicopter was destroyed and the pilot sustained fatal injuries.

Context

Pilot information

The pilot held a Private Pilot Licence (Helicopter) and a single-engine helicopter class rating. The pilot also held a class 2 aviation medical certificate valid to 6 September 2026 with the following limitations:

Must use [continuous positive airway pressure] CPAP in sleep period prior to exercising privileges of medical certificate.

Reading correction to be available whilst exercising the privileges of this licence.

Records obtained from the CPAP provider showed that the pilot was regularly using the CPAP machine and that sleep apnoea was controlled.

As of 7 March 2026, the pilot's logbook showed they had accrued 1,264.6 hours total flight time.

Aircraft information

VH-TCF was a Robinson R44 II helicopter, manufactured in the United States in 2007 as serial number 11912 and first registered in Australia in 2007. The helicopter was powered by a Textron Lycoming IO-540-AE1A5 engine. VH-TCF was being maintained in accordance with the Robinson R44 maintenance manual and the Lycoming IO-540 engine manual. According to the maintenance release, on the morning of 13 March 2026, the helicopter had a total time in service of 2,104.7 hours. There were no defects recorded.

Site and wreckage information

The accident site was located about 46 km north-east of Tenterfield Airport in a densely vegetated area to the west of Cataract National Park. It was situated on the southern side of a steep slope, at an elevation of about 870 m (2,850 ft).

The wreckage trail was approximately 12 m long in a westerly direction, across and down the slope as shown in Figure 2. It consisted of an initial impact point, followed by a trail of debris that led to the fuselage, engine and main rotors, much of which were consumed by a post-impact fire. The aft section of the tail cone assembly had separated from the fuselage and was located approximately 20 m from the fuselage across the slope.

¹ Eastern Standard Time (EST): Coordinated Universal Time (UTC) + 10 hours

² Eastern Daylight-saving Time (EDT): Coordinated Universal Time (UTC) + 11 hours

Figure 2: Accident site



Source: ATSB

Significant damage was evident on 2 trees located near the initial impact point, indicating the helicopter had collided with trees in a near vertical descent. A bag found in the tree canopy, and various other parts from the helicopter, were located around 20 m up the slope from the initial impact site.

The instrument panel and other debris were found further down the slope away from the fuselage location. A fuel jerry can, which had been filled at the helicopter's departure location, was found onsite. The contents were tested for presence of water, which returned a negative result.

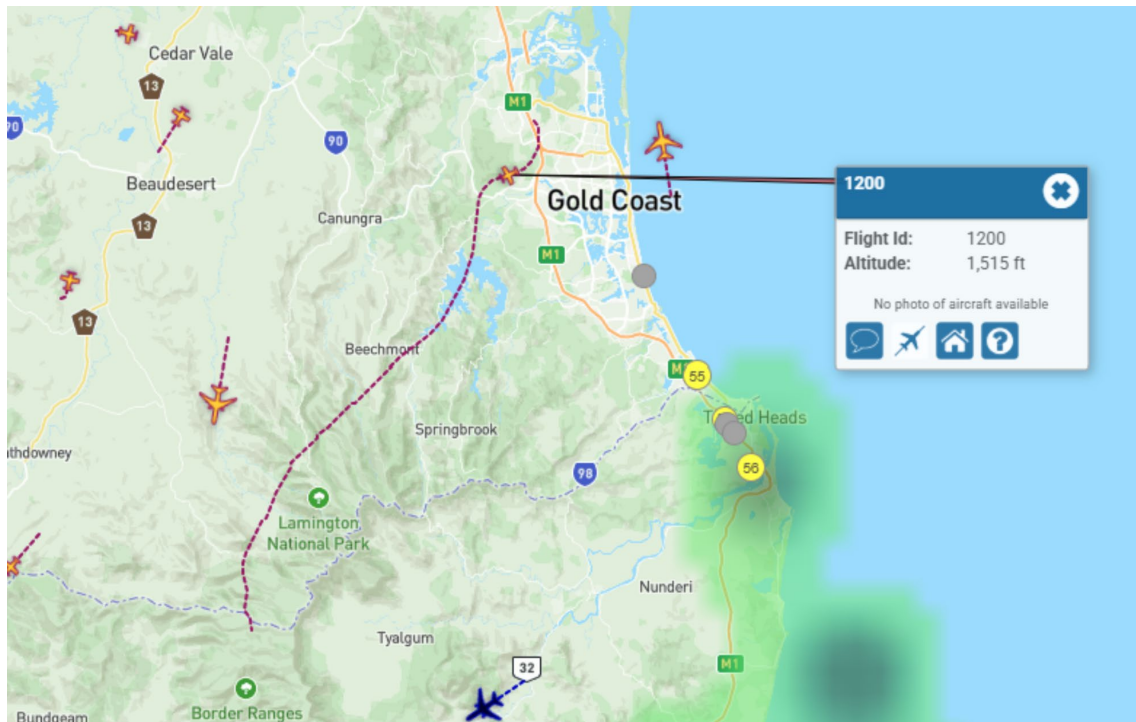
Recorded data

Although the pilot was reportedly using the Oz Runways electronic flight bag software, no track data was transmitted to the service provider.

VH-TCF was identified on WebTrak³ around Gold Coast Airport. It showed that the helicopter tracked roughly south-west before crossing the NSW border at 0854. This service then stopped recording the helicopter's position (Figure 3).

³ WebTrak uses information from air traffic control secondary surveillance radars to display aircraft movements.

Figure 3: Aircraft track from departure to the NSW border



Source: Aircservices Australia WebTrak

National aeronautical information processing system (NAIPS) records showed that weather information was accessed by the pilot’s account at 0740 and 0745 on 13 March 2026. The requirements of the *Aeronautical Information Publication (AIP)* ENR 1.10 *Flight Planning* stated that a pilot must obtain current weather reports and forecasts for the route to be flown, then plan the flight having regard to that information.

Weather information

Forecasts

The Bureau of Meteorology graphical area forecast (GAF),⁴ issued at 0809 EST on 13 March 2026 for the area encompassing the flight path south of Gold Coast to the accident site (Figure 4), included:

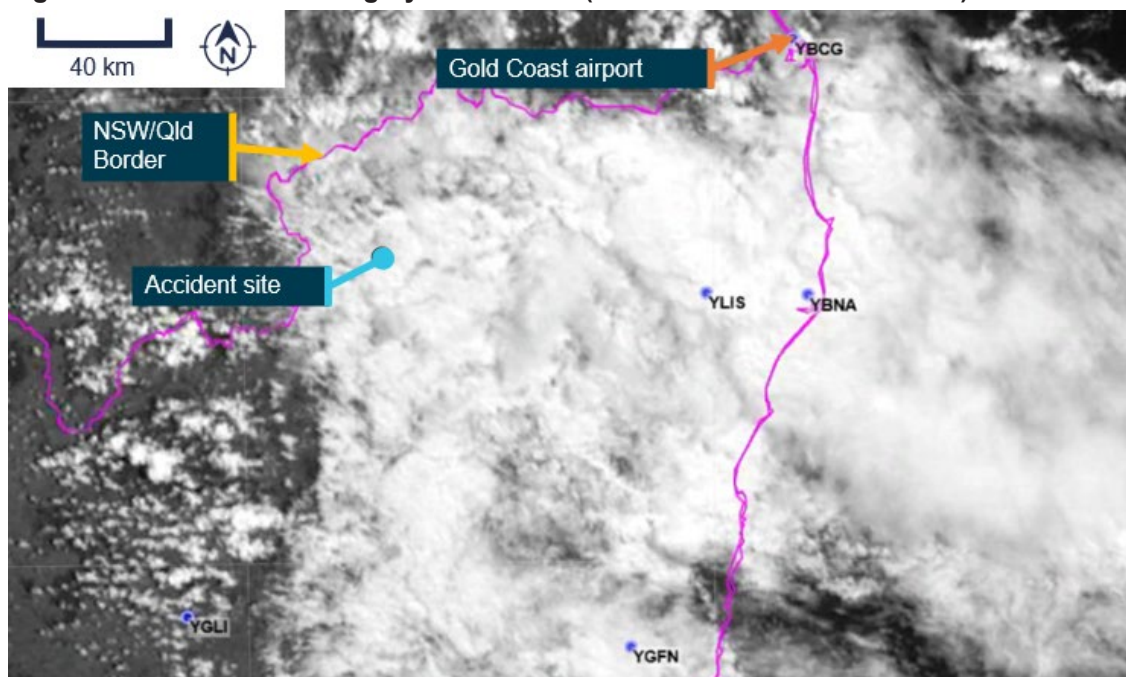
- visibility greater than 10 km with broken⁵ stratus with bases at 1,500 ft and tops at 2,000 ft and broken stratocumulus with bases at 2,000 ft tops to 9,000 ft
- visibility 4,000 m in isolated⁶ showers of rain with broken stratus with bases at 1,000 ft and tops at 2,000 ft, and broken cumulus/stratocumulus with bases at 2,000 ft and tops to 9,000 ft

⁴ In a graphical area forecast (GAF), all cloud heights are above mean sea level (AMSL).

⁵ Cloud cover: in aviation, cloud cover is reported using words that denote the extent of the cover – ‘few’ indicates that up to a quarter of the sky is covered, ‘scattered’ indicates that cloud is covering between a quarter and a half of the sky, ‘broken’ indicates that more than half to almost all the sky is covered, and ‘overcast’ indicates that all the sky is covered.

⁶ Weather coverage is given as isolated if it consists of individual features which affect, or are forecast to affect, an area with a maximum spatial coverage of up to 50%.

Figure 5: Satellite cloud imagery at 1000 EST (14 minutes after the accident)



Source: Satellite image processed by the Bureau of Meteorology from the geostationary meteorological satellite Himawari-9, operated by the Japan Meteorological Agency, annotated by the ATSB

The aerodrome forecast (TAF)⁸ for the pilot’s first intended stop at Armidale Airport, NSW, issued at 0422 EDT and valid 0600–1900 on 13 March included:

- wind from 080° at 8 kt
- visibility greater than 10 km
- cloud broken at 400 ft (TAF cloud heights above aerodrome elevation).

During the period 0900–1100:

- wind from 100° at 12 kt
- visibility greater than 10 km
- light showers of rain
- scattered cloud at 3,000 ft
- temperature 16°C at 0600 and 19°C at 0900
- QNH 1,016 hPa at 0600 and 1,019 hPa at 0900.

Weather stations

The ATSB also obtained weather data from 2 Weather Underground⁹ stations close to the accident site (inset Figure 2):

Site 1: 12.64 km 106° from the accident site at an elevation of about 530 m (Table 1)

Site 2: 10.67 km 084° from the accident site at an elevation of about 200 m (Table 2).

⁸ A TAF is a coded statement of meteorological conditions expected at an aerodrome and within a radius of 5 nautical miles of the aerodrome reference point.

⁹ Weather Underground provides local and long-range weather forecasts, weather reports, maps and tropical weather conditions for locations worldwide.

The ultraviolet (UV) index is a simple way of describing the level of UV radiation and can be affected by the amount of cloud cover. According to the Bureau of Meteorology, ‘thick unbroken clouds and rainfall can reduce UV, as thick clouds reflect and absorb more UV than thin cloud cover.’ The UV Index has 5 categories:

- low (1–2)
- moderate (3–5)
- high (6–7)
- very high (8–10)
- extreme (11 and above).

The weather stations also measured solar irradiance, which is the power of electromagnetic radiation received from the sun, measured in watts per square metre. According to the National Environmental Satellite, Data and Information Service:¹⁰

When sunlight hits low clouds, a lot of that light – and heat – is reflected back into space. When sunlight hits clouds that are high in the atmosphere, those clouds reflect less sunlight energy. However, these high clouds also trap more heat.

The UV and solar irradiance¹¹ values from 13 March indicated that there was substantial cloud coverage at both locations on 13 March between 1004–1104 (Table 1 and Table 2). By comparison, on 15 March 2026, when the ATSB attended the accident site and observed a clear day, at 1119, the solar irradiance was recorded at 923 W/m² and the UV index was 9.

Table 1: Five-minute weather data, site 1

Local time (EDT)	Temp (°C)	Dew point (°C)	Hum. %	Wind dir.	Wind (kt)	Gust (kt)	Rain mm	Rain mm/hr	U V	Solar (W/m ²)
1004	20.8	20.6	99	ENE	4.8	5.6	0	0	1	95.5
1009	20.9	20.7	99	E	3.1	4.5	0	0	1	94.4
1014	20.9	20.7	99	ESE	4.3	5.7	0	0	1	113.1
1018	20.9	20.7	99	E	3.5	4.8	0	0	1	136
1024	21.1	20.8	99	ESE	4.4	5.6	0	0	1	170
1029	21.1	20.8	99	ESE	3.9	5.0	0	0	1	131.6
1034	21.1	20.9	99	E	4.1	5.1	0	0	1	123.9
1039	21.1	20.9	99	E	4.3	4.9	0	0	1	121
1044	21.1	20.8	99	ESE	5.3	6.3	0	0	1	182.3
1049	21.1	20.8	99	ENE	3.0	4.6	0.05	1.27	1	94.3
1054	20.8	20.6	99	E	4.8	6.6	0.1	2.54	1	127.8
1059	20.8	20.6	99	ESE	3.3	5.0	0.1	2.54	1	102
1104	20.5	20.3	99	E	4.9	7.9	0.05	1.27	1	100.5

¹⁰ The National Environmental Satellite, Data, and Information Service (NESDIS) manages the United States environmental satellite programs, and manage the data gathered by the National Weather Service and other government agencies and departments.

¹¹ Solar irradiance is the power per unit area or electromagnetic radiation received from the sun, measured in Watts per square metre.

Table 2: Five-minute weather data, site 2

Local time (EDT)	Temp (°C)	Dew point (°C)	Hum. %	Wind dir.	Wind (kt)	Gust (kt)	Rain mm	Rain mm/hr	U V	Solar (W/m ²)
1004	24.0	20.9	83	SSE	2.5	3.0	0	0	1	95.5
1009	23.8	20.9	84	WSW	1.8	2.4	0	0	1	94.4
1014	24.1	20.9	83	ENE	1.1	1.4	0	0	1	113.1
1019	24.3	20.9	82	NW	1.3	1.8	0	0	1	136
1023	24.5	21.0	81	ESE	2.1	3.1	0	0	2	170
1029	24.5	20.8	80	NNE	2.6	3.6	0	0	2	131.6
1034	24.8	20.9	79	ESE	2.0	2.9	0	0	2	123.9
1039	24.6	20.8	80	W	3.5	4.8	0	0	1	121
1044	25.3	21.1	78	NNE	1.7	2.3	0	0	2	182.3
1049	25.6	21.1	77	ENE	2.1	3.2	0	0	2	94.3
1054	25.4	21.1	77	NNW	2.3	3.0	0	0	2	127.8
1059	25.1	20.9	78	ENE	2.4	4.2	0	0	1	102
1104	24.7	21.1	81	ENE	1.9	3.4	0	0	1	100.5

Visual meteorological conditions

For flights under the visual flight rules (VFR),¹² the Civil Aviation Safety Regulations Part 91 Manual of Standards specified criteria for visual meteorological conditions (VMC)¹³ in terms of visibility and distance from cloud. The criteria for all aircraft operating in Class G (non-controlled) airspace were:

At or below whichever is the higher of 3,000 ft AMSL and 1,000 ft above ground level (AGL):

- visibility 5,000 m
- clear of cloud
- aircraft must be operated in sight of ground or water.

For helicopters (rotorcraft) operating below 700 ft over land in non-controlled airspace (and not within 10 NM of an aerodrome with an instrument approach procedure), the criteria were:

- flight visibility 800 m
- clear of cloud
- by day
- at a speed that allows the pilot to see obstructions in sufficient time to avoid a collision.

¹² Visual flight rules (VFR): a set of regulations that permit a pilot to operate an aircraft only in weather conditions generally clear enough to allow the pilot to see where the aircraft is going.

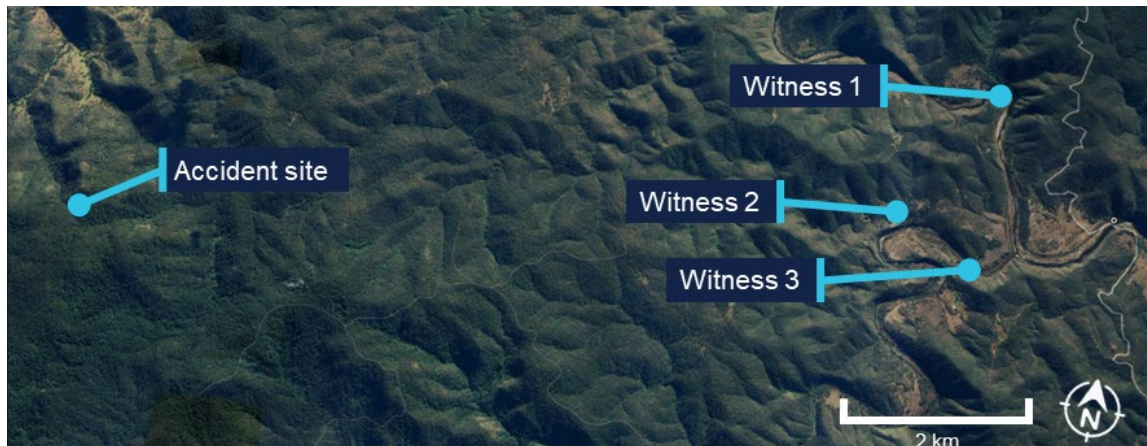
¹³ Visual Meteorological Conditions (VMC): an aviation flight category in which visual flight rules (VFR) flight is permitted – that is, conditions in which pilots have sufficient visibility to fly the aircraft while maintaining visual separation from terrain and other aircraft.

Witness information

Several witnesses located near the accident site (Figure 6) stated that they observed a helicopter flying very low, 'before lunchtime' on the day of the accident. All witnesses reported that it was unusual to see a helicopter in the area, but this one was particularly unusual due to its low altitude.

All witnesses reported very low cloud and drizzle on the morning of the accident. One witness stated that the helicopter seemed to be stuck below cloud and remarked to their partner that it 'looks like it's trying to find a way out'. Another witness recalled waving at the helicopter and stated that it passed them twice before heading west.

Figure 6: Witness locations



Source: Google Earth, annotated by the ATSB

Further investigation

To date, the ATSB has

- examined the site and wreckage
- retained drive shaft components and warning light bulbs for examination
- interviewed witnesses and involved parties
- obtained recorded flight data
- obtained aircraft and operational information
- obtained meteorological information.

The investigation is continuing and will include further review and examination of:

- the mapped accident site and helicopter wreckage
- aircraft and operational documentation
- meteorological information.

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 acknowledges the assistance of New South Wales Police, in particular the Lismore Search and Rescue unit.

General details

Occurrence details

Date and time:	13 March 2026, 1059 Eastern Daylight-saving Time	
Occurrence class:	Accident	
Occurrence categories:	Collision with terrain	
Location:	About 46 km north-east of Tenterfield Airport, New South Wales	
	Latitude: 28.7345° S	Longitude: 152.2953° E

Aircraft details

Manufacturer and model:	Robinson Helicopter Co R44 II	
Registration:	VH-TCF	
Operator:	Tasklake Pty Ltd	
Serial number:	11912	
Type of operation:	Part 91 General operating and flight rules / Other	
Activity:	General aviation / Sport and pleasure flying / Pleasure and personal transport	
Departure:	Gold Coast, Queensland	
Destination:	Armidale Airport, New South Wales	
Persons on board:	Crew – 1	Passengers – 0
Injuries:	Crew – 1 fatal	
Aircraft damage:	Destroyed	

About the ATSB

The **Australian Transport Safety Bureau** is the national transport safety investigator. Established by the *Transport Safety Investigation Act 2003* (TSI Act), the ATSB is an independent statutory agency of the Australian Government and is governed by a Commission. The ATSB is entirely separate from transport regulators, policy makers and service providers.

The ATSB's function is to improve transport safety in aviation, rail and shipping through:

- the independent investigation of transport accidents and other safety occurrences
- safety data recording, analysis, and research
- influencing safety action.

The ATSB 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.

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