



Australian Government

Australian Transport Safety Bureau

Collision with terrain involving, Stoddard Hamilton Aircraft Glasair Super II FT, N600

near Wedderburn Airport, New South Wales on 26 December 2022

ATSB Transport Safety Report

Aviation Occurrence Investigation (Short)

AO-2022-068

Preliminary – 29 March 2023

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

Publishing information

Published by: Australian Transport Safety Bureau
Postal address: GPO Box 321, Canberra, ACT 2601
Office: 12 Moore Street, Canberra, ACT 2601
Telephone: 1800 020 616, from overseas +61 2 6257 2463
Accident and incident notification: 1800 011 034 (24 hours)
Email: atsbinfo@atsb.gov.au
Website: www.atsb.gov.au

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Addendum

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Preliminary report

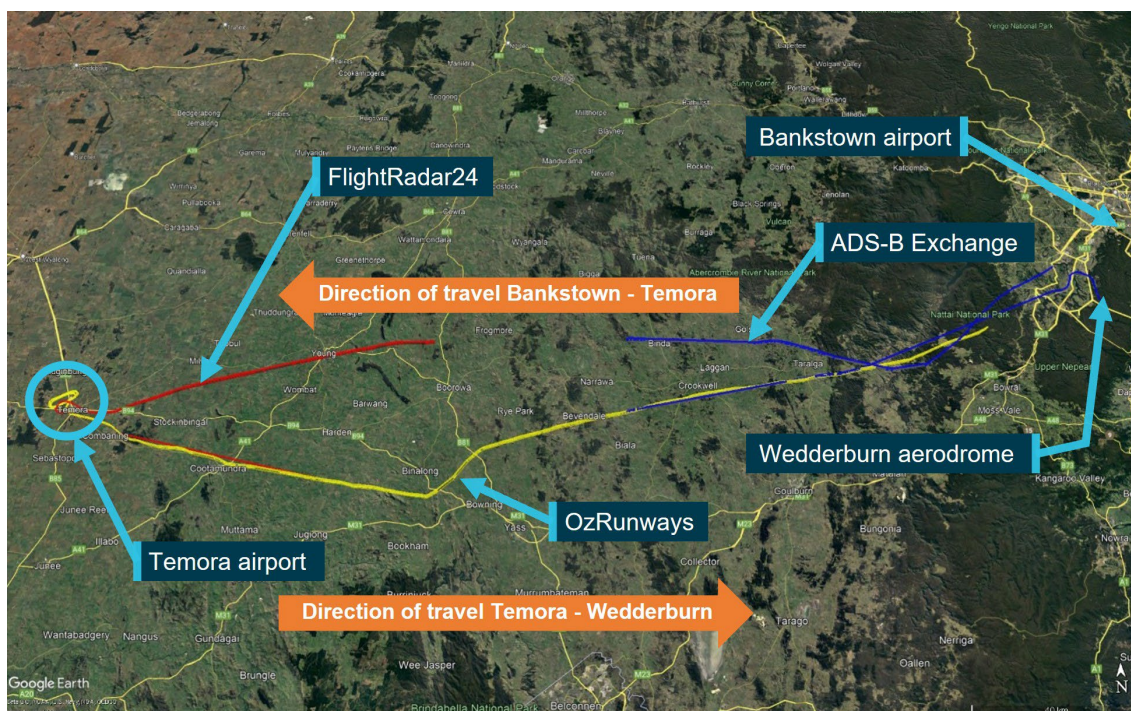
This preliminary report details factual information established in the investigation's early evidence collection phase, and has been prepared to provide timely information to the industry and public. Preliminary reports contain no analysis or findings, which will be detailed in the investigation's final 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 the morning of 26 December 2022, a Stoddard Hamilton Aircraft Glasair Super II FT, registered N600, was operated on a private flight under the visual flight rules (VFR)¹ from Bankstown, New South Wales (NSW) to Temora, NSW, then Temora to Wedderburn, NSW. The purpose of the flight was to test the aircraft on its first flight in Australia and reposition the aircraft to Wedderburn. The pilot and passenger were both co-owners of the aircraft.

Air traffic control audio recorded the aircraft departing Bankstown Airport at about 1003 local time. Flight tracking data (Figure 1 blue line) obtained from ADS-B Exchange and FlightRadar24 (Figure 1 red line) showed the aircraft being flown to Temora, landing at about 1133 on runway 36.² The aircraft was then refuelled, with OzRunways data (Figure 1 yellow line) showing that the aircraft conducted 2 circuits from runway 05 between 1229 and 1246. Flight data also indicated that, about an hour later, at 1323, the aircraft departed Temora via runway 18 for Wedderburn.

Figure 1: ADS-B Exchange, FlightRadar24 and OzRunways flight data from N600 on 26 December 2022.



Source: Google Earth, ADS-B Exchange, FlightRadar24 and OzRunways, annotated by the ATSB.

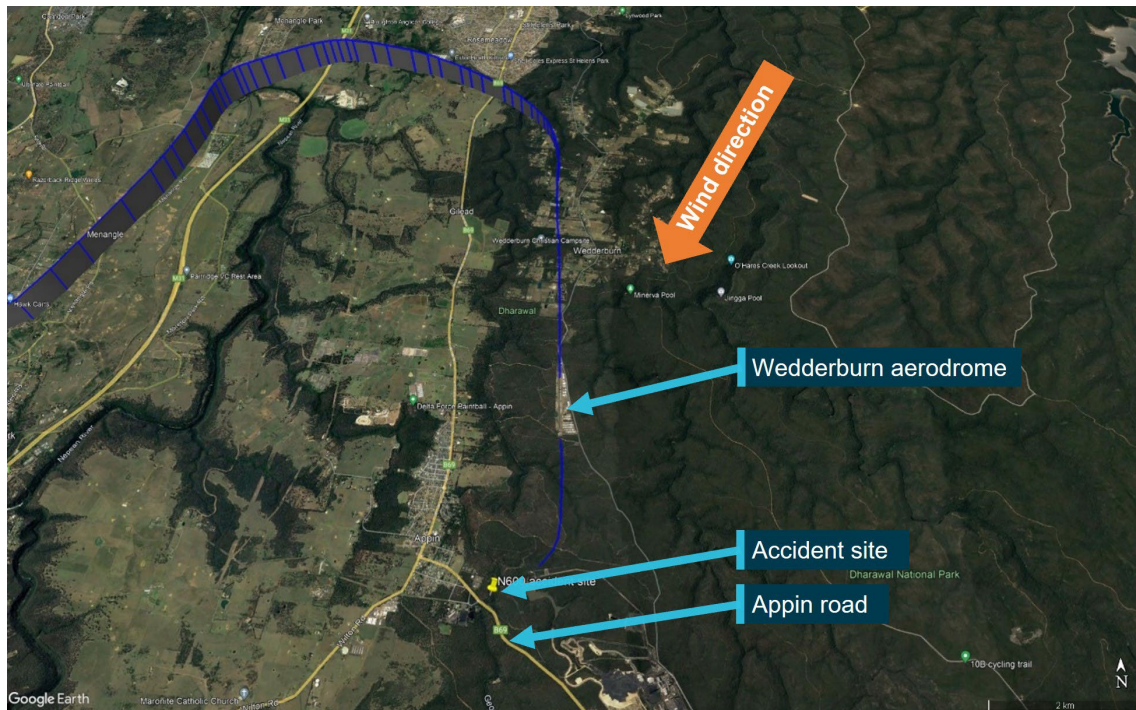
On arrival at Wedderburn, N600 was positioned on a wide circuit and landed on runway 17 at Wedderburn at 1452. For unknown reasons, the aircraft then became airborne again.

¹ 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.

² Runway number: the number represents the magnetic heading of the runway.

Eyewitnesses and CCTV at Wedderburn observed the aircraft in a shallow, unstable climb, enough to just clear rising terrain and trees at the end of runway 17. After clearing the trees, the aircraft then disappeared from view and about 2 minutes later collided with terrain about 2.7 km from the end of the runway, approximately 150 m from Appin Road (Figure 2). The wreckage was consumed by a post-impact fire that also started a small bush fire. Both occupants sustained fatal injuries.

Figure 2: ADS-B Exchange flight data showing the landing and go-around at Wedderburn Airport and the location of the collision with terrain. Also shown is the approximate direction of wind based on Bureau of Meteorology reports and CCTV footage.



Source: Google Earth and ADS-B Exchange, annotated by the ATSB.

Context

Aircraft

N600 was a Stoddard Hamilton Aircraft Glasair Super II FT, amateur built aircraft³ constructed in the United States (US). The aircraft was a conventional two-seat, single-engine, low-wing monoplane with tri-cycle undercarriage, built mostly of fiberglass. The aircraft was fitted with a Subaru EJ-25 automotive engine, modified for aviation use by NSI Propulsion Systems (later Maxwell Propulsion Systems). The first flight was conducted on 4 June 2014 at Chesapeake Regional Airport, US. About 60 hours flight time was accumulated before the aircraft was imported into Australia in 2021.

Prior to leaving the US, the aircraft's one-piece wing was disassembled to facilitate shipping. Subsequently, upon arrival in Australia, significant work was undertaken to restore the aircraft to an airworthy condition prior to its first flight in Australia on 26 December 2022. The aircraft was not equipped with a flight data recorder or cockpit voice recorder, nor was it required to be.

Meteorological information

Campbelltown and Bellambi are the closest aviation weather reporting sites to Wedderburn Airport, with the accident site being roughly half-way between the two. The Bureau of

³ Aircraft supplied in kit form and is designed to be constructed for the education and recreation of the owner

Meteorology’s routine report of the weather conditions at Campbelltown at 1500 (6 minutes after the accident) showed an east-north-easterly wind at 8 knots, gusting to 15 knots, with an air temperature of 33.2°C and a dew point temperature⁴ of 8.6°C. It also showed that no rainfall was recorded since 0900 that morning.

The Bellambi Airport weather report at 1500 local time showed a north-north-easterly wind at 12 knots, gusting to 16 knots, with an air temperature of 23.7°C and a dew point temperature of 20.0°C. It also showed no rainfall recorded since 0900 local time that morning.

CCTV footage from Wedderburn Airport showed clear skies and a crosswind with an easterly quartering tailwind during the landing and subsequent take-off.

Wreckage examination

To the extent possible due to the condition of the wreckage, on-site examination of the aircraft’s flight controls and structure did not identify any pre-existing faults or failures. However, several components were retained by the ATSB for further examination, including the engine, gearbox, propeller, and electronic devices.

Operational Information

As the aircraft was registered with the Federal Aviation Authority (US), it was operating in Australia under a Civil Aviation Safety Authority (CASA) Special Flight Authorisation Instrument. The CASA instrument was valid until 31 October 2024 and stated that the aircraft must not be operated over a populous area.

Further investigation

To date, the ATSB has examined the aircraft wreckage, interviewed witnesses, gathered personal electronic devices and aircraft components from the accident site. The investigation is continuing and will include consideration of the following:

- analysis of CCTV footage and flight track data
- evaluation of witness information
- examination of the:
 - retained aircraft components
 - aircraft maintenance history
 - aircraft weight and balance, and performance
- meteorological conditions
- impact sequence and survivability
- flight planning
- the conduct of similar amateur-built experiment flight operations
- pilot qualifications, experience and medical information.

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.

⁴ Dewpoint: the temperature at which water vapour in the air starts to condense as the air cools. It is used, among other things, to monitor the risk of aircraft carburettor icing or the likelihood of fog.

General details

Occurrence details

Date and time:	26 December 2022 – 1454 Eastern Daylight-saving Time	
Occurrence class:	Accident	
Occurrence categories:	Collision with terrain	
Location:	2.7km south-south-west of Wedderburn Airport, New South Wales	
	Latitude: 34° 12.5316' S	Longitude: 150° 47.8644' E

Aircraft details

Manufacturer and model:	Stoddard Hamilton Aircraft Glasair Super II FT	
Registration:	N600	
Serial number:	2277	
Type of operation:	Part 103 Sport and recreational aircraft	
Activity:	Sport and pleasure flying	
Departure:	Bankstown Airport, New South Wales	
Destination:	Wedderburn Airport, New South Wales	
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.