



Australian Government

Australian Transport Safety Bureau

Wirestrike and collision with terrain involving Schweizer 269C, VH-NTZ

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Addendum

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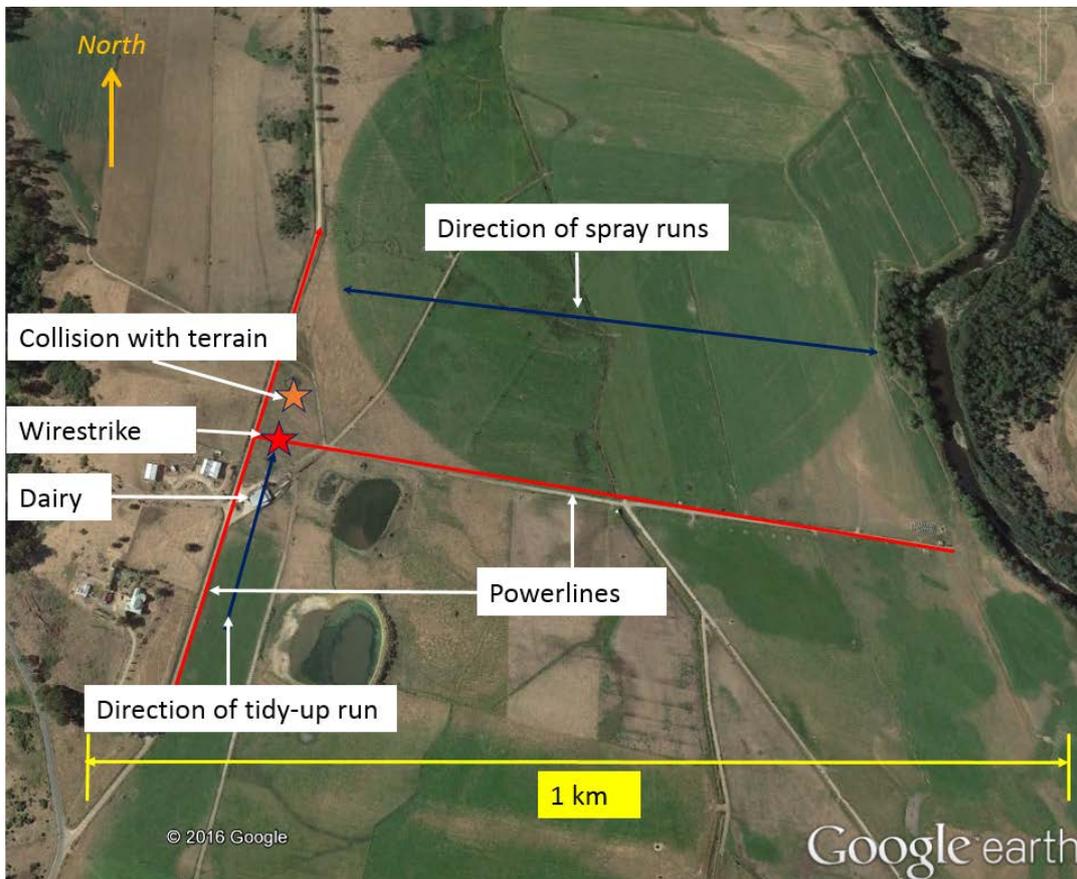
Wirestrike and collision with terrain involving Schweizer 269C, VH-NTZ

What happened

On 20 July 2016, the pilot of a Schweizer 269C helicopter, registered VH-NTZ, conducted aerial spraying operations near Deloraine, Tasmania.

The pilot completed spraying one area, and prior to commencing spraying another, overflew it to assess the site. During that inspection, the pilot sighted two sets of powerlines, one running approximately north-south, and the other branching off to the east. Based on the location of the powerlines and the wind, which was a light northerly, the pilot elected to spray the paddock in an east-west direction (Figure 1). The helicopter was operating north of the powerline running east-west, and in each run, was overflying and remaining clear of the powerlines at the western end of the paddock.

Figure 1: Area of operations showing powerlines



Source: Pilot

At about 1230 Eastern Standard Time (EST), after completing two spray loads, the pilot tracked south over the powerline and turned to conduct a tidy-up run to the north along the road and powerlines running north-south.

After overflying a dairy building, the helicopter descended as the pilot intended to commence spraying. However, the helicopter struck the powerlines running east-west and subsequently collided with terrain.

The pilot, who was the sole occupant of the helicopter, sustained serious injuries and the helicopter was destroyed (Figure 2).

Figure 2: Accident site



Source: Tasmania Police

Pilot comments

Prior to commencing the day's operations, the pilot had obtained a map of the area and identified hazards including the powerlines. During the aerial inspection of the property prior to commencing spraying, the pilot had sighted those hazards.

The pilot commented that in the tidy-up run they should have been thinking 'over the dairy and over the powerlines then descend', but had momentarily forgotten about the powerlines and descended after passing over the dairy. Usually they overfly the whole paddock again to check for hazards before commencing a tidy-up run, but had omitted to do it on this occasion.

The pilot was wearing a helmet at the time of the accident. The helmet was found some distance from the wreckage and was badly damaged.

Safety message

ATSB research indicates that in 63 per cent of reported wirestrike incidents, pilots were aware of the position of the wire before they struck it.

The Aerial Application Association of Australia (AAAA) suggests a way to keep focus is to ask yourself:

- Where is the wire now?
- What do I do about it?
- Where am I in the paddock?

For further risk management strategies for agricultural operations, refer to the AAAA [Aerial application pilots manual](#).

The ATSB publication [Avoidable Accidents No. 2 – Wirestrikes involving known wires: A manageable aerial agricultural hazard](#), explains strategies to help minimise the risk of striking wires while flying.

US military research¹ analysed helicopter accidents that were at least partially survivable. It found that occupants not wearing a protective helmet were significantly more likely to sustain severe and fatal head injuries. The US National Transportation Safety Board (NTSB) also acknowledged that the use of head protection can reduce the risk of injury and death. The NTSB issued Safety Recommendation [A-88-009](#), recommending that crewmembers of emergency medical services helicopters wear protective equipment including helmets.

The ATSB investigation report ([AO-2014-058](#)) into an accident involving a Robinson R22 helicopter where the pilot sustained a serious head injury, reminded pilots and operators to consider the benefit of occupants wearing helmets to reduce the risk of head injury.

General details

Occurrence details

Date and time:	20 July 2016 – 1230 EST	
Occurrence category:	Accident	
Primary occurrence type:	Wirestrike	
Location:	45 km SE of Devonport aerodrome (Deloraine), Tasmania	
	Latitude: 41° 34.02' S	Longitude: 146° 32.22' E

Helicopter details

Manufacturer and model:	Schweizer Aircraft Corporation 269C	
Registration:	VH-NTZ	
Serial number:	S1405	
Type of operation:	Aerial Work - Aerial Agriculture	
Persons on board:	Crew – 1	Passengers – 0
Injuries:	Crew – 1 (Serious)	Passengers – 0
Aircraft damage:	Destroyed	

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.

¹ Crowley, J.S. (1991) Should Helicopter Frequent Flyers Wear Head Protection? A Study of Helmet Effectiveness. *Journal of Occupational and Environmental Medicine*, 33(7), 766-769.

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.