Australian Government

Australian Transport Safety Bureau

Wirestrike and collision with terrain involving Bell 206B helicopter, VH-WHU

near Carmila, Queensland | 25 March 2016

Investigation

ATSB Transport Safety Report

Aviation Occurrence Investigation

AO-2016-027

Final – 26 June 2017

Cover photo: Heli-Central

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
Internet: www.atsb.gov.au

Addendum

Page	Change	Date

Safety summary

What happened

Source: Heli-Central

On 26 March 2016, Bell 206B JetRanger helicopter, registered VH-WHU, struck a powerline while spraying cane fields about 5 km south-west of Carmila, Queensland. During the accident sequence, the helicopter's tail rotor and vertical stabiliser assembly separated from the helicopter. The helicopter collided with terrain and was destroyed by impact forces and a post-impact fire. The pilot was fatally injured.

What the ATSB found

The ATSB found that the helicopter was equipped with upper and lower wirestrike protection system equipment and four-point safety harnesses. The pilot was wearing an aviation flying helmet. While not preventing fatal injuries on this occasion, these safety enhancements generally reduce risk and increase the possibility of surviving a collision.

The ATSB also found that the inherent difficulty in visually detecting powerlines was exacerbated in this case by the outer two supporting power poles being masked by trees. There was also a low-contrast background that included cane fields, rising terrain and a tree-lined creek. In combination, these features negated a number of visual cues normally associated by pilots with the location of powerlines. This increased the difficulty of the pilot seeing the wires, and reduced the time available to take action once the powerline was located.

Safety message

Aerial application is conducted at low level, where there is an elevated risk of collision with terrain, man-made structures and wildlife. Pilot training, experience, pre-flight preparation and planning and fatigue management are important means to reduce risk.

The Australian aviation industry has invested heavily in an effort to minimise the risk associated with low-level aerial application. This includes the:

- the Aerial Application Association of Australia Ltd. (previously Aerial Agricultural Association of Australia Ltd.), which has written a number of manuals (available at www.aerialag.com.au), conducted training in aerial application, facilitated access to available wire databases and taken safety action to increase the high visibility marking of wires
- operators, who develop and include risk mitigation strategies in their operations manuals
- Civil Aviation Safety Authority, which issues associated regulations, publications (available at www.casa.gov.au), conducts workshops and carries out operator surveillance aimed at addressing the risks associated with low-level aerial application operations
- ATSB, which has investigated numerous aerial application accidents and issued public reports in an effort to enhance safety in those operations.

Despite those efforts and requirements, wirestrikes continue to occur in low-level aerial application operations. It is therefore prudent, when planning and/or conducting aerial application operations, for pilots and operators to learn from other occurrences and accidents, and continue to apply that knowledge to reduce risks to their operations.

The occurrence

History of the flight

At about 1600 Eastern Standard Time[1] on 24 March 2016, the pilot of Bell Helicopter Company 206B JetRanger, registered VH-WHU (WHU), landed at a property 5 km south-west of Carmila, Queensland in preparation for aerial application agricultural spraying operations. The pilot met the property owner and together they reviewed the proposed operation. This included identifying significant features such as powerlines and property boundaries. A diagram was provided to assist the review.

The pilot and property owner then conducted a 15-minute aerial survey of the area in WHU to locate the features that were previously identified on the diagram. On completion of that flight, the pilot landed, secured the helicopter and retired for the night.

The pilot, property owner and loader[2] for the operation met at the property at about 0545 the next morning. However, local fog delayed the commencement of the application until about 0700. During the intervening period, the helicopter's hopper was filled with chemicals, the helicopter refuelled and its windows cleaned.

The spraying operations commenced at about 0700 and continued for a total of about 3.5 hours. During this time, the pilot landed and replenished the helicopter with fuel and chemicals 10 times, and was twice observed to leave the helicopter and 'stretch their legs'. On one occasion, at about 0800, the property owner accompanied the pilot to clarify a section of the property to be sprayed.

At about 1000, the pilot landed and discussed the changing wind conditions with the property owner and loader. It was reportedly agreed during this discussion that the increasing wind would ultimately affect the chemical distribution. The chemicals were again replenished and the pilot decided to suspend operations for the day once the payload on board the helicopter was depleted.

The pilot took off and was observed flying at various locations around the property. The property owner and loader presumed the pilot was conducting 'clean-up runs'. Shortly prior to the wirestrike, the helicopter was observed flying in a north-north-easterly direction, to the east of and adjacent to the north-south powerline (Figure 1). This line was strung low between three wooden power poles that were located between two sugar cane fields, about 8 m above the ground.

Concerned about the proximity of the helicopter to the powerlines, the loader radioed the pilot and reminded him of their location. The pilot replied 'powerlines sighted and marked'. The loader continued with the job at hand and the property owner observed the helicopter complete two clockwise circles before tracking to the west, over the north-south powerline. The pilot continued the application to the north and west of the powerlines before turning back towards the east.

At about 1028, the helicopter collided with the north-south powerline (Figure 1).

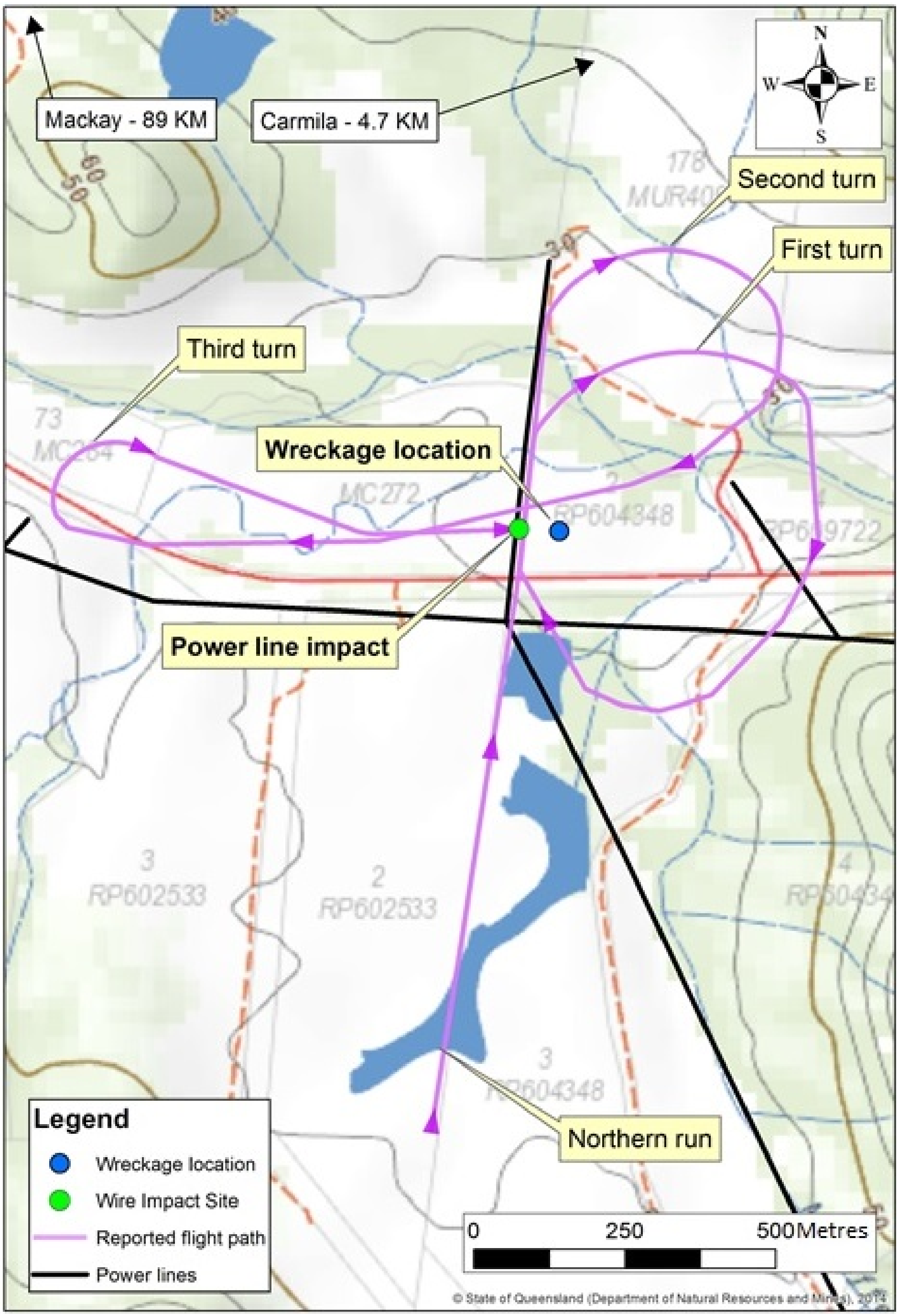
Initially, the property owner alerted the loader that he thought the pilot was 'in trouble'. The owner later described the helicopter at that time as being in a nose-up position, 'hanging' and making a loud noise. The property owner reported being unsure if the noise was engine or rotor system-derived. The helicopter then lurched forward and spun clockwise before the property owner lost sight of the helicopter amongst the sugar cane.

The subsequent impact with terrain was not observed by the property owner or loader. There was a post-impact, fuel-fed fire that, despite the efforts of the property owner and loader, could not be

[1] Eastern Standard Time (EST): Coordinated Universal Time (UTC) + 10 hours.
[2] Loader: the term used to denote ground support personnel whose functions include assisting with mixing chemicals, and loading and dispatching the aircraft.

readily extinguished. Impact forces and the post-impact fire destroyed the helicopter. The pilot was fatally injured.

Figure 1: WHU's flight path, as reported by witnesses



Source: State of Queensland (Department of Natural Resources and Mines), modified by the ATSB

Pilot information

It is likely the pilot's flight logbook was on board the helicopter at the time of the accident and destroyed in the post-impact fire. The operator understood that the pilot had flown 2,870 hours on a number of different helicopter types. An extract of the pilot's logbook supplied by the operator showed that as of 14 February 2016, the pilot recorded 2,807 flight hours. The extract also showed that the pilot:

- undertook ‘Agriculture Rating training’ on the second and third of August 2014 that included 3.7 flight hours of flight time
- underwent a 1-hour ‘Agriculture II flight test’ on 4 August 2014
- completed a 1-hour ‘Aerial Application rating proficiency check’ on 22 September 2015
- performed 3.7 flight hours Aerial Seeding application on 24 September 2015.

The ATSB understood from the operator that the pilot also flew WHU for 4 days preceding the accident including ferry flights and 2 days aerial application of about 110 hectares under the direct supervision of the operator.

It is possible that the pilot flew additional aerial application hours prior to the accident as there was a period of 42 days between the last log book entry and the accident. Given the available evidence, this could not be confirmed.

The pilot held a current Class 1 Civil Aviation Medical Certificate with the following restrictions when exercising the privileges of the pilot’s licence:

- distance vision correction was to be worn
- reading correction was to be available.

Three pairs of heat-damaged sight correction glasses were identified in the helicopter wreckage. The ATSB could not determine if these included the pilot’s distance correction glasses or whether the pilot was wearing distance correction glasses leading up to the wirestrike.

The ATSB considered the potential for pilot fatigue to have influenced the development of the accident. This included a review of the pilot’s 72-hour history prior to the flight that day. Based on the available information obtained from witnesses and the operator, there was insufficient evidence to assess whether fatigue was a factor.

Weather, terrain and sun position

There was no Bureau of Meteorology weather station in the vicinity of Carmila. The closest aviation weather information was available from Mackay Airport, Queensland, about 85 km to the north of Carmila. Daily automatic weather observations were available from St Lawrence, approximately 50 km to the south of Carmila.

The 0900 observation at St Lawrence on the day of the accident recorded the following data:

- temperature – 27.1˚C
- relative Humidity – 64 per cent
- cloud – Nil
- wind Direction and Speed – east-south-easterly at 9 km/hr[3]
- mean Sea Level Air Pressure – 1017.9 hPa.

At 1030 that day, the azimuth[4] of the sun was 48°32’20’’ and its altitude[5] 56°05’30”. During the flight, the pilot was wearing an aviation helmet that was fitted with a retractable sun shield. If lowered over the eyes, the sun shield was designed to reduce glare. Although the position of the pilot’s sun shield preceding the wirestrike was unable to be determined, the position of the sun was such that the potential for it to have been a factor in the wirestrike was minimal.

Powerline and poles

The area being sprayed was divided by powerlines that consisted of three cables, each made from three steel wires twisted together (Figure 2). The powerline that was struck by WHU was

---

3 The wind direction and speed averaged over the 10 minutes prior to 0900.
4 Azimuth: the clockwise horizontal angle (in degrees, minutes and seconds) from true north to the sun.
5 Altitude: the vertical angle (in degrees, minutes and seconds) from an ideal horizon to the sun.

strung north-to-south, rusted and supported by three power poles over a distance of about 386 m (Figure 1). The poles to the north and south were located between tall trees (Figure 3). The centre of these poles was estimated to be about 3–4 m higher than the surrounding cane fields and was situated in a north–south clear area that was used as an access road.

Given the approximate 8 m height of the centre pole, and the normal spraying height of the helicopter, there was the potential for the pole to have been masked by the trees and rising terrain to the east of the powerline. The powerlines were not marked with visibility devices, nor were they required to be by regulation.

Figure 2: Power cable consisting of three steel wires twisted together (note the rust-like discolouration)

Source: Queensland Police, modified by the ATSB

Figure 3: Terrain in the vicinity of the powerline, showing the helicopter's direction of travel and the powerline and associated poles. Note the power pole that has been pulled down as a result of the wirestrike (centre of the picture) and the tree-lined creek that tracks right to left (located towards the top of the figure)

Source: Queensland Police, modified by the ATSB

Guidance to aerial application pilots

The difficulty associated with identifying electrical and other wires and cables during aerial application operations is an acknowledged occupational hazard in the aviation industry. The Aerial Application Association of Australia Ltd.[6] stated in their 3rd edition of the Aerial Application Pilots Manual that:

> The pilot usually locates the wires by observing the run of the poles, thus establishing a mental picture of the treatment area in plain view i.e. by looking down on it. However, the actual treatment is undertaken close to ground level, where horizontal views are used to establish relationships between obstacles – an entirely different situation. There is plenty of scope for misjudgment. There is also a limit to the amount of attention a pilot can divert from maintaining a precise flight path to any obstacles, they must also consider. Therefore, great care must be exercised in transferring from 'plan view' to 'elevation view'. In addition, the background to the wires - trees, hills etc. - may be concealed by intervening obstacles or by being so far towards the periphery of the pilot's visual field that they are not noticed. Thus, to state the obvious, wires are very hard to see and their height and distance is not easily determined.

Human performance at low-level

Visual cues during low-level visual flying

Flight at low-level is widely acknowledged to be a demanding task, particularly in terms of processing the associated visual information. A key influence on the risk of a wirestrike in that environment is the pilot's visual acuity given the environmental conditions.

A number of variables affect a pilot's ability at any one moment to see and avoid powerlines. In this regard, Gibb and others (2010) describe the difficulty in seeing objects with varying contrast backgrounds where:

> …an object's visibility is affected by differences in its luminance contrast and differences in texture between the object and its surroundings. In general, more luminous and/or texturally-different objects are easier to discern from their background.

Veillette (2015) examined powerline visibility, highlighting that:

> The near invisibility of wires results from a number of factors in addition to their size. These include atmospheric conditions, cockpit ergonomics, viewing angle, sun position, visual illusions, pilot scanning abilities and visual acuity, flight deck workload, and the camouflaging effect of nearby vegetation, among others. Even the condition of the aircraft's transparencies, whether pitted, deteriorated with age, or dirty from dust or bug strikes, will significantly affect the pilot's ability to see wires [and] depending on the lighting situation and background, lines can be obvious or invisible, and change from moment to moment.

and that:

> Older wires may be difficult to see because their color often changes with age….A wire that is perfectly visible from one direction may be completely invisible from the opposite. The exact location of specific wires may change throughout the day because of fluctuating ambient temperatures, which may cause wires to sag or tighten. Sagging wires may also be blown by the wind.

Perception and reaction time

Szczecinski (date unknown) listed the following times taken to recognise and react to a hazard:

> It takes a finite amount of time for an object to be detected, recognised, a decision made on an action, and then for that reaction to be initiated. Table 1 lists the expected times for these events to happen. It can take up to 5.5 seconds for the process to be completed.

---

[6] Prior to 2015 this organisation was known as Aerial Agricultural Association of Australia Ltd.

Process	Time (Seconds)
Detect, visualise, recognise	1.0
Decide what to do	2.0
Initiate action	2.5
Total	5.5

Table 1. Perception and reaction time

Aircraft information

The Bell 206B is a single main and tail rotor-equipped helicopter that is powered by a gas turbine engine and has skid-type landing gear. WHU was fitted with chemical spray equipment and a wirestrike protection system.[7]

Wreckage and impact information

The accident occurred in an area where the sugar cane was about 3 m high. The terrain was flat, but rising towards the east, which was the direction of flight leading up to the wirestrike. Trees lined a creek that spanned from the east to the west of the property.

The vertical stabiliser and tail rotor assembly fractured from the boom during the accident sequence and were found about 30 m from the main helicopter wreckage. Scrape marks and gouging identified along and around the tail rotor section was consistent with colliding with a wire.

The lower portion of the vertical stabiliser displayed uneven, high-energy impact damage. The composite structure was abraded, roughened and had separated from the vertical stabiliser assembly. This was consistent with one of the powerline cables ‘pulling through’ the stabiliser during the impact sequence. The outer portions of both tail rotor blades were fractured and gouged, also consistent with colliding with one of the power line cables before separating from the tail rotor assembly (Figure 4). The liberated outer portions of the tail rotor blades were not recovered.

The helicopter’s structure, including the fuselage and cabin, was significantly compromised from the collision with terrain and post-impact fire. However, despite that damage, continuity of the flight control system was established.

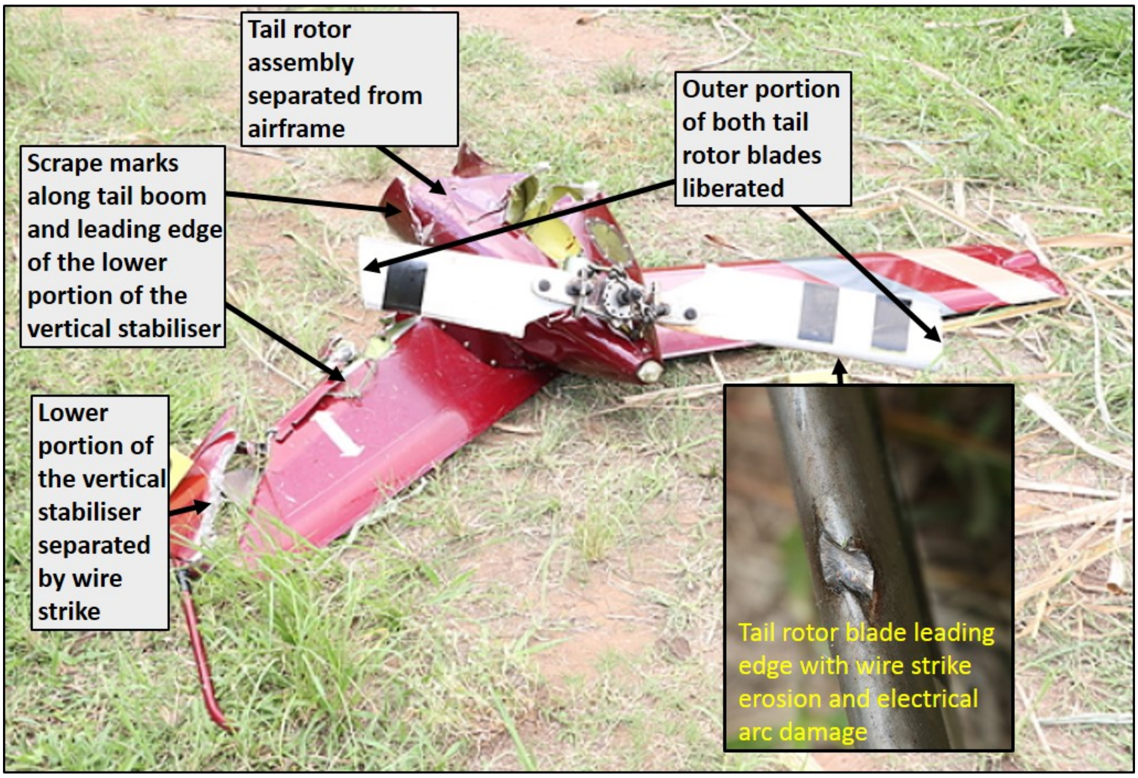
An internal examination of the engine and gearbox confirmed continuity of the power and compressor sections of the engine and the drive to the gearbox. Each was likely capable of normal operation prior to the collision.

Evidence of the transmission of engine power from the gearbox to the main and tail rotors was identified. Fracture of the main rotor pitch links and torque twisting and fracture of the tail rotor drive shaft were consistent with the engine driving the rotor system during the impact sequence.

In summary, the damage to the helicopter was consistent with a wirestrike, followed by a collision with terrain and post-impact fire. No pre-existing defects, including cracks or fractures that may have contributed to the accident, were identified.

[7] Equipment installed on aircraft to reduce the lethality of an impact with power or other cables.

Figure 4: Separated tail rotor assembly, showing the liberation of the outer portion of both tail rotor blades, electrical arcing to the leading edge of one tail rotor blade (at inset) and the separated lower portion of the vertical stabilizer



Source: Queensland Police, modified by the ATSB

Research

The ATSB Avoidable accidents No.6 *Experience won't always save you, Pilot experience is not always a protection against an accident* highlighted that:

- Experience alone can never compensate for high-risk activity.
- Sound decision-making and experience are not necessarily synonymous.
- Using pilot experience as mitigation for potential operational risks is inadvisable. If the risks are unacceptable for a qualified and competent pilot, there should be no reason for an experienced pilot to find it otherwise.
- In aviation, pilot's need to attend to the three Cs- compliance, communication and complacency, and all the other human performance considerations. Experience cannot overcome the mental and physical limitations of humans.
- Experienced pilots who accept higher risks may not be as safe as a pilot with much less experience flying comfortably within the limits of his or her competency

In some accidents, the pilot's vast experience was found to have perhaps even led to decisions that, in hindsight, were riskier than necessary.

Safety analysis

Background

On the day prior to the accident, the pilot flew to, and landed VH-WHU (WHU) at the property in preparation for the next day's aerial application activity. The pilot and property owner used a map to review the area of operations, prominent landmarks and the electrical power distribution network in the area to be sprayed. The pilot and property owner then boarded WHU and surveyed the area from the air.

The pilot was appropriately qualified to command WHU and was endorsed to perform aerial application in the helicopter. However, in respect of the pilot's aerial application qualification, the ATSB could not establish the pilot's flight hours and current experience prior to the accident.

The operation that day

After an initial delay due to fog, the pilot flew about 3 hours aerial application in weather conditions that were described as 'suitable'. This included the relatively light winds that were ideal for distributing the aerial chemicals. The pilot landed WHU about 10 times to replenish the chemicals and fuel. During one of these replenishments, the pilot left the helicopter to stretch their legs. The operator, loader and property owner reported that, before and during the operation, the pilot appeared to be in good health. No issues with the pilot or operation were reported.

About 30 minutes prior to the accident, the pilot landed and discussed the changing wind. It was decided that the next flight load would be the last for the day, as the wind was increasing.

The pilot was aware of the powerlines, having flown along and over them directly before the wirestrike. In addition, the loader alerted the pilot as to the proximity of the powerlines by radio. The pilot acknowledged this call, responding that the 'powerlines [were] sighted and marked'.

The wirestrike

Despite the pilot's awareness of the powerlines, as outlined by Veillette (2015), 'being aware of a wire is still no guarantee of avoiding it'. That is, the pilot's prior knowledge of the location of the powerlines did not assure their detection, and therefore avoidance, on each approach. Factors likely making visual detection of the wires difficult included that the:

- outer supporting power poles were obscured by trees as the pilot approached them, negating one of the visual cues often used by pilots to locate powerlines
- luminance of the power cables was reduced by their rust-like discolouration, reducing the likelihood of their detection by the pilot
- powerlines were not marked, and were not required to be marked, with visibility devices
- contrast in texture between the background and the powerline was decreased, including by a sugarcane field, rising terrain and a tree-lined creek. In combination, these features resulted in a camouflaging effect.

Those factors decreased the likelihood that the pilot would detect the north-south powerline in sufficient time to avoid the wirestrike. The ATSB could not quantify the extent to which the presence of visibility devices might have influenced the earlier detection of the powerline.

Evidence of scraping along the tail boom, the damage to the lower vertical stabiliser and the separation of the outer portion of the tail rotor blades indicated that WHU struck the powerline in a nose-up attitude. This would be consistent with the pilot taking action to avoid a wirestrike, but likely contributed to the wire passing underneath the lower component of the helicopter's wirestrike protection system and striking the tail rotor and stabiliser assembly. The tail rotor and stabiliser assembly separated from the helicopter's tail boom, resulting in a loss of directional control and a change in the helicopter's centre of gravity. This would explain the property owner's description of the helicopter lurching forward and spinning clockwise, contributing to the loss of control by the pilot.

Findings

From the evidence available, the following findings are made with respect to the wirestrike and collision with terrain that occurred about 5 km south-west of Carmila, Queensland on 25 March 2016 and involved Bell 206B helicopter, registered VH-WHU. They should not be read as apportioning blame or liability to any particular organisation or individual.

Contributing factors

- During aerial application at low altitude, the helicopter collided with powerlines while in a nose up attitude, consistent with the pilot attempting to avoid the powerlines. The tail rotor and vertical stabiliser assembly separated leading to a loss of control and collision with terrain.
- The masking of the outer two power poles by trees and the ‘camouflaging’ effect of the low contrast background cane fields, rising terrain and tree-lined creek reduced the available visual cues on the location of the powerline. This increased the pilot’s difficulty in maintaining visibility of the powerline.

General details

Occurrence details

Date and time:	25 March 2016 – 1028 EST	
Occurrence category:	Accident	
Primary occurrence type:	Wirestrike	
Location:	5 km south-west of Carmila, Queensland	
	Latitude: 21° 55.6' S	Longitude: 149° 22.1' E

Aircraft details

Manufacturer and model:	Bell Helicopter Company, 206B	
Registration:	VH-WHU	
Operator:	Heli-Central Pty Ltd	
Serial number:	1472	
Type of operation:	Aerial work- Aerial agriculture	
Persons on board:	Crew – 1	Passengers – 0
Injuries:	Crew – 1 Fatal	Passengers – 0
Damage:	Destroyed	

Sources and submissions

Sources of information

The sources of information during the investigation included the:

- operator of VH-WHU
- property owner
- Civil Aviation Safety Authority
- Queensland Police.

References

The Aerial Application Association of Australia Ltd., *Application Pilots Manual 3rd edition*

Australian Government. Australian Transport Safety Bureau, March 2013, *Avoidable Accidents No.6, Experience won't always save you*, *Pilot experience is not always a protection against an accident. Research AR-2012-035.*

Australian Government. Australian Transport Safety Bureau, 2014, *Avoidable Accidents No. 2, Wirestrike involving known wires: A manageable aerial agriculture hazard. Research AR-2011-028*

Australian Government, Australian Transport Safety Bureau, 2006, *Wire-strike accidents in general aviation: Data analysis 1994 to 2004 (Re-released September).* Research and Analysis Report – B2005/0055

Gibb, R., Scharff, L. and Gray, R., 2010. *Aviation Visual Perception: Research, Misperception and Mishaps (Ashgate studies in human factors for flight operations)*. Ashgate Publishing Group.

Szczecinski, Dr G. Cable, (date unknown), *Aviation Medicine for Aircrew.* Royal Australian Air Force Institute of Aviation Medicine.

Veillette, P., 2015. Wire wary: what you don't see can kill, and does. *Business and commercial aviation*.

Submissions

Under Part 4, Division 2 (Investigation Reports), Section 26 of the Transport Safety Investigation Act 2003 (the Act), the ATSB may provide a draft report, on a confidential basis, to any person whom the ATSB considers appropriate. Section 26 (1) (a) of the Act allows a person receiving a draft report to make submissions to the ATSB about the draft report.

A draft of this report was provided to the owner of the helicopter, the property owner, the helicopter loader and the Civil Aviation Safety Authority. Submissions from those parties were reviewed and, where considered appropriate, the text of the report was amended accordingly.

Australian Transport Safety Bureau

The 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; 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.

Purpose of safety investigations

The object of a safety investigation is to identify and reduce safety-related risk. ATSB investigations determine and communicate the 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.

Developing safety action

Central to the ATSB's investigation of transport safety matters is the early identification of safety issues in the transport environment. The ATSB prefers to encourage the relevant organisation(s) to initiate proactive safety action that addresses safety issues. Nevertheless, the ATSB may use its power to make a formal safety recommendation either during or at the end of an investigation, depending on the level of risk associated with a safety issue and the extent of corrective action undertaken by the relevant organisation.

When safety recommendations are issued, they focus on clearly describing the safety issue of concern, rather than providing instructions or opinions on a preferred method of corrective action. As with equivalent overseas organisations, the ATSB has no power to enforce the implementation of its recommendations. It is a matter for the body to which an ATSB recommendation is directed to assess the costs and benefits of any particular means of addressing a safety issue.

When the ATSB issues a safety recommendation to a person, organisation or agency, they must provide a written response within 90 days. That response must indicate whether they accept the recommendation, any reasons for not accepting part or all of the recommendation, and details of any proposed safety action to give effect to the recommendation.

The ATSB can also issue safety advisory notices suggesting that an organisation or an industry sector consider a safety issue and take action where it believes it appropriate. There is no requirement for a formal response to an advisory notice, although the ATSB will publish any response it receives.

Australian Transport Safety Bureau

Enquiries 1800 020 616
Notifications 1800 011 034
REPCON 1800 011 034
Web www.atsb.gov.au
Twitter @ATSBinfo
Email atsbinfo@atsb.gov.au
Facebook atsbgovau

Investigation

ATSB Transport Safety Report
Aviation Occurrence Investigation
Wirestrike and collision with terrain involving Bell 206B helicopter, VH-WHU, near Carmila, Queensland on 25 March 2016

AO-2016-027
Final – 26 June 2017