

IN THE CORONERS COURT OF THE NORTHERN TERRITORY

Rel No: D0134/2023

Promis No: 10383218

**CORONERS FINDINGS**

*Section 34 of the Coroners Act 1993*

I, Elisabeth Armitage, Coroner, having investigated the death of **ROGER NOWLAND** and without holding an inquest, find that the identity of the deceased was **Roger Nowland**, born on **21 March 1958** and that his **death occurred on 27 June 2023, at Limbunya Station, 135 km northwest of Kalkarindji in the Northern Territory.**

**Cause of death:**

- 1(a) Disease or condition leading directly to death: **Multiple blunt force injuries**
- 1(b) Morbid conditions giving rise to the above cause: **Reported helicopter crash (pilot)**

Following an autopsy on 30 June 2023, Forensic Pathologist, Dr John Rutherford commented:

Circumstances surrounding death

I learned that the decedent was a 65-year -old male who was the pilot of a helicopter (Robinson R22) that crashed at Limbunya station, approximately 135 km northwest of Kalkarindji in the Northern Territory of Australia. The cause of the crash was under investigation by appropriate authorities. The time of death was recorded as 12:33 hours on 27/06/2023. The time that he was last known to be alive was recorded as the same.

Comments

1. There were multiple blunt force injuries involving the head, chest, abdomen, pelvis and limbs and corresponding internal organs.
2. There was moderately well advanced decomposition.
3. Within the limits imposed by decomposition, there was no evidence of any natural disease that might have caused death or impaired the decedent's ability to control the aircraft.
4. In my view, there was no convincing evidence of any toxicology substance that might have caused death, contributed to death, or resulted in ability to perform the normal functions of a pilot.

Limitations of the autopsy

Extensive decomposition limiting the quality of the observations.

Past medical history

No details of any past medical history were recorded.

### Specimens were taken for toxicological analysis:

Results: Forensic Science Case Number: 2303260

Preserved blood (unspecified site) Alcohol 0.078%

Vitreous humour Alcohol not detected

Unpreserved blood (unspecified site) Carboxyhaemoglobin 11%

No other drugs listed in the scope of analysis were detected in the preserved blood (unspecified site).

Microbial activity can result in post-mortem alcohol production.

### **Police investigation:**

A coronial investigation by police found no suspicious circumstances surrounding this death.

### **NTWS investigation:**

An investigation by Northern Territory WorkSafe remains active.

### **Background:**

Roger Nowland was born at Albury, New South Wales to Heather Enid and Wesley Thomas Nowland. He had two siblings, Debi Leah Keenan and Sandra Janine Nowland-Foreman.

As a child, Roger was shy, intelligent, curious and loved to explore. He grew up in rural NSW living in a school residence on school grounds. Heather and Wesley were the Primary and Infants school teachers at the small two teacher country school of Eurongilly and they set educational expectations for their children. Junee was that nearest town and that is where Roger went to High school.

Roger graduated from the University of New South Wales with a Bachelor of Surveying.

Roger married Fiona Elizabeth and they had two children, Katherine Helena and Robert William. The couple later divorced.

At the time of his death, he was in a de facto relationship with Sally Dowdell.

A memorial plaque for Roger has been installed at the Kimberly Helicopter Pilot Museum in Halls Creek, Western Australia, which reads as follows:

*"Roger loved family, life, fitness, adventure, nature, bushcraft, photography, reading, writing, poetry, a good steak, a swag and big skies and was a passionate advocate of Holistic Management, Low Stress Stockhandling and mentoring younger pilots. His one detest was cats in the bush. He accumulated over 15,000 hours in his impressive 38 year flying career in a variety of roles and machines across Australia (over 14,000 helicopter hours) and commenced helicopter mustering in the Kimberley in 1986. The Kimberley was his soul country and mustering in a R22 his favourite job. He was highly values driven and took a 'glass half full' approach to life, always leaving a positive impact on all he met; a genuine, loving and humble, bush gentleman".*

Sally provided the following further detailed information concerning Roger's flying career and requested that it be included in these findings:

*Please note, all of this information has been obtained directly from Roger's most current resume he updated in 2022.*

*Roger's flying career commenced in 1985 after obtaining his commercial fixed wing licence and low-level fixed wing mustering endorsement. After sending letters to a large number of potential employers all over Australia; he finally secured a flying position with Standbroke Pastoral Company on Rocklands Station near Camooweal, Queensland, as a fixed wing low-level aerial stock mustering and general station pilot. His other main role on Rocklands was to manage the station store and its bookkeeping for a large forty employee operation.*

*Roger commenced mustering and his Kimberley flying career with Fitzroy Helicopters, Derby, Western Australia in 1986 until 1994 with then Owner/Manager, Peter Leutenegger based primarily at Liveringa Station. He started off flying a fixed wing Cessna 172 aircraft for low-level aerial stock mustering across the Kimberley and Pilbara regions of Western Australia. He also performed aerial surveying and filming and general charter work. It was his exposure to helicopter flying and its use for stock mustering whilst working for Peter that he then decided to eagerly pursue and achieve his commercial helicopter licence in 1986 followed by a low-level helicopter mustering endorsement in 1988. He then moved onto the Hughes 300 helicopter machine for low-level aerial stock mustering work.*

*It was also during this period that Roger obtained substantial helicopter flying experience as part of the National, States and Northern Territory Governments and pastoral industry partnership; Brucellosis and Tuberculosis Eradication Campaign (known as BTEC) which commenced in 1970 and operated over a twenty seven year period across the pastoral regions of Australia, primarily across the north. This program was integral to the sustainability of the pastoral industry which was under threat at the time of export trade restrictions by several overseas countries. Unprecedented amounts of helicopter flying was undertaken during this period as all pastoral property cattle herds were required to be mustered and formally tested by Government accredited Stock Inspectors (known colloquially as 'Stockies') and Vets for the diseases with the culling of infected animals. Furthermore, the demand for helicopter mustering grew as herds that did contain infected cattle were required to be quarantined and tested at six-month intervals and were only cleared free of infection after three consecutive negative tests at six-month intervals, followed by a final negative test after three years. In addition to this, destocking of known infected areas and very 'remote' areas (where 'feral' cattle roamed in extensive and often rugged rangelands) was also undertaken by Stock Inspectors shooting from helicopters.*

*Roger took to helicopter flying, and mustering in particular, naturally and passionately and quickly became highly competent at the task and he was known to be a diligent, reliable, responsible and trustworthy pilot, as quoted by Peter Leutenegger:*

*"...He was very keen and dedicated. He became an excellent helicopter mustering pilot. Well respected by our clients. A good safe pilot who everyone liked. Stockies liked flying with him and station owners/managers were impressed with his stock handling and flying ability.*

*One of the many good things about Roger was he was always available. I was happy to leave Roger looking after my business when I was away in the wet knowing that he would do everything he could but wouldn't bite of more than he could chew and would ring me and ask for advice..."*

*Roger's sling load flying work commenced in 1996 with his employment as Chief Pilot with Helicopter Aerial Surveys in Sydney, New South Wales. This role also involved significant administrative work reviewing and re-establishing various systems and procedures within the company office.*

*From 1997, Roger undertook various, highly skilled helicopter pilot roles for several companies in the Snowy Mountains, New South Wales. His work involved: long line sling loads, hunting, baiting, mapping, photography, bushfire control work, flood relief, as well as ferrying maintenance crews and supplies for the Snowy Mountains Hydro-Electric Authority and National Parks, powerline inspection and transmission surveying and VIP executive tours of the Snowy Hydro Scheme.*

*From 1999, Roger was employed by Helicopters Australia in Perth, Western Australia undertaking geological survey and bushfire control work and later as Pilbara Base Manager in Dampier, Western Australia where he both supervised marine pilots and also piloted himself performing day and night Instrument Flight Rules (IFR) flying transferring crew to offshore oil rigs.*

*From 2002, Roger worked as a contract pilot in various notable roles including continuing the marine pilot transfer work in the Pilbara, Western Australia with Jayrow Helicopters and Helicopters Australia and mineral exploration. He also returned to low-level aerial mustering and station pilot work in the Kimberley, Western Australia with various companies including previous employer, Fitzroy Helicopters.*

*It was during this era of contract mustering work that Roger successfully conducted a single-handed rescue mission at Myroodah Crossing on the crocodile infested Fitzroy River, 120km south-east of Derby, West Kimberley. As recited by Craig Dunster, Civil Engineer working for the Shire of Derby/West Kimberley at the time:*

*During January 2004, Roger was mustering on nearby Myroodah Station close to the Fitzroy River when, with his 'eagle eye', observed a distressing scene where couple Graham Francis (Earthworks Contractor Manager) and his wife, from Derby, were stranded atop their Landcruiser 4wd rooftop in a fast flowing, flooded river downstream from Myroodah Crossing. After having visited their roadcrew working on the Millijiddee Road, they got into trouble whilst attempting to drive over the river crossing having miscalculated the expected time in rising river heights from recent heavy rainfall upstream they were hit by a wall of water that pummelled their vehicle sideways, out of control off the crossing. Fortunately, the vehicle windows were down and they were able to climb out onto the rooftop and hold on. It was purely by chance that Roger was in the air at the time and saw the scene unfolding. He immediately abandoned the muster and headed straight across in full rescue mode without hesitation. His years of accumulated 'bush' flying experience and exceptional level of skill made him more than qualified to undertake such a dangerous rescue mission. With pinpoint accuracy Roger placed the helicopter skid onto the roof of the vehicle, pinning it into a more stable and controlled position in the turbulent flood waters to facilitate the success of the rescue operation. The first person rescued was Graham's wife who was able to climb up the skid, into the helicopter and be flown to the safety of the riverbank. Graham's rescue however was not so simple, weighing in at 120kgs, he did not have the physical capability to climb up the skid into the helicopter. So his only option was to sit atop the skid hanging on for dear life while Roger flew him to the safety of the riverbank nearby to his wife. Once safe and sound, the couple then realised just how lucky they were with the rescue timing and their survival as they watched their vehicle get washed away downstream.*

*Roger apparently later received an act of bravery acknowledgment from the then Mayor of Broome, West Kimberley, Western Australia. Not many people know about this story as Roger wasn't the type of person to 'big note' himself, but it definitely demonstrates Roger's true nature, amazing high level bush pilot skills and his 'no qualms' mindset and composure in a high pressure situation.*

*From 2005, Roger's contract pilot work commenced with Channel 7 Melbourne, and the Australian Traffic Network Essendon, Melbourne, Victoria where he was employed as a news and traffic report pilot performing day and IFR night flights. He remained in their employ for over ten years and was a highly regarded pilot professionally and personally as this testament from Phi Loschiavo, Chief Cameraman for Channel 7 Melbourne at the time, passionately depicts:*

*"Roger Nowland, a pilot unlike any other, was not just a master of the skies; he was a man of kindness and friendship that illuminated the lives of everyone fortunate enough to fly with him.*

*As a television camera pilot, Roger's talents were nothing short of extraordinary. With the gentle touch of a maestro, he skilfully maneuvered the Squirrel, effortlessly capturing the most breathtaking aerial shots for our TV screens. Whether it was a majestic landscape, or a stressful bush fire transmitted live to air Roger's keen eye and steady hand helped the cameraman obtain masterpieces and fast breaking news like no other.*

*Beyond his exceptional expertise, it was Roger's warm and friendly demeanour that made him truly stand out among his peers. He possessed a genuine charm that made him approachable to all, and he never hesitated to share his knowledge and experiences with others, inspiring a new generation of pilots to take flight. Roger's passion for aviation was contagious, igniting fire within those he mentored and leaving an indelible mark on young up and coming cameramen.*

*But it wasn't just in the skies or behind the collective where Roger shone brightly. His kindness knew no bounds, and his heart was as vast as the horizon he loved to explore. He lent a listening ear to those in need, offered a helping hand without hesitation, and filled our lives with joy through his infectious laughter and warm smile. To know Roger was to experience the epitome of compassion and camaraderie."*

*From 2015 Roger returned to the Kimberley and Pilbara, Western Australia to contract fly predominantly low-level aerial stock mustering and station pilot work and also feral animal culling control work for several companies including long-term casual employers, Fitzroy Helicopters and Yeeda Pastoral Company. Roger was highly respected within the pastoral industry by fellow mustering pilot colleagues, station Managers and station work crews alike. Roger could relate to everyone. He enjoyed taking the time to mentor younger and less experienced pilots and was always keen to share his years of knowledge and expertise and provide support and encouragement. Roger was very passionate about demonstrating Low Stress Stockhandling (LSS) practices having learnt the fundamentals from his mentor and LSS Founder, American, Bud Williams at a Kimberley workshop. Due to Roger's LSS flying approach, extensive experience, and his respectful and courteous nature, he had acquired the reputation for being a frequently requested pilot by station Managers for mustering jobs. Roger's other major passion within this industry was educating station Managers and crew about Holistic Management (HM); this being a whole life and land decision making and resource management methodology and tool that he learnt from another significant mentor, HM Founder, Zimbabwean, Allan Savory. Roger continually personally practiced and engaged with the national and international HM community and also attended training and workshops for over thirty years.*

*Dan Elliot, Owner/Manager of Fitzroy Helicopters recounts the following:*

*" I had the privilege of flying alongside Roge for 10 years, from mustering, flood work and the odd sneaky fishing trip, he worked for us on and off over this time and would always pick up the phone if we called for a hand. I can not begin to explain how generous and caring Roge was to us all. Roger came in to our life at a tuff time, we had just lost a Husband, Father and Best Mate Justin "Juddy' McDonald. Any person who was coming to take Juddys flying position could have made an awkward rest of season for us involved to say the least, But Roge was nothing but professional caring and supportive to us all.....Rogers experience as a pilot was second to none, he would compliment any operators line of pilots he was involved in, He would go out of his way to help young pilots and give experienced ones his best opinions. His caring nature, passion of flying and his knowledge of the country was remarkable. Roger's influence has made each and everyone of us a better person wether we know it or not. His legacy will be forever remembered and never beaten..."*

*Roger undertook seasonal contract mustering work for the prominent Kimberley pastoral family, Jack and Vicki Burton at Yeeda Pastoral Company on their numerous properties in the west and central Kimberley over many years. They both recount from those times:*

*Vicki Burton*

*"...Roger became a good friend. He flew in and out of our lives over the years and the next time we all crossed paths was at Yeeda, not long after we bought the station. Roger was mustering for us over many years following. One thing was for sure, we loved his company. There's always a great yarn and catch up on the Kimberley. He was always so positive about where he had been and never had a bad word about anybody. He was a true gentleman..."*

*Jack Burton*

*"...Roger was a true role model for me (Jack) as I started to fly. I genuinely looked up to him and he was a true mentor to me over the years. Flying every type of machine that could get off the ground and covering every inch of the Kimberley, Roger was a bloody legend. He was never much of a yapper when we mustered together, hundreds of times and was always the quiet achiever....that was UNTIL you mentioned Holistic Management or Savory Grazing then he would unload, not shutting up for hours (except to fuel up)!!..."*

*From 2016, Roger was employed as the Senior Line Pilot with KAS Helicopters, Derby, Western Australia for over four years in a variety of highly reputable roles flying a mix of turbine and piston machines in tourism, wildlife conservation, mining, bushfire control, floodwork, mustering, general charter, culling, surveying, photography and sling loading (a notable job at that time was slinging a crashed light aircraft from the remote, largely inhabitable Simpson Desert in central Australia to Alice Springs, Northern Territory). As a result of Roger's extensive flying experience, in depth knowledge of the Kimberley landscape, curiosity, genuine interest and sensitivity of cultural heritage, nature and wildlife; combined with his professional, likeable and courteous personality and willingness to be of assistance at all times (not just confined to the role of 'pilot'); he proved to be very popular and reputable and was frequently requested as the pilot for certain jobs by organisations such as Indigenous Ranger Groups and the Australian Wildlife Conservancy (AWC).*

*Braden Riles from AWC recalls Roger's in depth knowledge of the West Kimberley landscape and photographic memory:*

*"Roger made many a journey to Kimbolton (Yampi) over the years, beginning I believe with what he recounted as the "Donkey days" in the late 80's/early 90's. Having flown at low level all the nooks and crannies of the vast flats and rugged ranges of the Yampi savannah during that time and since, Rog probably knew its stories better than most white fellas. Stories he'd tell, and small bits of magic hidden in the countryside he'd keenly reveal as we'd fly by. From waterfalls, gorges and overhangs to delicately poised boulders, gnarly boabs and resident critters..."*

*From 2021, Roger resided near Holbrook, New South Wales and undertook casual contract pilot work for Heli Surveys at Jindabyne, New South Wales in the Snowy Mountains region. During the time Roger resided down south in 2022, he was also highly sought after for casual contract employment by his old employer KAS Helicopters in Derby, Western Australia, primarily for aerial culling contract work and he also commenced some casual flying for Top End Mustering in Kununurra, Western Australia. Both companies were very obliging to pay for Roger's interstate travel expenses, indicative of their desire to utilise his highly reputable and respected flying skills, experience and extensive knowledge of remote northern Western Australia. His casual contract jobs with Top End Mustering during this time later secured him a seasonal contract job undertaking primarily low-level aerial mustering work based in Kununurra, Western Australia from March 2023.*

### Summary of experience of Roger Nowland:

#### Helicopter

- Hughes 269C: 3,497.7 hours
- Robinson R22: 3,205.5 hours
- Bell 206L: 1,164.5 hours

- Bell 206: 1,050.7 hours
- Aerospatiale 350: 3,044.0 hours
- Hughes 500: 263.5 hours
- Robinson R44: 1,678.3 hours
- Bell 47G: 4.5 hours

Total: 13,906.5 hours (363.1 hours - night) (363.0 hours sling loading)

Fixed Wing - Total: 2,522.8 hours

Professional Qualifications of Roger Nowland:

- Night VFR - Helicopters - July 1999
- Low-Level Aerial Stock Mustering Approval - Helicopters - 1988
- Commercial Pilot's Licence - Helicopters - 1986
- Low-Level Aerial Stock Mustering Approval - Fixed Wing - 1985
- Commercial Pilot's Licence - Fixed Wing - 1985
- Private Pilot's Licence - Fixed Wing - 1983
- HR truck licence - 1990

His experience date as far back as 1986 in Derby Western Australia through to April 2021 – to his death 27 June 2023. Casual contract pilot, Heli Surveys Jindabyne NSW, KAS Helicopters Derby, Top-End Mustering Kununurra.

CASA Aviation Medicals for Roger Nowland:

AUS Class 1 Medical Certificate valid to: 16 November 2023 AUS Class 2 Medical Certificate valid to: 16 November 2024

**Circumstances:**

Roger and Sally were residing in Kununurra Western Australia for the muster season.

On 27 June 2023 at around 5.45am Western Australian time, Roger and Oliver “Ollie” Smith, took off to conduct mustering work on the 1.4 million acres Limbunya Station,

According to Ollie:

*“Um, yeah mate I, I, yeah we were mustering, um, yeah clearly me and Roger were doing a double. Um, yeah we’d made our way primarily through a lot of the paddock. Um, Roger came over here, started to coach a mob up, um they got walking um and then we proceeded to muster. Um, yeah, Roger wasn’t overly talkative but you talk on the radio a bit, but it might’ve been, you know, 5 or 10 minutes from when I’d talked to him last and then, yeah tried to call him just to see how he was going and never got a reply. Um, so then I came back, after a couple of minutes I thought it was a bit odd ‘cause you can clearly always hear and respond. And anyway, and then I tried him on the UHF, didn’t get him a few times, came looking and then I, I flew back to the fuel thinking he might’ve been on the ground and unplugged but he wasn’t. Um, then I proceeded to call Clancy and see if he’d heard him flying around, which he hadn’t. Um, yeah so then it was about 15 or 20 minutes I was looking for him, roughly. Um, yeah, started gridding the paddock out, looking where he should’ve been, and yeah, after a bit, bloody found him where he was. Um, I landed twice on the edge of this wattle and every time I’d run in I couldn’t find him.”*

At 10.15am after receiving no response over the VHF radio. Ollie conducted a search. He located the wreckage in the scrub about 15-20 minutes later. Roger was unresponsive and mechanically restrained within the cockpit.

## **Location of death:**

Limbunya Station. Buchanan, Northern Territory.

Coordinates: 17°22'47.7"S 130°06'24.1"E4 approximately 650km south west of Katherine, 100km from the Western Australian border, Limbunya Station is North Star Pastoral's largest property at 520,000 hectares. Limbunya sits in the Victoria River Region.

The crash was reported at 12.33pm by Jesse Warriner to Joint Rescue Co-ordinations Centre, Canberra.

The aircraft was a 2008 Robinson R22 Helicopter.

Roger was the holder of an Australian Flight Crew Licence, commercial pilot licence (Aeroplane), commercial pilots licence (Helicopter). Aviation Reference Number 171257.

## **ATSB Investigation:**

The ATSB investigated the crash and produced the following findings.

### **AO-2023-031 Final 8 November 2024:**

#### **Safety Analysis**

##### Introduction

On the morning of 27 June 2023, 2 Robinson Helicopter Company R22 helicopters were conducting mustering operations near Limbunya Station, Northern Territory, in conjunction with a ground team on horseback and motorcycles. When the pilot of the second helicopter (VH-RCS) had not heard from the pilot of VH-PSC for some time, they commenced a search and located the accident site after about 15-20 minutes. The helicopter was destroyed, and the pilot was fatally injured.

There were no witnesses and no recorded data to accurately determine the accident sequence, including the time of the accident.

This analysis will discuss the potential reasons for engine power reduction and loss of control. It also considers some aspects associated with the maintenance release.

##### Occurrence Events

###### *Engine power reduction*

The wreckage signatures were consistent with the main rotor being in a low energy state. Given this, the ATSB considered how much engine power was being produced at the time of the accident.

Examination of components identified some minor scoring to the drive train belt-tensioning clutch actuator body, consistent with contact with the upper sheave. The corresponding location on the sheave exhibited some minor discolouration from actuator body material deposits that had begun to corrode. While scoring would normally indicate engine rotation at impact, in this instance, the sheave discolouration extended only a quarter to one third of the circumference. This limited scoring may be more representative of a low-energy main rotor blade being forced backward to the direction of rotation at impact with the ground, rather than engine rotation. However, the non-rotational damage to the fanwheel was consistent with the engine not operating at the time of impact.

The ATSB considered the potential reasons for the reduction in engine power, which can be broadly categorised as:

- engine and associated systems defect

- fuel contamination or starvation
- carburettor ice
- pilot-induced (intentional).

Examination of the engine and associated systems did not identify a fault or condition, which would have prevented normal operation. Nor was any issue found with the fuel quantity or quality. While an intermittent interruption to normal operation could not be completely discounted, there was no observable evidence to indicate this may have occurred.

The meteorological conditions at the nearest Bureau of Meteorology weather station, 144 km away, were on the edge of the 'serious icing - descent power' and 'moderate icing - cruise power' envelopes for carburettor icing. However, the pilot of the other R22 operating in the accident area, reported that local conditions did not require the use of carburettor heat and they did not observe any indications of the formation of carburettor ice.

The ATSB considered the possibility that the pilot intentionally reduced the throttle as part of a quick descent. Inadvertent engine stoppage could occur from the throttle being reduced too quickly, which may have occurred at a height too low to perform a successful engine off landing (autorotation) to clear ground. In addition, the collision with terrain in a nose and right-side low orientation could also be indicative of a quick descent manoeuvre, from which recovery did not occur. Alternatively, as noted by the manufacturer, if the engine was in a low-power state when the main rotor blades impacted the tree and ground, it was possible that this impact stopped the engine.

#### *Loss of control*

The ATSB considered other loss of control events that may have preceded the nose and right-side down trajectory through a tree and then the subsequent collision with terrain.

There were no indications of a collision with a bird or other object, such as a wirestrike. Based on the witness observations, there was no evidence to suggest that the weather conditions affected the pilot's ability to maintain control of the helicopter. As discussed above, there was no observable issue identified with the helicopter nor was there any indication of mast bumping.

While it was possible that a loose object in the cabin interfered with the pilot's flight controls, the disruption to the cabin area precluded identifying any evidence of this. Regardless, this scenario did not account for the low rotor energy (engine not driving the rotor system).

While distractions can occur unexpectedly, the other R22 was not operating in the immediate area to distract the pilot. The engine reduction (if not intentional) could have potentially been a distraction and required the pilot to conduct an autorotation. However, ATSB research has shown that distraction events most often result in an incident rather than accident (ATSB, 2006).

A reduction in engine power, whether operating at low or idle power, or in the event of a complete engine stoppage, requires prompt and effective management of main rotor RPM, above 97%, in order to conduct a successful autorotation. In this instance, the trajectory and orientation of the helicopter was not consistent with what would be expected if the helicopter was being flared, to reduce the rate of descent prior to touching down during a controlled autorotation.

#### Conclusions

The site and wreckage signatures were consistent with an engine power reduction and loss of control. Further, it could not be determined if the engine was producing low power, or was stopped, and if this was due to an engine issue (unobserved from the wreckage examination) or pilot induced. The pilot was highly experienced in low-level helicopter operations and demonstrated their capability to an instructor during simulated emergency procedures about 3

months prior. However, as there was no recorded data available or witnesses to the final stages of the flight, the pilot's actions leading up to the accident were unknown.

Without conclusive reasons to explain the accident sequence, the ATSB also considered if it was possible that the pilot experienced some level of incapacitation before (resulting in inadvertent throttle manipulation), or after the reduction in engine power. Incapacitation could also explain the low rotor energy and/or helicopter trajectory into terrain. The absence of a radio transmission, in the event of an autorotation, could be suggestive of an incapacitation event, but could also indicate a sudden event that the pilot did not have time to transmit.

Despite this, a comprehensive review of the pilot's medical history and general health did not identify any pre-existing or other condition that could have adversely affected their performance. The post-mortem did not identify the presence of any natural disease, however, the pathologist reported limitations due to decomposition, including the elevated carboxyhaemoglobin results. Further, analysis of the flight control injuries was inconclusive. Although the ATSB's aviation medical specialist advised that some causes of death or incapacitation were not always able to be identified post-mortem, incapacitation remained only a possibility as there was insufficient evidence to conclude probability.

Therefore, due to the limited evidence available, the ATSB was unable to determine the reason for the engine power reduction and loss of control, nor the sequence of these events.

#### Maintenance release no longer in force

The current maintenance release, located at the accident site, had no endorsements showing daily inspections, hours flown each day, calculation of accumulated time-in-service or certification for completion of scheduled maintenance.

The pilot's diary indicated they had operated VH-PSC every day since the maintenance release was issued (13 days prior to the accident). Text messages between the pilot and operator indicated that the required 25-hour engine oil and filter change had been completed, despite not being certified for on the maintenance release. Without a record of the accumulated total time-in-service, the ATSB could not determine if the 50-hour oil and filter change had come due, nor if it had been completed.

In this instance, as the pilot was the sole operator of the helicopter, the absence of endorsements did not hinder other pilots from being aware of the serviceability status. However, the maintenance release is a legal document that is part of the ongoing airworthiness requirements for the helicopter. The lack of certification for the completion of maintenance did not contribute to the accident, however, the helicopter was being operated with a maintenance release that had ceased to be in force and was therefore considered unairworthy.

#### **Findings**

*ATSB investigation report findings focus on safety factors (that is, events and conditions that increase risk). Safety factors include 'contributing factors' and 'other factors that increased risk' (that is, factors that did not meet the definition of a contributing factor for this occurrence but were still considered important to include in the report for the purpose of increasing awareness and enhancing safety). In addition 'other findings' may be included to provide important information about topics other than safety factors.*

*These findings should not be read as apportioning blame or liability to any particular organisation or individual.*

From the evidence available, the following findings are made with respect to the collision with terrain involving a Robinson R22 Beta II, VH-PSC, near Limbunya Station, Northern Territory, on 27 June 2023.

### Contributing Factors

While conducting mustering operations, for reasons that could not be determined, there was a reduction in engine power and a loss of control.

### Other findings

While not contributory to the accident, the absence of endorsements for daily inspections and nil certification for the completion of scheduled maintenance resulted in VH-PSC being operated with a maintenance release that had ceased to be in force.

## **Report for the Coronial Investigation into the death of Roger Nowland DOD 27/06/2023 prepared by John Chew received 23 July 2025:**

The Coroner's Office obtained an independent report from Mr John Chew who reported as follows:

I am a CASA appointed Flight Examiner based in Melbourne. I have been involved in aviation in the NT on a regular basis since 1995. I have 24,000 hours flying experience.

### The Pilot

The pilot was highly experienced in low-level helicopter operations and demonstrated capability to an instructor during simulated emergency procedures about 3 months prior to the accident.

The ATSB considered whether the pilot's activity in the preceding days and months may have led to them being fatigued at the time of the accident. A review of the pilot's diary indicated they had operated a helicopter for all but 19 days in the preceding 90 days, totalling over 340 hours of duty time. The diary indicated over 170 hours in the preceding 30 days and about 47 hours in the 7 days prior to the accident. The accident occurred on the 14th consecutive day of duty. However, the ATSB noted a short ferry flight on 25 June, the pilot being relieved from duty about midday on 26 June and being on duty for less than 5 hours on the day of the accident. It was possible that the months of extensive work time coupled with high workload operations had the potential to produce cumulative fatigue. However, noting the workload and opportunity for rest in the preceding days, there was insufficient evidence to establish if the pilot was likely experiencing a level of acute fatigue known to affect performance at the time of the accident.

I would think that fatigue or incapacitation may have played a large part in this accident as there seemed to be no attempt at an autorotation to cushion the landing.

### The Aircraft

The ATSB identified that the maintenance release contained no endorsements for daily inspection certification, hours flown, total time-in-service or engine oil uplift. This was despite VH-PSC being operated daily since its issue 13 days prior. A scheduled 25-hour engine oil and filter change had reportedly been conducted, however, had not been certified on the maintenance release. Further, the absence of recorded operating hours increased the risk of the helicopter having been operated beyond other scheduled maintenance requirements.

It was stated that the aircraft flew every day for 13 days after the Maintenance Release (A306459) was issued on 15/6/23.

Interestingly the previous two Maintenance Releases (A279273 and A279280) have only 2 occasions where the aircraft was flown on consecutive days over the period between 16/11/22 to 29/05/23 (194 days – 124hrs flown on the Maintenance Release). I would think that if involved in mustering operations it would have been more likely flying nearly every day as it had done for the 13 days prior to the accident.

In discussion with highly experienced helicopter pilots, that have extensive experience conducting flight reviews with mustering pilots in the North West area, it seems to be common

practice that hours flown in helicopter mustering operations are not logged to save on maintenance costs.

From talking to experienced personnel involved in the helicopter industry it is not uncommon for CASA inspectors to arrive to conduct discrete surveillance operations in the North West, and it was common knowledge that they were in town from motel bookings etc. CASA inspectors would operate in pairs as they aren't willing or allowed to operate singularly. With this heads up of surveillance operations, operating companies' paper work was tidied up to comply with CASA regulations rendering the surveillance ineffective.

These experienced personnel also related that it was common practice to only log 1 in 3 hours flown and 800 hours would sometimes be flown between 100 hourly maintenance requirements. This could explain why there were no endorsements for daily inspection certification, hours flown, total time-in-service or engine oil uplift in the Maintenance Release (A306459) for VH PSC.

This is a quote from an experienced former mustering pilot:

“Typical Day Mustering Circa 1995

Breakfast @ 4.00am. Roll my swag. Meal at fireside Airborne at 5.00am. Take Head Stockman or Manager to show me the area to be mustered. (There was not the fences and paddocks that are in place today). Drop them off at the stock camp and continue mustering. It was the norm to fly ten hours a day and leave that job to meet the next stock camp that afternoon.

We lived out of our swags, only really getting back to base for maintenance. Let's face it – the mustering season was only 8 months of the year and that was our only opportunity to earn money. We were paid by the hour.”

From the above interactions I would think that many of these practices still would exist today in the helicopter mustering industry.

### The Industry

It is interesting to compare the helicopter industry with the aerial application industry.

When compared to the aerial application industry, which has evolved over the last 30 years to stamp out nonobservance of regulatory requirements, some helicopter mustering operations have remained largely unregulated. One of the main reasons for this is the aerial application industry has been forced to comply mainly because of the high cost of capital equipment and subsequent insurance cover.

The AHIA (Australian Helicopter Industry Association) has the following objectives:

- To promote safe helicopter operations
- Maintain an open and productive working relationship with CASA
- Establish an exchange of information between Australian helicopter owners, operators, community users, pilots, engineers and other supporting industries
- Make representations to government at all levels to secure facilities, regulations and legislation for the advancement of the Australian helicopter industry
- Promote a high standard of integrity within the Australian helicopter industry
- Establish an exchange of information between the Australian helicopter industry and other aviation- oriented associations; both national and international
- Promote the development of new helicopter services to the public. Coordinate research efforts to create off airport areas for helicopter operations.

The AAAA (Aerial Application Association of Australia) policy is as follows:

*Our vision*

‘Our vision is for a safe, sustainable aerial application industry working for the good of Australia.’

*Our purpose*

‘Promote, foster, encourage and support a sustainable aerial application industry based on the professionalism of operators, pilots and staff, and the pursuit of industry best practice.’

*Our values*

- We work in the interests of our members
- We strive for continuous improvement
- We model and practise professionalism
- We respect and promote sound, tested science
- We strive for quality in our work and our industry

*Our strategic priorities*

- Safety – We promote safety through training, programs and resources.
- Environment – We promote and provide ongoing training, tools and support to help members and industry partners provide aerial application solutions that meet and exceed established environmental guidelines and practices.
- Regulation – We acknowledge the need for sensible regulation to ensure safe operations with positive community effect. We work with regulators and members to guide the development of regulation and provide training and support to implement regulation as needed.
- Image – We operate in a potentially controversial environment where the industry’s vital support of agriculture can be challenged. We provide support to members to act in a lawful safe manner, seek to resolve conflicts, and promote the aerial application industry as responsible, professional and vital.
- Value for money – We operate in a professional manner, and we provide members with high quality education, training, tools and support to build industry capacity to manage aerial application businesses in accordance with world’s best practice.

AAAA’s mission is to promote a sustainable aerial agricultural industry based on the professionalism of operators, pilots and staff and the pursuit of industry best practice. Membership of the AAAA consists of owners, operators and pilots of aerial application aircraft. There are approximately 130 active operators in Australia. AAAA has approximately 75% industry operator membership controlling over 90% of aircraft in use and is therefore representative of and qualified to speak on behalf of the aerial application industry. AAAA also represents pilot members within the industry and accounts for over 60% of all pilots working within the industry. Capital investment in the industry exceeds \$200 million. Agricultural aviation directly employs 2000 personnel comprising pilots, field staff, maintenance staff and administrators. A further 2000 people enjoy part-time employment. The industry uses more than 300 specialist aircraft with supporting vehicles and equipment, together with established aircraft maintenance facilities throughout the country.

### Recommendations:

That CASA surveillance operations be more effective in monitoring helicopter mustering operations to stamp out non-observance of regulatory requirements.

That the AHIA becomes more active in promoting a safety culture in these type of operations by adopting the values and strategic priorities of the AAAA.

### **Further consultation:**

Following the receipt of Mr Chew's report, CASA, the ATSB, AHIA, Mr Nowland's next of kin and NT Police were contacted and provided an opportunity to respond, to provide further evidence or to comment.

**The NT Police** agreed with the recommendations in Mr Chew's report.

**The ATSB** made no comment on Mr Chew's report and drew the Coroner's attention to the safety messages in the ATSB report.

**CASA** responded and explained its regulatory oversight, surveillance and enforcement functions. Concerning Mr Chew's report CASA considered it should be given less weight than the ATSB report because Mr Chew's opinion "appears to be based on anecdotal claims and the only quoted information provided in his report appears to date back to events in 1995."

Ultimately CASA submitted:

#### Proposed recommendations

Regarding the proposed recommendation to the Australian Helicopter Industry Association (AHIA), we consider that is best addressed to that organisation for input. As presently framed, it appears founded on the premise that the AHIA is not actively promoting a safety culture for helicopter mustering operations and seeks for it to adopt the values of another industry body, the Aerial Application Association of Australia. However, that does not appear to be reflected in a comparison of the available safety data as referred to above.

As regards the proposed recommendation directed to CASA, a concern is that the current wording implies that the pilot was non-compliant with his regulatory responsibilities, that there is widespread non-observance of regulatory requirements in the helicopter mustering industry and that CASA surveillance operations are not effective. These implications are not, with respect, evident from the ATSB investigation report and are not otherwise established.

Noting the intended purpose, utility, public profile and learnings from the coronial process and recommendations, CASA does not seek to argue against the making of a recommendation but suggests it instead be framed in the following terms:

*1. That CASA engage more effectively with helicopter mustering operations to support observance of regulatory requirements and improved safety culture*

A recommendation made in the above terms would serve to emphasise CASA's commitment to work to improve safety outcomes in the helicopter mustering industry.

#### Conclusion

Neither the deceased pilot or the operator were subject to enforcement action and were not identified as presenting an aviation safety risk. While the circumstances of the accident are tragic, it is with respect not possible to attribute the accident to any identified regulatory deficiencies. For these reasons we respectfully submit that the opinion of Mr Chew should not supplant the

ATSB investigation report conclusions.

**Ms Dowdell** provided a detailed response including additional background material which has been incorporated into the Background section of these findings. In response to Mr Chew's report she commented as follows:

PAGE 7 The Pilot

*"I would think that fatigue or incapacitation may have played a large part in this accident as there seemed to be no attempt at an autorotation to cushion the landing."*

I would like to respond to the above statement by agreeing fully with this finding. I physically resided with Roger in Kununurra approximately one week prior to his death. Before that I was based on a cattle/tourist station approximately 125km from Kununurra where I was working (since the start of the mustering/tourist 'season' in late March 2023) and in mostly daily contact with Roger by phone, and also in person on several occasions when he visited my workplace to see me and on two occasions, to also undertake mustering jobs for the station Owners/Managers. I was well aware of Roger's many mustering stints in the Kimberley and the Northern Territory at Limbunya Station during that time. Personally, I have also worked in the pastoral industry periodically over a twenty year period so I have an awareness and first-hand experience of the workload required of both station ground crews and pilots during the mustering season.

In addition to fatigue or incapacitation, I would also wish to add that 'human error', whether as a result of 'fatigue' or not, could also be a contributing factor to Roger's death. I personally believe that despite the years of experience and high level skill one has for a particular career or job, at the 'end of the day' we are all 'human' and therefore can be prone to making mistakes (big or small; life threatening or not). My belief is that this will always be a 'factor' despite improvement to systems, procedures and processes and frequent regulatory audits, licensing and medical checks etc.

PAGE 7 The Aircraft

*"Interestingly the previous two Maintenance Releases (A279273 and A279280) have only 2 occasions where the aircraft was flown on consecutive days over the period between 16/11/22 to 29/05/23 (194days – 124hrs flown on the Maintenance Release). I would think that if involved in mustering operations it would have been more likely flying nearly every day as it had done for the 13 days prior to the accident".*

In relation to the above paragraph, I note that for the majority of the period of the two previous Maintenance Releases (16/11/22 - 29/05/23) was the 'non mustering season' in the Kimberley and NT (with five months being classed as the 'Wet' season from 1st December to 30 April) and in my opinion it would not be uncommon that this machine was not flown nearly every day during that time period. Typically, the 'mustering season' commences during April or more commonly May, all dependent on the type of Wet season endured and consequent accessibility issues that would impact the undertaking and completion of necessary station tasks required in readiness 'pre-mustering'.

*"In discussion with highly experienced helicopter pilots that, have extensive experience conducting flight reviews with mustering pilots in the North West area, it seems to be common practice that hours flown in helicopter mustering operations are not logged to save on maintenance costs."*

*"From talking to experienced personnel involved in the helicopter industry it is not uncommon for CASA inspectors to arrive to conduct discrete surveillance operations in the North West,.....With this heads up of surveillance operations, operating companies' paper work was tidied up to comply with CASA regulations rendering the surveillance ineffective."*

In relation to the above two paragraphs, I have heard of these practices and scenarios with the arrival of CASA inspectors 'in town' before. However, I believe that this is no longer a common practice in this era with the majority of Operators compared to past times, nor applicable in this case with the Operator Roger worked for.

#### PAGE 8 & 9 The Industry

It was insightful to be informed about the Australian Helicopter Industry Association (AHIA) and the Aerial Application Association of Australia (AAAA). From reading the information presented in this report and viewing their websites, there does appear to be several differences between them. The AHIA being a broad representative body for all sectors of the Australian helicopter industry. The AAAA is obviously 'sector specific' to all types of aerial application and appears to have a proactive approach built upon a highly values driven foundation and clearly defined vision, purpose and strategic priorities. They are a national advocacy group that has been operating since 1958 and have a very strong membership base which is indicative in itself of the group's reputation, relationships, representation relevance and voice for their specific sector. The group also seems to provide substantial information, resources, training and support to its members in various ways via; events, online and in-person courses, regular newsletters, best practice guides, policy sheets, fact sheets and accredited tailored programs for small business operations and management systems. It is interesting to discover that there doesn't seem to appear to be an industry sector specific association like the AAAA for aerial mustering.

#### PAGE 9 Recommendations

*"That CASA surveillance operations be more effective in monitoring helicopter mustering operations to stamp out nonobservance of regulatory requirements."*

*"That the AHIA becomes more active in promoting a safety culture in these type of operations by adopting the values and strategic priorities of the AAAA."*

Further to the recommendations implying changes be made by outside organisations, perhaps another approach that may be effective with organisational cultural shifts can be considered and implemented from within the Operator's business.

An example of this holistic style management approach has already been implemented by Doug McBean, Director NT Heli-Ops (who also trade as North Horizon Heli Adventures) in Katherine, Northern Territory. Doug has been a helicopter mustering pilot for over thirty years and grew up on pastoral properties in the Northern Territory. I believe he has much knowledge and expertise to share from his extensive first-hand experience in the pastoral industry over the years and from many different, but all interrelated viewpoints - as a stockman, station manager, mustering pilot and helicopter Operator Director (to name a few). Roger and I came across Doug's unique and progressive style of management whilst he was being interviewed by Stephanie Coombs on the Central Station Podcast, Episode 76 titled, 'What I've learnt from 30 years in a helicopter'. I remember Roger being distinctly impressed with what Doug had to say and the benefits he was seeing in his business with this different approach.

Doug believes in being 'proactive', not 'reactive', with his operations in the aerial mustering industry with one of his drivers being to create a 'business family' not a 'family business'. He is

passionate about personal development and, having been on this journey himself for some time and observed the benefits, he now employs the services of a reputable personal development and wellness consulting business to conduct workshops for all of his staff and their life partners to attend. He believes that a mustering operation business is not just about the technical and regulatory requirements and competencies and the stock handling skills but that also, in addition, a major component is investing in employee personal wellbeing and development. Having a sound understanding and awareness of animal behaviour and effective stock handling skills is essential criteria for a mustering pilot however; a sound self-awareness and understanding of human behaviour, emotions, people handling skills and communication is also integral to being an effective mustering pilot and equally, is also applicable to all employees including management staff of the business Operation.

He further explains that incorporating wellbeing personal development training for all staff in his Operations have benefits that are not just limited to the 'workplace' but also further afield in the home and social environments as well as they are all interconnected, hence also the inclusion of the staff's life partners to also be a part of the training journey and 'business family'. It is truly 'holistic' and about consciously showing up to be the best version of oneself possible each day in every situation and environment. Doug believes that this self-awareness education has many positive impacts especially relating to better decision making choices and management of reactive situations and behaviours which results in less negative emotions, conflict, stress, fatigue and ego dominated attitudes and actions in the workplace (and at home and elsewhere) and directly relates to effective and positive communication, performance and safety outcomes in the workplace (and elsewhere also). Such benefits automatically build the foundation for a good work and home environment and culture and Doug has seen firsthand within his own business operations that; he has a more values aligned team, staff retention has increased, staff turnover has decreased, sick leave has decreased, and more effective communications valuing respect, honesty, transparency and empathy is evident. All of this also becomes a natural byproduct 'win-win' situation with excellent customer service, client interactions and ongoing relationship building.

Doug is open to having conversations about his holistic business approach with anyone or Operation who is interested and he's very keen to share his knowledge and expertise regarding the benefits of investing in the personal development of both staff, and their life partners in helping to create a more positive and inclusive workplace culture and environment. I believe that all mustering helicopter Operations could definitely benefit by chatting with Doug and consider implementing in their own way his practices.

**Mr Julian Fraser of the AHIA** responded. He considered there were inadequacies in the investigation as to fatigue, machine maintenance and the pilot. He emphasised that membership with the AHIA is voluntary and there is little uptake of membership amongst the NT Mustering Community. In those circumstances he questioned the efficacy of Mr Chew's recommendation: *"That the AHIA becomes more active in promoting a safety culture in these type of operations by adopting the values and strategic priorities of the AAAA."*

### **An ABC Report:**

Despite CASA's submissions concerning the weight to be given to Mr Chew's report, due his apparent reliance on 'anecdotal accounts' about the mis-recording of flight hours and subsequent maintenance avoidance, there appeared to be further evidence about this practice in the high profile Matt Wright

trial.

According to ABC reporting of the Matt Wright trial,<sup>1</sup> there was evidence that numerous pilots had been disconnecting Hobb's meters "to falsify how many hours the helicopters had flown, to bypass costly mandatory maintenance requirements." It is reported that Mr Wright's barrister agreed that "the practice of disconnecting Hobb's meters is widespread throughout the NT's helicopter community." Agreed facts were tendered in which it was stated, "An aircraft will have increased risk of catastrophic system failure where it is not being maintained in accordance with the requirements." It was reported that Gregg Hooper, an aircraft maintenance engineer said, "It's been common practice that helicopters, mainly in the small helicopter industry have been misreporting their flight hours for decades now. It's systemic across the industry. It has become habitual. Pilots know what's going on, maintenance organisations know what's going on, the aircraft operators know what's going on." Mr Mark Brady, a law and technology lecturer from Charles Darwin University, is reported as saying, "CASA had a lack of inspectors in the Northern Territory", but it was also reported that CASA defended its operations and advised that it conducts both routine planned surveillance and unannounced checks when operators came to its attention.

To be clear, while there is evidence that Mr Nowland had not recorded his recent flight hours in the helicopter maintenance release, there is no evidence of him disconnecting a Hobb's meter.

## **Conclusion:**

Based on the available evidence I make the following findings-

- The helicopter was being operated with a maintenance release that had ceased to be in force and was therefore considered unairworthy, although this is not considered to be a contributing factor to the crash.
- The helicopter maintenance release did not contain endorsements for daily inspection certification, hours flown, total time-in-service or engine oil uplift. The absence of recorded operating hours increased the risk of the helicopter having been operated beyond other scheduled maintenance requirements, in the context of accounts of this practice being common in Northern Territory helicopter operations.
- The site wreckage was consistent with an engine power reduction and loss of control. It could not be determined whether this was due to an engine issue (not observed in the wreckage) or was pilot induced. Accepting that the deceased had extensive experience and was generally healthy, pilot fatigue, human error, or incapacitation could not be excluded as contributory factors.

## **Recommendations:**

The available evidence and information points to the need for improvements in regulatory compliance and safety in Northern Territory helicopter operations, with the objective of saving lives. Accordingly, I make the following recommendations -

1. That CASA engage more effectively with helicopter mustering operations in the Northern Territory to ensure observance of regulatory requirements and improve safety culture,

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<sup>1</sup> "Chopper cowboy culture exposed in croc wrangler trial" by Matt Garrick dated 6 September 2025 [Chopper cowboy culture exposed in croc wrangler trial - ABC News](#)

specifically, concerning the accurate recording of flight hours and compliance with scheduled maintenance requirements.

2. That the AHIA consider what further and better steps it can take to promote a safety culture in Northern Territory helicopter operations and implement any identified improvements.

### **Decision not to hold an inquest:**

Under section 16(1) of the *Coroners Act 1993* (“the *Act*”) I decided not to hold an inquest because the investigations into the death disclosed the time, place and cause of death and the relevant circumstances concerning the death. I do not consider that the holding of an inquest would elicit any information additional to that disclosed in the investigation to date and the circumstances do not require a mandatory inquest because:

- The deceased was not, immediately before death, a person held in care or custody; and
- The death was not caused or contributed to by injuries sustained while the deceased was held in custody; and
- The identity of the deceased is known.