IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

COR 2022 001770
COR 2022 001771
COR 2022 001788
COR 2022 001789
COR 2022 001818

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

*Section 67 of the **Coroners Act 2008***

Amended pursuant to section 76(a) of the Coroners Act 2008, as at 29 August 2024[i]

Findings of:	Coroner David Ryan	
Deceased:	Ian Perry	Born 3 January 1963
	Dean Neal	Born 1 July 1989
	Shashi Vasudeva	Born 10 October 1968
	Paul Troja	Born 27 February 1949
	Linda Woodford	Born 8 July 1971
Date of deaths:	31 March 2022	
Cause of deaths:	1(a) Multiple injuries sustained in a helicopter incident	
Place of deaths:	Blair's Hut, Mount Disappointment, Clonbinane, Victoria	
Keywords:	Helicopter crash – Flight planning – Instrument meteorological conditions	

[i] The spelling of Mr Vasudeva's first name has been corrected to 'Shashi' on the cover page, and at paras 1 and 40(a)(iii).

INTRODUCTION

1. On 31 March 2022, five people died in a helicopter crash at Mount Disappointment in Victoria. The pilot flying the helicopter was Dean Neal (32yo) and the passengers were Ian Perry (59yo), Shashi Vasudeva (53yo), Paul Troja (73yo) and Linda Woodford (50yo). They are warmly remembered and deeply mourned by their families.

THE CORONIAL INVESTIGATION

2. These deaths were reported to the coroner as they fell within the definition of a reportable death in the *Coroners Act 2008* (**the Act**). Reportable deaths include deaths that are unexpected, unnatural or violent or result from accident or injury. I attended the scene of the crash on 1 April 2022.

3. The role of a coroner is to independently investigate reportable deaths to establish, if possible, identity, medical cause of death, and surrounding circumstances. Surrounding circumstances are limited to events which are sufficiently proximate and causally related to the death. The purpose of a coronial investigation is to establish the facts, not to cast blame or determine criminal or civil liability.

4. Under the Act, coroners also have the important functions of helping to prevent deaths and promoting public health and safety and the administration of justice through the making of comments or recommendations in appropriate cases about any matter connected to the death under investigation.

5. Victoria Police assigned an officer to be the Coronial Investigator for the investigation. The Coronial Investigator conducted inquiries on my behalf, including taking statements from witnesses – such as family, the forensic pathologist, and investigating officers – and submitted a coronial brief of evidence.

6. Section 7 of the Act provides that a coroner should liaise with other investigative authorities, official bodies and statutory officers to avoid unnecessary duplication of inquiries and investigations and to expedite the process.

7. The Australian Transport Safety Bureau (**ATSB**) is an independent Commonwealth statutory agency which performs its functions pursuant to the *Transport Safety Investigation Act 2003 (Cth)*. Its purpose includes to improve the safety and public confidence in aviation through the independent investigation of transport accidents and fostering safety awareness, knowledge and action.

8. The ATSB also conducted a detailed and thorough investigation into the incident and prepared a report of its findings dated 11 January 2024 (**ATSB report**). The report also identified a number of safety issues and actions.

9. This finding draws on the totality of the coronial investigation including evidence contained in the coronial brief and the ATSB report. I have also considered a detailed and helpful submission prepared on behalf of the family of Mr Vasudeva. While I have reviewed all the material, I will only refer to that which is directly relevant to my findings or necessary for narrative clarity. In the coronial jurisdiction, facts must be established on the balance of probabilities.[1]

MATTERS IN RELATION TO WHICH A FINDING MUST, IF POSSIBLE, BE MADE

Circumstances in which the deaths occurred

10. On 31 March 2022, a business trip was arranged between the representatives of various parties and their advisors (including the deceased) to inspect a property in Ulupna in northern Victoria. The parties were Southern Prime Meats, Axichain and First Ag Capital who operated in the agricultural sector. The parties had chartered two Airbus EC130 single-engine helicopters from Microflite to fly the delegation from the heliport at Batman Park in Melbourne to Ulupna. The pilots employed by Microflite to fly the helicopters were Daniel Link and Dean Neal.

[1] Subject to the principles enunciated in *Briginshaw v Briginshaw* (1938) 60 CLR 336. The effect of this and similar authorities is that coroners should not make adverse findings against, or comments about, individuals unless the evidence provides a comfortable level of satisfaction as to those matters taking into account the consequences of such findings or comments.

11. Mr Neal qualified as a commercial helicopter pilot in 2016 after completing a non-integrated course and had about 2,500 hours of flying experience.[2] He had no instrument flying experience and was only authorised to fly in Visual Meteorological Conditions (**VMC**). VMC are expressed in terms of flight visibility and distance from cloud and are prescribed by the Civil Aviation Safety Regulations.[3] Generally, the weather must be clear enough to enable the pilot to see where the aircraft is going using visual cues outside the aircraft.

12. The business associates met at the heliport at Batman Park at around 7.15am and received a safety briefing from Mr Link and Mr Neal. It was arranged for Mr Perry, Mr Vasudeva, Mr Troja and Ms Woodford to be passengers in a helicopter (VH-XWD) flown by Mr Neal; and for Justin Harrison, Bradley Reid and Justin Tassone to be passengers in a helicopter (VH-WVV) flown by Mr Link.

13. The helicopters departed Batman Park at around 7.41am. The pilots initially tracked east before turning north toward Ulupna and climbed to an altitude of 3,500 feet.

14. As the helicopters approached Mount Disappointment, XWD was about 3 kilometres behind WVV. Mr Link noted that the layer of cloud beneath his aircraft and the layer of cloud above were appearing to converge ahead of them. Mr Link tracked around a rising cloud top and could see spots of sunlight striking the ground ahead and he judged that it was safe to continue the planned route.

15. Shortly afterwards, and before crossing over Mt Disappointment, Mr Link recalled that visibility became "*very reduced*" and Mr Harrison recalled that "*heavy cloud rolled in causing a white out*". Mr Link broadcast over the radio to Mr Neal that he was making a U-turn and at 7.56:30am he performed a sharp left turn onto a southerly track. At around 7.57:00am, Mr Link and some of his passengers sighted Mr Neal's aircraft pass abeam to the left, still tracking to the north. Mr Link recalled from his broadcasts on the radio that Mr Neal had been initially confused as to why he was turning around as he had thought the conditions were suitable to proceed.

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[2] An integrated training course combines the theory and practical flight training in a structured way and is designed to be completed within a condensed period of time. Integrated training helps pilots achieve training outcomes efficiently and effectively while reducing the time it takes to achieve licences and ratings.

[3] For aircraft operating below 10,000 feet in uncontrolled airspace, the VMC minimum criteria were a minimum flight visibility of 5,000 metres, horizontal distance from cloud of 1,500 metres and vertical distance from cloud of 1,500 feet. For aircraft operating in uncontrolled airspace below 3,000 feet above mean sea level, or 1,000 feet above ground level, whichever is higher, the distance from cloud is reduced to *"clear of cloud"*, provided the aircraft is operating in sight of ground or water.

16. Over the next 30 seconds, XWD turned to the left and began to rapidly descend at a rate which reached 5,700 feet per minute at 7.57:25am. It can be observed from the onboard camera that the helicopter was flying in cloud. At 7.57:29:00am, trees become visible through the windshield and the nose of the helicopter pitched significantly upwards before colliding with a tree at 7.57:31am and then impacting the ground. All of the occupants were fatally injured and the helicopter was destroyed.

17. Mr Link was unable to contact Mr Dean over the radio and he was unable to return to the location where he had turned around due to the weather conditions. He subsequently landed WVV safely at Mangalore Airport with his passengers.

18. The wreckage of XWD was located at Mt Disappointment at around 12.00pm on 31 March 2022 by the Police Airwing. It was located in thick bushland near Blair's Hut at an elevation of about 2,359 feet.

Identity of the deceased

19. The deceased were identified by dental and/or DNA comparison.

20. Identity is not in dispute and requires no further investigation.

Medical cause of death

21. Forensic Pathologist Dr Joanne Ho from the Victorian Institute of Forensic Medicine, performed on autopsy on the pilot and an external examination of the passengers and reviewed the results of post-mortem computed tomography (**CT**) scans.

22. Toxicological analysis of post-mortem samples from the pilot did not identify the presence of any alcohol or any commons drugs or poisons.

23. Dr Ho provided an opinion that the medical cause of death in each case was *1 (a) Multiple injuries sustained in a helicopter incident*.

24. I accept Dr Ho's opinion.

THE REGULATORY ENVIRONMENT AND THE WEATHER

25. The flight was not being conducted in accordance with a formal Flight Plan and the pilots were operating in accordance with Visual Flight Rules (**VFR**) outside controlled airspace. VFR are the rules that govern the operation of aircraft in VMC.

26. When VMC is not present, in Instrument Meteorological Conditions (**IMC**), flights must be conducted under Instrument Flight Rules (**IFR**). Flight pursuant to IFR requires specialised training in aircraft sufficiently equipped to enable the pilot to fly safely by reference to instruments rather than visual cues outside the aircraft. An IFR flight also requires a formal Flight Plan.

27. The Melbourne Airport Forecast for 31 March 2022 provided for scattered cloud at 1,500 feet. The forecast for the Mount Disappointment area indicated broken cloud at 2,000-3,000 feet and broken cloud at 3,000-8,000 feet. The peak of Mount Disappointment is 2,605 feet and the upper limit of uncontrolled airspace was 3,500-4,500 feet. This indicated that cloud was forecast to develop below VMC from the ground level up into controlled airspace. Mr Link reported that the weather was a concern both the night before and in the morning on 31 March 2022. He and Mr Neal were concerned that they would not be able to get over the range but they decided they would assess the actual conditions when they were in the air.

28. Part 133 of the Civil Aviation Safety Regulations (**CASR Part 133**) provides rules for air transport (which includes charter flights) and rotorcraft (including helicopters). CASR Part 133 does not contain any specific requirements for managing the risk of a VFR pilot flying inadvertently into IMC. Further, as opposed to fixed wing pilots, there is no requirement for pilots who train to be commercial helicopter pilots pursuant to a non-integrated course to undertake basic instrument flying training. This is not consistent with international standards or the regime in foreign jurisdictions such as the United States, the United Kingdom, Canada and New Zealand.[4]

[4] International Civil Aviation Organization (ICAO) Annex 1.

29. The ATSB report records that the rationale identified by the Civil Aviation Safety Authority (**CASA**) for not mandating an instrument flight component in the non-integrated commercial pilot training course for helicopters included concerns by the helicopter flight training sector about the availability of suitably equipped flight training aircraft and flight instructors capable of conducting instrument flying training.

ATSB REPORT

30. The ATSB report contained the following relevant summary of its findings:

"*…while visual meteorological conditions (VMC) prevailed at the departure point, the pilots of the helicopters planned and commenced a route for which IMC was forecast. The pilots continued the flight as conditions deteriorated below VMC until a rapid change of course was required to avoid entering cloud. The accident pilot did not maintain adequate control of the pitch attitude during the attempted U-turn and a high rate of descent developed resulting in a collision with terrain. This pilot had no instrument flying experience, and the helicopter was not equipped with any form of artificial stabilisation, nor was either required by the regulations.*

The operator had not mandated several of the risk controls available to them for their day visual flight rules pilots, which included inadvertent IMC recovery training and basic instrument flying competency checks during operator proficiency checks, nor were they required to by the regulations. The operator had also not introduced an inadvertent IMC recovery procedure for their air transport operations or a pre-flight risk assessment to trigger an escalation process for marginal weather conditions identified at the pre-flight planning stage.

The operator had identified poor weather conditions as a risk. However, their management of that risk was limited to the regulatory requirements and did not consider an inadvertent IMC event. The Civil Aviation Safety Regulations Part 133 for rotorcraft air transport only required the risk of a visual flight rules inadvertent IMC event to be managed through avoidance. While important, avoidance of inadvertent IMC has and will fail on occasion, but Part 133 did not address the risk of recovery from such an event."

31. The ATSB noted that Microflite had taken a number of actions in response to the incident and its report, which included the introduction of autopilots, some level of basic instrument flight training and inadvertent IMC recovery training.

32. The ATSB identified the following relevant factors as contributing to the collision:

a) The pilots of the two helicopters selected a route that was forecast to be unsuitable for visual flight. This was based on an incorrect assessment of the weather before and while in-flight.

b) The pilots of both helicopters continued flight towards deteriorating cloud and into reduced visual cues, below the required VMC. These conditions were consistent with the area forecast for the Mount Disappointment area.

c) While conducting a 180 degree turn without visual cues to exit from IMC, the pilot could not maintain adequate control of the pitch attitude of the helicopter, which resulted in the development of a high rate of descent and collision with terrain.

d) The pilot was not trained to fly the helicopter by sole reference to the instruments and almost certainly did not have any instrument flying experience, nor was it required by the regulations.

e) The helicopter was not equipped with an autopilot or stability augmentation system, nor was it required to be. This equipment would have reduced the risk of a loss of control when the pilot attempted to exit from instrument meteorological conditions.

33. The ATSB report also identified the following Safety Issues:

a) Microflite had not published an inadvertent instrument meteorological conditions (**IIMC**) recovery procedure for their day VFR pilots and their IIMC recovery training was not mandatory, nor were they required by the regulations. The provision of this procedure and training would have reduced the risk of a loss of attitude control following an IIMC encounter.

This issue has been partially addressed by Microflite and closed by the ATSB. Microflite indicated that it would publish an IIMC recovery procedure for their day VFR pilots but, noting that it was not required by the current regulations, would only conduct the training element of this safety issue on a resource availability basis.

b) The Microflite Operator Proficiency Checks did not include a mandatory instrument flight component for their day VFR pilots, nor was it required by the regulations. This would have reduced the risk of a loss of control event following an IIMC encounter.

This issue has been partially addressed by Microflite and closed by the ATSB. Noting that it was not required by the current regulations, Microflite indicated that it would include an instrument flight component on their operator proficiency checks, however, training will only be conducted on a resource availability basis.

c) Microflite did not provide, nor require, their pilots to complete a pre-flight risk assessment for their taskings. A pre-flight risk assessment would have provided pre-defined criteria to ensure consistent and objective decision-making and reduced the risk of them selecting an inappropriate route.

The ATSB considers that this issue has been adequately addressed by Microflite and it has been closed.

d) The Microflite air transport operations risk assessment for poor weather conditions did not consider the risk controls required for IIMC. Rather, it relied on their pilots using the actual or forecast conditions to cancel their operations to manage the threat of poor weather.

The ATSB considers that this issue has been adequately addressed by Microflite and it has been closed.

e) CASR Part 133 (air transport - rotorcraft) exposition requirements did not adequately address the risk to passenger safety from a visual flight rules IMCC event.

On 21 November 2023, CASA provided a response which stated that the Safety Issue was misconceived as it does not consider the safety management potential of the combined air transport regulatory suite. Further, CASA considered that the ATSB had identified remedial issues (such as instrument flight training) which, although they may offer some assistance, are mostly reactive, after IIMC has occurred, and are expensive fixes which the industry had already rejected. It recommended that the Safety Issue be withdrawn and substituted with an action to include further guidance material on IIMC in the regulations. CASA also noted the numerous articles it has already published on VFR into IMC in its Flight Safety magazine on this issue.

The ATSB acknowledged CASA's response but reiterated its concern about the controls available to respond to the risk of VFR into IMC being optional rather than mandated by the regulations, noting that the treatment of safety requirements as "*optional*" may result in competitive advantages to operators with lower safety standards.

34. The ATSB subsequently made a formal Safety Recommendation that CASA take safety action to further address the risk to rotorcraft air transport (Part 133) passenger safety from a Visual Flight Rules IIMC event.

35. On 7 June 2024, CASA provided a responding submission to the ATSB which emphasised the importance of avoiding IMC as the primary risk mitigation factor for IIMC incidents. Further, it stated that it was taking a number of measures which involved a comprehensive strategy of education, engagement, and tailored resources to address the recommendation and enhance safety awareness and decision-making among rotary wing pilots. The measures include the following:

    a) In consultation with stakeholders, implementing a pilot safety campaign entitled "*Your safety is in your hands*" which is aimed at improving awareness and decision-making among pilots, including those operating in the rotary wing sector;

    b) continuing to develop tailored resources for the rotary wing sector, including education and safety promotion on practical measures for pilots to avoid IIMC events, including appropriate flight planning and the use of modern GPS navigation systems in day VFR operations;

    c) continuing to reinforce the message that CASA supports and encourages rotary wing pilots to make a precautionary landing anywhere when it is safe to do so. In keeping with policy and practice, CASA will also emphasise that they will not take enforcement action against a rotary wing pilot if they make a precautionary landing, provided it is performed for good reason and as safely as possible in the circumstances;

    d) deferred provisions of the Flight Operations Regulations which come into force by the end of 2026 which are designed to enhance the organisational safety performance of Australian air transport operators and assist in the prevention of accidents of this nature. The key organisational safety requirements due to come into force for CASR Part 133 operators include training and checking, safety management systems and human factors/non-technical skills training;

e) to ensure that individual pilot decision making is fully supported, potentially in the face of operator-based pressure to "*just go and have a look*", CASA proposes to amend multiple documents, both externally and internally focused, to incorporate specific acceptable means of compliance exposition content regarding inadvertent instrument meteorological avoidance procedures together with a risk assessment and task rejection process; and

f) CASA has recently published a sample training and checking manual that incorporates, IIMC avoidance and reduced visibility encounters as a discussion point, to be checked during each operator proficiency check noting that all Part 133 operators will be required to implement formal training and checking systems by early 2026.

36. On 19 June 2024, the ATSB published the following response in relation to CASA's submission:

The ATSB acknowledges CASA's proposed strategy of education, engagement, and resources to rotary wing pilots and a focus on avoidance strategies to reduce the risk of VFR into IMC rather than recovery mitigations. As noted in the CASA response, pilots can have operator-based pressure to 'just go and have a look'.

The practice of 'having a look' when conditions were forecast to be marginal has been a recurring theme of accident investigations. In some cases, the practice of 'having a look' has been condoned by operators, which can lead to pilots increasing their appetite for weather related-risk without the training or procedures to recover from an inadvertent IMC event. Any steps to reduce this practice is a positive move.

While CASA considers the existing regulatory requirements provide sufficient safety defences, the ATSB's analysis indicated that helicopter VFR into IMC occurrences result in a higher proportion of accidents than aeroplane VFR into IMC occurrences. However, the ATSB acknowledges that there have been fewer helicopter VFR into IMC occurrences than aeroplane VFR into IMC occurrences.

The ATSB has made the assessment that CASA's response to address the risk of VFR into IMC through the CASR Part 133 exposition requirements for operators to address inadvertent instrument meteorological avoidance procedures together with a risk assessment and task rejection process, supported by additional exposition content direction to the CASA's Surveillance Branch, will assist in reducing the risk to passenger safety from VFR into IMC. The ATSB will continue to monitor the introduction of these measures and their effectiveness.

CONCLUSION

37. The crash of XWD into terrain at Mount Disappointment was caused by the pilot losing control of the aircraft after inadvertently entering into cloud. The pilot had not been trained to respond to such an occurrence and it is not currently required under CASA regulations. Further, the pilots had planned a flight in VMC, and those conditions were unlikely to remain throughout the course of their route given the weather forecast.

38. The ATSB has issued a Safety Recommendation to CASA which proposes to implement a number of safety measures that are directed to both pilots and operators. The ATSB has assessed that these measures will assist in reducing the risk to passenger safety from VFR into IMC. As part of its role, the ATSB will continue to monitor the introduction of these measures and their effectiveness. However, CASA has not indicated that it has any plans to amend its regulations to include a mandatory instrument flying component to the requirements for a commercial pilot licence for helicopters. While I am satisfied that there is a sound basis for CASA's focus to be on VFR helicopter pilots avoiding IIMC events, I consider that a requirement for some basic instrument flying training will equip such pilots with valuable skills and experience which will increase their likelihood of being able to successfully recover from an IIMC event. The value of this training from an accident prevention and safety perspective is clear from the ATSB report.

39. The pilots in this incident had not received any instrument flight training. The goals of instrument flight training for day VFR pilots include recovering from unusual attitudes and recovering to visual conditions after an IIMC event. Their ability to do this is dependent on receiving initial and recurrent training. I am unable to be satisfied that such training would have prevented the crash in this case, but it would have equipped Mr Neal with valuable skills and experience which would have increased his chances of safely returning his helicopter to VMC.

FINDINGS

40. Pursuant to section 67(1) of the Act, I make the following findings:

    a) the identities of the deceased were:

        i. Ian Pyne Perry, born on 3 January 1963;

        ii. Dean Christopher Neal, born on 1 July 1989;

        iii. Shashi Nicholas Vasudeva, born on 10 October 1968;

        iv. Paul Anthony Troja, born on 27 February 1949 and

        v. Linda Jane Woodford, born on 8 July 1971;

    b) the deaths occurred on 31 March 2022 at Blair's Hut, Mount Disappointment, Clonbinane, Victoria, from multiple injuries sustained in a helicopter incident; and

    c) the deaths occurred in the circumstances described above.

RECOMMENDATIONS

Pursuant to section 72(2) of the Act, I make the following recommendation:

1. CASA amend CASR (Part 133) to introduce a mandatory instrument flying component (including recovery from IIMC events) to the requirements for a commercial pilot licence for helicopters carrying passengers, together with a requirement for such training to be included in proficiency checks conducted by operators.

I convey my sincere sympathy to the families of the deceased for their loss.

Pursuant to section 73(1B) of the Act, I order that this finding be published on the Coroners Court of Victoria website in accordance with the rules.

I direct that a copy of this finding be provided to the following:

Senior Next of Kin

Australian Transport Safety Bureau

Civil Aviation Safety Authority

WorkSafe

Detective Senior Constable Travis McCabe, Coroner's Investigator

Signature:

Coroner David Ryan

Date : 28 August 2024

NOTE: Under section 83 of the ***Coroners Act 2008*** ('the Act'), a person with sufficient interest in an investigation may appeal to the Trial Division of the Supreme Court against the findings of a coroner in respect of a death after an investigation. An appeal must be made within 6 months after the day on which the determination is made, unless the Supreme Court grants leave to appeal out of time under section 86 of the Act.