IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2013 5897

FINDING INTO DEATH WITH INQUEST

Form 37 Rule 60(1)
Section 67 of the Coroners Act 2008

Inquest into the Death of: REGINALD ALEXANDER JULIAN THAGGARD

Findings of:	**AUDREY JAMIESON, CORONER**
Delivered on:	17 February 2017
Delivered at:	Coroners Court of Victoria, 65 Kavanagh Street, Southbank
Hearing date:	6 June 2016
Police Coronial Support Unit:	Leading Senior Constable Andrea Hibbins
Representation:	Mr Anthony Carter, solicitor, on behalf of the Civil Aviation Safety Authority. Mr Adam McBeth, of Counsel, on behalf of the Australian Sport Rotorcraft Association.

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I, AUDREY JAMIESON, Coroner having investigated the death of **REGINALD ALEXANDER JULIAN THAGGARD**

AND having held an Inquest in relation to this death on 6 June 2016

at Southbank

find that the identity of the deceased was **REGINALD ALEXANDER JULIAN THAGGARD**

born on 14 October 1961

and the death occurred on 21 December 2013

approximately 100 metres from the Brock Spur Track, Kinglake Victoria 3763

from:

1 (a) CERVICAL SPINE INJURY

in the following summary of circumstances:

On 21 December 2013, Reginald Alexander Julian Thaggard (**Mr Thaggard**) was the pilot of a two seater gyroplane,[1] which departed a hangar at Dixons Creek at 5.26pm for a 15 minute flight. Singaporean national Jordan Marcus Farr Pang Jing Xuan Pang (**Mr Pang**) was the passenger on board Mr Thaggard's aircraft. After the gyroplane failed to return to the hangar by 7.45pm, emergency services were contacted. A search was undertaken and the wreckage of the gyroplane was located at approximately 7.00am on 22 December 2013, near Brock Spur Track in Kinglake. Upon the arrival of emergency services personnel, it was apparent that Mr Thaggard and Mr Pang were deceased.

BACKGROUND CIRCUMSTANCES

1. Mr Thaggard was 52 years of age at the time of his death. He was born in Fiji and moved to Australia as a child; he lived in Croydon with his wife Tracy Loebert. Mr Thaggard had an adult daughter and was stepfather to Ms Loebert's two daughters. He owned Yarra Valley Flightsports, Microlight and Gyrocopter Training (**Yarra Valley Flight Sports**); the business operated from a hangar at the rear of the Yarra Valley Conference Centre, in Dixons Creek.[2]

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[1] A gyroplane is an aircraft that gets lift from a freely turning rotary wing and which derives its thrust from an engine-driven propeller. They can also be referred to as autogyros and gyrocopters; for consistency, throughout this Finding, I have referred to these aircraft as gyroplanes.

[2] Transcript (T) @ p 5 (16-20).

SURROUNDING CIRCUMSTANCES

2. At 5.00pm on Saturday 21 December 2013, Mr Thaggard was scheduled to separately take Ryan Ming and his two friends, Celeste Lau and Jordan Pang on 15 minute gyroplane or microlight aircraft flights. After arriving at the Dixons Creek location of Yarra Valley Flightsports, Mr Pang selected instead to fly in a gyroplane. Mr Pang was the first of his friends to fly, and changed into overalls. The gyroplane took off at approximately 5.26pm, with Mr Ming taking photographs at the hangar, and Ms Lau filming video footage of the take-off.[3]

3. Mr Ming and Ms Lau became concerned when the gyroplane failed to return to the Dixons Creek hangar. At 7.45pm, Mr Ming requested assistance from staff at the Yarra Valley Convention Centre, and emergency services were contacted. Approximately seven police units, including the Police Air Wing, commenced a search, involving the triangulation of Mr Thaggard's phone. The search by air was called off at 12.45am on 22 December 2013.[4]

4. At approximately 7.00am on 22 December 2013, the gyroplane was located by the Police Air Wing near Brock Spur Track in Kinglake. A ground ambulance attended the site at about 7.45am; and ambulance paramedics declared Mr Thaggard and Mr Pang to be deceased. Search and Rescue Police were subsequently in attendance.

JURISDICTION

5. Mr Thaggard's death was determined to be a reportable death under section 4 of the *Coroners Act 2008* ('the Act'), because it occurred in Victoria and was considered unexpected, unnatural or to have resulted, directly or indirectly, from an accident or injury.

PURPOSE OF THE CORONIAL INVESTIGATION

6. The Coroners Court of Victoria is an inquisitorial jurisdiction.[5] The purpose of a coronial investigation is to independently investigate a reportable death to ascertain, if possible, the identity of the deceased person, the cause of death and the circumstances in which the death

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[3] T @ p 6 (2-8).
[4] T @ p 6 (11-15).
[5] Section 89(4) *Coroners Act 2008*.

occurred.[6] The cause of death refers to the medical cause of death, incorporating where possible the mode or mechanism of death. For coronial purposes, the circumstances in which death occurred refers to the context or background and surrounding circumstances, but is confined to those circumstances sufficiently proximate and causally relevant to the death and not merely all circumstances which might form part of a narrative culminating in death.[7]

7. The broader purpose of coronial investigations is to contribute to the reduction of the number of preventable deaths through the findings of the investigation and the making of recommendations by coroners, generally referred to as the 'prevention' role.[8] Coroners are also empowered to report to the Attorney-General on a death; to comment on any matter connected with the death they have investigated, including matters of public health or safety and the administration of justice; and to make recommendations to any Minister or public statutory authority on any matter connected with the death, including public health or safety or the administration of justice.[9] These are effectively the vehicles by which the prevention role may be advanced.[10]

8. It is not the Coroner's role to determine criminal or civil liability arising from the death under investigation. Nor is it the Coroner's role to determine disciplinary matters.

9. Section 52(2) of the Act provides that it is mandatory for a coroner to hold an Inquest into a death if the death or cause of death occurred in Victoria and a coroner suspects the death was as a result of homicide, or the deceased was, immediately before death, a person placed in custody or care, or the identity of the deceased is unknown.

10. The identities of Mr Thaggard and Mr Pang were not in dispute, they were not persons

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[6] Section 67(1) of the *Coroners Act 2008*.
[7] This is the effect of the authorities- see for example *Harmsworth v The State Coroner* [1989] VR 989; *Clancy v West* (Unreported 17/08/1994, Supreme Court of Victoria, Harper J).
[8] The 'prevention' role is now explicitly articulated in the Preamble and purposes of the Act, in contrast to the *Coroners Act 1985* where this role was generally accepted as 'implicit'.
[9] See sections 72(1), 67(3) and 72(2) of the Act regarding reports, comments and recommendations respectively.
[10] See also sections 73(1) and 72(5) of the Act which requires publication of coronial findings, comments and recommendations and responses respectively; section 72(3) and (4) which oblige the recipient of a coronial recommendation to respond within three months, specifying a statement of action which has or will be taken in relation to the recommendation.

placed in "*custody or care*" as defined by section 3 of the Act and their deaths were not considered to be homicides. Therefore, it was not mandatory to conduct an Inquest into the circumstances of their deaths. However, I exercised my discretion, pursuant to section 52(1) of the Act, to hold an Inquest because I had identified matters of public health and safety that required further investigation.

11. This finding draws on the totality of the material; the product of the coronial investigation of the deaths of Mr Thaggard and Mr Pang. That is, the court records maintained during the coronial investigation, the Inquest Brief and the evidence obtained at the Inquest, including submissions of legal counsel and counsel assist..

12. In writing this finding, I do not purport to summarise all of the evidence, but refer to it only in such detail as appears warranted by its forensic significance and the interests of narrative clarity. The absence of reference to any particular aspect of the evidence, either obtained through a witness or tendered in evidence does not infer that it has not been considered.

STANDARD OF PROOF

13. All coronial findings must be made based on proof of relevant facts on the balance of probabilities. In determining whether a matter is proven to that standard, I should give effect to the principles enunciated in *Briginshaw v Briginshaw*.[11] These principles state that in deciding whether a matter is proven on the balance of probabilities, in considering the weight of the evidence, I should bear in mind:

    - the nature and consequence of the facts to be proved;
    - the seriousness of an allegation made;
    - the inherent unlikelihood of the occurrence alleged;
    - the gravity of the consequences flowing from an adverse finding; and
    - if the allegation involves conduct of a criminal nature, weight must be given to the presumption of innocence, and the court should not be satisfied by inexact proofs,

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[11] (1938) 60 CLR 336.

indefinite testimony or indirect inferences.

14. The effect of the authorities is that coroners should not make adverse findings against or comments about individuals, unless the evidence provides a comfortable level of satisfaction that they caused or contributed to the death.

FORENSIC INVESTIGATION

Identification

15. A Statement of Identification was completed by Mr Thaggard's brother-in-law Shane Loebert, at Southbank on 24 December 2013. Mr Thaggard's identity was not in dispute and required no further investigation.

Medical cause of death

Autopsy

16. On 30 December 2013, at the Victorian Institute of Forensic Medicine (VIFM), Dr Yeliena Baber, Forensic Pathologist performed an autopsy upon the body of Mr Thaggard, reviewed a post mortem computed tomography (CT) scan and referred to the Victoria Police Report of Death (Form 83).

17. Anatomical findings included:
    - A fractured pelvis; and
    - Multiple right rib fractures.

18. At autopsy, Dr Baber observed an extradural haemorrhage about Mr Thaggard's first cervical vertebra and associated rupture of the ligamentum flavum and posterior interspinous ligament. Toxicological analysis of Mr Thaggard's post mortem blood did not identify any alcohol, drugs or common poisons. No significant natural disease was identified which may have caused or contributed to the cause of the incident. Dr Baber ascribed the cause of Mr Thaggard's death to a cervical spine injury, which would have been caused by hyperflexion of his neck, with the impact of the aircraft hitting the ground.

INVESTIGATIONS PRECEDING THE INQUEST

Inquest Brief

19. Detective Leading Senior Constable (Det. LSC) Simon Cusack from the Alexandra Crime Investigation Unit was nominated to be the coroner's investigator[12] and he prepared the Inquest Brief. The Inquest Brief contained statements made by, *inter alia*, Mr Thaggard's friends Steven Paulet and Ian Andrews, Mr Pang's friends Ryan Ming and Celeste Lau, Qualified Aircraft Mechanic at The Aviation Centre in Tyabb Reece Alexander, previous owner of the gyroplane Peter Pendergast, and previous gyroplane passenger on 21 December 2013 Paul Keane.

20. Peter Pendergast reported that he sold an MTO3 model gyroplane to Mr Thaggard on 23 November 2012. Mr Pendergast had obtained the aircraft when it was brand new; he stated that there were no issues during the 179.4 hours he spent in the aircraft as pilot or instructor, prior to Mr Thaggard taking ownership. The gyroplane was independently serviced. Mr Pendergast stated that he never experienced *'carby icing'* in this aircraft; it was fitted with a ring system installed between the manifold and carburettor, that was designed to provide heat to prevent carburettor icing.[13]

21. Mr Pendergast believed Mr Thaggard was a *'very competent and sensible pilot'*.[14] While Mr Thaggard was relatively new to flying gyroplanes, Mr Pendergast noted that he had considerable experience flying weight-shift aircraft.[15]

22. Friend Steven Paulet reported that Mr Thaggard trained him to fly in microlight and gyroplane aircrafts. Mr Paulet also believed Mr Thaggard was a good pilot – *'everyone who*

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[12] A coroner's investigator is a member of the police force nominated by the Chief Commissioner of Police or any other person nominated by the coroner to assist the coroner with his/her investigation into a reportable death. The coroner's investigator takes instructions directly from a coroner and carries out the role subject to the direction of a coroner.

[13] Inquest Brief (IB) @ p 34.

[14] IB @ p 35.

[15] Weight-shift aircraft include hang gliders and microlights, where the pilot controls the aircraft with a control bar attached to the wing structure, in his or her hands. See: US Department of Transportation, Federal Aviation Administration, *'Weight-Shift Control Aircraft Flying Handbook,'* 2008, p 6-1.

knew him would agree'.[16] During his training, Mr Paulet would fly out from Dixons Creek with Mr Thaggard; he *'would always climb to a minimum of 2500 ft AGL* [above ground level] *before leaving the Dixons Creek area to fly over the area to the north en route to Wahring'* Airfield.[17]

23. Mr Paulet noted that Mr Thaggard was always very strict with safety and the airworthiness of his aircraft. He stated that Mr Thaggard would always go through a pre-flight inspection with his students, pointing out all items to be inspected.[18] Mr Paulet was aware that Mr Thaggard did not like doing paperwork, and would put it off. However, when they spoke about aircraft, he would tell Mr Paulet about various maintenance works he had completed.[19]

24. Mr Paulet reported that Mr Thaggard had once explained the technique of *'ridge lift'* to him. He believed that Mr Thaggard used the technique on occasion.[20] When Mr Paulet experienced 'spluttering' in his microlight aircraft once, Mr Thaggard advised it was 'icing' and told him to move the throttle on and off to clear it.[21]

25. Paul Keane reported that prior to his first training flight in a gyroplane with his instructor Mr Thaggard, he was taken through a series of safety checks relating to the machine – *'looking for any damage or wear and tear'*.[22] Paul Keane attended a one hour and 45 minute lesson with Mr Thaggard at 12.00pm on 21 December 2013. He reported that *'nothing untoward'* happened during this flight and Mr Thaggard was *'always very safety conscious'*.[23] Mr Keane was unaware of any mechanical issues or damage during this flight.

26. Ryan Ming told police that the three 15 minute flights were booked over the phone with Mr

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[16] IB @ 40A.

[17] IB @ 40A.

[18] IB @ p 38.

[19] IB @ p 39.

[20] IB @ p 40B.

[21] IB @ p 40B.

[22] IB @ p 43.

[23] IB @ p 45.

Thaggard, and cost $80 each. Celeste Yau stated that after she arrived at the Dixons Creek hangar on 21 December 2013, with Mr Pang and Mr Ming, Mr Thaggard provided a brief introduction to both microlight and gyroplane aircrafts, and how they worked.

27. Ms Yau did not recall any safety briefing before Mr Pang got into the gyroplane. She later saw Mr Thaggard talking to Mr Pang while seated in the aircraft, but was unable to hear what was said. Mr Ming said he also saw Mr Pang and Mr Thaggard talking prior to the flight, but he was similarly unaware of whether or not it was a safety briefing.[24]

28. Det. LSC Cusack noted that call charge records indicated a text message was sent from Mr Thaggard's mobile phone at 5.54pm on 21 December 2013. An incoming call was answered at 6.02pm and lasted for 12 seconds.[25]

29. Police ascertained the 5.54pm text message was sent to Mr Thaggard's student pilot Pradeep Divarker. A screenshot of Mr Thaggard's phone contained in Photograph Folio 5 indicated the message contained unintelligible text.

30. Friend Ian Andrews rang Mr Thaggard's mobile phone number at 6.02pm on 21 December 2013. He stated that Mr Thaggard answered the phone within 10 seconds and said *'I'll have to get back to you'*.[26] Mr Thaggard subsequently hung up the phone. Mr Andrews stated that Mr Thaggard sounded like someone that was waking up; he did not say anything about a crash or needing help.

31. Det. LSC Cusack attended the scene of the incident shortly after 11.20am on 22 December 2013. He reported that the gyroplane was lying on its right side in a depression in the ground. Broken branches were observed off the nose of the gyroplane; the area was heavily treed. Mr Thaggard was noted to have unbuckled his harness. He was lying on his right side, out of the gyroplane. Mr Thaggard's left hand was resting on the rotor blade and his mobile phone was observed in his right hand. Mr Pang remained restrained in the gyroplane. Det.

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[24] IB @ p 50.

[25] IB @ p 81.

[26] IB @ p 63.

LSC Cusack observed that a Garmin GPS 296 unit was hanging from the dashboard of the gyroplane.[27]

32. Det. LSC Cusack reported that he returned to the scene of the incident with investigators Allan Wardill, Ian Morcombe and Mark Regan from the Australian Sports Rotorcraft Association Inc. (**ASRA**) on the morning of 23 December 2013. At approximately 2.10pm that afternoon, they attended the Dixons Creek hangar where Mr Thaggard kept his aircraft. A search was undertaken of the hangar to find Mr Thaggard's flying records and maintenance records for the gyroplane, but they were not located. However, when Det. LSC Cusack attended the home of Tracy Loebert, Mr Thaggard's wife, on 26 December 2013, he was provided with a gyroplane logbook, an appointment diary and a gyroplane pilot logbook.[28]

33. Qualified Aircraft Mechanic Reece Alexander conducted a mechanical inspection of the Rotax Engine in Mr Thaggard's Gyrocopter MT-03 on 9 January 2014, in the presence of Det. LSC Cusack and Mr Wardill, Mr Morcombe and Mr Regan from ASRA. Mr Alexander reported that he *'could find no fault in the engine that caused or contributed to the crash of the gyrocopter'*.[29]

Australian Sports Rotorcraft Association Inc investigation

34. A Transport Safety Report completed by Mr Wardill, Mr Regan and Mr Morcombe for ASRA, was provided to the Court and included in the Inquest Brief.[30]

35. The report indicated that ASRA is a non-profit incorporated association, registered in the Australian Capital Territory. It is classified as a Recreational Aviation Administering Organisation by the Civil Aviation Safety Authority (**CASA**). This arrangement allows ASRA to carry out certain functions under a Deed of Agreement, including the registration and administration of recreational gyroplanes in Australia, and the issuing of recreational

[27] IB @ p 77-78.

[28] IB @ p 80-81.

[29] IB @ p 75.

[30] At the Inquest, this ASRA's Transport Safety Report was marked Exhibit #4.

gyroplane pilot certificates to persons who have undertaken appropriate training as specified by ASRA.[31] The report noted that ASRA is an organisation comprised of unpaid volunteers; it receives a *'very modest safety grant'* each year from CASA, to manage light sport gyroplane operations, including the examination of the results of incident and accident investigations to ensure that standards are appropriate.[32]

36. Mr Thaggard was noted to have joined ASRA and obtained a student pilot certificate on 1 November 2012. He was subsequently issued an unrestricted pilot certificate on 23 November 2012. Both his assistant instructor and instructor ratings were issued on 16 May 2013. Mr Thaggard was also a qualified microlight instructor.[33]

37. The investigators noted that Mr Thaggard's gyroplane was correctly registered with ASRA and was entitled to be used for observations in accordance with CAO *95.12.1.* Mr Thaggard was properly qualified to conduct non-paying passenger and paid training operations in a gyroplane.

38. It was identified that the Yarra Valley Flight Sports' website advertised 'Trial Introductory Flights'.[34] The report noted that trial introductory flights are commonplace in recreational aviation, but cannot be undertaken for profit.[35] In addition, there is a particular prohibition against cost-sharing in relation to 2-place weight-shift aircraft.[36] It was noted that witness statements suggested the flight was paid for, ie: a 'joy flight'.[37] There was no documentation located by ASRA investigators which recorded the details or express intentions of Mr Pang,

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[31] IB @ p 75(5).

[32] IB @ p 75(6).

[33] IB @ p 75(12).

[34] IB @ p 75(53).

[35] IB @ p 75(54).

[36] See *Civil Aviation Order 95.32* Instrument 2011, section 6: which stipulates *inter alia* that 2-place weight-shift aircraft must not be used for any purpose other than the carriage (free of charge) of persons or goods). See also: *Civil Aviation Order 95.12.1* Instrument 2011, section 6, which *inter alia,* stipulates (at 6.3) that 2-seat gyroplanes must not be used for any purpose other than 'a pilot who holds a valid passenger carrying endorsement issued by the ASRA may operate a gyroplane that is registered with the ASRA as a 2-seat gyroplane for the purpose of carrying a non-paying second occupant.'

[37] IB @ p 75(54). At the Inquest (T @ p 70 (19-21)), evidence was provided by Mr Mark Regan that 'joy flights' is a street term, and the appropriate term used by CASA is 'scenic flights'. For consistency reasons, I have referred to these flights as 'joy flights' throughout this Finding.

regarding the purpose of the flight.

39. The report indicated that Mr Thaggard's gyroplane pilot logbook appeared to have been kept up to date until 22 July 2013. No further entries were made after this date.[38] A diary was located which suggested Mr Thaggard elected to use it as a pilot logbook for flying after 22 July 2013. The report noted that many of the entries made in the diary did not specify which aircraft type the entry was intended to represent. In addition, while it may have occurred, there was no record of regular, scheduled maintenance on the gyroplane – in either the gyroplane logbook or diary – after Mr Thaggard obtained the gyroplane on 23 November 2012.[39] However, while no recent maintenance records could be located, the report suggested there was nothing to indicate the gyroplane was other than airworthy at the time of the incident.[40]

40. Data was extracted from the Garmin 296 GPS unit recovered from the wreckage and plotted on 'Google Earth' maps.[41] The report identified that GPS data indicated much of the flight was undertaken *'apparently deliberately'* at heights above ground level lower than the 300 foot minimum stipulated in *Civil Aviation Order* (**CAO**) *95.12.1*, and almost all of the flight was undertaken over heavily wooded terrain that made a successful emergency landing in any sort of aircraft highly unlikely. This was in contravention of the *ASRA Operations Manual* section 2.05-6 para 11h, which states *'ensure that the flight is conducted in an area that, in the event of an engine failure, the safety of the passenger is not compromised'*.[42] The report added that in a recreational setting, there was no justification for a recreational aircraft to be taken at low level over heavily wooded terrain, where a safe emergency landing is virtually impossible.[43]

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[38] IB @ p 75(12).

[39] IB @ p 75(13-14).

[40] IB @ p 75(18).

[41] IB @ p 75(48).

[42] IB @ p 75(55).

[43] IB @ p 75(55).

41. The report noted that the weather at the time was ideal for the intended flight.[44] The closest observation post to the incident site was Coldstream, which experienced temperatures of approximately 20°C and dew points of approximately 15.8°C from 5.00pm to 6.00pm on 21 December 2013.[45] It was estimated that the temperature at the incident site would have been some 1.3°C colder.

42. A carburettor icing prediction chart – using the temperature and dew point data – was consulted to determine the possibility of carburettor icing at the time of the incident. The plot of the chart indicated that moderate icing was possible at cruise settings and serious icing possible at descent power settings.[46] Due to the loss of engine coolant during the recovery process, the report was not able to determine if the carburettor heating system was capable of normal operation.[47] Data extracted from the GPS unit indicated that immediately before the data log ceased, the gyroplane was climbing and decreasing ground speed.[48] The report noted it is normal during climbing for engine power to be increased to a setting at or near full power. At this power setting, engine coolant temperature would be significantly higher than at cruise or descent settings, thus providing more heat to the base of the carburettor, most likely precluding the formation of carburettor ice. The report concluded that it was unlikely that carburettor icing was a factor in this incident.[49]

43. The report used a photograph taken by Mr Pang's friends to identify mid-level or alto cloud in the vicinity of the Dixons Creek hangar at the time of take-off.[50] It was noted that the likely planned operating altitude for the flight would not be affected by this type of cloud, and from the photo, visibility appeared satisfactory with no low cloud patches over the hills.

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[44] IB @ p 75(11).

[45] IB @ p 75(22).

[46] IB @ p 75 (23).

[47] IB @ p 75(44).

[48] IB @ p 75(44). I note this content within the report was amended to include the word 'decreasing' instead of 'increasing' by way of subsequent correspondence from Mr Wardill on behalf of ASRA dated 11 November 2015, and confirmed during the Inquest: T @ p 10(18-25).

[49] IB @ p 75(44).

[50] Photograph Folio 4, photograph 12.

It was deemed unlikely that cloud or reduced visibility affected the flight.[51]

44. An Emergency Locator Transmitter (ELT) was not discovered in the wreckage. The report noted that ASRA and CASA strongly recommend an ELT be carried on all flights.[52]

45. It was concluded that Mr Thaggard had failed to maintain a proper record of his hours flown, or the maintenance completed on the gyroplane. In addition, the flight path of the gyroplane followed a track that failed to ensure that a safe landing could be executed from any point on that track in the event of an engine malfunction.

46. The ASRA report also concluded that in 43 of the GPS recorded segments, Mr Thaggard failed to maintain proper ground clearance. He also attempted to fly over Brock Spur in circumstances that suggested he was assuming until quite late that he would clear the ridge, where he did not seem to have recognised that the gyroplane was not climbing sufficiently and where the final *'desperate climb attempt'* robbed the gyroplane of any remaining climb performance and contact with the treetops on Brock Spur *'became inevitable'*. The report surmised that upon realising that a collision with high trees was inevitable, Mr Thaggard shut down the engine of the gyroplane, secured all electrical systems, which terminated the GPS logging capability and conducted a controlled descent into the tree canopy.[53]

47. Within their report, the ASRA investigators expressed the view that no generalised action was necessary, other than disseminating details of the incident to ASRA members and emphasising their duty of care and the importance of risk assessments, due to the incident involving a *'dramatic falling short'* of the standard and duty of care expected from instructors.[54]

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[51] IB @ p 75(23-24).

[52] IB @ p 75(20). An Emergency Position Indicating Radio Beacon was located in Mr Thaggard's personal effects of the Dixons Creek hangar. It was also noted that it is a regulatory requirement for an ELT to be carried in two seat aircraft in Australia on flights extending 50 nautical miles or more from the departure point.

[53] IB @ p 75(56).

[54] IB @ p 75(57).

Supplementary Report by Ian Morcombe

48. By way of supplementary report dated 4 February 2015, ASRA Investigator, Chief Flying Instructor, and then Training and Safety Manager, Mr Morcombe informed the Court that while he agreed with most of what was submitted in ASRA's Transport Safety Report, which he co-authored, there were two contributing factors which he believed had a marked influence on the chain of events which led to the final incident occurring, which were not focused upon in the report.[55] These related to the strength and direction of the wind at the time of the incident, and the effects it caused, and *'the most probable problem'* of carburettor icing which he viewed as the catalyst of the incident.[56]

49. Mr Morcombe calculated that the wind in the vicinity of the flight track would have been about 22 knots and approximately from the west; *'quite strong'*. With this wind, Mr Morcombe stated there would have been a significant updraft on the ridges and by looking at the flight track, it seemed clear to him that Mr Thaggard was using 'ridge lift' for most of the flight. He said this would mean Mr Thaggard used a much lower power setting than he would if he had flown much higher, or over a flat plain. Another result of flying in ridge lift is that if the aircraft had an engine failure and the aircraft was kept in rising air, the descent rate is far slower, which can give the pilot more time to set up an emergency landing and travel a greater distance.[57]

50. Mr Morcombe noted that Mr Thaggard's gyroplane had a *'carbie heater'* which uses hot water from the engine to heat the body of the carburettor, to prevent ice forming and blocking the flow of air and fuel to the engine. While this system is generally good, Mr Morcombe said a number of pilots have experienced problems in humid conditions, when running at lower power settings, so the engine has cooled down. If the engine power in the gyroplane was reduced for a period, the water could cool quite quickly. On the day of the incident, Mr Morcombe observed that the conditions were very high for carburettor icing.

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[55] At the Inquest, this supplementary report was marked Exhibit #2,

[56] IB @ p 75(84).

[57] IB @ p 75(85).

The humidity was high at 75% at Coldstream, but he stated they would have been much higher at the crash area at the time of the incident as trees and plants transpire in the afternoon which can make the humidity just above the trees, much greater than in an open, dry paddock area such as Coldstream.[58]

51. Mr Morcombe calculated that – due to the slope from the ridges, which the flight followed, and the ridge lift provided by the stiff wind, for at least 80% of the flight, even with a complete engine failure, it should have been possible to glide to a safe landing place either near Dixons Creek airstrip or nearby paddocks. Mr Morcombe opined that the issue arose when Mr Thaggard turned right at the point he believed he encountered carburettor icing symptoms, rather than left and into the wind.[59]

52. Mr Morcombe did not believe that flying too low above ground level was the real cause of the incident. He stated that Mr Thaggard knew the area well, was familiar with the effects of wind, ridge lift and sink, and had warned other pilots of the possibility of icing problems, even with carburettor heaters fitted. While the flightpath was low at times and over hostile terrain, Mr Morcombe believed Mr Thaggard chose a path where he should have been able to fly to safety for a majority of the time, even with a complete engine failure. Mr Morcombe opined that the split second decision to turn right at a very critical point in the flight was the factor which put him in an unrecoverable situation. He noted that it is difficult to know how to prevent a pilot from making a split second decision which in retrospect appeared wrong.[60]

Court Appointed Expert Opinion by Robert Glenn

53. In order to better mediate between the positions of the ASRA report, and Mr Morcombe's partially dissenting views, I sought access to an independent, expert opinion. Robert Glenn, former Senior Sport Aviation Operations Officer at CASA, provided an expert opinion to

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[58] IB @ p 75(86).

[59] IB @ p 75(87).

[60] IB @ p 75(88).

the Court dated 25 September 2015.[61]

54. Mr Glenn stated that he believed it was almost impossible to draw a reasonable and accurate conclusion as to whether the degree of wind strength and direction were significant factors contributing to the incident.[62] As it was not possible to ascertain exactly what flight manoeuvres the gyroplane was conducting during the flight, Mr Glenn did not consider Mr Morcombe's calculations (based on GPS groundspeeds) to be conclusive regarding the wind speed and direction to which the aircraft was subjected.

55. Mr Glenn opined that Mr Morcombe's suggestion that the engine spluttered, because of icing, giving Mr Thaggard a scare and instinctively causing him to turn right, and home for the airstrip, was speculated and could not be objectively verified.[63] In addition, Mr Glenn stated that if Mr Thaggard was indeed experienced and familiar with the effects of carburettor icing, he would be unlikely to have a 'scare', leading him to make a poor decision by turning in the wrong direction and subsequently leading to the incident.[64]

56. Mr Glenn opined that flying below the legally allowed height for 50% of the flight, over inhospitable terrain and trees reportedly 70 feet high, was unsafe and a demonstration of poor airmanship and aeronautical decision making. It reduced the gliding range available in the event of an engine failure, the accident survivability in the case of collision with heavily wooded terrain, and compromised the ability of the gyroplane to out-climb rising terrain in the vicinity of ridges. Mr Glenn suggested that flying below the legal minimum in the area was both imprudent and unsafe – he strongly disagreed with Mr Morcombe's assertion that height was a *'simplistic answer'* in preventing similar incidents.[65]

57. Mr Glenn opined that a strong generalised action following the deaths of Mr Thaggard and Mr Pang was required by ASRA, over and above what the organisation proposed.

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[61] At the Inquest, Mr Glenn's report was marked Exhibit #5.

[62] IB @ p 85(2).

[63] IB @ p 85(4,8).

[64] IB @ p 85(4).

[65] IB @ p 85(7-8).

58. Mr Glenn noted that all aviation in Australia is regulated under the *Civil Aviation Act 1988*. CAO *95.12.1* provides exemptions applicable to 2-place gyroplanes, and the gyroplane in question operated under both this order, and the *ASRA Operations Manual*.

59. Mr Glenn confirmed that pursuant to sections 1.07 and 1.09 of the *ASRA Operations Manual*, a Chief Flying Instructor (**CFI**) is responsible for ensuring that any instructor under their oversight is operating in accordance with *Civil Aviation Order 95.12.1* and the *ASRA Operations Manual*. The Chief Flying Instructor is, in turn, responsible to the Operations Manager at ASRA.[66]

60. Under section 1.09 of the *ASRA Operations Manual*, a CFI is required to ensure that ASRA instructors maintain the highest level of competency and currency and conduct 'regular flight checks' to assess their continued suitability to conduct flight training.[67] Mr Glenn opined that adequate supervision of Mr Thaggard by his nominated ASRA CFI did not appear to have occurred, pointing towards the lack of log book entries recorded by Mr Thaggard for five months, and no recorded 'regular flight checks' since issuance of his instructor rating on 16 May 2013.

61. Contrary to ASRA's report,[68] Mr Glenn expressed the view that properly qualified ASRA instructors can charge for trial introductory flights, as long as it is a training flight. However – for other flights, such as joy flights, he agreed with ASRA's report that cost-sharing is not permitted.

62. It was Mr Glenn's opinion that the greatest contributing factor to the incident was Mr Thaggard's decision to fly at less than the legal height over terrain and below a height which would ensure a safe emergency landing in inhospitable terrain.[69] He noted that Mr Thaggard appeared to have been paid to conduct the flight, but no documented evidence confirmed this fact; a bona fide trial introductory flight should be documented prior to the flight. If

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[66] IB @ p 85 (14).

[67] IB @ p 85(6).

[68] See: paragraph 38.

[69] IB @ p 85(9).

payment was made, it appeared to Mr Glenn that the motivating reason for the high risk flight conducted at low level over inhospitable terrain was purely financial gain, which meant the *CAOs* were contravened. He noted that ASRA should be vigilant in ensuring gyroplane flight training facilities are aware of their responsibilities in this area and conduct adequate oversight and audits to ensure any flights outside of the legal, regulatory parameters are identified and acted upon. Mr Glenn stated that should ASRA believe operations are outside their remit, they can refer them to CASA for further action.[70]

63. Mr Glenn referred to *CAO 95.12.1*, applicable to 2-place gyroplanes, which requires that a gyroplane operated under this order is registered with ASRA. Additionally, the pilot in command must hold a valid pilot certificate, which requires membership of ASRA. To an extent, Mr Glenn stated that ASRA has compliance control, in that it can cancel ASRA membership, and any person flying a 2-place gyroplane operated under *CAO 95.12.1* without a valid ASRA pilot certificate (membership) is treated under the *Aviation Act 1988* to be flying unlicensed with a penalty of up to two year's gaol sentence.[71]

64. Mr Glenn noted that Mr Thaggard's pilot log book indicated he flew his first passenger on 6 February 2013, with no additional recorded dual or endorsement check flights to gain a passenger endorsement. The *ASRA Operations Manual* requires a pilot to meet a set of criteria to gain a passenger carriage endorsement.

65. Mr Glenn considered that another potential contributing factor leading to the incident was the fact Mr Thaggard was granted an ASRA instructor rating on 16 May 2013, which enabled him to receive payment to conduct gyroplane pilot training and instructional flying. The available material did not evince any further oversight from ASRA, subsequent to this date, to ensure instructor compliance and that the required documentation was completed.

66. Mr Glenn suggested that the lack of apparent oversight from ASRA may have led Mr Thaggard to conduct a fare paying passenger flight, contravening the *CAO*. Mr Glenn agreed

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[70] IB @ p 85(10).

[71] IB @ p 85(11).

with ASRA's report that the most likely cause of the incident was Mr Thaggard failing to maintain proper ground clearance and attempting to fly over Brock Spur *'without sufficient performance'*, until finally conducting a controlled descent into the tree canopy. He contended that closer oversight, and inspections, from the CFI, in accordance with the requirements of the *ASRA Operations Manual*, between 16 May 2013 and 21 December 2013, may have highlighted the requirements for Mr Thaggard to adhere closely to the legal requirements and deter any illegal activities.[72]

67. Mr Glenn opined that the incident on 21 December 2013 should not be the catalyst for a total review of the existing regulatory regime for sport and recreational gyroplanes. Rather, he suggested that a more robust audit system by ASRA of its flight training facilities, and duties undertaken by newly appointed instructional staff, should be undertaken and further oversighted by CASA to ensure compliance with the already existing regulatory framework.[73]

Responses to Mr Glenn's Expert Opinion

68. By way of letter dated 11 November 2015, Mr Wardill provided a response to Mr Glenn's opinion, on behalf of ASRA.[74] Mr Wardill wrote that ASRA maintained its opinion that carburettor icing was unlikely a factor in the incident, and that the local effect of wind around the ridgelines, high points and gullies could simply not be determined, thus distancing ASRA's position from Mr Morcombe's own opinions.[75] In addition, it was emphasised that ASRA believed there was no justification within recreational aviation for a flight to be undertaken at low level over unbroken forest canopy and following ridgelines with no safe landing areas available. Mr Wardill stated that if CASA has an expectation that ASRA should step up its oversight activities, due to the dispersed nature of its membership across Australia, more funding from CASA would be required.

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[72] IB @ p 85 (17).

[73] IB @ p 85(18).

[74] At the Inquest, this response was marked Exhibit #1.

[75] IB @ p 85(19-20).

69. Mr Morcombe also provided the Court with a response to Mr Glenn's opinion, dated 4 November 2015.[76] In his response, Mr Morcombe emphasised that his original 'supplement' was not meant to be opposed to ASRA's report or conclusions, but to provide additional information. He agreed if Mr Thaggard's flight was conducted at a much higher altitude, he would not have been caught in the difficulties which caused the crash. Mr Morcombe added that he was Mr Thaggard's CFI, and Mr Glenn's comments about his lack of oversight was based on Mr Thaggard's log book, which was not complete. Mr Morcombe stated that he only became involved with Mr Thaggard's training on 15 January 2013, when he commenced instructor rating training. A final check flight for his instructor rating was conducted on 16 May 2013, following three days of ground school and 4.8 additional hours of in-flight training.

70. Mr Morcombe added that most of Mr Thaggard's circuit training with students was done at 'Wahring Field' – Mr Morcombe's home airfield, rather than at Dixons Creek. Mr Morcombe said he was there at the same time on occasions and was able to monitor Mr Thaggard's flying and training methods and suitability to retain his rating. He considered Mr Thaggard to be a competent and conscientious instructor who operated and trained in a safe manner. Mr Morcombe said he had no indication Mr Thaggard would conduct a flight like that conducted on 21 December 2013.

Coroners Prevention Unit investigation

71. The Coroners Prevention Unit (**CPU**)[77] was requested to review the circumstances of the deaths of Mr Thaggard and Mr Pang, on my behalf, and research the incidence of other deaths involving gyroplanes in Australia. The CPU identified 18 deaths involving gyroplanes in Australia from 1 July 2000 to 1 September 2015. It was noted that all of these deaths involved males, whose ages ranged from 21 to 67 years.

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[76] At the Inquest, this supplementary report was marked Exhibit #3,

[77] The Coroners Prevention Unit (CPU) was established in 2008 to strengthen the prevention role of the coroner. The unit assists the coroner with research and formulation of prevention recommendations, as well as assisting in monitoring and evaluating the effectiveness of the recommendations.

THE INQUEST

72. Directions Hearings were conducted on 30 November 2015 and 9 February 2016.

First Directions Hearing

73. At the Directions Hearing on 30 November 2015, I was assisted by Leading Senior Constable (LSC) Amanda Maybury. Mr Thaggard's wife Mrs Tracy Loebert was in attendance. At the Directions Hearing, I advised that I intended to use my discretion to hold an Inquest relating to this matter. LSC Maybury noted that following the investigations undertaken by Victoria Police, ASRA, and the subsequent independent expert opinion, the pertinent issues related to the manner in which Mr Thaggard was operating his business, and the oversight that was conducted by ASRA and also by CASA, being the regulatory body. As there was the possibility that I would make adverse comments against ASRA, I determined to adjourn the Directions Hearing to a date in February 2016, when representatives from ASRA and CASA would be available.

Statement made by Lee Ungermann at CASA

74. Prior to the Directions Hearing on 9 February 2016, the Court received a statement from Mr Lee Ungermann, Team Leader of the Self Administering Sport Aviation Organisations Section, Office of the Director of Aviation Safety, at CASA, dated 5 February 2016.[78]

75. In his statement, Mr Ungermann noted, *inter alia*, that CASA regulates the operation of nine recreational aviation administration organisations (RAAO), including ASRA. He noted that sport aviation involves an element of personal risk; members operate on the premise of informed participation, which means they are free to operate aircraft that do not meet the same airworthiness requirements of certified aircraft types used in commercial fare paying charter operations, subject to compliance with certain operational procedures stipulated by the relevant RAAO.[79]

76. Mr Ungermann noted that any breach of the requirements and procedures specified in an

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[78] At the Inquest, Mr Ungermann's report, with attachments, was marked Exhibit #7.

[79] Exhibit #7 p 1-2.

RAAO Operations Manual by a member is subject to disciplinary action by the relevant RAAO.[80] He stated that gyroplane pilots wishing to operate an aircraft as a member of ASRA are responsible for ensuring they operate their aircraft in accordance with *CAOs 95.12* and *95.12.1* and the *ASRA Operations Manual*. Mr Ungermann explained that breaches of the *CAOs*, *Civil Aviation Regulations 1988* and *Civil Aviation Act 1988* by members of ASRA are enforceable by CASA. However, he added that it is appropriate that ASRA first conduct an investigation into any incident or accident and then, if appropriate, refer the matter to CASA for further investigation should any regulatory breaches be identified.[81]

77. Mr Ungermann referred to the Deed of Agreement between ASRA and CASA, dated 8 October 2013, in place at the time of the incident. He noted that the Deed sets out the functions that ASRA was required to conduct in order to fulfil self-administering duties.[82] Schedule B – 'General tasks and functions' of the Deed of Agreement provides *inter alia* that ASRA is required to assist CASA by monitoring standards and procedures of gyroplane and gyroglider pilot certification systems; monitor operational standards and procedures of member/s and member clubs; investigate alleged breaches of *Civil Aviation Regulations* and the *ASRA Operations Manual* by gyroplane pilots on behalf of CASA; and examine the results of incident and accident investigations to ensure that standards have been complied with. Mr Ungermann added that negotiations for a Deed of Agreement covering the 2015-2016 financial year were ongoing at the time of the statement being written.[83]

78. Mr Ungermann confirmed that CASA's approach regarding the operation of gyroplanes has been to encourage ASRA to take responsibility for the administration and oversight of high risk recreational activities to the maximum extent possible. This approach is based on the principle that participants are informed of the inherent risk involved and make an informed

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[80] Exhibit #7 p 2.

[81] Exhibit #7 p 3.

[82] Exhibit #7 p 4.

[83] Exhibit #7 p 4. The 2015-2016 Deed of Agreement was tendered at Inquest and marked Exhibit #9.

decision to participate by becoming members.[84]

79. Mr Ungermann acknowledged the relatively higher risk associated with operation of gyroplanes, and stated that CASA's approach to regulating their use is also to ensure that there is not an unacceptable risk to other airspace users or to persons' property on the ground. He stated that this was reflected by sections 6, 7 and 8 of CAO *95.12.1* and sections 6 and 7 of the CAO *95.12*.[85]

80. Mr Ungermann noted that the Australian Transport Safety Bureau (**ATSB**) is responsible for investigating accidents and incidents involving aircraft, but it has filed a difference with the International Civil Aviation Organisation under Annex 13 of the Chicago Convention, confirming it will not necessarily investigate sport and recreational aviation accidents, due to resource constraints. Mr Ungermann stated that when the ATSB chooses not to investigate an accident, it becomes the responsibility of the state's police to work with subject matter experts to provide a report to the Coroner. It was Mr Ungermann's understanding that ASRA are considered to be the subject matter expert for Victoria Police, in relation to gyroplane accidents involving ASRA members.[86]

81. Mr Ungermann reported that CASA conducts a risk based auditing regime of RAAOs as part of its compliance and assurance checks. These audits are usually conducted at the national headquarters of the relevant RAAO but also take place in the field; CASA conducts unscheduled surveillance of pilots. Mr Ungermann noted that since 2014, CASA had audited ASRA on three separate occasions. As a result, CASA was satisfied that ASRA's systems and databases were sufficiently robust and that it was ensuring compliance with its own documented processes and procedures. Mr Ungermann added that CASA would continue to monitor these systems and databases in the future.[87]

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[84] Exhibit #7 p 4. Mr Ungermann noted that this principle is encapsulated in paragraph 6.1(a) of the *Civil Aviation Order 95.12.1*, which makes it a condition of operating a gyroplane under the Order that there be a clearly displayed sign in the gyroplane that neither CASA nor the ASRA guarantee the airworthiness of the gyroplane; and the occupants operate the gyroplane at their own risk.

[85] Exhibit #7 p 5.

[86] Exhibit #7 p 7.

[87] Exhibit #7 p 9.

82. Mr Ungermann stated that CASA did not receive any intelligence from ASRA or any other source prior to the incident flight, in relation to Mr Thaggard's conduct as an ASRA flight instructor. In the absence of intelligence of this nature, Mr Ungermann stated that CASA's insight into whether unauthorised commercial gyroplane operations are being conducted is limited.[88]

83. Mr Ungermann opined that while CASA was working with RAAOs to highlight the safety risks and legal consequences of illegal operations of recreational aircraft, it was not possible for either ASRA or CASA to monitor every gyroplane operation and training flight to ensure regulatory compliance.[89]

Second Directions Hearing

84. At the Directions Hearing on 9 February 2016, the interested parties present were:

- ASRA, represented by Mr Mark Regan of Counsel.[90] Dr Paul Campbell, President of ASRA, was also present.
- CASA, represented by solicitor Mr Anthony Carter.
- LSC (then Acting Sergeant) Amanda Maybury from the Police Coronial Support Unit (PCSU) was again Counsel Assisting.

85. At this hearing, the parties were advised that I intended to receive evidence concurrently from a panel of experts at the Inquest, including Mr Morcombe, Mr Regan, Mr Wardill and Mr Glenn. Mr Ungermann would also be asked to provide evidence at the Inquest.

Evidence at the Inquest

86. At the Inquest on 6 June 2016, I was assisted by LSC Andrea Hibbins of the Police Coronial Support Unit. Interested parties present were:

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[88] Exhibit #7 p 10.

[89] Exhibit #7 p 12.

[90] In advance of this Directions Hearing, Mr Regan sought leave to appear on behalf of ASRA. At the Directions Hearing, it was confirmed that ASRA would be represented by different Counsel at the Inquest, as Mr Regan was a participating member of the ASRA on-site investigating team at the Kinglake site of the incident in December 2013, and would be called to give evidence at the Inquest.

- Ms Tracey Loebert and her daughter Maggie, and Mr Thaggard's daughter's mother Julie Edmonds, representing Mr Thaggard's family.
- Fiona and Adam Pang, representing Mr Pang's family.
- ASRA, represented by Mr Adam McBeth of Counsel.
- CASA, represented by Mr Anthony Carter, solicitor.

87. Concurrent[91] *viva voce* evidence was obtained from the following individuals who had authored reports:
    - Mr Allan Wardill, Operations Manager and Incident Registrar at ASRA;
    - Mr Ian Morcombe, Chief Training Pilot at ASRA; [92]
    - Mr Mark Regan, Barrister at the Victorian Bar and volunteer at ASRA; and
    - Mr Robert Glenn, former CFI in General Aviation, Recreational Aviation and with ASRA,[93] former Senior Sport Aviation Operations Officer at CASA.

88. *Viva voce* evidence was also obtained from:
    - Mr Lee Ungermann, Team Leader, Self Administering Sport Aviation Organisations Section, Office of the Director of Aviation Safety at CASA.

Concurrent Evidence

89. The following questions were put by LSC Hibbins to the panel of experts, Mr Wardill, Mr Morcombe, Mr Regan and Mr Glenn, in the course of the concurrent evidence:

    Q. 1) Regarding section 53.6 of the ASRA Operations Manual, which provides that an instructor will enter details of endorsement and flight checks in the pilot's log book and forward a copy of an 'Advice to Registrar' form to the ASRA Registrar: it

[91] Concurrent evidence is when a number of expert witnesses are called to give evidence at the same time. In this case, three experts were all provided with the Inquest brief and a number of questions. They met prior to the Inquest to discuss the issues and were sworn in and asked for their responses to each question to determine if there was a possibility of consensus on any of the questions.

[92] Mr Morcombe had also been the Training Manager for ASRA at the time of writing the incident report: T @ 11 (4-6).

[93] T @ p 14 (4-10).

appears that Mr Thaggard did not comply with regulatory requirements and in this regard, what auditing is carried out by ASRA?

90. Mr Wardill responded on behalf of the panel that ASRA concurred Mr Thaggard did not comply with these regulatory requirements. He added that as the *ASRA Operations Manual* requires auditing at least once every two years, there was no requirement that Mr Thaggard be audited for another 19 months, as he had only been operating as an instructor for five months.[94]

Q. 2) How are flight checks or audits recorded? Are they reported to CASA? How is the auditing targeted? Is it random or is it specific?

91. Mr Wardill responded on behalf of the panel that at the time of the incident, audits were reported on the 'Advice to Registrar' form which was produced in booklet form and included three copies of each individual entry. The form would be sent to the ASRA Registrar who would record it in their register. This form was not reported to CASA. Mr Wardill added that auditing is on a biennual basis, unless there are adverse comments or a reason for an additional audit to be carried out in the interim.[95] When asked why auditing was not reported to CASA, Mr Wardill replied that it is not required under the Deed of Agreement or under the regulations.[96]

Q. 3) What auditing is carried out by ASRA and at what frequency to ensure pilots comply with section 53.7 of the ASRA Operations Manual?[97]

92. Mr Wardill responded on behalf of the panel that again, it is a biennual requirement and the ASRA auditor will conduct an inspection of training records, pilot logbooks and gyroplane logbooks associated with the operation.[98]

Q. 4) How is this recorded and is it reported to CASA?

93. Mr Wardill responded on behalf of the panel that the audit is recorded on a 'Training Facility Audit Checklist'. Mr Wardill stated that he was the Operations Manager at the time

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[94] T @ p 17 (16-25). I note that Mr Thaggard obtained his instructor rating on 16 May 2013.

[95] T @ p 19 (13-24).

[96] T @ p 19 (25-31).

[97] Section 53.7 of the *ASRA Operations Manual* provides that an instructor will maintain accurate student pilot training records and provide statistics regarding hours flown and training carried out, as and when requested.

[98] T @ p 20 (16-22).

of the incident, and Mr Thaggard was never audited from an operational point of view.[99] When asked who would have oversighted Mr Thaggard's business operations, Mr Wardill responded *'I've got no idea...'*.[100]

Q. 5) Was Mr Thaggard ever subject to auditing of his logbooks or flights by ASRA?

94. Mr Wardill responded on behalf of the panel that the logbooks and flights would have been audited at the time that Mr Thaggard was issued with his instructor rating, on 16 May 2013, because it is a requirement for the CFI who issued that rating to ensure he met the minimum qualifications to be an instructor. However, subsequent to that, there was no audit.[101]

Q. 6) Who was Mr Thaggard's Chief Flying Instructor[102] responsible for checking the compliance of his operations?

95. Mr Morcombe responded that he was the responsible CFI at the time.[103]

Q. 7) What is the minimum expectation by ASRA by the Chief Flying Instructor regarding oversight of a member's operations?

96. Mr Wardill responded that the minimum expectation may be governed by the fact that an instructor, such as Mr Thaggard, is not entitled to authorise the first solo flight of a pilot he has trained.[104] In Mr Thaggard's case it was two or three weeks before his first students were due to be checked for their first solo flight. Had this occurred, Mr Thaggard would have been subject to an operational and administrative audit on the basis that the CFI would have conducted the pre-solo flight checks.[105]

97. Mr Morcombe noted that his oversight of Mr Thaggard was informal, because they were so close in proximity and he was training at Mr Morcombe's local airfield. Mr Thaggard was training eight students. Mr Morcombe agreed that the normal approach would be for the formal first check of Mr Thaggard's training to occur when his first student was about to fly

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[99] T @ p 22 (17-18).

[100] T @ p 22 (19-23).

[101] T @ p 23 (7-18).

[102] It was noted that sections 1.02, 1.07, and 1.09 set out the statement of duties and responsibilities of roles at ASRA including the Operations Manager, Chief Flying Instructor and Instructor.

[103] T @ p 25 (17).

[104] T @ p 26 (1-3).

[105] T @ p 26 (5-31), 27 (1-2).

solo: '... *we were very close to that point, but we had not achieved it*'.[106]

Q. 8) Does the panel believe there was sufficient oversight or should there have been better interrogation and action taken in regard to the apparently deficient log book entries and maintenance entries by Mr Thaggard? If not why?

98. Mr Wardill responded on behalf of the panel that ASRA believes the oversight executed in regard to Mr Thaggard was appropriate and in accordance with the *ASRA Operations Manual*.[107] Mr Glenn acknowledged ASRA is a small organisation, but added that no review of documentation for a period of five months, from July 2013 until the incident in December 2013, seemed a long period.[108] However, he agreed that the oversight met the ASRA requirements.[109]

99. Mr Morcombe added that there is no requirement that the logbook be in a specific form.[110] He noted that Mr Thaggard had everything up to date when he received his instructor rating. However, there was subsequently a portion of time when he was recording information in his diary, and he had not transferred information over.[111]

100. Mr Regan confirmed that it only became apparent to the panel after the incident that Mr Thaggard was not using a more formal type of logbook.[112] Mr Wardill informed the Court that it would be possible to tighten oversight so that new instructors are complying with the *ASRA Operations Manual*, but emphasised that ASRA's funding is generally provided by its members.[113]

101. Mr Glenn added that the '*real import*' of keeping a logbook is that it is used to record and assess pilot experience; '*it also records recency of how often... how long since the pilot has flown*'.[114]

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[106] T @ p 27 (7-21).
[107] T @ p 30 (1-5).
[108] T @ p 30 (14-20).
[109] T @ p 30 (10-12).
[110] T @ p 31 (22-23).
[111] T @ p 31 (1-11).
[112] T @ p 32 (14-20).
[113] T @ p 32 (28-31), 33 (1-2).
[114] T @ p 33 (13-17).

Q. 9) Explain the progression process for a prospective pilot to advance from a student licence to instructional status, including what experience is required and how many flying hours before they are deemed competent?[115]

102. Mr Wardill responded on behalf of the panel that a student pilot applies to ASRA for a 'student pack', finds an instructor and is then required to do a minimum of 15 hours dual flying, followed by five hours of solo flight before being deemed competent. Having been issued with a pilot certificate, the person then gets more experience and usually obtains a 'passenger carriage endorsement' as the next step, which requires 80 hours flying as the pilot-in-command. Following the 80 hours, the person is allowed to take passengers on scenic flights, but not for hire or reward. The next stage is an instructor rating, which requires 100 hours as pilot-in-command and the completion of a 'principles and methods of instruction' course acceptable to ASRA. The individual is then checked and coached, if necessary, on the theoretical training and following a successful flight check, is issued with an instructor rating.[116]

103. Mr Morcombe added that at the time of receiving his instructor rating on 16 May 2013, Mr Thaggard exceeded the required 100 hours.[117]

Q. 10) Is there an assessment conducted before instructional status is granted?

104. Mr Morcombe responded on behalf of the panel that there is an assessment.[118] However, Mr Wardill noted that there was no reference in the logbook to Mr Thaggard undergoing a flight check for a passenger endorsement, prior to flying with a passenger on 6 February 2013. Mr Wardill stated that the occurrence of a passenger endorsement should have been confirmed in the logbook.[119] Mr Regan added that Mr Prendergast would have likely sent an 'Advice to Registrar' confirming the passenger carrying endorsement, to the registrar of ASRA.[120]

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[115] LSC Hibbins noted that while Mr Thaggard received his instructional status on 16 May 2013, it was unclear when he received his passenger endorsement. During the period of 16 May 2013 and 21 December 2013, there appears to be little or no evidence of oversight from ASRA to ensure his compliance or ongoing suitability to hold an instructional licence. According to the *ASRA Operations Manual,* instructor pilots are subject to 'regular flight checks' by a nominated Chief Flying Instructor: T @ p 35 (1-17).

[116] T @ p 37 (10) – 39 (9).

[117] T @ p 39 (31) – 40 (1-2).

[118] T @ p 40 (21).

[119] T @ p 44 (3-11).

[120] T @ p 44 (14-19).

Q. 11) Did Mr Thaggard have sufficient experience to be given a passenger endorsement?

105. Mr Wardill responded on behalf of the panel, referring to the logbook and noting that Mr Thaggard had in excess of the minimum 80 hours of flying as pilot-in-command required before he first flew a passenger in a gyroplane on 6 February 2013.[121]

Q. 12) How does the panel define 'regular' flight checks?

106. Mr Wardill responded on behalf of the panel that in accordance with the ASRA operations manual, 'regular checks' are biennial unless required for disciplinary purposes.[122]

107. Mr Glenn reiterated that while the biennial review meets the *ASRA Operations Manual* requirements, he believes two years is a long period of time and that other disciplines would probably mandate flight checks within a shorter period.[123]

108. Mr Regan stated that the ASRA board is satisfied that in the ordinary course of events, Mr Morcombe would likely have had direct oversight of Mr Thaggard in December 2013, or January 2014 or February 2014, because of students that were expected to become suitable for solo flight.[124] At this point, the ASRA Board would expect there would be an opportunity to inspect logbooks, training documents and find any deficiencies.[125]

109. Mr Morcombe added that he did not have a date set in the diary for these checks to occur.[126]

Q. 13) In terms of the Deed of Agreement with CASA and the ASRA Operations Manual, in hindsight does the panel consider Mr Thaggard received sufficient oversight and education regarding his operations from ASRA?

110. Mr Wardill responded on behalf of the panel that in the opinion of ASRA, the oversight and education was sufficient, as the CASA approved requirements within the *ASRA Operations Manual* were complied with.[127]

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[121] T @ p 45 (20-27).

[122] T @ p 46 (5-7).

[123] T @ p 46 (17-23).

[124] T @ p 47 (3-10).

[125] T @ p 47 (20-23).

[126] T @ p 49 (27).

[127] T @ p 50 (21-25).

111. Mr Glenn commented that more regular flight and documentation checks encourage the instructor and help foster compliance.[128]

112. Mr Wardill responded that more regular checks would not enforce compliance with any regulation, and argued that it was a mental attitude projected by the pilot, who must be willing to comply.[129] Mr Wardill acknowledged that he has concerns about *'cowboy pilots'* within the organisation.[130]

113. Mr Glenn clarified that his remark was referring to a close, 'hand in glove' relationship between the CFI and the instructor, rather than disciplinary action.[131] He added that CFIs can often show instructors better ways of keeping records, and there would be a *'flow on'* effect from a more experienced instructor to a beginner, encouraged by the close contact that would occur by more frequently looking at paperwork and flight checks.[132]

114. Mr Morcombe added that as there are only approximately 20 instructors around Australia,[133] there was actually an abnormally high degree of informal contact with Mr Thaggard – given their geographic proximity.[134]

> *Q. 14) Can the panel explain the ambiguities in the legislation, regarding advertising of joy flights and trial introductory flights relevant to gyroplane?*

115. Mr Regan responded on behalf of the panel that aviation legislation is labyrinthine and suggested it was well beyond members of ASRA without legal expertise to drill down into the legislation.[135] He noted that there is ambiguity and confusion arising between the different hire and reward type issues for various legislative instruments that govern different flying activities, such as hang gliders.[136] Mr Regan stated that the ASRA Board recommends that CASA, being the regulator, promulgate an advice guide to persons in the recreational aviation sector who are thinking of setting up a business. This document

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[128] T @ p 50 (28-31), 51 (1-22).

[129] T @ p 52 (18-22).

[130] T @ p 53 (22-24).

[131] T @ p 54 (28-31).

[132] T @ p 55 (2-11).

[133] Mr Wardill later clarified that there are 24 or 25 instructors throughout Australia, which includes Chief Flying Instructors, senior instructors and ordinary instructors: T @ p 92 (22-26).

[134] T @ p 55 (18-31).

[135] T @ p 56 (23-30).

[136] T @ p 57 (5-11).

would help guide people involved in recreational aviation instruction as to what representations they can make to the public.[137]

116. Mr Regan added that there is a basic understanding amongst ASRA members that they cannot charge for hire or reward, but confusion arises when it comes to applying the rule to particular factual situations.[138] Mr Regan said that it is clear instructors can charge a student for their services, and most ASRA members would understand they are not supposed to charge for giving strangers a ride.[139] However, the grey area arises when a person has walked in for a trial introductory flight, and will later be making a decision as to whether they want to continue training.[140]

Q. 15) Did the flight comply or conflict with regulations and regulatory instruments?

117. Mr Regan responded on behalf of the panel that if evidence suggests money changed hands, or was likely to change hands, for Mr Thaggard to be complying with regulations, there would need to have been a contractual relationship such as that of an instructor and student with Mr Pang.[141] Mr Regan confirmed there were no records to indicate an instructor / student relationship existed on the day of the incident.[142] Mr Regan later added that ASRA's expectation is that there has to be a contractual relationship based around the expectation of training.[143]

118. Mr Glenn added that during his time in the sport aviation section at CASA, they regularly disseminated advice that money cannot change hands unless it is related to bona fide training. This advice related to both gyroplanes and microlights. Mr Glenn confirmed that he could not see any evidence that the relevant flight was a trial introductory flight.[144]

119. Mr Wardill stated that regarding general aviation, the regulations allow cost sharing on private flights, between the pilot and the passenger.[145] Mr Regan added that this cost sharing is for private operation in general aviation; it is still unsettled as to whether

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[137] T @ p 57 (15-31).

[138] T @ p 58 (10-16).

[139] T @ p 58 (20-24), 59 (1-12).

[140] T @ p 59 (21-26).

[141] T @ p 61 (10-19).

[142] T @ p 61 (20-22).

[143] T @ p 70 (22-27).

[144] T @ p 61 (25-30), T 62 (9-17).

[145] T @ p 63 (17-26).

gyroplane operations are strictly caught up by the interpretation of private operation within air navigation legislation.[146] Mr Glenn added that he believed cost sharing does not apply to sport aviation bodies; as far as he knew it was only for general aviation bodies, not gyroplanes or any sort of sport aircraft.[147] Mr Regan stated that CASA needed to provide more legal guidance to ASRA about this issue.[148]

> *Q.16) Does the panel consider that advertising 'gift certificates'[149] for flights occurs within the industry on a regular basis?*

120. Mr Wardill responded on behalf of the panel that advertising gift certificates is fine, as long as it is specified that it is for a trial introductory flight.[150] He added that on occasion he has been directed to websites where instructors have advertised 'scenic' or 'joy' flights, and has told them to amend the advertisement to emphasise instructional flights instead.[151]

> *Q. 17) Was Mr Thaggard ever subject to disciplinary proceedings or did he receive any warnings as a result of any monitoring from ASRA, particularly in relation to the joy flights?*

121. Mr Regan responded that that no action was taken, but if ASRA had been alerted to Mr Thaggard's activities, then that would have triggered an investigation and enforcement mechanism.[152]

> *Q. 18) Is there sufficient education within the ASRA organisation and membership regarding the prohibition of joy flights and compliance with associated regulations?*

122. Mr Wardill responded on behalf of the panel that he believed there was sufficient education; ASRA publishes a quarterly magazine, and they investigate incidents and publish the results.[153]

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[146] T @ p 64 (6-17).

[147] T @ p 64 (30-31), 65 (1-5).

[148] T @ p 65 (15-24).

[149] The website: http://flightsports.com.au/ was accessed on 1 December 2014. I note that amongst paragraphs entitled 'Scenic trial Introductory Flights' and 'Learn to Fly', was a section entitled 'Gift Certificates' which went on to read 'Treat someone you love to an UPLIFTING experience. Gift vouchers available starting at $80.'

[150] T @ p 66 (2-5).

[151] T @ p 67 (10-27).

[152] T @ p 68 (5-9).

[153] T @ p 69 (3-11).

Q. 19) Can the panel provide an opinion as to how Mr Thaggard was able to operate so far outside the regulatory guidelines relevant to the gyroplane, in particular joy flights?

123. Mr Wardill responded on behalf of the panel that ASRA did not know about Mr Thaggard's activities, and was not directed to his website at any stage prior to the incident – *'we couldn't act on stuff we didn't know about'*.[154] Mr Regan added that since the incident, ASRA is informally monitoring members on the internet more assiduously than in the past.[155] A formal procedural mechanism had not yet been put in place. Mr Regan stated it would be worthwhile to require instructor applicants to put up some sort of case or description as to how they would set up their business and represent themselves to the public.[156]

Q. 20) In your opinion, do you believe Mr Thaggard received adequate training and oversight as an instructor in regards to Civil Aviation Orders and the ASRA Operations Manual?

124. Mr Wardill responded on behalf of the panel that it was believed Mr Thaggard received adequate training and oversight in excess of what is required by CAO *95.12.1* and also in excess of what is required by the *ASRA Operations Manual.*[157]

Q. 21) Can you explain the height restrictions relevant to the gyroplane?

125. Mr Wardill responded on behalf of the panel that the minimum altitude for gyroplane operations is 300 feet above ground level, unless operating over the property of a person who has given direct permission to the pilot to operate below 300 feet. In that case, the minimum altitude is at the discretion of the owner.[158] Mr Regan added that there is an additional requirement, contained in the *ASRA Operations Manual* that the aircraft be operated in a manner that would ensure a safe emergency landing can be completed at any time.[159]

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[154] T @ p 71 (16-20).

[155] T @ p 72 (2-4).

[156] T @ p 72 (10-16).

[157] T @ p 74 (25-29).

[158] T @ p 75 (10-20).

[159] T @ p 75 (22-25).

Q. 22) Does the panel concur that Mr Thaggard failed to adhere to proper height requirements for portions of the flight?

126. Mr Wardill responded that the panel concurred.[160]

127. Mr Regan added that regarding the location of the flight, the panel had reviewed the flight track again, and it was clear there were certain points in which an emergency landing could have been executed, in some of the open locations adjacent to the path. However, he added that the flight track does cover areas where a safe landing could not be executed when flown at the height which occurred.[161]

128. Mr Morcombe referred to an A3 Google map diagram[162] and noted that, relying on the interrogation of data, in general, while Mr Thaggard was flying north, shortly after take-off, he was flying above 300 feet.[163] At the northern most point of the flight trajectory, Mr Thaggard was flying approximately 400 feet above the ground. As he progressed further west, the ground dropped away and he was about 1000 feet above ground.[164] Mr Thaggard then flew south, before turning east and starting to head north again, above another ridge. As he followed the ridge north, Mr Thaggard flew under 300 feet, but towards the top of this northern leg, he achieved 300 feet again.[165]

129. Mr Morcombe noted that once Mr Thaggard had achieved 1000 feet above the ground above the valley and started to head south, he would have been able to land in the paddocks west of the hangar. However, he flew around those paddocks and headed back in a northerly direction, towards the northern most section of the first loop, where he was behind a ridge, and had no access to anywhere to conduct a safe emergency landing.[166]

130. Mr Wardill added that at a critical part of the flight, Mr Thaggard was well below 300 feet and had he been at 1000 feet, as he was earlier in the flight, the incident would never have

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[160] T @ p 75 (28-31).

[161] T @ p 76 (2-18).

[162] The A3 Google map diagram depicting the flight path was marked Exhibit #6.

[163] T @ p 80 (26-29).

[164] T @ p 78 (9-30), 79 (8-10).

[165] T @ p 81 (4-9).

[166] T @ p 81 (10-27).

happened.[167] Mr Glenn noted that the 300 feet above ground level permitted for ASRA members is lower than the 500 feet maintained by other disciplines.[168]

Q. 23) Based on the flight data available and taking into account the overall safety of a flight, how would you describe Mr Thaggard's operational and aeronautical decision making on the day?

131. Mr Wardill responded on behalf of the panel that it was *'exceptionally poor'*, noting the lack of emergency landing available at times. Mr Wardill stated that poor airmanship was particularly evident towards the end of the flight.[169]

Q. 24) Does the panel accept Mr Morcombe's proposition that carburettor icing may have contributed to Mr Thaggard's reaction and decision making?

132. Mr Wardill responded that ASRA did not accept the proposition, and stood by the findings of its report.[170]

133. When asked if he stood firm with his proposition, Mr Morcombe replied that it was a possibility there was no proof either way – *'so it's a hypothetical'* and not evidence based.[171] Mr Morcombe agreed that he was searching for answers in hindsight, because Mr Thaggard's decision making towards the end of the flight made no sense to him.[172]

Q. 25) Is an 'informal eye' being cast over the operations of an ASRA member considered to be adequate oversight or do you consider this being outside the obligations and responsibilities set out in the compliance functions in Schedule B of the Deed of Agreement between CASA and ASRA?

134. Mr Wardill responded that in terms of the *ASRA Operations Manual*, the oversight required was a flight review once every two years. The informal oversight was not outside of, but enhanced the obligations and responsibilities of compliance functions. Mr Wardill

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[167] T @ p 82 (13-14).

[168] T @ p 82 (29-31), 83 (1).

[169] T @ p 85 (11-15).

[170] T @ p 86 (5-6).

[171] T @ p 86 (12-16).

[172] T @ p 86 (18-19), 87 (3-7).

stated that the informal oversight of Mr Morcombe between 16 May 2013 and the time of the incident, was *'more than adequate'* and complies with the manual.[173]

135. When asked to comment on the fact that the apparent joy flights and non-compliant logbook entries were not detected, Mr Morcombe noted that Mr Thaggard's home base was at Dixons Creek – a two hour drive away from Wahring Airfield. The student records were kept at Dixons Creek – *'those things were completely separate'*.[174] Mr Morcombe added that while Mr Thaggard was instructing students, he did not sight any of his logbooks. Most of their debriefing took place on the phone.[175]

136. When LSC Hibbins suggested that as there are only approximately 24 instructors throughout Australia, oversight could be improved to ensure compliance, Mr Wardrill responded *'at the moment the oversight cannot be any more than it is because it can't be funded'*.[176] Mr Wardill added that ASRA would be willing to comply if CASA wanted more oversight than it has approved in the *ASRA Operations Manual*, but it needs to be funded, and ASRA does not believe it should be funded by its membership.[177]

137. Mr Wardill added that ASRA recommends that pilots do not carry pilot or gyroplane logbooks in the actual gyroplane, because if the aircraft crashes, those records are lost permanently.[178]

138. Mr Regan noted that while different monitoring may have *'remedied the paperwork side of things'*, the attitude, airmanship and decision-making by Mr Thaggard may not have changed.[179]

139. Mr Glenn reiterated his belief that the oversight could have been enhanced if it encompassed documentation.[180] He suggested that an electronic transfer between CFIs and instructors would be a way to keep records and maintain a workable relationship between

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[173] T @ p 88 (2-13).

[174] T @ p 88 (28-31), 89 (4-15).

[175] T @ p 94 (10-22).

[176] T @ p 95 (17-19).

[177] T @ p 95 (20-26).

[178] T @ p 96 (1-14).

[179] T @ p 97 (22-31).

[180] T @ p 98 (5-8).

them.[181] Mr Wardill noted that in 2014, he introduced a student pilot training booklet, which instructors are encouraged to complete and upload to the pilot's file on a database. However, he noted that compliance with uploading it electronically is not mandated – '*some are doing it; some aren't. Some can't be bothered.*'[182] While this is not a log book, it provides a trail of solo and dual training received and the stage the pilot is at, which is viewable by other instructors and the administration of ASRA.[183]

> *Q. 26) In light of ASRA's report identifying deficiencies and breaches, how was Mr Thaggard able to operate so far outside the ASRA Operations Manual's procedures and Civil Aviation Orders?*

140. Mr Wardill responded that no one knew Mr Thaggard was operating the way he was operating.[184] He added that if they had accessed the records, the deficiencies would have been clearer, with the exception of the flying below 300 feet above ground level in the flight with Mr Pang.[185] Mr Regan added that if they had become aware of inadequate paperwork, it would have been treated as a clear indicator that Mr Thaggard may not be managing other areas of his endeavour correctly.[186]

> *Q. 27) In light of ASRA's report concluding that no generalised action is necessary or appropriate following the incident, is the panel suggesting there is nothing in regard to safety and public interest to be learnt from this fatality?*

141. Mr Regan replied that ASRA learns from every gyroplane incident and endeavours to disseminate information that has been gleaned to its members. He acknowledged that the position stated in the report could be interpreted as saying there is nothing more to be known, and corrected this position, noting that every incident and fatality is taken very seriously by ASRA.[187]

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[181] T @ p 98 (20-26).

[182] T @ p 98 (28-31), 99 (2-20).

[183] T @ p 99 (20-25).

[184] T @ p 101 (12-16).

[185] T @ p 102 (13-16).

[186] T @ p 102 (17-22).

[187] T @ p 103 (9-28).

Q. 28) In light of the investigation and the Deed of Agreement, would the panel consider Mr Glenn's comments regarding the oversight responsibilities of ASRA to be an appropriate course of action?

142. Mr Wardill responded that ASRA agrees with Mr Glenn's report to the extent there is already an existing regulatory regime for sport and recreational gyroplanes, and oversight should be conducted by CASA to ensure compliance with an already existing regulatory framework.[188] He stated that ASRA had already expressed its opinion regarding Mr Glenn's suggestion that a more robust audit system be undertaken by ASRA of its flight training facilities, and particularly of duties undertaken by newly appointed ASRA instructional staff, in that financial issues preclude it.[189]

143. Mr Glenn added that in his opinion there may be some aspects of the *ASRA Operations Manual* that might be improved by being more prescriptive.[190] Mr Wardill undertook that ASRA would review this in relation to when instructional staff come on board, with the potential of increasing surveillance or audits on newly appointed instructors in their first term of instruction.[191]

Q. 29) In considering a 'robust' audit system, does ASRA have sufficient resources to manage this sector of the aviation industry? If not, what would be required to manage this?

144. Mr Wardill responded that more financial assistance was required.[192] Mr Regan added that ASRA currently receives an average standing grant of approximately $20,000 from CASA each year.[193] Mr Regan noted that while there are additional, specific grants tied to specific tasks in the realm of $5000 to $6000, these figures barely cover recordkeeping and regulatory responsibilities.[194]

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[188] T @ p 104 (30-31).

[189] T @ p 104 (31), 105 (1-2).

[190] T @ p 105 (6-12).

[191] T @ p 105 (20-27).

[192] T @ p 106 (4-5).

[193] T @ p 106 (8-11).

[194] T @ p 106 (13-17).

Q. 30) The ASRA report appears to focus primarily on the individual actions applicable to this tragedy. Can the panel identify any systemic or organisational factors or issues that have contributed to this incident?

145. Mr Wardill confirmed that in light of Mr Glenn's comments, ASRA would undertake a review of the requirements for audits of instructors in their first term.[195]

Q. 31) Has there been a robust audit conducted of the industry? Has anything changed in regard to education or oversight?

146. Mr Wardill responded that in 2014, in response to this incident and other incidents, ASRA introduced a more standardised instructor checking system, which involved the audit of each individual instructor. The intent of the amendment was that he and Mr Morcombe would be appointed auditors and check pilots for the next two years, with the aim of improving their standard.[196] Mr Morcombe confirmed that from 2014 he and Mr Wardill have undertaken an ongoing program whereby they travel to different parts of Australia to implement this oversight.[197]

Additional Questions to the Panel

147. Mr McBeth asked Mr Wardill to explain the in-practice meaning of Clause 12, Schedule B of the Deed of Agreement between ASRA and CASA, at the time of the incident, which provides that ASRA is required to *'examine the results of incident and accident investigations to ensure that standards are appropriate'*.[198] Mr Wardill responded that it means ASRA asks members to report any event or occurrence in written format. It is then assessed and determined if it is an incident or accident. Subsequently, a final report is made and sent to the ATSB and the ASRA board. Mr Wardill said ASRA does not send a copy to CASA because it is not required to do so.[199] Mr Wardill stated that the ATSB never requests ASRA involvement in an accident investigation – *'they often will call and say there has been an accident and they will not be investigating...'*.[200] He added that a

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[195] T @ p 107 (1-4).

[196] T @ p 107 (10-26).

[197] T @ p 108 (8-31).

[198] T @ p 115 (1-8).

[199] T @ p 115 (9-25).

[200] T @ p 115 (26-30).

gyroplane accident is classed as a vehicular accident, and is the premise of police.[201] Mr Wardill stated that ASRA always ask police for cooperation to allow access and offer their assistance to police to provide a report.[202] He confirmed that the ATSB never provides funding for this accident investigation, and ASRA has never requested funding from Victoria Police, nor has it been made available.[203]

148. Mr Carter noted that at section 2.02 of the *ASRA Operations Manual*, there is a formal requirement as to what information must be recorded in the pilot's logbook, and asked if the panel believed Mr Thaggard's diary in the months prior to the incident was compliant with this section, in terms of the level of detail recorded.[204] Mr Wardill replied that from memory it did partially comply, and confirmed that the required information included was the date of flight, place of take-off and landing, duration of flight, and – if under instruction – whether a dual or solo in-flight exercise was carried out, and the names of those under instruction.[205] However, Mr Wardill did not recall the inclusion of required registration markings, the name of the pilot in command, type of gyroplane flown, or crew capacity of the log book holder.[206] Mr Wardill clarified that it was believed these details were not recorded because they were always the same.[207] Mr Wardill agreed with Mr Carter's suggestion that by adopting this *'unusual practice'*, Mr Thaggard prevented proper scrutiny of his activities, and the ability to produce a pilot logbook upon demand, during the time period he was keeping the diary.[208]

149. Mr Carter referred to section 2.05 of the *ASRA Operations Manual*, which refers to the 'passenger carriage endorsement', which enables pilots to carry 'non-fare-paying passengers in gyroplanes', and asked the panel if it accepted that ASRA's members would not be in any doubt from this that they are not to carry fare paying passengers. Mr Wardill agreed.[209] Mr Carter referred to paragraph 11c, 'the holder of the endorsement shall not

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[201] T @ p 116 (1-11).

[202] T @ p 116 (12-14).

[203] T @ p 116 (24-31).

[204] T @ p 119 (27-31), 120 (11).

[205] T @ p 120 (12-31), 121 (1-7).

[206] T @ p 120 (23-31), 121 (8-9).

[207] T @ p 122 (3-7).

[208] T @ p 122 (8-25).

[209] T @ p 122 (27-31), 123 (1-15).

carry passengers for hire or reward', and Mr Regan agreed with Mr Carter's proposition that the wording in these provisions *'attack the issue from both directions'*. However, Mr Regan added that guidance was required regarding the meaning of 'private operations' and 'commercial purposes' under the legislation.[210] He added that the provisions do not adequately address the *'transition period'* where a person can undertake up to three hours flying with a view to seeing whether they would want to conduct training.[211]

150. Mr Wardill confirmed to Mr Carter that ASRA's position was that it is meeting all of the compliance functions in its Deed of Agreement with CASA.[212] Mr Wardill agreed with Mr Carter's subsequent suggestion that some of the compliance functions are not tied to issues of funding, but reminded the Court that robust audits can only be provided with additional funding.[213]

151. I asked if Mr Wardill and Mr Regan had been making a plea for more funding from CASA in the context that I might recommend a different method of auditing.[214] Mr Wardill agreed and confirmed that if ASRA is to make improvements to auditing, it would need more funding.[215]

152. Mr Carter put it to the panel that the latest figures indicated it had approximately 370 members, and that funding from CASA has to be allocated in an equitable fashion within the aviation field. Mr Regan agreed, but also noted that ASRA members currently contribute $98 per annum, which creates limited money for operational issues, or the accident investigation function.[216] Mr Regan confirmed that the compliance functions under the Deed of Agreement do not require ASRA to conduct accident investigations, but noted that monitoring, auditing, onsite and instructor surveillance all cost money.

153. After consulting with LSC Hibbins, Ms Loebert asked the panel to explain why there was an emphasis upon Mr Thaggard conducting joy flights instead of trial introductory flights, noting he *'always offered people control of the aircraft when flying it and it was his*

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[210] T @ p 124 (1-8).

[211] T @ p 124 (12-20).

[212] T @ p 129 (25-28).

[213] T @ p 129 (29-31), 130 (1-14).

[214] T @ p 131 (1-10).

[215] T @ p 131 (14-17).

[216] T @ p 131 (20-31), (1-13).

ultimate joy for every TIF to become a student'.[217] Mr Wardill responded that he found it difficult to believe that an instructor of Mr Thaggard's potential would have allowed a student to pilot the aircraft with no previous experience at 300 feet or less above the ground level.[218]

Evidence from Mr Ungermann

154. Mr Ungermann stated that CASA expects ASRA to administer its own affairs and the operations, which may involve anything from safety education through to compliance, and ensuring members are operating in accordance with regulations or the *ASRA Operations Manual.*[219] He noted that the Deed of Agreement has largely remained unchanged since approximately 1983, when ASRA first became self-administering.[220]

155. Mr Ungermann explained that CASA undertakes risk-based auditing of the nine RAAOs it oversees. They are each given risk postures within CASA to look at the risks associated with their operations. Organisations of higher safety risk are audited more frequently.[221] Mr Ungermann added that he would not consider ASRA to be one of the higher risk RAAOs.[222]

156. Mr Ungermann justified his statement that he was satisfied ASRA's systems and databases were 'sufficiently robust in regards to administrative procedures and oversight', even in light of Mr Thaggard's actions, in the context that the statement pertained to the operation of the organisation and its processes, rather than the actions of one particular individual. Mr Ungermann stated that ASRA is largely a compliant organisation.[223]

157. Mr Ungermann acknowledged there appeared to be issues relating to Mr Thaggard's operation being possibly conducted as a joy flight, and stated that in terms of instructional oversight, *'I think certainly CASA will need to re-evaluate its position in terms of the oversight of the organisation, of its instructors.'*[224] Mr Ungermann added that CASA

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[217] T @ p 133 (13-25).

[218] T @ p 133 (26-31), 134 (1-6).

[219] T @ p 138 (11-20).

[220] T @ p 138 (28-30).

[221] T @ p 139 (20-28).

[222] T @ p 140 (12-13).

[223] T @ p 140 (21-23), T 141 (1-7).

[224] T @ p 142 (21-31).

recently conducted reviews of CFIs through a desktop audit process to see how student records were being completed, *'and it may very well be a case that we may want to have a look at how instructors are being treated in the same fashion.'*[225]

158. In the context of ASRA's flight checks being biennual, Mr Ungermann stated that many of the other organisations CASA oversees have slightly different regimes.[226] For a very basic instructor, some require CFIs to have a flight check with them once every three months. However, if the person was a senior beginning instructor – such as Mr Thaggard, who had microlight instructing experience – some of those checks are done annually.[227]

159. Mr Ungermann observed that in a small organisation such as ASRA, there is room for familiarity within the industry, which is why CASA relies upon documented processes in order to understand whether or not there has been adequate oversight.[228]

160. Mr Ungermann confirmed that CASA have a number of methods by which reports are made to them, by ASRA itself and members of the public.[229] He stated that CASA has a hotline to handle complaints about individuals and a number of other avenues for information to be provided directly to CASA, including on its website.[230]

161. I later queried why most of the complaints to CASA against ASRA members are from members of the public, regarding situations such as low-flying incidents, rather than from ASRA itself. Mr Ungermann stated that complaints are lodged occasionally from ASRA; *'normally if their oversight mechanism will not be able to take the action any further'*.[231]

162. Mr Ungermann addressed Mr Glenn's recommendations regarding the regulatory regime for sport and recreational gyroplanes. He agreed that there is already an existing regulatory regime for sport and recreational gyroplanes. In his statement, Mr Ungermann had noted regulation changes were planned which would increase the ability of RAAOs to more effectively enforce their own policy and procedures.[232] In Court, Mr Ungermann added that

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[225] T @ p 143 (2-7).

[226] T @ p 146 (14-22).

[227] T @ p 147 (1-8).

[228] T @ 147 (25-31), 148 (1).

[229] T @ 149 (6-8), 150 (4-6).

[230] T @ 149 (13-17).

[231] T @ 165 (13-26).

[232] Exhibit #7 p 3.

in this new rule set of regulations – Part 149 of the *Civil Aviation Safety Regulations 1998* involves the way self-administering organisations oversight their responsibilities, and Part 103 relates to how operations of those flight training organisations are conducted.[233] He noted that these provisions will offer more positive regulations. Mr Ungermann clarified that while current *CAOs* stipulate gyroplane pilots are exempt from these requirements if they operate in accordance with the *ASRA Operations Manual*, the new, positive regulations will say it is an offence not to operate within the *ASRA Operations Manual*. He noted that CASA expected the regulations to come into effect in June 2017, and there would be an 18 month transition period for organisations to change to the new regulatory rule set.[234]

163. Mr Ungermann also agreed with Mr Glenn's opinion that ASRA should conduct a more robust audit of its newly appointed instructional staff.[235] He added that there probably needs to be discussion about what constitutes a flight-training facility, but said the inspection of instructional staff may suffice in this regard.[236]

164. Mr Ungermann stated that subject matter expertise relating to gyroplanes rests with ASRA, and if ASRA's oversight functions were repatriated back to CASA, so as to have a more hands on role, it would require expertise within CASA, that would potentially need to be multiplied across the nine RAAOs as well.[237]

165. Mr Ungermann stated that if CASA believed ASRA was not conducting the level of oversight of its members expected, pursuant to Schedule B of the then Deed of Agreement, then it may impact on the Deed of Agreement.[238] However, in terms of non-compliance by individual members of ASRA, Mr Ungermann stated that this would not impact upon the Deed of Agreement, unless ASRA were not willing or able to take action to try and correct that behaviour.[239]

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[233] T @ p 143 (21-20).

[234] T @ 152 (11-31), 153 (1-25).

[235] T @ 154 (1-5).

[236] T @ 154 (6-18).

[237] T @ 155 (13-31).

[238] T @ p 156 (16-31), 157 (1-5).

[239] T @ p 157 (1-5).

166. He added that while CASA understands ASRA have a very important role to play in the oversight of gyroplane operations within Australia, they are a small organisation, and there are limited funds available to support them.[240]

167. In relation to funding decisions, Mr Ungermann stated the amount has traditionally been a historic figure – with a view to the size, scope and complexity of organisations CASA oversights – and increase from time to time with Consumer Price Index increases.[241] Mr Ungermann stated there has been discussion about revalidating the funding amounts.[242]

168. Mr Ungermann stated that the new Deed of Agreement sets out a statement of expectations, and the funding provided ASRA is *'essentially for all of the statement of expectations'*.[243] He acknowledged that while ASRA has a quite large span of operations in terms of flight training and national oversight, at last count it had approximately 376 members and approximately 307 aircraft.[244] Mr Ungermann stated that given there are 81,000 sport aviation participants, and ASRA is one of the smaller RAAOs, CASA has a fixed amount of money to devolve between nine organisations, an increase in funding to ASRA may result in taking funding away from safety critical areas in other organisations as well.[245]

169. In light of the smaller size of ASRA, I queried the rationale behind having ASRA as a self-administering organisation, and asked why CASA would not maintain the administration itself.[246] Mr Ungermann responded that the rationale for self-administration relates to ASRA's specialised knowledge. He added that if there was to be gyroplane experience in house at CASA, that would normally require one person; CASA relies upon the nine

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[240] T @ p 155 (30-31), 156 (1-4).

[241] T @ p 158 (27-31), 159 (1-6).

[242] T @ p 159 (8-14).

[243] T @ p 159 (22-25).

[244] T @ p 159 (30-31), 160 (1-3).

[245] T @ p 160 (1-27).

[246] T @ p 161 (10-15).

RAAOs for their subject matter expertise.[247]

170. Mr Ungermann stated that he believed the *ASRA Operations Manual* is quite clear regarding the compliance regime – *'the manual states there's a requirement that you can't conduct those commercial operations, and realistically the only type of operation... where money can change hands is in the flight-training environment'*.[248]

171. Mr McBeth suggested to Mr Ungermann that there was some uncertainty as to when an activity might qualify as a trial introductory flight and when it might not. Mr Ungermann acknowledged that there appeared to be some uncertainty and referred to a number of safety updates completed by CASA for sport aviation organisations, which might be a mechanism of clarifying this issue.[249] He further agreed that CASA could provide a basic, instructor level document advising on what to do if a general member of the public wishes to fly as a passenger in a gyroplane, and suggested this document then be distributed to instructors by ASRA.[250] Mr Ungermann agreed that this could also be achieved for the nine organisations, through CASA's safety update process.[251]

172. Mr Ungermann confirmed that the statutory obligation for accident investigation rests with the ATSB.[252] He agreed that ASRA's gyroplane expertise is essential to an accident investigation under the auspices of the ATSB, but outsourced to the state police, yet they are not funded for this purpose.[253]

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[247] T @ p 161 (15-29).

[248] T @ p 163 (3-11).

[249] T @ p 170 (2-24).

[250] T @ p 171 (1-14).

[251] T @ p 171 (15-19).

[252] T @ p 171 (28-31), 172 (1).

[253] T @ p 172 (15-21).

COMMENTS

Pursuant to section 67(3) of the **Coroners Act 2008**, I make the following comments connected with the death:

1. Mr Thaggard and Mr Pang were strangers until shortly prior to their untimely deaths, but their shared, and ultimately doomed, gyroplane flight on 21 December 2013 has necessitated they together be the subject of a coronial investigation which focuses upon the circumstances which led to – and enabled – the occurrence of this tragedy.
2. The evidence provided by Mr Morcombe, Mr Pendergast, Mr Paulet and Mr Keane evinced that Mr Thaggard instilled confidence in other members of the sporting aviation community and was considered to be a competent pilot. However, the information gathered in the course of the preliminary investigation and public hearing has indicated that Mr Thaggard's conduct on 21 December 2013, and in the lead up to this date, fell well short of the standards required by ASRA, its regulatory body CASA, and I daresay, the general community.
3. At the Inquest, the importance of the logbook in recording and assessing pilot experience was emphasised. I note that no entries were made in Mr Thaggard's logbook after 22 July 2013. ASRA's report observed that the diary which had apparent 'logbook' information after this date, had entries which did not identify the type of aircraft that had been flown, preventing the calculation of Mr Thaggard's gyroplane experience. Throughout the coronial investigation it emerged other relevant details were missing from documentation, including reference to Mr Thaggard receiving a 'passenger carriage endorsement', and maintenance records. At the Inquest, Mr Wardill suggested that some logbook details were not notated in the diary, because they were always the same. However, given Mr Thaggard also flew microlight aircraft, this cannot be assumed. Regardless, the missing information suggests a lackadaisical and careless approach to essential documentation.
4. Moreover, the evidence has strongly suggested that Mr Thaggard was conducting an illegal, paid 'joy flight', rather than a legal, training-focused, trial introductory flight. I note that no indemnity forms signed by Mr Pang, or any kind of evidence of a legal, training-focused, contractual relationship, have been located.

5. In addition, ASRA's investigation and the evidence gathered from the GPS unit that was on board the gyroplane, have indicated that Mr Thaggard's decision making during the flight with Mr Pang was highly flawed. I note that the gyroplane was regularly flying below the required 300 feet above ground level, and across terrain in which there was no safe location to land in the case of an emergency. The Inquest has served to identify that other suggested causes of the incident, and reasons for Mr Thaggard's inexplicable decision making that day, including wind conditions and carburettor icing, are purely speculative and unable to be verified objectively.

6. During the investigation, Mr Ungermann, on behalf of CASA, depicted a prevailing philosophy that sporting aviation involves an element of personal risk and is based on the premise of informed participation. In essence, this means that members of ASRA can operate aircraft that do not meet the same airworthiness requirements of certified aircraft types used in commercial, fare-paying operations, as long as they comply with regulations and the operational procedures ASRA stipulates. CASA's website specifies that informed participation in sport aviation relies on the premise that before you take part or pay for an activity, you are fully aware of the potential risks and consequences.[254]

7. Unfortunately, the events of 21 December 2013 involved a set of circumstances where Mr Pang was involved in sporting aviation but arguably not an 'informed participant', and where ASRA's operational procedures were not complied with, leading to ultimately disastrous consequences. Indeed, it is alarming that an unsuspecting member of the public could unwittingly pay for an illegal joy flight in a gyroplane, which is flown in a dangerous and ultimately lethal manner.

8. Mr Thaggard's poor airmanship during the flight and lack of compliance were the subject of much criticism by ASRA throughout the investigation and Inquest. However, ASRA maintained its stance throughout the proceedings that it had adhered to – and even exceeded – its oversight requirements regarding Mr Thaggard, according to its Deed of Agreement

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[254] Civil Aviation Safety Authority, 'Sport aviation safety explained', accessed online at https://www.casa.gov.au/standard-page/sport-aviation-safety-explained, 13 January 2017.

with CASA, and the CASA-approved *ASRA Operations Manual.* In addition, it was repeatedly emphasised that ASRA relies on reports of non-compliant behaviour, and could not act on knowledge they did not have. During the Inquest, Mr Regan suggested that while monitoring documentation may have remedied the 'paperwork' side of things, Mr Thaggard's airmanship and decision-making may not have changed. However, Mr Regan also acknowledged that inadequate paperwork would have been a clear indicator that Mr Thaggard might not be managing other areas of his endeavour correctly.

9. In circumstances where it emerged there was no formal oversight of Mr Thaggard between him obtaining his instructor rating on 16 May 2013 and his death; where no formal audit was required until 16 May 2015, where an unfixed, arbitrary date of his first student being ready for a pre-solo flight check by a CFI would connote his next review; where informal, sporadic contact with his CFI at Wahring Airfield, involving no documentation check, was said to far exceed the contact other instructors have with their CFIs; and in the context of Mr Thaggard's significant lack of compliance remaining undetected until after the incident, the only rational conclusion appears to be that ASRA's oversight requirements are wanting and must be improved.

10. In light of the inadequacy of ASRA's oversight requirements arising from this investigation, I am reassured by Mr Wardill's undertaking at the Inquest to tighten the oversight of new instructional staff during their first term of instruction. It can only be hoped that this will trigger heightened vigilance and compliance throughout the organisation's membership, and that the planned regulatory reforms, along with the availability of electronic communication will also bolster ASRA's ability to more effectively enforce its policy and procedures.

11. The absence of oversight at the time of the incident also extended to Mr Thaggard's business, Yarra Valley Flight Sports, which appears to have been illegally operating paid joy flights. Throughout the course of the investigation, it was apparent that there is significant confusion and ambiguity surrounding the provision of 'trial introductory flights' and the circumstances in which payment can and cannot be legally received by a pilot. In particular, I note Mr Regan's evidence that the legislated provisions do not adequately address the

'transition period' where a person can undertake up to three hours flying with a view to deciding whether they would want to participate in training. I commend the suggestions at the Inquest that CASA provide an advice guide which clarifies the acceptable circumstances in which payment can be received for gyroplane flights, and that ASRA require instructor applicants to provide a business case which indicates how they intend to represent themselves to the public.

12. A recurring theme has related to ASRA's status as an almost entirely voluntary organisation, with limited funds to wield at improving operations to better ensure the compliance of its members. Additionally, the ATSB appears to have all-but relinquished its responsibility to investigate fatal incidents involving gyroplanes, and ASRA has stepped in – without any dedicated investigation funding – to assist police in this regard, despite having no obligation to do so under its Deed of Agreement with CASA, or indeed in its own constitution.

13. I note that the panel of an Aviation Safety Regulation Review,[255] released in May 2014 as part of a ministerial review of aviation safety regulation, observed that there was minimal investigation by the ATSB of accidents in the sports and recreational sectors, due to resource limitations. With the growth in activity of sport and recreational aviation in Australia, the panel recommended that *'The ATSB investigates as many fatal accidents in the sport and recreational aviation sector as its resources will allow'*.[256]

14. It is difficult to fathom that the ATSB lacks the resources to investigate these incidents, but ASRA is able to do so by virtue of its volunteer members on what would appear to be limited funds. I accept that ASRA does not have unlimited resources for the purposes of all matters pertaining to the management of the organisation. However, it is difficult to reconcile the rationale for expenditure of limited resources on accident investigations, when resources to maintain the standards of their members through rigorous auditing, are deplete.

15. The circumstances pertaining to this matter have clearly evinced the dangers that can arise

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[255] See: Australian Government, Department of Infrastructure and Regional Development, *'Aviation Safety Regulation Review'*, available at: https://infrastructure.gov.au/aviation/asrr/, accessed on 7 February 2017.

[256] *'Aviation Safety Regulation Review'*, May 2014, p. 28, Recommendation 3.

from operating gyroplanes without complying with regulations – not just for pilots, but for members of the general public. A lot has been made of the relatively small size of ASRA compared to other RAAOs, and the limited amount of funds held at CASA that are available for distribution. If the overall pool of funding is not significantly increased to enable oversight and enforce compliance with regulations, the safety of sports aviation enthusiasts and the wider community is quite simply being jeopardised. The policy decision behind banning payments for joy flights on gyroplanes, reflects the fact that they require far less pilot experience and safety specifications than the community expect from commercial aircraft. If this policy cannot be enforced and if gyroplane pilots cannot be kept accountable to adhere to safety regulations, the risk to the general public will persist.

FINDINGS

I find the identity of the deceased is Reginald Alexander Julian Thaggard born 14 October 1961 and that his death occurred on 21 December 2013 approximately 100 metres from the Brock Spur Track in Kinglake Victoria 3763.

I accept and adopt the medical cause of death as ascribed by Dr Yeliena Baber and I find that Reginald Alexander Julian Thaggard died from a cervical spine jury.

The weight of the evidence leads me to find that the main contributing factors to the disastrous outcome of the gyroplane flight on 21 December 2013 relate to decisions which can be attributed to Mr Thaggard, the pilot-in-command. In particular, the evidence indicates the gyroplane was regularly flying below the required 300 feet above ground level, and often across terrain in which there was no safe location to land in an emergency. These transgressions occurred in a context of poor adherence to documentation requirements, and in circumstances where Mr Pang should never have been on board, paying for what was in all probability, a joy flight.

While I acknowledge that other possible reasons for the crash have been proffered, involving wind issues and carburettor icing, I find that these are purely speculative. In circumstances that the mechanical inspection identified no fault in the gyroplane's engine, and Dr Baber did not identify any significant natural disease that caused or contributed to the incident, I find that the pilot-in-

command's decision to fly below the required height and across heavily treed terrain, connoted a dangerous and irresponsible approach to operating the gyroplane that ultimately proved fatal.

AND I further find that the fact the Australian Sports Rotorcraft Association Inc adhered to its oversight requirements regarding Mr Thaggard, but his flagrant disregard for regulations regarding documentation and the operation of paid joy flights remained undetected, evinces that the very oversight requirements imposed on the Australian Sports Rotorcraft Association Inc by the Civil Aviation Safety Authority were inadequate.

In all of the circumstances I find that the deaths of Mr Thaggard and Mr Pang were preventable.

RECOMMENDATIONS

Pursuant to section 72(2) of the **Coroners Act 2008**, I make the following recommendations connected with the deaths of Mr Thaggard and Mr Pang:

1. With the aim of preventing like deaths, **I recommend that**, as foreshadowed during the Inquest, the Australian Sports Rotorcraft Association Inc. implement a more robust audit system of the duties undertaken of newly appointed instructional staff, to include, but not necessarily limited to, an initial audit within six months,[257] and involve more frequent, formal oversight of both flights and documentation.

2. AND **I further recommend**, as foreshadowed during the Inquest, that the Civil Aviation Safety Authority expand its desktop audit of the Australian Sports Rotorcraft Association Inc.'s student records to also encompass oversight of its instructors.

3. With the aim of preventing like deaths, **I recommend that** the Civil Aviation Safety Authority produce an advice guide, which clarifies the circumstances in which instructors can obtain payment for 'trial introductory flights', and provide this guide to the Australian Sports Rotorcraft Association Inc. to distribute amongst its instructors.

4. AND **I further recommend that** the Australian Sports Rotorcraft Association Inc. require new instructor applicants to provide a business case which indicates how they intend to represent their business to the public.

[257] While evidence was provided at Inquest that Mr Thaggard had only been operating as an instructor for five months at the time of the incident (see: T @ p 17(16-25)), I note that he received his instructor rating on 16 May 2013, seven months prior to the incident.

5. With the aim of preventing like deaths and improving the oversight of sporting aviation in Australia, **I recommend that** the Commonwealth Minister for Infrastructure and Transport commission a review of the funding made available to recreational aviation administration organisations through the Civil Aviation Safety Authority.

6. AND **I further recommend that** the Commonwealth Minister for Infrastructure and Transport consider the need to provide funding to the Australian Sports Rotorcraft Association Inc. to aid the investigation of fatal gyroplane incidents, in circumstances that the Australian Transport Safety Bureau have declined to do so.

To enable compliance with sections 72(5) and 73(1) of the *Coroners Act 2008* (Vic), I direct that these Findings will be published on the internet.

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

Ms Tracy Loebert

Ms Brooke Edmonds

Dr Paul Campbell, President of the Australian Sport Rotorcraft Association

Mr Adam McBeth, of Counsel

Miss Sallyanne Wilkinson, Civil Aviation Safety Authority

Mr Anthony Carter, Solicitor, Civil Aviation Safety Authority

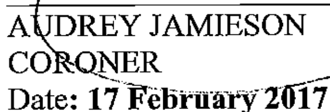
Mr Robert Glenn

The Hon. Darren Chester MP, Minister for Infrastructure and Transport

The Secretary of the Commonwealth Department of Infrastructure and Transport

Detective Leading Senior Constable Simon Cusack

Signature:



AUDREY JAMIESON
CORONER
Date: **17 February 2017**