MAGISTRATES COURT of TASMANIA

CORONIAL DIVISION

Record of Investigation into Death (Without Inquest)

Coroners Act 1995
Coroners Rules 2006
Rule 11

I, Simon Cooper, Coroner, having investigated the deaths of Samuel Peter Langford and Timothy Peter Jones in an aircraft crash in Storm Bay, Southern Tasmania on 29 December 2014

Find, pursuant to Section 28(1) of the *Coroners Act* 1995, that:

a) The identity of the pilot is Samuel Peter Langford;
b) Mr Langford died in the circumstances set out further in this finding;
c) The cause of Mr Langford's death was multiple injuries; and
d) Mr Langford died on 29 December 2014 at 43 14^0 S 147 50^0 E, east of Cape Raoul, Tasman Sea, Tasmania.

And that:

a) The identity of the passenger is Timothy Peter Jones;
b) Mr Jones died in the circumstances set out further in this finding;
c) The cause of Mr Jones's death was multiple injuries; and
d) Mr Jones died on 29 December 2014 at 43 14^0 S 147 50^0 E, east of Cape Raoul, Tasman Sea, Tasmania.

Jurisdiction

Mr Langford and Mr Jones died when the Cessna 172S aircraft VH-PFT, owned and operated by Par Avion/Airlines of Tasmania, in which they were flying, crashed into the sea in Storm Bay, Tasmania in the early evening of 29 December 2014. The *Coroners Act* 1995 (the '*Act*') provides that a death is reportable to the coroner if, inter alia, the death is one of a person that occurred in Tasmania, and that death is "unexpected, unnatural or violent" (see section 3). Obviously death in an aircraft crash meets this definition.

Section 19 of the *Act* creates an obligation upon any person who becomes aware of what is suspected to be a reportable death to report that fact to the coroner. The *Act* provides that where a death has been reported to a coroner then she or he has jurisdiction to investigate that death.

The *Act* provides that where a coroner has jurisdiction to investigate a death he or she is obliged to hold an inquest if the "deceased died at, or as a result of an accident or injury that occurred at, his or her place of work and the coroner is not satisfied that the death was due to natural causes" (see section 24 (1)(ea)). This requirement is subject to section 26A(3) of the *Act* which provides that despite section 24(1) a coroner may decline to hold an inquest if requested by the senior next of kin of the deceased not to hold an inquest and if satisfied it "would not be contrary to the public interest or the interests of justice if the inquest were not held".

I am satisfied that both deaths occurred in circumstances where, prima facie, section 24 (1) (ea) required the holding of an inquest as both men died as the result of injury or accident that occurred at their workplace. Neither death was, I am satisfied for reasons which will be discussed further in this finding, due to natural causes.

Turning to consider section 26A(3) I note that the senior next of kin of both deceased men requested no inquest be held.

I am satisfied that it would not be contrary to the public interest or the interests of justice if an inquest were not held. Several factors influenced this decision, including that the crash which claimed both mens' lives was comprehensively investigated by Tasmania Police, so comprehensively that I formed the view that no additional material was likely to be uncovered as a result of the holding of an inquest. Next, the circumstances of the fatal crash were clear and uncontroversial. Finally, the Australian Transport Safety Bureau (ATSB) also conducted an investigation (and in so doing was provided every assistance by the Coronial Division and Tasmania Police) and the report they eventually produced was publicly available.

It is appropriate to say something of the role of a coroner. Although a judicial officer, a coroner performs a different role to other judicial officers. The coroner's role is inquisitorial. She or he is required to thoroughly investigate a death and to make findings with respect to that death. This process requires the making of various findings, but without apportioning legal or moral blame for the death (see *R v Tennent; ex parte Jaeger* [2000] TASSC 64, per

Cox CJ at paragraph 7). A coroner is required to make findings of fact from which conclusions may be drawn by others (see *Keown v Khan* [1998] VSC 297; [1999] 1 VR 69, Calloway JA at 75 – 76). The coroner neither punishes nor awards compensation – that is for other proceedings in other courts, if appropriate.

One matter that the *Act* requires a finding to be made about is how death occurred (section 28 (1)(b)). It is well settled that this phrase involves the application of the ordinary concepts of legal causation (see *March v E. & M.H. Stramare Pty. Limited and Another* [1990 – 1991] 171 CLR 506). Any coronial inquiry necessarily involves a consideration of the particular circumstances surrounding the particular death so as to discharge the obligation imposed by section 28 (1)(b) upon the coroner.

In addition to being required to make findings pursuant to section 28 (1) of the *Act* a coroner is empowered, in appropriate cases, to make 'recommendations with respect to ways of preventing further deaths and on any other matter that the coroner considers appropriate' (section 28 (2)) and to 'comment on any matter connected with the death including public health or safety or the administration of justice' (section 28 (3)). Any comment or recommendation must be connected to the death the subject of the enquiry (see *Harmsworth v The State Coroner* [1989] VR 989).

The Crash

At about 6.00pm on 29 December 2014 the Cessna 172S aircraft VH-PFT was seen by a number of witnesses to crash into the surface of the water in Storm Bay not far from Cape Raoul and disappear from view.

The aircraft was being used to enable photographs to be taken of yachts participating in the 2014 Sydney to Hobart Yacht Race as they approached the mouth of the Derwent River towards the end of that race.

Mr Langford was the pilot and Mr Jones, his passenger, the photographer. A number of crew members on the Mistraal, the yacht closest to the aircraft when it crashed, and the yacht Mr Jones had photographed immediately before the crash, saw the aircraft plunge into the sea. They immediately dropped sails and moved to the crash site, arriving three minutes later. A Mayday call was made by the radio operator on the yacht. Members of the yacht saw the tail section of the plane still visible but watched, helpless, as it sank 30 seconds later.

At least six other yachts in the vicinity, all competing in the Sydney to Hobart yacht race, immediately responded to the Mayday call and made their way to the crash area. So did the police vessel, Van Diemen, which was anchored at the time at Port Arthur. It was on the scene 25 minutes after the crash and began coordinating a search of the area. Two police helicopters were also tasked to search the area.

The site of the crash was marked with a buoy. The depth was determined to be approximately 93 metres. Apart from one headset and one head rest all that was located in the water was a visible oil slick near the site reported of the crash.

The search for any survivors continued until last light on 29 December 2014.

The next day searching recommenced at 7.30am. Land-based search and rescue personnel from Tasmania Police as well as State Emergency Service volunteers searched the coast line adjacent the crash site. The Tasmania Police dive platform fitted with a side scan sonar device was deployed to the search area in an endeavour to locate submerged wreckage.

No sign of either Mr Langford or Mr Jones was found.

Recovery of Cessna 172S VH-PFT

On 31 December 2014 Tasmania Police located the aircraft on the ocean floor using a remotely operated vehicle (ROV). The ROV was fitted with a video camera and operators on the surface were able to see the plane upside down, basically intact. Bodies of persons in the pilot's seat and passenger's seat were able to be seen clearly by video camera.

The ROV was guided to the plane and a camera sitting on the seafloor with the camera strap still being held by the deceased passenger was able to be recovered. Police forensic officers were able to subsequently recover data from the camera including a series of photographs taken from the plane in the immediate lead up to the crash. The recovered photographs proved invaluable in the coronial investigation.

Bad weather hampered efforts to recover the aircraft from the seafloor. Finally on Tuesday 6 January 2015 the aircraft was able to be recovered utilising the ROV to affix ropes and straps to the aircraft enabling it to be lifted to the surface from a depth of over 90 metres. The aircraft was then taken by barge to Hobart where it was placed in a shed at Macquarie Wharf number six and secured under police guard.

Tasmanian Fire Service personnel were tasked to remove the two bodies still in the aircraft. The operation to remove both bodies took in the order of four hours. The bodies were then transported to the Royal Hobart Hospital Mortuary for post mortem examination.

Apart from the camera recovered by the ROV on 31 December 2014, two mobile telephones were located in the cabin of the plane after its recovery from the seafloor. Those telephones were subsequently forensically examined by Tasmania Police. Notwithstanding damage due to nine days immersion in seawater, police forensic examiners were able to recover a significant amount of data and images from the mobile telephone identified as belonging to Mr Langford. Nothing found on the telephone would indicate that it was in use the time of the crash.

The Garmin G1000 avionics system fitted to the aircraft was also recovered. The system stores flight data on a memory card. The relevant memory card was recovered by Tasmania Police. No data was able to be recovered from it by Tasmania Police forensic services. Enquiries were made with other law enforcement agencies as far afield as the FBI but it emerged that the memory chip was cracked (presumably as a consequence of crash) and no data was therefore recoverable.

Forensic Pathology and Identification Evidence – Mr Langford

As was mentioned above, after removal of the body from the pilot's seat in the aircraft, it was transported to the mortuary at the Royal Hobart Hospital where forensic pathologist Dr Donald Ritchey carried out an autopsy. After autopsy, Dr Ritchey expressed the opinion, which I accept, that the cause of the pilot's death was multiple injuries sustained in a plane crash. Relevantly, Dr Ritchey diagnosed at autopsy significant blunt trauma of the head including a transverse comminuted fracture of the frontal skull and a fractured dislocation of the cervical spine. Both ankles were broken. Dr Ritchey was of the opinion that the injuries were consistent with having been sustained in an aircraft crash and that the skull and neck fractures would have been associated with unconsciousness or death as the aircraft sank.

Samples were taken at autopsy from the body recovered from the pilot's seat. The samples were analysed for two purposes. First, a DNA profile was obtained and able to be matched with a DNA profile taken from a toothbrush that other evidence demonstrated belonged to Mr Langford. Second, the samples were the subject of routine toxicological analysis at the laboratory of Forensic Science Service Tasmania. Whilst alcohol (ethanol) was detected as

being present in those samples I am satisfied that the alcohol was a result of decomposition of the body and produced post mortem. No other drugs or substances of any significance were located as having been present in the sample.

In addition to the DNA match obtained with a toothbrush known to belong to Mr Langford, the evidence was that the body located in the pilot's seat was dressed in a Par Avion shirt of a type known to be worn by Mr Langford. In addition a wallet was found on the body containing Mr Langford's driver's licence, Medicare card in his name and three bank cards all belonging to him.

In all of the circumstances I am satisfied to the requisite degree that the body located in the pilot's seat of VH-PFT was that of Samuel Peter Langford.

Forensic pathology and Identification Evidence – Mr Jones

The body found in the passenger (or right hand) seat was also transported to the mortuary at the Royal Hobart Hospital. Dr Ritchey carried out an autopsy on that body. He expressed the opinion, which I also accept, that the cause of death of the passenger was multiple blunt trauma injuries. He found at autopsy an oblique linear contusion of the left shoulder that extended across the central chest onto the right lower abdomen where it intersected with a band like horizontal contusion across the lower abdomen. These injuries are consistent with a seatbelt restraint injury. In addition, he found multiple rib fractures, a fracture of the left clavicle and fractures of both arms as well as extensive contusions to the lower legs. Like the injuries to the pilot, Dr Ritchey was of the view that the severe blunt traumatic injuries were sustained at the time the aircraft impacted with the water and would likely have resulted in unconsciousness or death as the plane sank into the water.

Samples were also taken at autopsy from the body recovered from the passenger's seat. The samples were subject of routine toxicological analysis at the laboratory of Forensic Science Service Tasmania. As in the case of Mr Langford, alcohol (ethanol) was detected as being present in the samples taken from the passenger's body. I am also satisfied that that alcohol was a result of decomposition of the body and produced post mortem. No other drugs or substances of any significance were located as having been present in the sample.

Dr Paul Taylor, a specialist forensic odontologist, examined the body of the passenger at the mortuary. After comparing the results of his examination with dental records known to relate

to Mr Jones, Dr Taylor expressed the opinion, which I accept, “that there is a good possibility that the [body of the passenger] and Timothy Peter Jones are one and the same person”.

In addition, the evidence was that the body of the passenger was first observed and filmed by the camera on the ROV to be holding a camera. Finally I note that a Westpac bank card in the name of Timothy P Jones was found on the body.

In all of the circumstances I am satisfied to the requisite degree that the body located in the passenger seat of VH-PFT was that of Timothy Peter Jones.

Weather

Evidence of weather at the time in the area of the crash was that visibility was good and the wind was very light. The majority of witnesses and relevant Bureau of Meteorology weather records indicate that wind speed in the area of the crash at the relevant time did not exceed 7 knots. The navigator on the yacht Love and War, Mr Lindsay May, said the wind speed at the time of the crash was 3.5 knots. Another witness on Love and War, Mr Jack McCallum, saw the crash from a distance of 0.3 of a nautical mile away and described the weather as calm with a ‘slight’ NW breeze. Yet another witness on board ‘Helsal 3’, Ms Suzanne Zuehlke (who had previously held a United States pilot’s license) and who also saw the crash, also described the weather as calm. Mr John Davis, skipper of ‘Helsal 3’, said the wind was less than 5 knots at the time of the crash. The evidence of each of the Sydney to Hobart race competitors set out above is, in my view, inherently reliable. Each was competing in an ocean race at the time, an activity which, necessarily, requires close observation and awareness of weather conditions.

Mr Ralph Schwertner, an extremely experienced pilot, was flying a Cessna 172, also owned by Par Avion on 29 December 2014. Like Mr Langford, Mr Schwertner was carrying a photographer who was photographing yachts in the Sydney to Hobart yacht race. Shortly after the time of the crash he flew over the general area and noticed a group of yachts with sails down milling around. He said that as he passed over the site where the aircraft had crashed, visibility was clear, the seas were calm with just a slight chop and there was 5 to 10 knots of wind.

The photographs recovered from Mr Jones’ camera are also clear evidence of the weather conditions at the time of the crash. Those photographs show yachts in almost no breeze at all and the sea calm.

I am satisfied from the evidence that the weather conditions at the time of the crash were benign and in no way caused, or contributed to, the happening of the crash.

The aircraft

ATSB staff were permitted access to the aircraft after its recovery from the seafloor, to enable the wreckage to be inspected as part of the Bureau's investigation.

It was apparent to those inspectors (indeed to anyone looking at the wreckage) that the aircraft was significantly damaged. According to the ATSB report of 21 July 2016, 'no anomalies' were identified with the aircraft's engine. However, given the fact the aircraft was immersed in saltwater for 9 days, little can be taken from the failure to identify any anomalies as no component testing was able to be carried out.

The same report is silent in relation to fuel, both as to the system itself and any fuel in it.

The report indicates that no pre-accident defects were identified. The report author (or authors) go on to conclude that due to damage sustained in the crash, the aircraft's stall warning system's serviceability was unable to be determined.

However it is reasonable to conclude that the stall warning system was serviceable on 29 December 2014 because maintenance records indicate that the system was inspected, tested and found to be operating correctly on 24 December 2014.

In fact the inspection carried out on 24 December, just 5 days before the fatal crash, found the aircraft had no defects. At the time of the crash the aircraft held both current certificates of registration and airworthiness.

The evidence of Mr Schwertner was that all pilots, including Mr Langford, check their own aircraft before flying and fuel their own aircraft.

Viewing the evidence as a whole there is no reason to conclude other than that the aircraft was serviceable and free from defects at the time of the crash.

I am satisfied from the evidence, in particular the evidence of eye witnesses as to the happening of the crash, that the mechanical condition of the aircraft did not cause, or contribute to, the happening of the crash.

Other evidence

Many eyewitnesses, all competitors in the Sydney to Hobart Yacht Race, were interviewed as part of the investigation into the death of Mr Langford and Mr Jones. In addition, film taken on a 'GoPro' camera by a witness on board the yacht Ausreo was obtained and reviewed. The common theme that emerges from the witness accounts was that the aircraft was, immediately prior to the happening of the crash, flying at a very low height. Mr Scott Brain, a crewman on board Mistraal described the aircraft as, immediately prior to the crash, flying across the bow of the boat he was on at mast height. Mr Lindsay May (who also saw the crash) estimated the aircraft as being "no more than two or three times" the height of Mistraal's mast above the sea immediately before the crash. Mr Jack McCallum described the plane being just 30 metres above the sea and Ms Suzanne Zuehlke described the aircraft being at mast height in the immediate lead up to the crash. Mr Michael Lane, who was steering another race yacht Enchantress, described seeing VH-PFT flying near Mistraal at about mast height.

Images recovered from Mr Jones' camera also show that the aircraft was flying at a very low level in the lead up to the crash. Those photographs were provided by Tasmania Police, at my direction, to the ATSB. Using those photographs, ATSB investigators were able to determine that VH-PFT was flying at about 50 feet in the immediate lead up to the crash. This opinion is broadly consistent with the witness observations set out above. I am satisfied on the evidence that immediately prior to the crash Cessna 172S VH-PFT was flying at approximately 50 feet above the sea surface, and certainly considerably lower than 150 feet.

It is apparent that the purpose of the flight was for Mr Jones to obtain photographs of the yachts competing in the Sydney to Hobart Race. As a consequence Mr Langford seems to have chosen to fly at what on any view of it was an extremely low level (or as the ATSB Report categorised it, an 'exceptionally low height'). The evidence was that he was appropriately licensed having been issued a Private Pilot Licence in 2010 and a Commercial Pilot Licence in 2012. Relevantly, the licence he held at the time of the crash included a low level flight rating endorsement (obtained in August 2011). A flight review including a renewal of his low level rating was conducted 10 days prior to the crash. The evidence was that the renewal was conducted in a Cessna 172.

Records obtained as part of the investigation indicate Mr Langford had about 18 hours of low level flying experience prior to the crash.

I observe that the *Civil Aviation Regulations* 1988 regulate, *inter alia*, low level flying. On any view of those regulations, flying of aircraft below 150 feet is not permitted. Mr Langford must have known this.

Several witnesses gave accounts to investigating police officers as to witnessing the actual crash and from a short distance away in each case.

Mr May described seeing the aircraft heading in a general north-westerly direction, low and close to Mistraal. He said the aircraft "climbed and did a very tight turn to port..[and that] during that turn it didn't quite complete a 180 degree turn. It pointed nose down, appeared to turn slightly to starboard and crashed in to the sea".

Mr McCallum said:

> "*the plane appeared to pass down Mistraals [sic] port side. Mistraal was about 150 m to 200 m astern and inshore of us. The plane turned left and headed towards Port Arthur. I looked away for a short while then looked back. The plane turned right, gained some height, maybe a further 20 or 30 m. It then turned hard left with the banking motion, port wing down towards the end of the turn, it seemed to try and level then stopped and went nose down towards the water."*

He went on to describe the plane entering the water.

Ms Zuehlke in her affidavit said:

> *"I saw the plane crash into the water. At this time the plane was below mast height and [in] what I believe a steep left turn. There was definitely banking and over 45°, in my experience anything over 30° is dangerous, as you lose lift then stall and don't have time to recover. Prior to watching the plane crash I thought his banking/ turning was too steep. I also thought the same thing last year when crewing in the Sydney to Hobart on the Derwent, also on Helsal 3 when a plane was photographing yachts in the race.*
>
> *The plane crashed head first without a splash into the water, there was no explosion."*

Each of the witnesses describes an aircraft stalling its wing whilst in a steep turn. I am satisfied that the cause of the crash, in light of the witness descriptions and the absence of

any contributing weather or mechanical issues, was that VH-PFT stalled, which led to a steep pitch down and the aircraft to rotate towards the stalled wing. Whilst recovery from such an incident is something pilots routinely practice and are trained for, successful recovery requires there being sufficient altitude. Given the height at which VH-PFT was being flown immediately prior to the crash there was insufficient altitude to enable the pilot to recover from the stall. The cause of the stall was pilot error.

Comments and Recommendations:

I extend my appreciation to investigating officer, Senior Constable Michael Barber, for his investigation and report.

The circumstances of both deaths are not such as to require me to make any recommendations pursuant to Section 28 of the *Coroners Act* 1995.

The ATSB investigators were provided, at my direction, with every assistance by Tasmania Police investigating this tragic accident.

The subsequent decision by the ATSB to refuse my request for copies of witness statements obtained in the course of its investigation was, in such circumstances, both surprising and disappointing. The ATSB made the obvious point in its reasons for refusal that “ATSB investigations and [C]oronial investigations/Inquests [sic] fulfil separate statutory functions”. However, the common, and crucially important, statutory function of both the ATSB and the Coroner is the investigation of fatalities with a view, inter alia, to endeavouring where possible to prevent avoidable deaths occurring in similar circumstances in the future. The ATSB acknowledged as much.

The coronial investigation of the deaths of Mr Langford and Mr Jones proceeded on the basis that it was unnecessary to interview witnesses that had already been interviewed by the ATSB because it was understood, wrongly it would appear, that the ATSB would provide copies of those statements to the Coronial Division. The request for the statements was made after the ATSB had concluded its investigation and after it had released its report publicly.

In refusing to provide the requested statements the ATSB relied upon section 60 of the *Transport Safety Investigation Act* 2003 (Cth). That section prohibits the provision of restricted information. The expression ‘witness statement’ is included in the definition of that

term. However, the prohibition is subject to section 60(5) which empowers the ATSB to issue a certificate authorising the release of witness statements where the '*disclosure of the information is not likely to interfere with any investigation*'.

Despite this provision the ATSB still refused the request, when there was no rational impediment, at all, to the provision of the requested statements and its investigation was complete.

In concluding I convey my sincere condolences to the family and loved ones of Samuel Langford and Timothy Jones.

Dated 21 July 2017 at Hobart in the State of Tasmania.

Simon Cooper
Coroner