



OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION: **Inquest into the death of Graham Stanley Blair, Pauline Probert and Liam Joseph O'Connor**

TITLE OF COURT: Coroners Court

JURISDICTION: Maroochydore

FILE NO(s): 2013/978, 979 & 980

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REPRESENTATION:

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Introduction

At approximately 11:15am on 30 December 1950 an RAAF Wirraway aircraft was engaged in shark spotting duties. It crashed on the beach at Maroochydore and three children, Graham Stanley Blair aged 6, Pauline Probert aged 6 and Liam Joseph O'Connor aged 11, were killed. Several other persons (14 in total) were injured, some seriously, including the pilot and an observer in the airplane.

The RAAF conducted a number of investigations and held a formal, albeit closed Court of Inquiry.

A coronial investigation also commenced and an inquest was held over 20 to 23 February 1951, with findings delivered on 23 February 1951. The Coroner, amongst a number of findings, specifically made a finding the pilot had spotted a shark and was endeavouring to keep it in view and was flying the aircraft low to indicate to lifesavers its position, and that there was no evidence the pilot was guilty of negligence.

Subsequently a number of those injured commenced civil claims in the Supreme Court of Queensland. The Commonwealth admitted liability for negligence as a result of the flying by the pilot in those claims and the claims were settled.

Some four decades later the brother of Liam O'Connor, Mr Brian O'Connor, became interested in the circumstances of the tragedy and commenced his own investigation. After completing an exhaustive investigation over the next two decades he expressed concern about a number of the findings made by the Coroner. He made a submission to the Minister for Justice and Attorney-General for the State of Queensland to consider re-opening the inquest.

On 26 February 2013, the Attorney-General directed the inquest be re-opened and on 2 August 2013 directed that I hear the re-opened inquest.

The Office of State Coroner (OSC) has gathered together a significant amount of archival documentation from a number of sources. As well, Mr Brian O'Connor has provided the OSC with his investigation material. This includes a number of eye-witness statements taken in recent times.

The Issues

The issues for the reopened inquest are:

1. The findings required by s. 43(2) of the *Coroners Act 1958*, namely the identity of the deceased, when, where and how the deaths occurred and whether anyone should be committed for trial for a criminal offence.
2. The handling of the aircraft by the pilot in undertaking shark patrol duties at Maroochydore on 30 December 1950.
3. The review of previous findings made in relation to:

- observations by the aircrew of the aircraft of the presence of a shark in the proximity of bathers at Maroochydore on the day of the accident;
- instructions to the aircrew as to the use of a Verey flare if a shark was observed;
- whether the pilot repeatedly flew the aircraft, inappropriately, over bathers on the beach in the course of the aerial patrol;
- the suitability of Wirraway aircraft for use as shark spotting aircraft;
- the finding there was no evidence the pilot was negligent.

Jurisdiction and Evidence

It was necessary to decide which Act should apply to the reopened inquest. The original inquest was held under the *Coroners Act 1930*. This act was repealed by the *Coroners Act 1958*, which in turn was repealed by the *Coroners Act 2003*.

The saving provisions of the 2003 Act¹ authorises the Attorney-General to order an inquest to be reopened pursuant to s. 47 of the 1958 Act. Accordingly it is considered the provisions of the 1958 Act applies to the reopened inquest, given the saving provisions in that Act applicable to the 1930 Act².

According to the 2003 Act³ a Coroner must not include in the findings or any comments or recommendations, a statement that a person is or maybe guilty of an offence or is or maybe civilly liable for something. This section is narrower than the equivalent provision in section 43 (6) of the 1958 Act, which prohibits the making of findings *'in such a way as to appear to determine any question of civil liability or as to suggest that any particular person is found guilty of any indictable or simple offence'*.

Similar prohibitions against framing findings that determine a question of criminal or civil liability are not found in the 1930 Act, which may explain why the Coroner made a finding on that issue.

The effect of s. 47 of the 1958 Act is that these findings replace the findings of the previous inquest. I also conclude that the evidence of Dr FJ Short, who conducted the autopsies and viewed the bodies, is sufficient to satisfy me of compliance with s. 29 (1A) of the 1958 Act.

Proceedings in a Coroner's court are not bound by the rules of evidence⁴ but that does not mean that any and every piece of information, however unreliable, will be admitted into evidence and acted upon. However, it does give a coroner greater scope to receive information that may not be

¹ s 100 *Coroners Act 2003*

² s 61 *Coroners Act 1958*

³ ss 45(5) & 46(3)

⁴ s 37 *Coroners Act 2003* & s 34 *Coroners Act 1958*. There is no equivalent reference in the 1930 Act.

admissible in other proceedings and to have regard to its origin or source when determining what weight should be given to the information.

A coroner should apply the civil standard of proof, namely the balance of probabilities. However the more significant the issue to be determined, the more serious an allegation or the more inherently unlikely an act occurrence, then the clearer and more persuasive the evidence needs to be for a coroner to be sufficiently satisfied it has been proven to the civil standard.

It should also be noted that many of the critical players including the pilot and observer in this case are deceased and certainly they or their families were not represented or heard at the re-opened inquest. For that reason, the rules of natural justice should also apply such that I should be careful to not make adverse findings about individuals, even if they are deceased, other than where the evidence is particularly persuasive, given they have not had an opportunity to be heard.

Mr Hickey also provided some helpful submissions, as well as citing legal precedents in relation to the appropriateness of making a finding that the circumstances could warrant a person being charged, if he were alive to answer the charge. The evidence needs to be looked at with great care.

Features of the Aerodynamic Stall

Paul Lobston is a Flying Operations Inspector with the Civil Aviation Safety Authority (CASA) with very extensive experience as a pilot, firstly with the RAAF and then lengthy service as a commercial airline pilot with a number of major international airlines. He also has extensive experience in flying various light aircraft and more particularly in flying Wirraways. Over a six-year period he syndicated the Wirraway aircraft among fellow Cathay Pacific pilots including teaching other pilots how to fly the aircraft. In total his flying experience is 15,100 hours.

Mr Lobston explained that for aircraft to fly, its wing must produce lift. Lift is developed by smooth air rushing over the wing. Lift equals weight when the aircraft is in stable flight, when lift is less than weight the aircraft descends.

As the wing rushes through the air, the air meets the wing at an angle known as the 'angle of attack'. The angle of attack can vary according to the airspeed and other factors such as wing flaps, angle of bank and gravitational 'G' forces. Airspeed is by far the most critical factor with stalling – as the aircraft slows down the angle of attack increases.

At a critical low airspeed the angle of attack becomes excessive and the air over the wing becomes turbulent resulting in a loss of lift, and often a loss of control. This is known as the aerodynamic stall.

A pilot should avoid stalling an aircraft at all costs because a sudden loss of lift and/or control will require altitude to recover. To recover from a stall the pilot must immediately reduce the angle of attack by pushing the aircraft's

nose down, roll the wings level and apply power so as to increase airspeed. With severe stalling, it requires considerable altitude to recover.

If wing flaps are extended, the stall speed is reduced. If an aircraft banks, the stall speed is increased. Similarly, when an aircraft pulls out of a dive, the stall speed is increased.

It is basic aeronautical theory that an increased angle of attack in an air manoeuvre will bring the wing of the aircraft closer to the critical (or stall) angle, even if the airspeed has not changed. The stall speed of an aircraft will be higher in a turn than in straight and level flight. The steeper the bank angle, the higher the airspeed at which the stall angle of attack is reached. Stalls generally become dangerous if there is a lack of altitude for recovery.⁵

The investigation

The brief of evidence consists of exhibits A1 to F10 and includes the following documents:

- a. Coronial documents including post mortem reports, police reports, accident site photographs and the findings of the initial inquest by Coroner Alan Taylor on 23 February 1951;
- b. Coronial material consisting primarily of transcript of the proceedings of the 1951 inquest under the *Coroners Acts 1930-1947* together with some of the exhibits referred to or tendered during the inquest;
- c. Investigation material of the Department of Air (obtained from the National Archives) including historical material as to accidents and incidents involving RAAF Wirraway aircraft together with material obtained from an Air Court of Inquiry (the RAAF Inquiry) into the subject accident, including witness statements, photographs, technical material and the findings and recommendations of the Inquiry;
- d. Correspondence between the Commonwealth Crown Solicitor and the Department of Air in 1951/52 regarding ensuing litigation and settlement of claims;
- e. A lengthy collation of material and analysis of that material undertaken by Mr Brian O'Connor, together with a number of statements taken in more recent times.

In relation to all of the inquiries previously undertaken the prime issue has been the handling of the aircraft by the pilot upon undertaking the final turn at the Maroochy bar to conduct a further run south or out to sea.

The investigation material before me extensively considers the wider issues, and contains information not before the Coroner at the First Inquest.

⁵ (see *Basic Aeronautical Knowledge*, Aviation Theory Centre, 2002, pp 213, 215)



Photograph of the scene of the crash taken by RAAF Crash Investigation Unit⁶

RAAF Crash Investigation Unit Inquiry

The Crash Investigation Unit provided a report, which was prepared by Flight Lieutenant McAttee. He gave evidence at the RAAF Court of Inquiry and Coroners Court. It is believed the undated and unassigned draft of his report can be found at Exhibit C4.40.

This report concluded that the crash was not caused by any fault in the aircraft. It found that the pilot attempted an 80° banking turn while flying at a low speed. This caused the plane to stall. The plane was flying too low for the pilot to make a dive and gain speed and it crashed on the beach.

Directorate of Flying Safety

The Directorate finalised an inquiry on 11 January 1951.

It noted that the pilot had flown a total of 1226.4 hours in Wirraway aircraft. In the last six months he had flown almost 70 hours in Wirraway aircraft and slightly smaller hours in Tiger Moth and Mustangs respectively.

The pilot was considered to have flying assessments at average to above-average from various units. He had one previous accident in a Mustang when the tail wheel collapsed on landing, which was attributed to mechanical defects and not pilot error.

An inspection of the flap systems on the crashed Wirraway concluded the flap was down 20° to 30° when the aircraft crashed.

⁶ Exhibit E1.4

The Directorate Inquiry noted that after descending to 500 feet the pilot stated he put down 20° of flap and with 2100 rpm. He applied sufficient power to maintain a speed of 100 knots. It was concluded the engine power use was, in fact, insufficient to maintain the speed of 100 knots and the speed was maintained by losing altitude. When the pilot levelled out at 150 feet and made a steep turn to port without introducing more power, speed fell off and the aircraft stalled and flicked.

Tests had been conducted which showed that the speed at which stall would occur in a Wirraway under this condition would be approximately 88 knots at 60° of bank and 1.5 'g'.⁷ It was thought the lightening of the elevator control just prior to the stall gave the pilot the impression that the flaps had blown up.

The Inquiry noted that a stall, during a steep turn at low power setting, is not a normal manoeuvre, caught the pilot unawares and slow reaction prevented him from regaining control before the crash. It considered that the pilot was not engaged in shooting up the beach.

The Directorate made two conclusions. Firstly, the crash was brought about by the poor flying technique and slow reaction of a pilot of considerable experience.

Secondly, the Wirraway aircraft was not a suitable aircraft for use for shark patrol duties.

RAAF Court of Inquiry

This was a closed inquiry. It commenced on 5 January 1951 and was concluded on 12 January 1951.

It found the accident was caused by the pilot stalling the aircraft when in a steep turn and at a low altitude.

It concluded a shark was sighted and the pilot circled four or five times over the spot and then flew in a northerly direction on the seaward side of the bathers, preparatory to diving in a southerly direction over the spot where the shark was last seen. The sharp turn from a northerly heading through west to south-east was executed over the bar of the Maroochy River, approximately 400 yards north of the shark lookout tower and at a height of 160 feet. This steep turn was executed with 20 or 30° of flap with power settings of 26'of boost and 2100 revs. The aircraft stalled whilst in this steep turn and the pilot then observed the airspeed was 95 knots. The aircraft not having sufficient height to regain control, continued out of control and crashed, touching first on its starboard wing seven yards to the south of the tower.

Evidence before the RAAF Inquiry supports the view that the flaps were extended 20 to 30 degrees when the aircraft crashed.⁸

⁷ C4.49

⁸ Exhibit C4.26, p 20

A stall test of a Wirraway aircraft was carried out by the RAAF at Laverton on 15 January 1951⁹ This noted that at 87 knots and with a 62 degree angle of bank, the aircraft will stall 'uncontrollably' with a height loss of about 300 feet. Notably, the test report does not refer to any Pilot Operating Handbook for the aircraft or any manufacturer's data as to the stall speed of the aircraft in particular operational circumstances. It would seem from the 'miscellaneous' test that was done that if the accident aircraft was overbanked – beyond 60 degrees – at a point when the flaps had been set (perhaps inadvertently) at 30 degrees upon commencement of the final turn, the stalling of the aircraft would be consistent with the stall test results.

Although, as observed in the report of the Department of Air following the RAAF Inquiry, there is a 'good deal' of contradictory evidence from persons who were on the beach at the time of the accident, the areas of inconsistency relate primarily to the estimated height of the aircraft at various points in time and the exact path flown by the aircraft in conducting circuits of the beach-front area and, in particular, from the time of its last turn. There is, however, a level of consensus as to the number of circling manoeuvres undertaken by the aircraft prior to the final turn near the Maroochy bar. Moreover, from their observations of those manoeuvres, a number of lifesavers thought that a shark presence was being indicated. A SLSC boat was despatched but no shark was reported as having been seen by any surf lifesaver before the aircraft crash.

The RAAF Inquiry found that the accident 'was caused by an error of judgment, not involving disregard of orders, by the pilot, F/Lt Thwaites attempting to do a steep turn close to the ground with insufficient air speed for the manoeuvre, thus stalling the aircraft'.¹⁰

The RAAF Inquiry recommended that: 'In view of the requirements for low and slow flying to successfully carry out shark patrol duties, service aircraft should not be used for this duty'.

Responsibility for the accident was attributable to the pilot for error of judgement. In finding the pilot responsible rather than blameworthy the Inquiry took into account there was no suggestion of deliberate low-flying of a dangerous nature; there was a requirement for slow flying to keep the shark in sight; the practice of diving on the spot where the shark was sighted was in accordance with normal shark patrol procedures.

At the conclusion of the Inquiry report, the Officer Commanding noted 'a high sense of responsibility of the pilot was again emphasised'.

Wing Commander EB Courtney noted in commenting on the findings and recommendations of the Inquiry that it was clear there was little alternative but to grant the request of the acting Prime Minister that the RAAF carry out shark

⁹ Exhibit C4.49

¹⁰ Exhibit C4.26 p40

patrols. He noted that the manner in granting the approval was not, in his view, a satisfactory way of giving approval. He also stated it was equally clear that the Wirraway was not a suitable aircraft for this type of job and that it should not be so employed.

Wing Commander Courtney noted that the pilot was an experienced pilot and held in high regard. That he should crash an aeroplane through pilot error under these circumstances makes it clear how risky the manoeuvre was and how much greater the risk would be with less experienced pilots.

He further noted the method adopted to indicate the presence of sharks was in line with the procedure, which had been used by civil aircraft in the past. He said it had been found that aircraft can only successfully indicate the presence of a shark by turning in tight circles over it and diving at it, and this at a minimum height. He considered that it appeared the risk to civilians on the beach is much greater from low flying aircraft than from the actual danger of shark attack. It was further stated it was possibly safer to use a Tiger Moth aircraft, which is much less liable to stall at a mishandled turn than a Wirraway at 95 knots with 20° of flap.

The Evidence of the First Inquest

On 23 February 1951, Coroner Taylor made 15 findings upon completion of an inquest convened from 20-23 February 1951.

The coronial documents from the initial Coroner's inquiry disclose that all of the three deceased children died on 30 December 1950 after being struck by the RAAF Wirraway aircraft on the main surfing beach at Maroochydore.

The post-mortem certificates dated 31 December 1950 issued by Dr F J Short in respect of each of the deceased disclose that:

- a. Graham Stanley Blair born 25 August 1944 (referred to in other coronial documents as Stanley Graham Blair), aged 6, died at the General Hospital, Nambour from a fracture of the vault of the skull, laceration of the brain and intracranial haemorrhage;
- b. Liam Joseph O'Connor, born 19 September 1939, aged 11, died at Maroochydore Beach from compound comminuted fractures of both lower limbs, fractured cervical vertebra with intraspinal and subarachnoid haemorrhage; and
- c. Pauline Probert, born 23 March 1944, aged 6, died at Maroochydore Beach from a fracture of the base of the skull and fractures of the 5th and 2nd dorsal vertebrae with complete severance of the spinal cord.

Fifteen witnesses gave evidence before Coroner Taylor. Three of the civilian witnesses (including Dr Short) also gave evidence to the RAAF Inquiry. Some 21 witnesses gave evidence to that inquiry.

Evidence of the Pilot

The pilot, Flight Lieutenant (F/L) Thwaites (who died in 1996), gave initial evidence to the RAAF Inquiry at Greenslopes Hospital on 3 January 1951¹¹ summarised as follows:

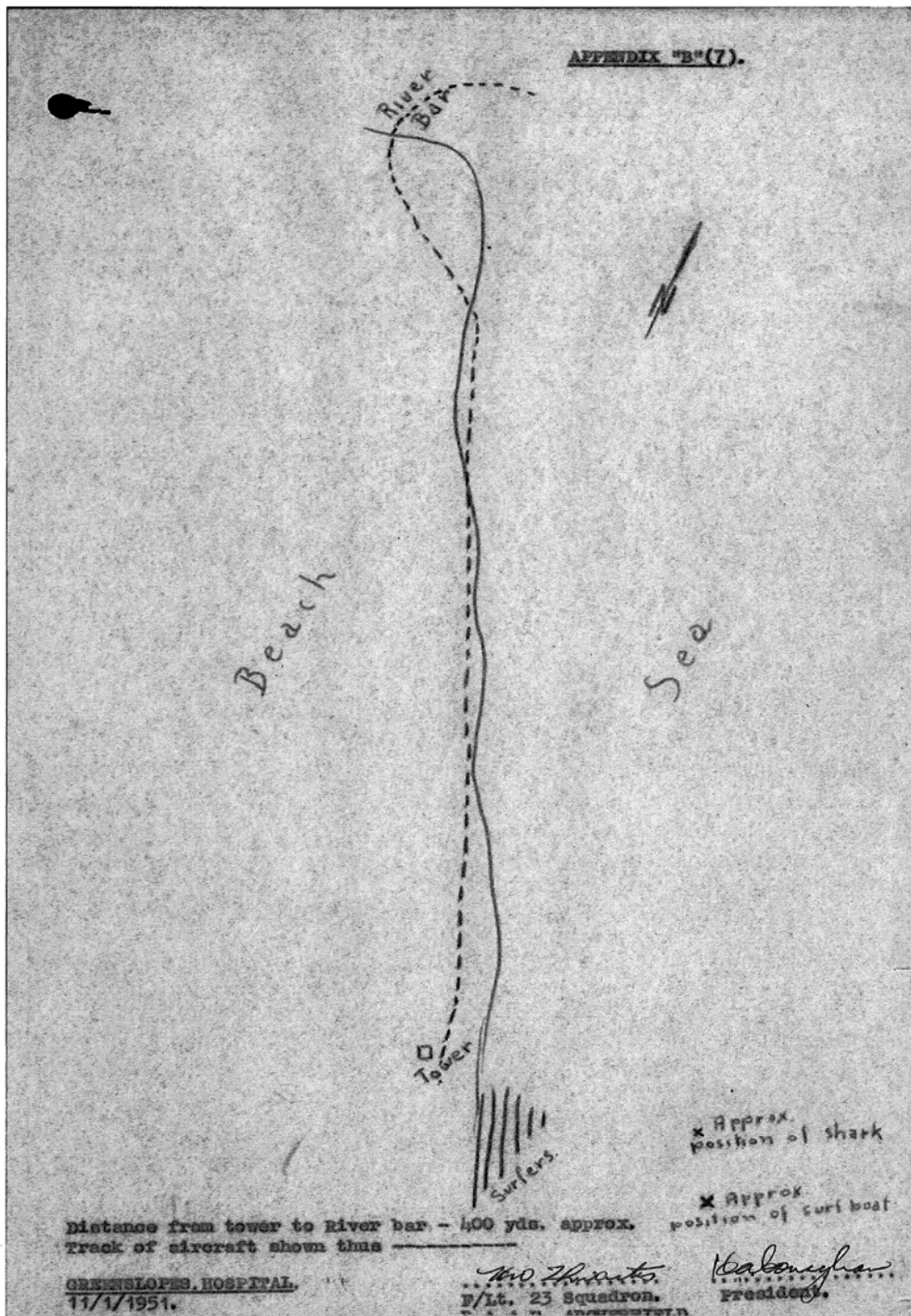
- He had been briefed by his Squadron Commander to carry out shark patrols from Redcliffe to Noosa on 30 December 1950.
- He took off that day from Archerfield at 0955.
- He completed a patrol to Noosa and was returning to Caloundra when he spotted a shark 150-200 yards off shore, south of the main surfing area at Maroochydore.
- At that point he was flying at 500' when he lowered 20 deg of flap and commenced an orbit to port.
- After about the 4th or 5th orbit a surfboat was seen going toward the spot where the shark was spotted.
- On observing a darkening seabed (from seaweed or gutter) he descended to about 300' to maintain visual contact with the shark.
- He then stopped orbiting the area and flew north well out to sea, aiming to turn to port and then to make a 'diving run' over the top of the surf boat.
- During this turn, he felt a loss of control of the aircraft, 'as if the flaps had blown up', with the aircraft then at 150'. He observed the airspeed to read 95 knots.
- He opened the power fully but pulled back on the control column.
- In this position, the starboard wing 'flicked down' and the aircraft straightened back along the beach towards the surfers.
- The aircraft had insufficient height for 'corrective action to recover from the stall'.
- The starboard wing struck the ground first and the aircraft ricocheted.

When recalled to give further evidence at the hospital on 11 January 1951, F/Lt Thwaites said that immediately before commencing his last turn he had about 26" of boost, 2100 revs and a little over 100 knots of speed. He was making the turn whilst concentrating on the position of the shark as last sighted. Intending to position the aircraft to make a direct run to the north and east of the bathers, it was possible, said the pilot, that he 'either allowed the aircraft to bank too steeply or the speed to get too low' while 'estimating' that he had 20 degrees of flap down at that stage.

During this evidence F/Lt Thwaites marked a sketch of the beach area showing his line of flight and the approximate position of the shark and surfboat.¹²

¹¹ Exhibit C4.4

¹² Exhibit C4.29 of the Inquest brief and appendix B 7 of the RAAF Court of Inquiry



Sketch provided by pilot

The evidence of the pilot as given to the first inquest upon being convened for that purpose at Greenslopes Hospital on 23 February 1951¹³, was broadly consistent with the evidence given by him on 3 January 1951, with the following additional details:

¹³ Exhibit B4.1

- The briefing received prior to commencing patrol duties that day did not include instructions as to the height the aircraft was to 'maintain'.
- Whilst acknowledging that the minimum height for ordinary flying was 1000', the sighting of the shark was considered to give the pilot the 'right' to fly at lower than 1000'.
- The best height for observing anything in water (on aerial patrol) depends on the seabed, the position of the sun, the colour of the water, the calmness of the water and 'other things'.
- At the point before lowering 20 degrees of flap (at 500') the aircraft's airspeed was approximately 125 knots; with 20 deg of flap the airspeed 'would reduce to approx. 105 to 110 knots'.
- After first observing the shark (which was travelling north), the condition of the sea bed altered making it more difficult to maintain observation of the shark; so height was reduced to 300' and the 'particular spot' (over water) was circled 'several times' and the Maroochy Beach front was circled 'five times' before the aircraft crashed.
- A surf boat was observed going 'directly towards the shark'; the pilot then flew north to turn at the Maroochy Bar with the intention of giving the surf boat crew 'a position line of approx. 90 degrees to their direction to give them the distance out'.
- He described that the object of the last run was to give the surfboat a position line of approximately 90° to their direction and his intention was to lose a little bit of height over the spot ("but you could hardly call it a dive"). He stated he was at approximately 300 feet altitude. He said that he considered when approaching the last run he intended to do a normal steep turn of approximately 65° of bank and considered that with 300 foot of altitude and a speed of 95 to 100 knots it would definitely be safe to make a steep turn.
- The aircraft approached the turning point at Maroochy Bar at approx. 105 knots at 300' when the boost gauge was 'sticking slightly' (the pilot having first experienced the gauge sticking on the way up between Bribie and Caloundra).
- With 26" of 'boost' at 2020 revs and 20 degrees of flap, the aircraft would be travelling at 95 to 100 knots; if the aircraft had been banked 65 degrees, it would 'be safe to make a steep turn'.
- In the banking turn and immediately afterwards, the aircraft shuddered, height was lost, and when an effort was made to level the aircraft, whilst 'veering out to sea', the starboard wing dropped suddenly turning the aircraft back towards the land; with the aircraft in a stall, it crashed on to the beach.

In answer to a question put to him, the pilot accepted that in his 'anxiety' to keep the shark under observation, he overbanked the aircraft with insufficient speed at an altitude from which he could not recover which was 'an error of judgment'. He was aware of the tower on the beach. He had 'no intention of going near the crowd or along the beach at any stage'. He agreed that, to his knowledge, the crash was not due to any mechanical defect.

One notable aspect of the pilot's recorded evidence is the absence of any reference by the pilot (at either the RAAF Inquiry or the first inquest) to communications with the observer on board. F/Lt Thwaites simply volunteers at the inquest that the observer 'would depend on instructions from me whether he would fire the Verey light when he sighted the shark'.

Evidence of the Observer

Before the RAAF Inquiry, the observer, Sergeant Neill (who died in 1970), is recorded as saying that on the return trip over Maroochydore he sighted a shark, south of the bathers and informed the pilot. It was moving north outside the line of breakers. Sight of the shark was temporarily lost when it entered a deep gutter. The aircraft circled two or three times and Sgt Neill observed a surf ski going out from the shore. The aircraft proceeded north before making a 180 degree turn following which the starboard 'main plane' hit the sand.

At the inquest, Sergeant Neill stated that he had not been on shark patrol duty previously. He was in fact the Non-Commissioned Officer (NCO) in charge of aircraft maintenance on the day in question. He said that he was not present when F/L Thwaites was briefed in the duties to be performed and received instructions as shark observer from F/L Thwaites but did not receive 'any particular instructions from F/L Thwaites while on that flight'.¹⁴

In later evidence he referred to receiving instructions, as noted below, suggesting that the context of the earlier evidence related to the absence of briefing about the shark spotting tasks to be performed throughout the patrol.

During the circling of the shark, Sgt Neill was using binoculars and could see the shark. He received an 'instruction' to get the Verey pistol ready for use and to fire it 'if the surf boat did not understand our movements'. When the aircraft turned at the Bar, the pilot told Sgt Neill that he would fly the aircraft in a 'shallow dive', over the spot where the shark was last seen, to indicate the location of the shark to life savers on the surf boat. After the pilot started the turn at the Bar, at a height estimated by Sgt Neill to be 200 feet, the aircraft lost more height. Sgt Neill then felt the aircraft shudder (an indicator of a stall), realised something was wrong and crouched down lower in his seat, with his next recollection being 'walking around on the sand'.

Evidence of other witnesses

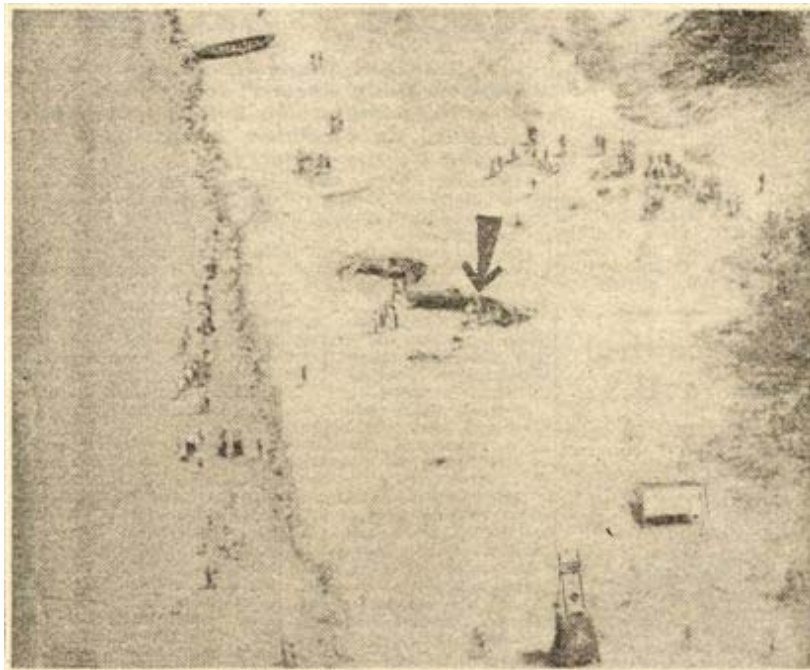
Lifesavers Robert Lister and Douglas Harrison gave evidence at both the RAAF Inquiry and first inquest, and confirmed:

- prior to the crash, shortly after 11am, the aircraft was observed circling the beach area and out to sea, some five or six times, at height estimates ranging from 150 to 300 feet;
- the aircraft had been circling and diving low over a particular area; a surf boat was sent out to investigate;
- there was nothing from the manoeuvring of the plane to indicate that the pilot was 'stunting'.

¹⁴ Exhibit B.3.2

Another member of the Surf Life Saving Club, Mr Reginald Perren, gave evidence at the first inquest including:

- the aircraft made several circles no further than 400 yards out to sea maintaining a regular height;
- at that time, Mr Perren was on a surf board and thought he observed one of the occupants of the aircraft pointing to something in the sea;
- the plane flew north to the Maroochy Bar over the sea, turned left, lost height before flying in a largely straight line with the top of the tower and, missing the tower with the right wing tip, crashed wing first;
- in the course of attending to injured people after the crash, Mr Perren had a conversation with the observer from the aircraft who said that he had seen a shark while circling in the gutter area between Maroochydoore and Alexandra Headlands south of where the bathers had been;
- Mr Perren did not observe anything untoward about the manoeuvring of the aircraft to suggest that the pilot had been stunting.



Photograph taken by RAAF Crash Investigation Unit¹⁵

The Captain of the Maroochydoore SLSC, Desmond Morrison, gave evidence that he was at Alexandra Headlands about one mile from the main beach at the time of the crash and observed the aircraft circling the area between the Headlands and the surfers at Maroochydoore. After going to the beach, he also had a conversation with the observer, Sgt Neill, who told him of seeing something in the water, which he thought was a shark.

¹⁵ Report of Brian O'Connor, D1 page 51

A number of other witnesses on the beach on the day of the accident gave evidence at the first inquest:

Eunice McElligott¹⁶(Doc B2.2)

The aircraft was observed doing 4 or 5 circles in making its run from Alexander Headlands to the river bar. It was about 200 yards out beyond the surf.

Although 'dangerously low', there was nothing to indicate that the aircraft was not being handled skilfully.

Elinor Oldham¹⁷

She was on the beach with Mrs McElligott

The aircraft flew dangerously low four or five times over the beach but Mrs Oldham did not 'keep it under observation at all time'. The beach is about 100 yards in width but Mrs Oldham could not estimate the turning circle of the Wirraway aircraft.

William Griffin¹⁸

He was an ex RAAF air gunner.

The aircraft was noticed circling the beach from Alexander Headlands to the bar of the Maroochy River about 5 times at an altitude of about 500' and beyond the breakers about 1/4 mile out.

At the bar it made a turn about 400 yards north of the shark tower when it was over the first line of breakers.

After turning, it flew south more or less in line with the breakers but curved in towards the beach; the wings dipped to port.

The plane crashed with the port wing hitting first then ricocheting off the sand before the starboard wing hit the sand.

Constable Dryam Denham¹⁹

The plane circled Maroochy Beach four or five times before it crashed. On each occasion it flew up the beach out to sea. It did not fly over the beach. It commenced to lose altitude on about its 4th turn. It veered toward the beach and it appeared that the starboard wing hit the ground first.

Detective Sgt Vernon Rowland²⁰(Doc 82.6)

¹⁶ Exhibit B2.2

¹⁷ Exhibit B2.3

¹⁸ Exhibit B2.4

¹⁹ Exhibit B2.5

²⁰ Exhibit B2.6

The plane circled the area from Alexander Headlands to the Maroochy bar about 5 times, on each occasion flying at about 3/4 mile out to sea, but overflying the 'body of the bathers on the runs'. When he first saw the plane he was travelling at a height of about 300 feet and lost altitude gradually whilst flying in both directions. When it commenced its last turn at the Maroochydoore it would have been about 100 feet up. This witness stated that when he completed his turns he was always over the water and did not come over the land but he did come over the body of bathers on the runs but not on the turns.

There was nothing from the observations made of the plane to suggest that it was indicating the presence of a shark (no Verey light was fired) but the manoeuvring of the aircraft was consistent with the occupants trying to keep an object under observation.

At the time it made its last turn, which was 'sharper' than previous ones, the aircraft was about 300 yards out to sea; it banked on the port wing, momentarily righted itself before veering in suddenly as the starboard wing dipped and then struck the beach.

Up to the time the plane veered from the sea on its last run, there was nothing observed about the handling of the plane to suggest that it was being flown in a dangerous or reckless manner.

Technical Evidence Given to the Inquiries

The technical evidence provided to both the RAAF Inquiry and the first inquest centred on the evidence of two RAAF officers, F/Lt Kenneth McAtee and Squadron Leader Jack Kinninmont.

F/Lt Bruce Crofts gave evidence at the RAAF Inquiry²¹ but not at the first inquest. He was a RAAF reserve pilot. He observed the Wirraway aircraft in the middle of its final turn from a vantage point on top of the sand hills at Maroochydoore Beach. He considered the degree of bank of the aircraft to be 'at least 60 degrees' which very quickly thereafter increased to a full 90 degrees before rapidly descending and passing out of view.

In giving his evidence at the first inquest, the pilot considered that if the aircraft had been banked 65 degrees, it would 'be safe to make a steep turn'. He thought his airspeed in the turn was about 95 knots. However, he conceded at both the RAAF Inquiry and the first inquest that he "either allowed the aircraft to bank too steeply or the speed to get too low" while "estimating" that he had extended the flaps some 20 degrees at that stage.

²¹ Exhibit C4.19

F/Lt McAtee²²

He ruled out mechanical failure as a cause of the crash. He considered that the aircraft was capable of making a sharp turn up to 60 degrees of bank with 26" of boost, 2100 revs, and travelling at 95- 100 knots.

He considered that the aircraft crashed "because it had too much bank in the turn for the speed and power combination".

Squadron Leader Kinninmont

He was the Commanding Officer of No 23 Squadron at RAAF base, Archerfield. He had been tasked on 23 December 1950 to provide aircrews for shark patrols between Redcliffe and Noosa Heads on six days (24, 25, 26, 30, 31 December 1950 and on 1 January 1951). In discussions with available squadron pilots, perhaps including F/Lt Thwaites, the Squadron Leader decided that Wirraway aircraft could be used for this task. No evidence was led at any of the inquiries as to the rationale for this decision, who made this decision or at what level in the hierarchy it was made. It is possible it was Kinninmont himself and certainly seems to have been endorsed by him.

He said he instructed the pilots the aircraft were to circle each beach several times and if sharks were sighted, a red Verey pistol was to be fired and the pilot was to 'dive' the aircraft towards the shark and then leave it to patrolling lifesavers to notify the bathers accordingly. It is apparent Squadron Leader Kinninmont gave a briefing to the pilots who conducted the earlier patrols at a time when F/L Thwaites was on leave and Thwaites only received a briefing on the day he was to fly the patrol.

In his evidence at the first inquest, Squadron Leader Kinninmont confirmed that the Wirraway aircraft involved in the crash had been received from the Commonwealth Aircraft Corporation (and commissioned at Archerfield) by the RAAF on 28 November 1950.

F/Lt Thwaites had been under the Squadron Leader's supervision for 6 months. The pilot had in excess of 1200 hours operating Wirraway aircraft, 70 hours having been flown in the immediately preceding period of 6 months with the last flight before the day of the crash being on 19 December 1950 for two hours.

In giving oral evidence, the Squadron Leader said that the instruction to all shark patrol pilots was to fire the Verey light if a shark was sighted in the vicinity of bathers and dive the plane towards the shark to indicate its location to lifesavers.

In the Squadron Leader's view, F/L Thwaites had complied with the instructions given to him including flying below 500 feet where circumstances warranted it for shark spotting purposes.

²² Exhibits B3.3 & C4.6

A document headed "Briefing for Shark Patrols"²³ provided by Squadron Leader Kinninmont does not include the qualification contained in the Squadron Leader's oral evidence that pilots were to fire the Verey light only if a shark was sighted in the vicinity of bathers. The Briefing note states that if sharks were sighted 'a red Verey would be fired and the pilot would dive the aircraft toward the sharks'. Interestingly the same briefing note included a reference that Squadron pilots who were carrying out the patrols were very clear in mind that under no circumstances were they to indulge in very low flying or 'buzzing' over bathers.

In his oral evidence, Squadron Leader Kinninmont provided a short description of the operational characteristics of the aircraft and the aerodynamic forces at play in the operation of the aircraft, including in the use of flap during a turn. Generally, flap extension decreases the stall speed so that an aircraft can fly more slowly before the stall angle is reached.

However, he did not express an opinion as to the cause of the crash.

Mr Lobston from CASA was provided with limited details from the RAAF Court of Inquiry.

Presuming the pilot had seen a shark, he considered that the pilot became preoccupied with the shark as it approached the bathers and in doing so lost situational awareness. He found himself over the beach. He overbanked the aircraft in an effort to align its flight path to the shark. The pilot allowed the aircraft to descend, and when correcting his descent the airspeed decayed to a point where the aircraft stalled. With the stall the aircraft lost lift and rolled uncontrollably towards the ground where the wing tip made impact.

Findings of First Inquest

On 23 February 1951, Coroner Taylor made 15 findings upon completion of an inquest convened from 20-23 February 1951. Those findings included the following:

1. On 30th December 1950, a Wirraway aircraft, No. 20-212, piloted by Flight Lieutenant Herbert William Cecil Thwaites with Sergeant Fitter Geoffrey Meyer Neill as observer, left Archerfield RAAF station at 9.55am to perform shark patrol duties between Redcliffe and Noosa.
2. That prior to so leaving Flight Lieutenant Thwaites was instructed by Squadron Leader Jack Royston Kinninmont, Commanding Officer of number 23 Squadron, RAAF, at Archerfield that shark patrol was to be carried out from Redcliffe beach to Noosa Heads, the aircraft to fly at 1000 feet in height or lower depending on the clarity of the sea and the state of the water, so as to enable the pilot to best search the water. Each beach, or each water area of the beach, was to be circled several times to ensure a thorough search. In the case of any shark being sighted the Observer was to fire a red Verey cartridge and the pilot was to dive towards the shark to indicate its position to

²³ Exhibit C4.52

the life saving people. After indicating the presence of the shark the aircraft was to proceed with the patrol and not wait in the area until the shark had been driven away from the area. The only time that the plane was to dive on the spot where an object was seen was if it was believed there was a shark present. The question of altitude was left entirely to the flight commander.

3. That the aircraft proceeded as directed, reached Noosa Heads, and on the return journey from Noosa Heads the pilot and the Observer saw a shark in the water some 150 to 200 yards from the waters edge and to the South of where persons were surfing on the main Maroochydore surfing beach.
4. That the aircraft was then flying at a height of about 500 feet and at a speed of about 125 knots per hour.
5. That on sighting the shark the pilot lowered 20° of flap, which resulted in speed being reduced to 105 – 110 knots per hour.
6. That in order to keep the shark in view the pilot found it necessary to descended to about 300 feet and at that height circled the spot where the shark was about five times.
7. That after circling the spot where the shark was the aircraft flew northwards to the bar of the Maroochy River, some 400 yards North from the lookout tower on the Maroochydore surfing beach.
8. That on reaching the bar of the Maroochydore River the pilot, being then over the sea, made a steep turn towards the land at a height of about 300 feet, intending to fly low over the spot where the shark was to indicate its position to lifesavers on duty in the area.
9. That in banking, and immediately afterwards, towards the end of the turn, the aircraft shuddered slightly and lost height, descending to about 200 feet.
10. That the pilot then momentarily regained control of the aircraft.
11. That the starboard wing of the aircraft then dropped suddenly causing it to rapidly lose height and to turn to the right, towards the beach.
12. That the aircraft crashed on the beach about seven or eight feet to the south of the lookout tower and struck, amongst others, the three identified children, causing injuries which resulted in their deaths.
13. That the crashing of the aircraft was due to the pilot overbanking with insufficient speed and at an altitude too low to enable him to recover control which resulted in the stalling of the aircraft.
14. The accident was not due to any mechanical fault or defect in the aircraft.
15. That there is no evidence that the pilot of the aircraft was guilty of negligence.

New Evidence

Primarily as a result of research undertaken by Mr Brian O'Connor, further statements of persons present on Maroochydore Beach on 30 December 1950 have been obtained. Most of these witnesses were young or adolescent children at the time of the accident. Much of their respective recollections of events would be affected by the passing of time and by various communications with parents or others over time.

In seeking out the statements, and speaking with a number of other people present on Maroochydore Beach on the day of the accident, Mr Brian O'Connor has questioned the conduct of the pilot and the manner in which he flew the aircraft at Maroochydore on that day. He draws on material produced by the Commonwealth as to settlement of ensuing litigation including internal Commonwealth correspondence in which the Deputy Crown Solicitor expresses the opinion that the pilot's error of judgment on the day in trying to complete a turn that resulted in the stalled condition of the RAAF aircraft, 'would amount to negligence at common law'.²⁴ In the pleaded defences, the Commonwealth admitted negligence.

The OSC was able to have some of the witnesses adopt the statements provided to Mr O'Connor. They mostly declined giving evidence at the inquest but I consider the statements sufficient for my purposes. A summary of this body of this evidence is as follows:

Emily Thomas

She was 19 years of age at the time. She was swimming when she saw a RAAF plane flying south over the beach. She knew that it was a shark-spotting plane. It was flying so low that she could see the pilot and another airman sitting behind the pilot in the cockpit.

The aircraft was observed doing slow circles - each time it flew south it flew above the crowd on the beach.

The aircraft did so many circles and was flying so low, she thought the pilot must have spotted a shark. She and her younger sister, Norma, felt 'uneasy' and left the water to head to the back of the beach about 20 yards north of the lifesavers' tower.

From that point she saw the plane coming south flying towards the top of the shark tower. She thought the wings of the plane clipped the tower. The plane crashed into the beach on the southern side of the tower.

Verna Millicent Cornford

She was 9 years of age at the time. She was on Maroochydore beach on 30 December 1950 with members of other families and saw life savers row out to sea in their surf boat at the time a RAAF plane was making a number of circles around the beach and surfing area.

She knew that the aircraft was doing a shark patrol to help the lifesavers. It was flying so low that she could see the pilot. She did not see a flare or any other signal to indicate the pilot had seen a shark.

²⁴ Exhibit C5.1, p 109

She was at the water's edge when she noticed the RAAF plane flying north again. It flew a few hundred yards past the patrolled surfing area over the sea, turned left towards the beach and then commenced to fly south again.

The plane flew low towards the shark-tower, missed the tower but one wing hit the sand on the beach near to where her group was located. None of the people in her group was injured.

Marie Amelia Neucom (nee Taylor)

She was 19 years of age at the time. She was sitting on the beach south of the shark tower when she first noticed a RAAF plane fly over the beach and patrolled surfing area and head north. She knew that it was a shark-spotting plane. It was flying so low that she had a clear view of the pilot in the cockpit.

While walking on the beach heading south to Alexandra Headland she saw the plane heading south again flying above the water's edge. She did not see the plane crash.

June Granville (nee Hamlet)

She was with her family (parents and 4 siblings) on Maroochydore Beach on the day of the accident. She saw the RAAF plane making circles getting lower and lower each time.

The plane flew over the ocean then over the beach.

Before the final turn of the aircraft she recalls her father saying: 'What is that dill doing? Looks like he is skylarking.' She was in the water when the plane crashed.

Noela Dawn Boon

She was 21 years of age at the time. She was sitting on the beach with her brother and a friend when she saw a RAAF Wirraway plane flying south over the beach. It turned out to sea and came back north over the water. It made about three more circles around the same area flying lower each time.

She states that it was flying low enough for her to see the pilot and was not travelling very fast. It was flying above her.

When the plane made its last turn to fly south, it was flying extremely low. One wing came up quickly and the other wing came down hitting the beach not far from the southern base of the tower where she was sitting.

Kenneth Maxwell Plint

He was 21 years of age at the time. He was sitting on the beach 20 metres north of the shark tower when he saw a RAAF Wirraway do a couple of slow, low circuits above the beach and surfing area. He knew the plane was

involved in shark spotting duties. He did not see the pilot give any signals to the lifesavers.

He could see the pilot and the observer in the plane clearly. He saw the pilot wave to the crowd below on one occasion. The aircraft did 3 or 4 circuits flying lower each time.

On the last turn at the northern end of the circuit, the aircraft banked and flew south over the beach straight towards the shark tower. The plane hit the sand, a little south of the shark tower and cartwheeled through the air.

Raymond Frederick Edwards

He was 18 years of age at the time. He was in a camping area on the inland side of the sand dunes at the back of Maroochydore Beach when he saw a plane flying a number of circuits around the Maroochydore beach area.

Accompanied by friends, he went to the back of the sand dunes to look at the plane. He saw a RAAF Wirraway flying north at a low height (about 100'). He could see the pilot and observer quite clearly. He did not see a flare.

The plane flew another 400 metres to the north over the water and then made a steep bank to the left. It flew south above the beach towards the lifesavers' patrol area. One wing of the plane lifted quickly and steeply, avoiding the tower, but the plane dropped with one wing hitting the sand.

Charles William Inwood

He was aged 24 at the time and was the club captain of the Mooloolaba Surf Club. He was on the balcony of the Mooloolaba surf club with a pair of binoculars as he was expecting a Tiger Moth aircraft to perform shark patrols. He then recalls a Wirraway aircraft coming from the south travelling at only 300 to 350 feet.

He states that regulations in those days required the pilot of the shark patrol to fly between 500 and 1,000 feet above the water and to take station off the beach where the break starts because sharks seldom attack in broken water. This aircraft flew in over the beach instead. On each occasion he circled over the beach it circled over the sunbathers on the beach.

He later saw the Wirraway through his binoculars as it continued north toward Maroochydore. He saw it again circled the beach around 300 feet off the ground. It turned towards the beach and the nose appeared to drop point down at the beach and then stalled and the left wing appeared to clip a sand dune.

He and another lifesaver then raced to the Maroochydore beach to lend a hand.

Evidence of Brian O'Connor

Since 1990 Mr O'Connor has been conducting his own investigation in relation to the circumstances of the crash. He compiled a report consisting of 152 pages titled *'The day my brother died.'*²⁵ He has discussed the case with a large number of witnesses and took detailed notes of conversations he had with them. In addition he located a considerable amount of archival documentation and contemporary media reports of the day. He provided a statutory declaration stating the contents of his report were true and correct.²⁶

It should be said that many of these eyewitnesses were largely consistent to the effect that the plane had repeatedly flown low over the large crowd at Maroochydore beach when doing its circuits and had also flown low over patrolled beaches at Mooloolaba, Alexandra Headlands and Coolum. They were consistent in their statements that the plane was flying over the beach as distinct from further out to sea.

Many of the witnesses had made comments that the pilot appeared to be skylarking and showing off or wasn't concentrating. I have solely relied on the description of the activities of the plane. It is from this evidence that inferences can be made.

Mr O'Connor gave evidence at the inquest. He agreed there was differences in witnesses recollections but there was a common thread that they agreed when the aircraft was flying north it was over the water but when coming south some said it flew over the bathers, some over the beach and some even over the sand dunes and club house. The witnesses were also consistent in their evidence that on each circuit of the beach the plane was flying lower than the last time but were not able to consistently define a starting altitude. That is of course consistent with the sworn evidence of many of the witnesses who provided evidence at the various Inquiries including that of the Coroner.

Many of the witnesses commented on the noise of the plane and the fact they could clearly see the pilot and observer. The pilot said he started at 500 feet and went to 300 feet but other witnesses suggest it was lower.

At page 45 of his report, Mr O'Connor refers to the evidence of an ex-RAAF pilot, William Griffin. Mr Griffin noted that the plane circled for a five times and on its first run flew south in line with the breakers but moving closer to the beach on each run. He noted consistent with all other evidence that the weather was fine and conditions were bright making visibility from a height of 500 to 800 feet relatively clear.

Mr O'Connor stated in his report that Constable Denham, gave evidence at the inquest to the effect that all circuits made by the aircraft were out to sea and the last turn was sharp and steep. Mr O'Connor has pointed out that this contradicted evidence of all other eyewitnesses who were on the beach at the time to the effect the circuits included passes over the beach. Constable

²⁵ Exhibit D1.1

²⁶ Exhibit D1.2

Denham also gave evidence that he would consider it quite safe for planes on shark patrol duty to patrol at 100 feet or less but would not say it was safe to make sharp turns at 100 feet. He agreed he had no technical knowledge of the manoeuvrability of aeroplanes.

I discuss other aspects of the report in other parts of this decision. Mr O'Connor was still of the opinion the crew had not seen a shark. The main reason for this view was due to the fact the plane crew did not fire the Verey pistol and should have done so if they thought a shark was in that close vicinity to the bathers.

Finding of no negligence

At the first inquest the Coroner made a finding that there was no evidence that the pilot of the aircraft was guilty of negligence. The finding does not distinguish if this related to a finding of civil or criminal negligence.

It is apparent that under the 1930 Act there was no prohibition to making statements regarding civil or criminal negligence. The jurisdiction for proceeding with this inquest is under the provisions of the 1958 Act. Section 43 (6) of the 1958 Act prohibits the making of findings *'in such a way as to appear to determine any question of civil liability or as to suggest that any particular person is found guilty of any indictable or simple offence.'*

Accordingly in finalising this inquest I am prohibited from making a finding one way or the other, which would appear to determine any question of civil or criminal liability. By necessity therefore and on that ground alone, the finding of no negligence by the coroner should be set aside.

It should be said the facts of this case are self-evident and there have been other findings in the Air Force Inquiry, which noted the accident was caused by an error of judgement by the pilot attempting to do a steep turn close to the ground with insufficient air speed for the manoeuvre, thus stalling the aircraft. The Coroner's decision was therefore an unusual finding unless he was referring only to criminal negligence.

It should also be noted in the advice of the Deputy Crown Solicitor to the Commonwealth regarding the civil claims²⁷ that from the result of the inquest it could be said the evidence showed quite definitely that there was no blame of a criminal nature attributable to the pilot of the plane or any other persons. It could also be said with fairness that the evidence established that the pilot was not disregarding any instructions that he received nor was he carrying out those instructions in a reckless manner. The Crown Solicitor's advice was there was no evidence of any 'stunting' or deliberately dangerous flying by the pilot and the Crown Solicitor thought the evidence showed that the actions of the pilot were in conformity with what might reasonably be required in the circumstances of the shark patrol.

²⁷ C5.1 pp 105-109

On the other hand however, the legal advice noted the evidence did establish that the pilot committed an error of judgement in that whilst he was concentrating on endeavouring to pinpoint the location of the shark to the lifesavers on the surfboat, he allowed the plane to become in a stalled condition at the conclusion of the last turn. It was considered that this error of judgement would amount to negligence at common law sufficient to enable the representatives of persons who were killed in the accident and persons who are injured to successfully maintain actions against the Commonwealth.

During the subsequent civil proceedings, liability for negligence was admitted by the Commonwealth.

Suitability of Wirraway Aircraft for Surf patrol duties



28

The Wirraway was manufactured in Australia as a training and general purpose aircraft. During World War II it was used as a light bomber.

There is a significant body of evidence supporting the proposition that the Wirraway aircraft was not suitable for Surf patrol duties. It is apparent the decision to use this aircraft was rushed, perhaps because political pressure had been put upon the RAAF to have aircraft available for shark patrol duties over the Christmas period in 1950. News reports and other archival documents indicate there had been at least one shark fatality that summer.

The RAAF had only been requested to provide shark patrols for the North Coast area. The South Coast was being patrolled by civil aviation aircraft connected with the Royal Queensland Aero Club, and were sponsored by the Sunday Mail and Courier Mail. The Royal Queensland Aero Club conducted these patrols with Tiger Moth aircraft.

²⁸ Photograph courtesy of Wikipedia

The evidence suggests that originally it was considered a light aircraft would be made available²⁹ and a subsequent media announcement by the Acting Prime Minister indicated a Tiger Moth would be used. However, for reasons that are unclear from the archival records, and which does not seem to have been explored at any subsequent enquires, a decision to conduct the patrols in the much heavier Wirraway aircraft was made either by Squadron Leader Kinnimont or on direction from higher up the hierarchy.

In media articles of the day³⁰ the Truth quoted a former member of the RAAF who had experience with Wirraways in New Guinea and expressed the opinion that they were totally unsuited for the use as shark spotters. He was quoted as saying 'they were notorious for their reluctance to come out of a dive. In my opinion, circling round suspected sharks in the surf has something the same effect as a plane on a dive.'

The Directorate of Flying Safety concluded the Wirraway was not a suitable aircraft for these duties.

A search of the National archives also indicated a significant number of aircraft crashes involving Wirraway aircraft over a ten-year period.³¹

Mr Lobston concurred with the assertion the Wirraway was not a suitable aircraft for shark spotting. He said the Wirraway was designed and built in Australia before WW11. It does not have any visual or aural stall warning devices that are fitted to all modern aircraft. The only warning of a stall is airframe buffet, which can be missed.

The Wirraway also had a most undesirable aerodynamic stall characteristic in that the outer surface of the wing stalls before the wing root. This results in the pilot suddenly losing roll control and the aircraft flicking upside down.

Diving and banking a Wirraway at low speed (even with some wing flap extended) is a most undesirable situation for a pilot to be in. Wirraway aircraft were built during the war for the RAAF and many were lost due to stalling accidents.

Mr Lobston said the Wirraway did not have good visibility for the pilot or observer given the wing position. The Tiger Moth was not a lot better on this aspect either but it was a difficult plane to stall. Most shark spotting aircraft would now be in high wing aircraft.

The evidence conclusively demonstrates the Wirraway was an unsuitable aircraft to carry out surf patrol or shark spotting duties and should not have been chosen.

²⁹ Exhibit C4.14 evidence of Group Captain Hannah Commander at Amberley Base to Court of Inquiry

³⁰ Exhibit C5 page 6

³¹ C3.13 to C3.28

Altitude Flight Restrictions

One issue that arises is whether or not the pilots were under any particular altitude flight restriction orders.

The briefing note³² for shark patrols was for the planes would be flown at 1000 feet or lower, depending on the clarity of the water and state of seas running. The evidence from contemporaneous reports was that the weather conditions were fine and the sea conditions were placid.

In media reports³³ in the Sunday Mail, air force officials were quoted as saying there were no restrictions placed on crews on shark patrol or similar flights. The pilot was permitted to use his own discretion as whether to fly high or low, dependent on where he could best take observations to make a successful patrol.

In the same article, the aviation writer noted rigid flying regulations to safeguard beach crowds were framed by the Civil Aviation Department and the Royal Queensland Aero Club. The regulations set out that the shark patrol must be carried out in accordance with strict accordance with all navigation orders and Royal Queensland Aero Club rules. These stipulated that when the patrol is clear of the beach and all surrounding countryside it may descend to 500 feet for the patrol. The Royal Queensland Aero Club certainly indicated the operations were to be conducted strictly in accordance with Air navigation Regulations.³⁴

At the inquest Squadron Leader Kinninmont made it clear the only limitation he placed on instructing the pilot was on the height was to be at 1000 feet or lower. He stated that from a Wirraway to view anything underneath you look over the side and anything immediately under the plane at a low altitude would be difficult to see. He thought 500 feet would be the best height or lower for review on average shark. He said it was possible to go down to between 100 feet and 500 feet but at 100 feet you would not have sight of the object for long.

During the inquest the lawyers for the family made reference to Regulation 133 of the Air Navigation Act and asked the Squadron Leader whether there were similar Air Force regulations, to which the reply was yes.

Regulation 133 of the Air Navigation Regulations 1947 sets out that an aircraft shall not fly over any city, town or populous area at a lower altitude than 1500 feet or any other area at less than 500 feet.

Air Force Regulation 690 states that the plane should not fly at lower than the same altitude mentioned in the Air Navigation Regulations. That appears to be a mandatory regulation although the issue may be complicated by any other orders applicable. Regulation 688 for instance states the Chief of Air Staff

³² Exhibit C4.52

³³ Exhibit C5 pages 9-10

³⁴ Exhibit C5.2 letter dated 15/12/50 from Courier Mail to Royal Queensland Aero Club

may issue such orders and instructions as deemed necessary for the proper conduct of flying in the Air Force. Other evidence suggested it is for the Commanding Officer of the day to determine how the flight should be carried out.

The pilot said at the inquest he was aware of this regulation and that the minimum height for ordinary flying over cities and towns is fixed at 1000 feet and that provision is made for a lower altitude according to circumstances. He considered the sighting of the shark gave him a right to fly at lower than 1000 feet.

It is apparent the pilot and perhaps the Squadron Leader were not aware of the precise height restrictions applicable under their own regulations. The pilot however had been given instructions permitting him to use his discretion as to how low he flew when observing a shark.

Interestingly in his evidence at the inquest³⁵ the pilot had earlier said that at the time of observing the object he was flying at 500 feet. This was also his evidence at the Court of the Inquiry.

The observer, Sgt Neill told the inquest that when they first sighted the shark they were at approximately 1000 feet. In his statement and evidence before the Court of Inquiry he made no comment as to the height when he saw the shark but in answer about a question as to an estimate of the height as they were circling and following, he stated 200 to 300 feet.

The altitude issue is difficult to be definitive about given the varying estimates. I can conclude it is likely the pilot was not adhering to the strict instruction on the day to fly at 1000 feet and lower if conditions made this necessary. He was already at 500 feet when he spotted the shark.

Flying lower than 500 feet was not going to be particularly productive and perhaps unnecessary. Squadron Leader Kinninmont told the first inquest 500 feet would be the best height or lower to view a shark. He could not say how low but 100 feet was not optimal. More contemporary experience, as stated in the evidence of Mr Shepphard, suggests 400 feet was the best height.

The fact the pilot went as low as he did could be considered evidence of a careless attitude. Equally it could be indicative of a lack of knowledge on the part of the pilot as to how to carry out the task given to him. It is unlikely he had ever been given any specific training in shark spotting surveillance and the evidence supports a finding of a lack of a proper briefing relating to the task at hand.

Contemporary methods adopted for surveillance patrols

Group Capt BJ Rogers, Director Operations and Plans with the RAAF reported to the coroner in relation to contemporary air force operations, specifically civil surveillance patrols.³⁶

³⁵ Exhibit B4.1

He stated contemporary RAAF surveillance patrols are conducted by purpose-built, long endurance, maritime aircraft. These patrols take place well offshore. The most common request is for assistance in civilian Search and Rescue (SAR) coordinated with the Australian Maritime Safety Authority's Rescue Coordination Centre.

Military aircraft operated under the Defence Act are operated beyond the scope of Civil Aviation Regulations and Orders. Defence have their own issued orders which direct compliance to civil procedures necessary to ensure collective safety. These orders govern weather minima, formation flight and aircraft specific roles. Specific orders proscribe low-flying altitude limits applicable to aircraft types, hazard assessment processes, request mechanisms and approval authorities. Low-flying is subject to deliberate planning, which identifies hazards to the public and the operating aircrew. Measures employed to reduce risk to as low as reasonably practical include route survey of the obstacles, and avoidance of populated and environmentally sensitive areas.

Beach patrols are not undertaken by defence aircraft and altitude and proximity restrictions to land masses, shipping, noise and environmentally sensitive areas apply at all times and these restrictions are reviewed as part of the risk management practice.

John Vincent Sheppard also provided a statement to the court.

He has extensive flying experience since 1977 when he obtained his private pilot licence and a commercial pilot licence since 1988. He also holds an Australian Transport Pilot Licence.

Relevantly for the inquest's purposes, from 1995 to 1997, he was the Chief Pilot, fixed wing, with Surf Life Saving Queensland and the Operations Manager for the associated Westpac Life Saver Rescue helicopter service. The only fixed wing aircraft used for aerial patrol work and search and rescue was a Partenavia P68B aircraft – a six-seat, twin-engine, high-wing monoplane. This was a well-suited aircraft for this type of aerial work with a cruise speed of around 150 knots, a good rate of climb and a stall speed (flaps down) of about 60 knots.

Shark patrol operations were usually undertaken with two observers; one observer on the left hand side of the aircraft and the other on the right hand side. As Chief Pilot his role was to ensure that the crew were competent and were properly briefed before each patrol.

Before qualifying as an observer, each crew member had to undertake a competency based course of instruction as part of his / her recruitment as a qualified observer. The observers usually undertook training with the Australian Maritime Safety Authority (AMSA), as well as beach patrol training

³⁶ Exhibit D9 & D9.1

including use of SLS and marine rescue radios and were qualified surf life savers. All of the pilots used were qualified in low level flying operations. Their currency in SAR procedures was also subject to checks undertaken with AMSA. The flight crew had to operate as per the rules and regulations specified in the operations manual and the applicable civil aviation flight rules.

All aerial work operations were carried out in accordance with the CASA-approved operations manual for aerial rescue services. The operator had a low flying permit, which from recollection allowed aerial work operations to be conducted below 500 feet, if required, but not below 200 feet. This was managed by having the radio altimeter in the aircraft, which had a pre-set height warning, fixed at 200 feet.

During search and rescue operations he found the best observation height to be about 800 ft. However, for shark patrols he generally found that flying at about 400 ft was the best height at which to sight sharks during the course of the aerial patrol.

In his experience he found that sharks rarely moved quickly; rather they would 'saunter' along unless they were feeding. They would move quickly if they became frightened or were pursuing something. He found that flying a little bit further out from the surf line at about 400 ft gave the best opportunity for the observers to view any object. If the aircraft was flown too close, or over, the beach the observers would only see broken/white water, which would not give the best vantage point from which to see a shark.

The training of both pilots and observers emphasised the separate roles of each. Pilots are responsible for flying the aircraft and observers are to scan the water and communicate with the pilot if a shark is sighted by giving clear instructions as to the approximate position of the shark. It is not the job of the pilot to search out and sight a shark. It is still standard practice in all aerial work for the pilot to aviate, navigate and communicate.

Good communication between the observers and pilot usually enabled the pilot to understand the point of reference and, in approaching a turn, have sufficient time to undertake the turn, line the aircraft up again and safely overfly that point to enable the observer to continue or regain sight of the shark or object in the water.

All turns should be performed away from the beach and it is the pilot's responsibility to ensure that the turning performance of the aircraft - being the rate at which the heading changes, the radius (or 'tightness') of the turn and the bank angle of the aircraft - are all appropriate in the circumstances and can be safely achieved.

Accepting that I should not adversely compare methods adopted in contemporary surveillance operations to those utilised in 1950, it is evident the use of appropriate aircraft, trained personnel for specific tasks, communication and having the pilot's prime task to aviate, are features that were largely absent in this incident.

Pilot Distractions

In an undated report, which presumably was provided for the purposes of the Inquiry investigation³⁷ it was thought there were two contributing factors as to why the aircraft crashed. Firstly, the pilot was the distracted from the task of carrying out a rather critical manoeuvre close to the ground by the fact that he was made endeavouring to maintain visual contact with the surf boat, and the position of the shark, so as to place the aircraft in a position to run over the boat towards the shark. Secondly, he apparently did not react quickly to the indications of the incipient stall.

It is noteworthy the Australian Transport Safety Bureau conducted an examination of accidents and incidents involving pilot distraction and concluded that distractions can affect the pilot in operating in any type of operation and can arise unexpectedly, during periods of high or low workload, or during any phase of the flight and no pilot is immune to distraction.³⁸

Although a number of witnesses who discussed this matter with Mr O'Connor noted that shark patrol tasks were not difficult ones, former RAAF flying instructors Cec Downes and Dennis Coffey both made reference to it being possible the pilot became careless or distracted or allowed his attention to stray and became less aware of potential dangers when nearing task completion.³⁹

This was the first shark patrol conducted by the pilot. Mr Lobston agreed the aviation aspects of such a task would be simple. However the evidence supports a finding the pilot was also involved in the spotting activities, which would increase the complexity of the task, particularly in a situation where there had been inadequate training and briefings.

Was there a shark?

There is ample evidence from contemporaneous reports that no shark was found at the scene by lifeguards in the surfboat, double surf ski and single paddleboard that either went out to search or was out there. The evidence of the pilot is the surfboat was in the area where the shark was seen.

There are a number of possibilities.

Firstly, there was a shark and the lifeguards missed it. This remains a possibility although no doubt the surfboat headed out for the purpose of searching for a shark and there is nothing to indicate they and the other two craft present would have not otherwise been diligent in their search.

Secondly, it is possible the Pilot and observer were mistaken as to the presence of a shark but genuinely thought they saw some large marine object.

³⁷ C4.40

³⁸ Exhibit F7 Australian Transport Safety Bureau, *Dangerous Distraction – An Examination of accidents and incidents involving pilot distraction in Australia between 1997 and 2004*

³⁹ Exhibit D1.1 pages12-14, Report of Brian O'Connor

In one of the media reports of the day⁴⁰ the 'Truth' reported 'subsequently, it was determined also, that what the pilot of the Wirraway had thought was a large shark was, actually a large fish.' It is unclear from where that comment was sourced and it does not appear in any of the evidence led at the inquiries or in subsequent media comment.

This second scenario has some support in considering the actions of the crew where a number of circuits were made over the area consistent with them observing something but they were unsure if it was a shark. This could explain why the Pilot did not request the Verey flare to be activated, as he was still unsure. The observer's initial statements to lifeguards at the scene indicated he thought it was a shark he had seen. Admittedly this changed somewhat in his evidence at the inquest where he expressed it was a shark with much more certainty.

Against that second proposition is that even if you were unsure, it would have been reasonable and sensible for the pilot to activate the Verey pistol to get the surfers out of the water and safe. If this had turned out to be a wrong decision then little harm other than some inconvenience would have been done.

At the inquest the pilot stated that after first sighting the shark, the bathers were not first in danger but it was travelling northwards and could have veered in towards them or out to sea. He stated he maintained a parallel course and would have passed outside the bathers by approximately 120 yards. He stated he did not want to leave the area until he was certain the shark was clear of the bathers. He assumed that once it got north of the bathers it would not then turn around again.

At the inquest the pilot stated that when first sighted the shark was clearly observable in the sea and he was quite sure it was a shark.

The pilot referred to observing a surfboat going 'directly towards the shark'; the pilot then flew north to turn at the Maroochy Bar with the intention of giving the surf boat crew 'a position line of approx. 90 degrees to their direction to give them the distance out'.

The observer later said in evidence he equally was sure it was a shark. He loaded the Verey pistol but did not fire it as he was under instructions from the pilot. At the inquest he stated that in view of the fact the shark was travelling north-east he knew of no reason why the pistol was not fired. He stated he got the pistol ready for use and was given the instructions to get ready and to use it if the surfboat did not understand their movements. Interestingly the pilot made no reference in his evidence to giving the observer any instructions regarding the Verey pistol at all.

The issue of the surfboat is of some significance as both the pilot and observer stated the intention of the manoeuvre was to give the surfboat crew

⁴⁰ Exhibit C5 page 5

'a position line of approx. 90 degrees to their direction to give them the distance out'.

The difficulty with this is there is evidence from newspaper reports that given the circling plane the lifeguards suspected there was a shark in the area and put the surfboat out to sea but could not find any shark and returned to the beach. Patrol captain Noel Hawthorne is reported to have said that he brought the surfboat back to the beach and was standing on the beach near the patrol area when the plane did another circle towards the beach, lost speed and crashed only a few feet in front of him.

The fact the surfboat had already returned to the beach is confirmed in the statement taken by Mr O'Connor from Bernie Campbell⁴¹. Bernie was 11 years old at the time and recalls the plane making fairly low circuits of the area. He was building sand castles and at one stage had buried himself in the sand. He had watched a surfboat, which had been offshore while the plane was circling the shore. He recalls that the surfboat went sideways on the way in and bumped into a body surfer who was not seriously hurt. He recalls the crew was standing beside it. He then left his hole in the sand and went down to see what they were doing. It was at this point the plane crashed near the base of the shark tower. After the crash he found his cap in the fuselage of the plane. The wing was completely covering the area where he had buried himself in the sand. Given those facts and his near miss from a likely death, and despite his young age and the passing of time, it is unsurprising he recalls these events reasonably clearly.

This evidence suggests that the surfboat had already returned to the beach by the time the Wirraway was heading back and there must be a question mark as to the point of the aircraft giving the surfboat a direction to where the shark may have been, as the boat was not even in the water. This could be explained in the context of situational awareness problems the pilot may have been facing in that he had not realised the surfboat had returned to shore.

The third possibility is there was no shark at all, the pilot was not mistaken and his flying in circles lower and lower around the beach simply an exercise in 'buzzing' the beach.

The fact pilots were known to 'Buzz', 'Shoot Up' or 'Beat Up' the beach is not without some support. The fact that the briefing note issued for the shark patrols included a reference to 'Squadron pilots carrying out the patrols were very clear in mind that under no circumstances were they to indulge in very low flying or "buzzing" over bathers' is indicative that it was a practice sufficiently known to the hierarchy for it to be mentioned. Mr Lobston agreed it was a practice, which was not unheard of amongst pilots.

As will be noted below the pilot himself agreed that he was already flying at 500 feet when he first saw the shark and certainly lower than the 1000 feet direction he had been given at the briefing prior to the commencement of the

⁴¹ Exhibit D1.1 page 65

patrol. He then went lower than this and clearly was too low on the last turn to be able to recover from the inevitable stall.

Many witnesses recall the plane was lower than any other previous patrols. Mr O'Connor's report notes a number of witnesses also referring to similar behaviour (ie. flying low over the beach) when the plane was patrolling over Mooloolaba and Coolum.

That being said there is no evidence the pilot had a propensity to that type of activity. His RAAF personnel records⁴² note he continued to fly with the RAAF through to 1969 at a level of Squadron Leader. He was regarded as an above average proficient pilot and a loyal officer, although it is apparent it was unlikely he would advance much beyond a Squadron Leader level.

Conclusions on whether there was a shark

To make a finding this was a case of deliberate buzzing of the beach in the absence of a shark or some other marine life that may have caused the pilot some concern, would be a grave one to make. Inevitably I would be making a finding the pilot and observer gave false testimony on oath at a number of inquiries.

I have earlier noted that to make such a finding I would need to do so with great caution and the evidence would need to be persuasive.

The evidence of the pilot and observer was led on at least three occasions before two inquiries and they were not challenged about this testimony and a contrary version was not put to them. There were a few inconsistencies for sure as to what was said on the beach to other witnesses (who were not called at the inquest) as compared to later, but given the traumatic events of the day one cannot be sure what their state of mind was shortly after the crash nor how strongly they would later adhere to that version.

I accept there may be criticisms about the nature of the proceedings at both the RAAF Court of Inquiry and the Inquest. However they were heard some 63 years ago in different times. As was noted by Counsel Assisting Mr Harvey, the rules for conducting Courts of Inquiry at the time required them to be completed within 14 days, necessitating a truncation of the evidence gathered.

Inquests were also quite different processes to today with the Coroner heavily reliant on the evidence led by the Police. Coroners were less involved in directing the investigation or the evidence to be led at the inquest.

No doubt with the benefit of the extra evidence that has been obtained and a proper forensic testing of their testimony, another result may have been achieved, but this we can never know.

⁴² Exhibit F8

I accept there is eyewitness evidence that may bring some, reading Mr O'Connor's report, to a conclusion the pilot was deliberately flying low to buzz the beach.

I also accept there is evidence which brings into doubt that the flying was associated with monitoring the presence of a shark. Of particular importance is the failure to fire the Verey pistol, the fact no shark was found and that the surfboat, for which the last manoeuvre was for the benefit of, had returned to the beach.

However the behaviour of the pilot in circling a number of occasions around the beach area, with each circuit reducing in height is also consistent with the pilot endeavouring to keep something in view, and failing to fire the Verey pistol could also mean they were unsure as to what the object was.

It is also not implausible that a pilot, especially one not trained in aerial work activities; with an observer who similarly was untrained and largely receiving no advance briefing; as well as being anxious about keeping a shark under observation; and flying an unsuitable aircraft may have inadvertently allowed the bank angle to increase to such an extent that an accelerated stall quickly ensues.

Ultimately, the state of the evidence is such I am unable to reach a conclusion on this matter one way or the other to the respective standard of proof.

The pilot was an experienced pilot. However he had no training in surf patrol duties. The RAAF found itself, probably due to political expediency, having to put a number of planes and pilots available to provide patrols at very short notice. In a flawed decision, the Wirraway was chosen as the aircraft. It was particularly unsuited for this task.

Without diminishing the responsibility of the pilot who made a serious flying error, which caused the death of three children and injured many more, it was in that context of an ill advised decision to utilise an unsuitable aircraft and utilising untrained aircrew that also contributed to the tragedy occurring.

Findings required by s. 43(2) Coroners Act 1958

Identity of the deceased – Graham Stanley Blair, aged 6

How he died – Graham died from injuries after being struck by a RAAF Wirraway aircraft on the main surfing beach at Maroochydore - see below

Place of death – Nambour District Hospital AUSTRALIA

Date of death– 30 December 1950

Cause of death – Fracture of the vault of the skull, laceration of the brain and intracranial haemorrhage

Identity of the deceased – Pauline Probert, aged 6,

How she died – Pauline died from injuries after being struck by a RAAF Wirraway aircraft on the main surfing beach at Maroochydore - see below

Place of death – Maroochydore Beach AUSTRALIA

Date of death– 30 December 1950

Cause of death – Fracture of the base of the skull and fractures of the 5th and 2nd dorsal vertebrae with complete severance of spinal cord.

Identity of the deceased – Liam Joseph O'Connor, aged 11

How he died – Liam died from injuries after being struck by a RAAF Wirraway aircraft on the main surfing beach at Maroochydore - see below

Place of death – Maroochydore Beach AUSTRALIA

Date of death– 30 December 1950

Cause of death – Compound comminuted fractures of both lower limbs, fractured cervical vertebra with intra spinal and subarachnoid haemorrhage

How the Deceased died

1. Over the Christmas period of 1950 the RAAF had been requested by the Acting Prime Minister of the day to provide aerial shark patrols on the North Coast from Brisbane after a recent death and another attack of two bathers by sharks.
2. It was thought a light form of aircraft such as a Tiger Moth would be utilised, however in a flawed decision, Wirraway aircraft were chosen.
3. Wirraway aircraft were most unsuited for this type of civilian patrol duty, which required low speed and sharp banking capabilities. The Wirraway had a well-known propensity to stall at low speed whilst banking or diving.
4. On 30th December 1950, a Wirraway aircraft, No. 20-212, piloted by Flight Lieutenant Herbert William Cecil Thwaites with Sergeant Fitter Geoffrey Meyer Neill as observer, left Archerfield RAAF station at 9.55 am to perform shark patrol duties between Redcliffe and Noosa.
5. Although the pilot was an experienced pilot in a number of types of aircraft including Wirraway, he is unlikely to have had any experience or training in the type of expected surveillance duty he was to be

engaged in. This was the first occasion the pilot had performed a shark spotting patrol. He received a short briefing from his commanding officer. The Observer was a fitter with the RAAF and had not performed observer duties before and was given no specific briefing other than from the pilot and then only shortly before the flight.

6. That prior to so leaving Flight Lieutenant Thwaites was instructed by Squadron Leader Jack Royston Kinninmont, Commanding Officer of number 23 Squadron, RAAF, at Archerfield that shark patrol was to be carried out from Redcliffe beach to Noosa Heads, the aircraft to fly at 1000 feet in height or lower depending on the clarity of the sea and the state of the water, so as to enable the pilot to best search the water. Each beach, or each water area of the beach, was to be circled several times to ensure a thorough search. In the case of any shark being sighted the Observer was to fire a red Verey cartridge and the pilot was to dive towards the shark to indicate its position to the life saving people. After indicating the presence of the shark the aircraft was to proceed with the patrol and not wait in the area until the shark had been driven away from the area. The only time that the plane was to dive on the spot where an object was seen was if it was believed there was a shark present. The question of altitude was left entirely to the flight commander.
7. That the aircraft proceeded as directed, reached Noosa Heads, and on the return journey from Noosa Heads the pilot and the Observer say they saw a shark in the water some 150 to 200 yards from the waters edge and to the South of where persons were surfing on the main Maroochydore surfing beach.
8. That the aircraft was then flying at a height of about 500 feet and at a speed of about 125 knots per hour.
9. That the pilot thought he lowered 20° of flap but this may have been as high as 30, which resulted in speed being reduced to 105 – 110 knots per hour.
10. The aircraft conducted numerous circuits of the beach and sea each time getting lower. When the aircraft was travelling in a northerly direction the aircraft was out to sea. At times during the southerly path of the circuits the evidence supports the aircraft passed over the bathers in the sea and those on the beach at low enough height for the pilot and observer to be clearly seen. A change in direction of the wind to a south easterly may have been a factor.
11. That a surfboat was put out to the area but was unable to see any shark and returned to shore. A double surf ski and single paddle rider also were unable to see a shark. After circling the spot where the shark allegedly was the aircraft flew northwards to the bar of the Maroochy River, some 400 yards north from the lookout tower on the Maroochydore surfing beach.
12. That on reaching the bar of the Maroochydore River the pilot, being then over the sea, made an excessively steep turn towards the land at a low height with a tight radius and an observed bank angle of anywhere between 60 and 80 deg depending on when the

observation of bank angle was made by the witnesses on or near the beach

13. That in banking, and immediately afterwards, towards the end of the turn, the aircraft shuddered slightly and lost height, descending further.
14. That the pilot then momentarily regained control of the aircraft.
15. That the starboard wing of the aircraft then dropped suddenly causing it to rapidly lose height and to turn to the right and onto the beach area.
16. That the aircraft narrowly avoided the lifesaver's tower and crashed on the beach about seven or eight feet to the south of the lookout tower and struck, amongst others, the three identified children, causing injuries which resulted in their deaths.
17. That the crashing of the aircraft was due to the pilot overbanking with insufficient speed and at an altitude too low to enable him to recover control, which resulted in the stalling of the aircraft. In performing this manoeuvre the pilot for some reason, either due to irresponsible and careless flying, or due to distraction in the context of being untrained in aerial activities of this sort and whilst flying an aircraft unsuited for the task at hand, or in combination of all or some of these factors lost sight of some fairly basic fundamentals of flying.
18. The crash was not due to any mechanical fault or defect in the aircraft.
19. It cannot be determined on the evidence available to this court whether the pilot and observer had actually seen a shark or some other marine object.

Comments and recommendations

It is reasonably clear the decision to use Defence aircraft for this particular surveillance duty was ill advised and perhaps influenced by political expediency. The Court has evidence from the RAAF and the current operators of surveillance aircraft as to the comprehensive safety and risk management approach now taken. Not unexpectedly times have well and truly moved on since 1950. It is unnecessary to make any comments or recommendations that would minimise such an event happening in the future.

I close the inquest.

John Lock
Brisbane Coroner
Maroochydore
5 November 2013