

### Coroner's Court of Western Australia

## RECORD OF INVESTIGATION INTO DEATH

Ref 25/20

I, Evelyn Felicia VICKER, Coroner, having investigated the disappearance of Barry Ray JESSEN with an inquest held at the Coroner's Court, Court 83, Central Law Courts, 501 Hay Street, Perth, on 6 April 2020, find the death of Barry Ray JESSEN has been established beyond all reasonable doubt, and the identity of the deceased person was Barry Ray JESSEN and that death occurred on 17 August 2006, at sea in the vicinity of Shark Bay, out of Carnarvon in the following circumstances:

## **Counsel Appearing:**

Senior Constable Craig Robertson assisting the Coroner.

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## INTRODUCTION

On the morning of 17 August 2006 Barry Ray Jessen (Mr Jessen) was on board the fishing vessel, Cape Palmerston, following breakfast at about 8:45 am as the vessel was moving to a new fishing ground on conclusion of the overnight work shift. Once at the new fishing ground sometime after 9:00 am Mr Jessen's friend, Brandon Michael Martin (Mr Martin), noticed Mr Jessen was missing. There followed an extensive search of the vessel which then retraced its course while calling for assistance from other vessels and emergency services in the area. No sign of Mr Jessen was ever located again.

The inquest into Mr Jessen's disappearance was held in Perth and the documentary evidence comprised the brief of evidence as Exhibit 1 attachments 1-31 and the Public Notice of Inquest dated the 28 February 2020 as Exhibit 2. Oral evidence was heard from the skipper of the Cape Palmerston, David Colin Griffiths (Mr Griffiths), Mr Martin, Inspector Paul Daly, then Senior Constable Daly (Inspector Daly) and Senior Constable Peter Smith who compiled a report for the coroner from the missing person files.

# Long Term Missing Persons Project (LTMP)

In 2017 it was confirmed there were a number of files relating to the long term disappearance of people who had been in Western Australia at the time of their reported disappearance.

Section 23(1) of the *Coroners Act 1996* WA (the Act) allows the State Coroner to direct an investigation into a suspected death in certain circumstances without a body, for the purposes of allowing a coroner, under section 23(2), to establish beyond all reasonable doubt that death has occurred. The investigation must be by way of inquest and will attempt to clarify how the death occurred and the cause of the death. This effectively brings the

suspected death into the ambit of s 25 of the Act and allows registration of the death under the *Births*, *Deaths and Marriages Registration Act 1998*.

The reported number of LTMP made it unrealistic for the Office of the State Coroner (OSC) to absorb those matters into the already long outstanding inquest list in a timely manner. A plan was proposed for a project to clear the backlog of LTMP files once it had been determined the matters fitted the circumstances set out in s 23(1) of the Act. That is, the State Coroner or delegate had reasonable cause to suspect the person had died and the death was a reportable death (s3 of the Act).

In 2018 approval was given for a coroner to work exclusively on the LTMP cases, on a part-time basis for twelve months, as a separate listing from the OSC general inquest list. This followed a pilot project of four inquests conducted in 2018.

In 2019 a coroner was appointed for that project with the support of an inhouse Coronial Investigation Squad (CIS) police officer as Counsel Assisting (CA).

In the case of Mr Jessen, both his family and the majority of the witnesses to be called were located in the Perth metropolitan area in 2020 and the matter was heard in Perth with a telephone link to a suburb in Geraldton to hear the evidence of the skipper of the Cape Palmerston, Mr Griffiths. By the time of the inquest in April 2020 movement between regions of Western Australia was prohibited due to the Covid-19 pandemic. This would have prevented travel by Mr Griffiths, but it is likely his evidence would have been heard remotely in any event due to the family and other witnesses being located in the Perth metropolitan area.

The anticipated outcome of the LTMP project was that by June 2020 the majority of outstanding LTMP matters would be resolved and that future

missing person files would be dealt with in the normal course of the OSC's usual business.

## THE DECEASED

Mr Jessen was born on 3 June 1982 in Perth and had a sister, Kylie Patricia Noelle Jessen. His mother died when he was quite young and he was largely raised by his aunt, Dominique Scarlet Schelfhout (Ms Schelfhout).

Mr Jessen was educated at Lumen Cristi College in Gosnells where he became close friends with Clint Martin. He remained friends with the Martin family and in 2002 Mr Jessen moved in to the Martin family home where he became close to Clinton's older brother, Brandon Martin. He remained living in the Martin household until 2005 when he moved out, but remained friends with Clinton and Mr Martin. Mr Martin considered Mr Jessen to be like a younger brother. On leaving the Martin household he returned to his aunt.

Mr Martin described Mr Jessen as having been a fairly happy person whose last long term girlfriend had been approximately 2 years earlier. To his knowledge he had no reason to be unduly concerned about Mr Jessen's welfare. He knew Mr Jessen as "Baz"<sup>2</sup>

Mr Martin worked on the prawn trawlers out of Carnarvon, and had been doing so for a number of years when the company he was working for in 2006, Nor West Seafoods, out of Carnarvon, had a position available on its trawler Cape Palmerston. Mr Martin contacted Mr Jessen and asked him if he was interested in being a deckhand. Mr Jessen then made his way to Carnarvon and applied to Nor West Seafood Pty Ltd for a position as a deckhand.<sup>3</sup>

<sup>2</sup> Exhibit 1 Tab 10

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<sup>&</sup>lt;sup>1</sup> Exhibit 1 Tab 10

<sup>&</sup>lt;sup>3</sup> Exhibit 1 Tab 3

Mr Jessen was interviewed by the company, and the paperwork completed by the company, before he was allocated to crew on the Cape Palmerston with Mr Griffiths as skipper.<sup>4</sup> In evidence Mr Griffiths said he inducted Mr Jessen to the safety requirements for the work both on the jetty and once they were aboard the Cape Palmerston.<sup>5</sup> This included advice on the appropriate clothing and the desirability of wearing boots of an extra size so they were able to be kicked off quickly should the need arise following a fall into the water.

Generally swimming capability was not a requirement for persons working as crew on fishing vessels in 2006. Mr Jessen was described by his family as a weak swimmer.

There is no medical information arising out of Mr Jessen's background which would suggest any particular identifying features in the case of unidentified skeletal remains. He did not have a dental record or any other special features.<sup>6</sup> He was described as being approximately 178 cm tall of medium build, brown eyes, brown hair close cut with a dark complexion. He had an eyebrow piercing, but no one recalled him to be wearing anything in his piercing during the trip.

## **Cape Palmerston**

Cape Palmerston is described as a prawning and scallop vessel with a steel hull. It had a length of 22.5 metres and was authorised to operate within the coastal waters of WA, 200 miles offshore. Its Certificate of Survey had been completed on 31 May 2006 and was valid until 15 February 2007. The Cape Palmerston was owned by Tennereff Pty Ltd out of Carnarvon and was described as a trawler.

<sup>&</sup>lt;sup>4</sup> Exhibit 1 Tab 23

<sup>&</sup>lt;sup>5</sup> Transcript 6.4.2020 pages 9, 11, 16, 18, 19, 20, 25, 26

<sup>&</sup>lt;sup>6</sup> Exhibit 1 Tab 5

Mr Griffiths stated he had worked in the fishing industry for nearly 20 years in 2006 and had skippered trawlers for the past 12. He had started working with Nor West Seafoods (Nor West) in March 2006 as a skipper on their fleet of prawners.<sup>7</sup>

Mr Martin had worked on prawn trawlers out of Carnarvon for four years by August 2006 and in June 2006 had been asked by Nor West to crew for Mr Griffiths on the Cape Palmerston.<sup>8</sup> Mr Martin knew the others on the crew in August 2006 as "Chop-Chop" and "Tumma" whom he had worked with for the last two trips, after two others had left and he asked Mr Jessen to consider applying for a position.

The two Indonesian nationals on the Cape Palmerston were Warih Djaya Utama (Tumma) (Mr Utama) and Yohan Tampang (Chop-Chop) (Mr Tampang). They had arrived in Perth on 8 March 2006 before flying to Carnarvon to obtain work on a fishing boat. They had both worked on fishing boats in Indonesia and were on visas to return to Indonesia at the end of 2006. They worked on other fishing boats before being asked to join Mr Griffiths on the Cape Palmerston in June 2006 with Mr Martin and two others. They both felt quite comfortable with Mr Griffiths as skipper. The two others left in early August 2006 and Mr Jessen joined the crew. Mr Jessen fitted well into their work group despite his lack of experience and they all worked and socialised well together as far as their limited language interaction allowed.<sup>9</sup>

The Cape Palmerston left Carnarvon on Monday 14 August 2006 with Mr Griffiths as skipper and Mr Martin, Mr Utama, Mr Tampang and Mr Jessen as crew. The work on a prawn trawler is hard<sup>10</sup> with fishing and sorting

<sup>7</sup> Exhibit 1 Tab 11

<sup>8</sup> Exhibit 1 Tab 10

<sup>&</sup>lt;sup>9</sup> Exhibit 1 Tabs 13 and 14

<sup>&</sup>lt;sup>10</sup> Transcript 6.4.2020 page 12, 15, 40

overnight before cleaning up, some recreation, then sleep before the next night shift. While alcohol is allowed in moderation, on that particular trip none of the crew were drinkers, and Mr Griffiths did not consider alcohol to be an issue on the Cape Palmerston in the few days they were out fishing for their proposed three week trip.<sup>11</sup> Mr Griffiths observed all crew to be working well together and there were no problems as far as he could see.<sup>12</sup> This was confirmed by Mr Martin<sup>13</sup> and Mr Utama<sup>14</sup> and Mr Tampang.<sup>15</sup>

Mr Griffiths believed Mr Jessen was coping well and learning reasonably quickly. Mr Martin believed the start of a trip was always tiring as one adapted to the routine, <sup>16</sup> although Mr Griffiths stated he did not believe the start of the trip was as tiring as towards the end after three weeks at sea. <sup>17</sup>

#### **DISAPPEARANCE**

On Wednesday 16 August 2006, the third night out, trawling had started in the evening between 5:30 and 7:00 pm and lasted through to the next morning. Everyone was working well and nothing unusual occurred. Mr Jessen was wearing a black singlet with red and white markings, yellow wet weather pants and gum boots, with steel caps, as required. 19

Mr Martin recalled they finished trawling at about 6:45 am on Thursday 17 August 2006 and then finished processing the catch. Mr Jessen appeared fine and in his typical happy frame of mind.<sup>20</sup> They then secured the freezers

<sup>&</sup>lt;sup>11</sup> Exhibit 1 Tab 11, Transcript 6.4.2020 page 11

<sup>&</sup>lt;sup>12</sup> Transcript 6.4.2020 page 12

<sup>&</sup>lt;sup>13</sup> Transcript 6.4.2020 page 29

<sup>&</sup>lt;sup>14</sup> Exhibit 1 Tab 12

<sup>15</sup> Exhibit 1 Tab 14

<sup>&</sup>lt;sup>16</sup> Transcript 6.4.2020 page 40

<sup>&</sup>lt;sup>17</sup> Transcript 6.4.2020 pages 15, 16

<sup>18</sup> Exhibit 1 Tabs 10 and 11

<sup>&</sup>lt;sup>19</sup> Exhibit 1 Tab 10, 6.4.2020 page 16

<sup>&</sup>lt;sup>20</sup> Exhibit 1 Tab 10

and the deck and equipment were cleaned. While that happened Mr Griffiths started moving towards a new fishing ground ready for the next night and used the movement to help clean the nets before they were lifted and cleaning completed.<sup>21</sup> Mr Griffiths then continued towards the new fishing area while the crew organised breakfast for themselves.

Mr Griffiths stated that as the cleaning was completed at about 7:50 am the weather, which had been choppy, but not unduly so, began to improve.

Mr Jessen cooked toasted ham and cheese sandwiches for Mr Griffiths and Mr Martin while Mr Tampang watched a DVD while waiting for their turn at cooking their breakfast. Mr Tampang believed that was at about 8:30 am.<sup>22</sup> By that time Mr Tampang noticed Mr Jessen to be wearing a dark t shirt and track pants, he was not sure if he was wearing footwear.<sup>23</sup> Mr Utama also noted Mr Jessen to be wearing those clothes before Mr Utama went up on deck to wait for a time to cook their breakfast.<sup>24</sup>

Mr Martin took Mr Griffiths his first sandwich and when he accepted another Mr Jessen took it to him before returning to the galley to eat his own. Whilst Mr Jessen was eating his sandwich Mr Utama came down to the galley and started cooking breakfast for himself and Mr Tampang before Mr Jessen left the galley.

After Mr Martin had finished his sandwich he went up on deck and had a smoke. Mr Martin had noted the time as 8:06 am when he went to his cabin to fetch his tobacco.<sup>25</sup> Mr Tampang believed Mr Jessen left the galley at about

<sup>22</sup> Exhibit 1 Tab 14

<sup>&</sup>lt;sup>21</sup> Exhibit 1 Tab 11

<sup>&</sup>lt;sup>23</sup> Exhibit 1 Tab 14

<sup>&</sup>lt;sup>24</sup> Exhibit 1 Tab 12

<sup>&</sup>lt;sup>25</sup> Exhibit 1 Tab 10

8:45 am while Mr Utama was showering before eating the breakfast he had cooked for them both.<sup>26</sup>

Mr Martin said that while he was up on the back deck Mr Jessen came up and they both had a smoke. The sea was rocking a bit but not badly. While they were on the back deck Mr Jessen saw a land mass and asked if it was Carnarvon. Mr Martin told him "No, it was Dirk Hartog Island"<sup>27</sup>.

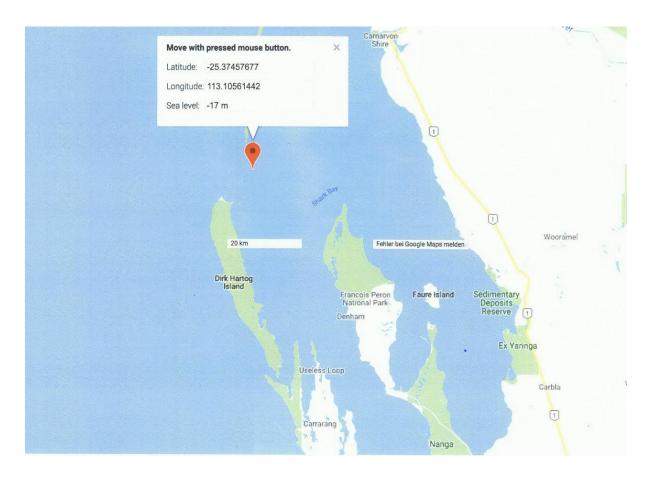


Exhibit 1 Tab 22 - Map depicting Denham Sound

On being told it was Dirk Hartog Island Mr Jessen climbed the ladder from the back deck up to the next deck and Mr Martin went back down to the galley where Mr Utama and Mr Tampang were now both eating their breakfast while

<sup>&</sup>lt;sup>26</sup> Exhibit 1 Tab 14

<sup>&</sup>lt;sup>27</sup> Transcript 6.4.2020 page 40

watching a DVD. Mr Martin watched with them for about 15 minutes before leaving to see Mr Griffiths in the wheelhouse. He did not see, nor did he hear Mr Jessen again. This was not unusual at this time of day as everyone relaxed before going to bed. Mr Martin did not believe any of the crew or Mr Griffiths had any alcohol that morning at the end of work.<sup>28</sup>

Mr Martin stated Mr Griffiths was not very talkative. He believed he was tired. They travelled to the new anchorage and after about 5 nautical miles, dropped anchor and closed down the engines. Mr Griffiths started for bed. Mr Martin was on his way to bed when he noticed the galley was untidy and went to find Mr Jessen to clean up.

Mr Martin could not find Mr Jessen and started to look for him, he asked Mr Utama and Mr Tampang to help and went to the wheelhouse to use the intercom to call Mr Jessen. Mr Griffiths was in his cabin so Mr Martin told him he could not find Mr Jessen and Mr Griffiths called for him over the intercom with no success. Everybody continued to look for Mr Jessen while Mr Griffiths asked Mr Martin to pull the anchor while he restarted the engines and began to trace their course to where Mr Jessen had last been known to be onboard. Mr Tampang believed this was between 9:00 and 9:15.<sup>29</sup>

Mr Griffiths called for other vessels in the area to come and assist for a man overboard.<sup>30</sup>

Mr Martin sat on the roof the wheelhouse with binoculars with Mr Utama searching the water for any sign of Mr Jessen.

<sup>&</sup>lt;sup>28</sup> Transcript 6.4.2020 page 40

<sup>&</sup>lt;sup>29</sup> Exhibit 1 Tab 14

<sup>30</sup> Exhibit 1 Tabs 10 and 11

## INVESTIGATION

Other fishing vessels responded to Mr Griffiths' call from the Cape Palmerston and converged on the provided co-ordinates. Nor West's fleet master contacted the police and a search plan was implemented.

Senior Constable Daly of the Shark Bay Police, now Inspector Daly (Inspector Daly) received a call from Graham Meinema (Mr Meinema), supervising fisheries officer at about 9:30 am on 17 August 2006 telling him they had a man overboard unfolding and putting the Fisheries vessel, PV Brockman at police disposal as a forward command post.<sup>31</sup>

The Water Police were contacted and search patterns calculated for the local conditions. The local Volunteer Marine Rescue were alerted and they provided their vessel, Tapdance to assist.

Search conditions were noted to be good, with 9 trawlers available to assist the search and a fixed wing aircraft with trained observers, and later another, in order to complete grid searches. Visibility was noted to be especially good and the observers were confident that had there been anything to see on or near the surface of the water, they would have seen it. The probability of detection was calculated as 94% which is remarkably good.<sup>32</sup>

The search continued for the rest of 17 August 2006 until 5:15 pm when everybody was asked to travel to Denham. At about 8:30 pm a Search and Rescue aircraft arrived from Perth to deploy radio beacons to assist with current patterns and using forward looking infra-red equipment to search for Mr Jessen, without success.<sup>33</sup> Cape Palmerston reached Denham at about 9:00 pm where Mr Griffiths and the crew were taken by PV Brockman into

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<sup>31</sup> Exhibit 1 Tabs 3 and 19

<sup>32</sup> Transcript 6.4.2020 page 51

<sup>33</sup> Exhibit 1 Tab 3

port to provide police with their statements. Mr Utama and Mr Tampang did so with the help of interpreters.<sup>34</sup>

The search recommenced at 4:30 am on 18 August 2006 with all the trawlers involved according to the calculated drift patterns, with an aerial search. At the end of that day the search and rescue became a recovery operation for any indication of what may have happened to Mr Jessen and Mr Jessen's aunt was advised there was no possibility that Mr Jessen may still be alive.

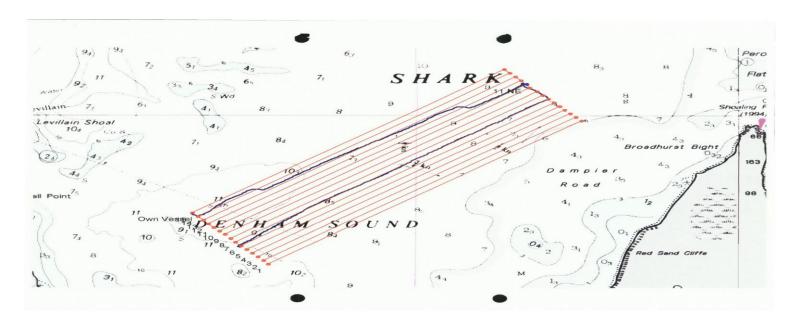


Exhibit 1 Tab 17 - Calculated Search Area

Inspector Daly was confident the conditions during the search effort were such that had Mr Jessen been alive or on the surface he would have been located.<sup>35</sup>

35 Transcript 6.4.2020 page 54, 43

<sup>34</sup> Exhibit 1 Tabs 12 and 14

Later enquiries by police failed to detect any evidence that Mr Jessen had survived. It was accepted he had fallen overboard sometime after he was last seen by Mr Martin going up the ladder from the back deck to the top of the wheelhouse. At the time there were no railings in that area and the deck area below was fairly constricted.<sup>36</sup> The deck below had railings while the work deck had solid gunnels which would prevent someone falling into the water.

Due to the fact Mr Jessen had not been seen again it is impossible to tell whether he had come back down from the top deck and fallen overboard from some other area of the vessel, possibly while relieving himself overboard.<sup>37</sup> Mr Martin was clear that had Mr Jessen been on the roof of the wheelhouse when he was with Mr Griffiths they would have heard Mr Jessen moving about on the roof regardless of the noise in the wheelhouse. He had not.<sup>38</sup>

Mr Griffiths confirmed visibility in the wheelhouse was restricted to forward vision and partial side vision, it was very noisy, and he doubted someone calling out would be heard over the noise of the moving vessel.<sup>39</sup>

There was no evidence or any reason to suggest that Mr Jessen had voluntarily gone overboard. His complete disappearance within probably less than an hour from when he had last been seen, supports the proposition he accidently fell overboard somehow, but did not survive his immersion for any period of time.

Over the years his aunt and sister never heard from Mr Jessen again, his bank accounts remained untouched and there is no evidence to suggest he survived and somehow resumed his life.<sup>40</sup>

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<sup>&</sup>lt;sup>36</sup> Transcript 6.4.2020 pages 30, 31

<sup>&</sup>lt;sup>37</sup> Transcript 6.4.2020 pages 16, 42

<sup>38</sup> Transcript 6.4.2020 page 34

<sup>39</sup> Transcript 6.4.2020 pages 7, 8, 34

<sup>&</sup>lt;sup>40</sup> Exhibit 1 Tab 2

#### HAS DEATH BEEN ESTABLISHED?

Mr Jessen was a healthy, fit 24 year old when he approached Nor West Seafoods on Mr Martin's suggestion to gain employment on a trawler. He had no experience, but I am satisfied both Mr Martin and Mr Griffiths were sufficiently vested in his welfare to ensure he gained experience to contribute to the efficient operation of the vessel.

Mr Jessen was missing for less than an hour when Mr Martin went to find him. He expected him to have gone to bed. It was truly accidental his disappearance was discovered as quickly as it was. I have no doubt that had Mr Jessen survived his fall and subsequent immersion he would have been located that morning on the back trip. The fact he was not satisfies me beyond all reasonable doubt Mr Jessen fell into the sea unexpectedly and as a result drowned, very shortly after his immersion. He was possibly injured or stunned by the fall, either of which would make him even more vulnerable to drowning without some form of flotation device.<sup>41</sup>

Mr Griffiths had described teaching inexperienced crew to purchase gumboots which were too big so that they could be easily removed if accidently in water and hopefully, if air was trapped in them, used as a flotation tool.<sup>42</sup> To do that one has to be wearing the boots at the time, and conscious and orientated enough to do so. I do not believe Mr Jessen was still wearing his boots when he fell overboard, nor do I believe he was in any state to recall that advice had he been still wearing his boots.

I accept Mr Martin believed Mr Jessen may have been taken by a shark, and it is certainly possible, but in the short timeframe of his disappearance I

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<sup>&</sup>lt;sup>41</sup> Transcript 6.4.2020 pages 17, 52

<sup>&</sup>lt;sup>42</sup> Transcript 6.4.2020 page 18

believe some indication of that event would still have been present, had Mr Jessen been alive at the time he was taken.

In my opinion all available evidence supports the conclusion Mr Jessen accidently fell into the sea, but did not survive the event. No-one saw any trace of him despite an almost immediate search, followed by an intense search with numerous vessels and aircraft looking in a calculated and methodical way for Mr Jessen or his remains. He never contacted or was heard from by family or friends again and I know of no reason why he would not have done so had he survived.

I am satisfied beyond all reasonable doubt Mr Jessen is no longer alive and he died very shortly after he reached the water in the location where he fell.

## MANNER AND CAUSE OF DEATH

I accept there is no direct evidence of exactly what happened to Mr Jessen during the morning of 17 August 2006. However I am satisfied beyond all reasonable doubt on the whole of the evidence that Mr Jessen fell overboard at some point after Mr Martin saw him climb from the back deck to the next deck.

I do not think it likely he fell at that point although I accept that was a possible conclusion reached by the police investigations. Mr Martin was still on the back deck before he went and joined the others in the galley and I think it likely he would have heard something if Mr Jessen had fallen then. I speculate, and it is only speculation, Mr Jessen fell sometime after that, possibly when relieving himself over the side before deciding to go to bed. He was inexperienced at sea and possibly not fully attuned to the roll and pitch of the Cape Palmerston in what were said to be choppy seas, although not unduly so.

It is significant that of the missing overboard cases examined during this project at least three were of young fit men on their first work rotation on fishing vessels. One was actually seen to fall while relieving himself when the vessel rolled with a wave. While there are facilities on fishing vessels it is common practice for those onboard to take advantage of the spray and wind to clean surfaces. While usually done from relatively protected areas there is the potential for accidental events. Unexpectedly falling into the sea can have a number of different physiological effects on a person.

## Evidence of Dr Luckin - How People Drown

The summary below has been adopted from a report and the evidence of Dr Luckin provided to the WA Coroners Court concerning the suspected death of Jialong Zhang and the death of Chunjun Li, numbers 3031 of 2015 and 3033 of 2015 (pages 41 to 50), with the footnotes omitted. That inquest was mainly concerned with the benefits of wearing lifejackets while rock fishing, but the explanation of the processes which may have been involved in drowning are a useful tool to explain the ease with which unexpected immersion may result in drowning.

Dr Luckin is an anaesthetist who has developed a special expertise with respect to the survival of people, both on land and at sea, to assist with the deployment of various search and rescue operations. He is the medical adviser to the Australian Maritime Safety Authority and is also used by the Australian Federal Police to assist in the resources necessary when considering the survivability of people in different environments.

In November 2017 Dr Luckin gave evidence to the inquest by way of video link to clarify for the court the considerations taken into account when trying to estimate a reasonable survival time for persons in the sea (in that case off Albany). Dr Luckin had provided the court with a detailed report covering

relevant factors needed to be taken into account in cases of suspected drowning which I have used extensively to assist my understanding of the mechanisms involved when any person falls unexpectedly into the water.

Dr Luckin provided the inquest with evidence as to his criteria for determining viabilities for people who had suffered immersion in water by describing the various responses to sudden immersion in water.

Dr Luckin outlined sudden immersion in water causes a number of physiological responses which are relevant to how long a person might survive in water after falling into the sea. He divided the physiological responses into three categories which he used to determine a person's survivability in particular circumstances.

## **Respiratory responses**

The first set of physiological responses were the respiratory responses, divided into an increased respiratory drive, related to the sudden immersion in water causing an increase in the rate of breathing. The colder the water, the more the rate of breathing increased and for people not accustomed to cold water this response could occur in water as temperate as 25°C. The evidence in the case of Mr Jessen was the waters were 22°C.<sup>43</sup>

In addition to an increased respiratory drive there was a decreased breath hold time, especially on sudden immersion in cold water which decreased the breath hold time significantly.

Dr Luckin also took into account a gasp response in waters below 15°C which caused rapid and uncontrollable breathing. In that case Dr Luckin advised

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<sup>&</sup>lt;sup>43</sup> Transcript 6.4.2020 page 53 Exhibit 1 Tab 16

the lower the water temperature the more marked the gasp response and it may be in the vicinity of 2-3L per breath. "The initial gasp response on sudden immersion in very cold water causes the individual to breathe at close to total lung capacity" which creates a feeling of suffocation. He pointed out this is the time of highest risk of immediate drowning. The gasp response promoted the feeling of panic and increased the risk of immediate drowning.

This led to over breathing and the fourth respiratory response of reduced carbon dioxide levels. Dr Luckin pointed out a fall in carbon dioxide levels can cause dizziness and confusion, often already suffered by people falling unexpectedly into deep water.

## Cardiovascular responses

In addition to the respiratory responses there are also cardiovascular responses with sudden immersion. This caused wide spread restriction of the surface blood vessels, except the head. Combined with the hydrostatic pressure of water on the body this caused an increased blood flow from the peripheral circulation to the heart. There is then a sudden and marked rise in heart rate and an increase in blood returning to the heart. This caused an increase in blood pressure with a sudden increase in workload on the heart. This carried a risk of sudden heart attack, especially in those who already suffered high blood pressure or coronary artery disease. In addition, the release of stress hormones, adrenaline and noradrenaline, further elevated the heart rate and blood pressure.

Dr Luckin pointed out it is possible for this marked increase in blood pressure to cause bleeding into the brain in the form of a stroke, and separately an arrhythmia of the heart.

Immersion in cold water also caused a diving reflex which is a drop in the heart rate. This is especially the case when a person's face is immersed, or cold water hits the face. This stimulated the vagal nervous system which

caused fainting when heart rate and blood pressure, rather than suddenly rising, suddenly drop, and blood flow to the brain drops. Obviously dangerous in water. Dr Luckin stated the arrhythmia is thought to be the result of the competing effects of vagal stimulation (driving the heart rate down) and the adrenaline and the noradrenaline (driving the heart rate up). In addition, a sudden rush of water up the nose can also cause the heart to slow suddenly or stop, also the effect of vagal stimulation.

#### Psychological responses

As well as the interaction of the four respiratory responses and three cardiovascular responses, Dr Luckin also took into account the psychological responses of a person suddenly, accidentally, immersed in water and promoting extreme fear and possibly panic. Dr Luckin described panic as decreasing a person's ability to exert any control over their breathing, swimming, and posture in the water, and made death by immediate drowning more likely. It was essential for a person's survival on sudden immersion in water for the airway to be clear of water during the first seconds following entry into the water when a person is no longer able to hold their breath and is forced to breathe in. Aspiration of water into the lungs resulted in immediate death by drowning or, failing immediate death, respiratory failure.

Dr Luckin went on to state the gasp response created an extremely high risk of aspiration of water either from the water or spray, inhibiting effective swimming which relied on coordination of the limbs and breathing.

The reduced carbon dioxide levels caused confusion and the likelihood people would not swim in the right direction, if they are swimming, and increased the likelihood of immediate drowning in conjunction with laryngospasm caused by water entering the upper airway and hitting the vocal cords. This spasming closed the entrance to the airway and prevented air from entering or leaving the lungs and so obstructed breathing. People deprived of oxygen

in this way, and with an elevated carbon dioxide level, lose consciousness and float face down in the water. Death by drowning is both inevitable and rapid in the absence of immediate rescue and resuscitation.

Dr Luckin advised that even if conscious, in the absence of injury before or on impact with the water, the successive impacts of being hit by waves was likely to result in a person having only partially air-filled lungs which could quickly become expelled. This would destroy any positive buoyance from air inflated lungs. With no positive buoyance from the lungs or clothes survival for even a few minutes was extremely unlikely.

Deceased bodies with no positive buoyance do not surface but remain floating just above the sea floor, drifting with the water flow until decomposition changes affect the buoyancy of the body.

On the whole of the evidence in respect to Mr Jessen, and in view of the above competent expert evidence with respect to the processes involved with immersion followed by drowning, I am satisfied Mr Jessen fell unexpectedly from the Cape Palmerston sometime between 8:30 and 9:00 am on 17 August 2006 in the seas between Carnarvon and Dirk Hartog Island. I do not know whether he was injured as a result of the fall, but it is likely he was either stunned or unconscious as a result of his impact with the water and thereafter did not survive as his clothing became waterlogged and he sank.

I am satisfied Mr Jessen died as a result of drowning and his death occurred by way of misadventure.

#### CONCLUSION

Mr Griffiths and Mr Martin were both clearly still distressed by the events of the morning of 17 August 2006 many years later when giving evidence. Skippers do not recover from the loss of crew and Mr Martin clearly thought

of Mr Jessen as a younger brother. Mr Jessen's family are similarly still

heartbroken many years later as to the death of this young, usually happy,

man embarking on his first trip for employment in the fishing industry.

Mr Jessen died away from his family support and in an environment with

which they were unfamiliar. A very difficult set of circumstances for any

family to accept without questions and grief. I am under no illusion my

finding Mr Jessen died accidentally while at sea will make his death any easier

to bear for anyone who knew him, either through family, friends or work. It is

always a tragedy when someone dies, especially if they are young and full of

hope for their future. Nevertheless, I hope the inquest enabled a form of

closure for all those involved in being able to hear the evidence of people

present at the time and the extent of the search put in place in an attempt to

discover with certainty what had happened to Mr Jessen.

I do not think anybody doubts that he is deceased, but understanding how it

can so easily happen, and be relatively quick may potentially be of comfort.

E F VICKER

CORONER

2 June 2020

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