

INQUESTS INTO THE DEATHS OF:

CHRISTOPHER HEYES:

ANNE-MARIE POPE:

PETER McLEOD; and

TRACY LUKE

The inquests into the deaths of Tracy Luke, Anne-Marie Pope, Christopher Heyes and Peter McLeod were held concurrently because all were members of the crew on board the yacht Excalibur when it capsized at approximately 9 pm on Monday 16 September, 2002 some 20 nautical miles east of Seal Rocks off the New South Wales coast. Mr Heyes's body was located still attached to the Excalibur when it was salvaged. The bodies of Ms Luke, Ms Pope and Mr McLeod have never been recovered. A finding that these three people were deceased was made by the Senior Deputy State Coroner, Magistrate Milledge, in a short inquest held on 14 January 2003. With the consent of all the interested persons the evidence taken at that time was incorporated into this hearing. Two others on board, skipper Brian McDermott and crew member John Rogers, managed to successfully exit the capsized yacht and were subsequently rescued by the merchant vessel MV Curia some six hours afterwards.

When the Excalibur was inspected almost a fortnight later following its recovery, the reason it had capsized was obvious - the keel had horizontally sheered apart. The lower part of the keel was never recovered but the section that was affixed to the hull was intact and underwent extensive expert examination, both before and during these proceedings. In addition to being the subject of a formal viewing it was also present in court during the final session so that experts could refer to it in the course of their evidence. The primary focus of the hearing was to ascertain why the keel had broken. Another important aspect was to identify those factors that aided the survival and rescue of Messrs. Rogers and McDermott.

The Fatal Voyage

The Excalibur was launched from a dock in Melbourne and was sailed, uneventfully, on Port Phillip Bay in May/June 2002. It then competed in a race from Sydney to Southport and proceeded to a regatta at Airlie Beach in Queensland prior to participating in a week of racing off Hamilton Island in August 2002. I note that during the Hamilton Island Race Week the Excalibur was docked for repairs to the steering. Those who worked on her at this time, Brian Chandler and Craig Berg, gave evidence that they noted sub-standard welding in parts of the cabin. However, they did no work on the keel itself and did not inspect it. Once the repairs were completed the Excalibur continued down the coast towards her destination in Sydney. At Mooloolaba Brian McDermott took over as skipper from Alan Saunders, one of the yacht's owners, who had commitments in Melbourne. Mr McDermott had previously sailed as a member of the Excalibur's crew on many occasions prior to this journey.

The Excalibur left Coffs Harbour for Sydney on Monday 16 September 2002. There was a contingency plan to put into Port Stephens in the event of bad weather. Sometime after leaving Coffs Harbour, Mr McDermott felt that the keel of the Excalibur was moving. However, an inspection of the keel mechanism below deck did not reveal any problem. I note here the evidence of the two metallurgists called as expert witnesses, John Gray and Robert Burns, that the initial movement heralding the breaking of the keel would have been movement on the keel's starboard side as the partial penetration welds parted. Whether the movement that initiated the inspection was linked to the separation of the weld remains a matter of speculation.

Late on Monday the Excalibur encountered rough weather and the decision was made to head for Port Stephens. At that time the estimated time of arrival was 1 am on Tuesday 17 September 2002. In order to put up a storm sail, five of the six crew were on deck. The only person below deck was Tracy Luke who had for some time been suffering from seasickness. The waves at the time were regularly three metres high interspersed with the occasional five

metre wave. Mr McDermott decided to start the engine and Peter McLeod went below to perform this task. Anne-Marie Pope was in the companionway while John Rogers was observing the activity below through a porthole. The whereabouts of Christopher Heyes is not clear on the evidence.

The breaking of the keel happened quickly. Mr Dermot said that he heard a bang as he felt the keel drop off. In a matter of seconds the yacht had listed to 90 degrees with the mast and sail on top of the water. A short time later (35 seconds according to Mr Rogers and 10 seconds according to Mr McDermott) Excalibur had inverted to 180 degrees. Mr Rogers stated that he managed to pull Ms Pope out of the companionway and also tried to assist Mr McLeod. However, he lost contact with them when he entered the water. According to Messrs. McDermott and Rogers they were in an air pocket under the yacht for 5 to 6 seconds. They each stated that it was pitch black under the yacht and very difficult to get one's bearings. They managed to struggle free. They called to attract the attention of other crew members but received no response. It was around 9 pm when their ordeal in the water commenced.

The Fatalities

For the reasons stated below I am not permitted to make any finding as to the manner and cause of the deaths of Ms Luke, Ms Pope, Mr Heyes or Mr McLeod. However, I am permitted to make a finding as to the date of their deaths. In this respect I note the evidence of Dr Brock who, taking into account the sea conditions, assessed that by 4pm Tuesday 17 September the chances of survival of those even with Personal Flotation Devices were remote. In his opinion death had occurred earlier. My intention, therefore, is to record the date of death as on or about 16 September 2002.

Search and Rescue

Mr Rogers was wearing an EPIRB (Emergency Position Indicating Radio Beacon) when he entered the water. The signal was picked up at 9.30 pm. Within 16 minutes of the signal being received the Rescue and Co-ordination

Centre in Canberra had despatched a fixed wing aircraft to locate the beacon. The question was raised as to whether Chopper 1, a night helicopter capable of night rescue at sea and based at RAAF Williamstown ought to have been utilised sooner. I recognise that such deployments are judgment calls and it is always easy to make the correct call in hindsight. However, until it was recognised around 2 am that the Excalibur was missing, the magnitude of the necessary rescue effort was not apparent. Once it was apparent, a major search was undertaken comprising surface vessels and aircraft. The search continued until the morning of 18 September. On that morning eight helicopters and a fixed wing aircraft searched an area of 210 square miles. Around 8 am Dr Brock was consulted and he advised that there was no probability of survival after more than 36 hours in the water. Air search operations were then suspended due to poor weather and the implicit risk to air crews.

Mr Brown of the Volunteer Coastal Patrol at Port Stephens at one stage questioned whether a particular area of sea calculated by using a drift-line of survivors, flotsam and the Excalibur herself had been overlooked in the search. I heard evidence from Mr Young, Manager of the Search and Rescue Operations of the Australian Maritime Safety Authority that data buoys dropped from aircraft showed that the current in that particular area had turned the drift-line further to the east. He confirmed that both this area and the area of concern to Mr Brown had been searched.

The Broken Keel

Basically, the Excalibur's keel consisted of three components - a fin, a box and a bulb. The tapered keel fin was constructed of two sheets or skins of 8 mm SAF Stainless Steel bent over a frame or ribs. The top of the keel fin was enclosed in a structure referred to in evidence as the keel box, which fitted into the hull. The bottom end of the keel fin was fitted with a keel bulb, comprised largely of lead. The presence of the bulb was essential to maintain the Excalibur's stability in water. A hydraulic ram that enabled the keel to be lowered or raised according to the depth of the water was enclosed within a

rectangular hydraulic ram compartment which was situated within the keel box and fin. When the Excalibur was salvaged, the remaining parts of the keel could be, and were extensively, examined. These parts were the keel box and part of the keel fin together with the enclosed hydraulic ram compartment.

However, before turning to an examination of the keel it is important to note the observations of Mr McDermot who was at the helm when the keel broke. He did not feel the keel impact with any object, such as a whale or a container. He experienced no sudden lurch or stop. To him it felt like the keel had just "dropped off". This view is supported by the expert evidence of the two metallurgists, John Gray and Robert Burns. It is pertinent to note that while Mr Gray was a Sydney expert whose advice was sought by the coronial investigation team, Mr Burns was an expert from Melbourne whose name was put forward by the legal representative who, at the relevant time, appeared for both Mr Presland and the Messrs. Cittadini. It is also highly significant that Mr Gray and Mr Burns agreed with each other on all their important observations of the keel and also the conclusions that they drew from these observations. They noted that there was no damage to the Excalibur's bow, hull or rudder. **Essentially, they concluded that the keel had broken in two because it had been deliberately cut horizontally at a point where the skins started to taper some 500mm below the hull and then the skins were welded together.**

Specifically, they noted:

1. Both starboard and port skins of the keel fin had been cut horizontally by an abrasive disc cutter at the point where the keel had broken;
2. At the point where the keel had broken, welding was visible around the circumference of the keel;
3. The two parts of the starboard skin had been joined with partial butt welds. These welds exhibited only 30% to 50% penetration;
4. The two parts of the port skin had been joined by a penetration weld that was 70% to 100% effective.
5. Both the port and starboard skins had separated through the horizontal welds, starting with the starboard skin.

I note that all of the evidence about the cutting of the keel and the sequence in which that occurred in the manufacturing process evolved in the course of the inquest as additional factual material was provided by witnesses and assessed by the experts. By the conclusion of the proceedings they had each provided several reports supplemented by oral evidence. Judging from the submissions made at the conclusion of the hearing, all those at the Bar table accepted that the keel had been cut as well as the fact that this had occurred during manufacture.

In the course of the inquest the question was raised whether the problem was the poor welding of the skins following the cut or whether the horizontal cut itself was the problem. According to Mr Dovell, the independent naval architect who provided expert evidence, the horizontal cut itself destroyed the structural integrity of the keel. The poor welding exacerbated the problem but did not create it. The evidence of Mr Dovell was supported by David Lyons, the naval architect who provided the design lines for the yacht. Mr Lyons stated that had he been told that the keel had been cut and then welded he would have advised that the only safe option was to "start again" ie. replace the keel entirely with a new one.

Who cut the keel?

No one has admitted to cutting the keel. However, it is the opinion of both Mr Gray and Mr Burns that the keel was cut during its manufacture. They gave evidence of the following sequence of steps in the construction of the keel based on their respective examinations of the cutting marks visible on some of the components of the keel and not on others. First, the horizontal cuts to the skins were made and the parts welded together. Then the leading edge pipe and the hydraulic ram compartment were welded into position. Subsequently, the box section at the top of the keel was welded into position. The box section covers both the leading edge pipe and the hydraulic ram compartment. I also note that the keel fin was complete before the bulb was attached.

The other significant piece of evidence is that no work was done to the keel fin after the yacht was launched. I have no doubt, therefore, that the keel fin was cut at the time of its manufacture. I also have no doubt as to the sequence of construction set out in considerable detail by Messrs. Gray and Burns.

Manufacture of the Excalibur

The manufacture of the Excalibur, including the keel, was undertaken by Applied Contract Engineering Pty Ltd ("Applied Contract"), trading under the business name "Applied Alloy Yachts", pursuant to an agreement with the owners, Mr and Mrs Saunders. Formal documents from the Corporate Affairs Commission show that Applied went into the liquidation on 19 October 2001. The business and its employees were taken up by a new entity called "Applied Group Engineering Pty Ltd" ("Applied Group") on 21 October 2001. From a business point of view, the transition was seamless. Applied Contract closed its doors in Melbourne on a Friday afternoon and reopened at the same site as Applied Group on Monday morning. Albert and Alex Cittadini were directors of both companies. From the perspective of the construction of the Excalibur's keel, Alex Cittadini's evidence was that the work was completed prior to the liquidation of Applied Contract.

Role of Alex Cittadini

Mr Saunders initially discussed constructing a 50 foot aluminium racing yacht with Alex Cittadini in late 1999. The evidence before me indicates that Mr Cittadini was himself a yachtsman. He is also an engineer by profession. Applied Contract had previously built yachts although this was not its core engineering business. I also note that none of the previous keels had been manufactured from SAF stainless steel. Nevertheless, the evidence demonstrates that Mr Cittadini was familiar with the principles of yacht design and construction both from a manufacturing and a sailing perspective.

According to the evidence of Mr David Lyons, naval architect, he first met with Mr Saunders in October 1999. He was subsequently contracted to provide "design lines", as in shape and geometry, for the Excalibur. He was to provide the shape of the hull, mast, keel and rudder. It was not his brief to provide the structural design and specifications. Nor did he have any supervisory role in relation to the construction of the yacht. In May 2000 Mr Lyons provided details of the keel fin design lines in written and electronic form to Alex Cittadini. These were then inputted into Applied Contract's laser machinery. The evidence clearly shows that all other decisions regarding the design of the keel were made by Alex Cittadini.

The construction of the Excalibur was described in evidence as one of Alex Cittadini's pet projects. Many of the employees of the Applied Group who gave evidence at the inquest had worked for Mr Cittadini over a long period of years. They described his general approach within the business as "hands on". All of them commented that he was very involved with supervising the construction of the keel. The keel was constructed in the boiler room by the foreman, Mr Adrian Presland, with some assistance from Derek Harris between June and October 2000. For most of that time the keel was located on or beside Mr Presland's workbench as depicted in photographs taken during its construction. According to the evidence, Mr Cittadini would view the keel at least every second day when he was in the factory.

Mr Cittadini was also consulted about problems that arose in the course of the keel's construction. In this context I note that Mr Presland had no experience in constructing keels. He consulted Alex Cittadini not only because he was the boss but also because he was the person with the relevant knowledge and experience. The evidence shows that Mr Cittadini knew of the problems of pressing the stainless steel skins, the application of heat to them to assist in bending and the insertion of two 50 mm nicks in the skins by Mr Presland apparently to facilitate joining. He was also aware that the starboard skin had been cut and a plate removed to provide for the hydraulic ram compartment. However, his evidence is that he was unaware of the horizontal cuts from the

leading to the trail edge of the skins in the same position as the two 50 millimetres nicks.

The other important point is that if Mr Cittadini was not aware that someone had cut the keel, then he ought to have known because he was responsible for its manufacture. Yet Mr Cittadini has acknowledged in evidence that he had no quality assurance controls in place in the course of the construction of the yacht. As a yachtsman himself, he agreed that he was aware of the potentially disastrous consequences if the keel failed at sea. His evidence was that he relied on his employees and saw no reason to check their work.

As part of the Australian Yachting Federation's racing rules, the owners, Mr and Mrs Saunders, had to provide certificates showing that Excalibur complied with the American Bureau of Shipping standards. Both Mr Lyons and Mr Cittadini provided certificates. Mr Lyons noted that the plans and specifications issued by his office were in compliance with the relevant standard. However, he added the rider that in order to have full effect, his certificate needed to be accompanied by a builder's declaration that the plans and specifications had been strictly adhered to by the builder and that plans and specifications developed and/or designed by them also complied. Mr Cittadini's certified in his letter that Excalibur had been built according to the design standard and data supplied by Lyons applying the ABS standard. This assertion was patently not correct. It did not reveal that the keel skins were not in one piece as per design because of the cutting out of the ram compartment panel nor that horizontal nicks had been made in the skins (facts of which Mr Cittadini was aware). No mention was made of the fact that Applied Contract was responsible for the structural design of the yacht, not Mr Lyons.

Significantly, Mr Cittadini knew that the Excalibur was built as a racing yacht and that in order for it to race he had to provide a certificate that it was built to ABS standards. He also knew that a yacht with a horizontally cut keel was not in compliance with ABS standards. I note that although the Excalibur was not

actually engaged in racing at the time the keel broke, nevertheless, it was returning south after participating in races off the Queensland coast.

Role of Adrian Presland

Mr Presland was a boilermaker by trade and an experienced welder. He was the foreman in charge of the area known as the boilershop at the Applied Contract premises. He had worked for the Applied companies for a long period of time. Mr Presland was responsible for the construction of the keel. During the period that he worked on it the keel was either on or beside his workbench. He stated that he assembled it from cut-outs produced by the Farley machine. In his oral evidence Mr Presland stated that he used heat and clamps to bend the keel fin skins where the keel fin had tapered. Also in his oral evidence he recalled putting the two 50mm nicks at the taper points. He explained that he had not mentioned this to police in his Statements because he remembered doing this only after he read the Statement of Derek Harris.

Mr Presland denied making the horizontal cuts in the skins or having any knowledge of them.

Given the sequence of steps that Messrs Gray and Burns stated occurred ie.

1. The horizontal cuts;
2. The fitting of the leading edge pipe and the hydraulic ram compartment cover; and then
3. The fitting of the keel box section enclosing the pipe and ram compartment cover

it would appear that the horizontal cuts were made during the period that the keel was in the boiler shop.

Role of Other Employees

All of the other employees, with the exception of Derek Harris, denied doing any work during the construction phase of the keel. Specifically, they denied

making the horizontal cut. Derek Harris stated that he assisted Adrian Presland in trying to press the skins into shape. It was through his evidence that the origin of the two 50 mm nicks was revealed. However, he also denied any knowledge of the large horizontal cuts.

Craig Elliott, a former employee who was not initially interviewed, provided the following evidence:

"I remember seeing the keel on Adrian's bench. I'm not sure if the keel was clamped or not but I saw a cut running across the leading edge of the keel to the training edge. Detective Senior Constable Dean has provided me with a drawn diagram. I have a marked on this diagram where I saw the cut running from the leading edge to the trailing edge. I saw this cut only on one side as the other side was on the bench. I cannot be sure if the leading edge or the training edge of the keel had been fitted and welded when this cut was present. I remember the cut because I was quite surprised that anyone would allow it to be cut horizontally. Nobody in their right mind would put a cut in that position on a keel. For one, you're never going to get full strength out of the piece of steel after re-welding it. I had a laugh with the guys in the machine shop, Maurice Painter and Claude Erle, about how much stress they were putting the keel under. I knew that the cut had been done by a 9 inch grinder. I could tell that just by looking at it."

Safety Issues

Both Mr Rogers and Mr McDermott gave evidence about what assisted them to survive until they were rescued. Additional evidence was given at inquest about safety measures that may have assisted them in their situation. Under section 22A (1) Coroners Act 1980 the coroner can make such recommendations as are necessary or desirable in relation to any matter connected with the deaths with which the inquest is concerned. Sub-section (2) cites public health and safety as examples of matters that can be the subject of recommendations. I consider that this provision is sufficiently broad to enable me to look at those factors that were raised by the survivors as averting their deaths. In doing so I am not suggesting that any or all of these

measures would have prevented the deaths of Ms Pope, Ms Luke and Mr McLeod and Mr Heyes.

EPIRBs (Emergency Position Indicating Radio Beacons)

Mr Rogers had a personal EPIRB when he entered the water. Indeed, the signal from the EPIRB alerted the authorities to his plight. The signal was picked up at 9.30pm. By 9.46pm an aircraft was despatched to search the area. It is important to note in this context that the Excalibur was not scheduled to reach Port Stephens until 1 am on Tuesday 17 September. According to Michael Brown of the RVCP at Port Stephens it would have been about an hour later that the Excalibur's non-arrival would have caused concern. There seems little doubt in the circumstances that the activation of the EPIRB maximised the chances of the survival of Messrs. Rogers and McDermott. Indeed there may have been no survivors from the Excalibur if not for the EPIRB. I note that the EPIRB 121.5 Mhz model carried by Mr Rogers will be superseded by 2009 by a 406 Mhz model of greater accuracy. This is even more reason for sailors to carry them.

I note that the NSW State Coroner, Magistrate Abernethy recommended on 12 December 2000 at the inquest into the deaths of participants in the 1998 Sydney to Hobart Yacht Race that all crew members of competing yachts in Class One races wear personal EPIRBs when on deck in all weather conditions. The fact that the Excalibur capsized in a non-racing situation indicates that the recommendation should now be broadened to mandate that the crew of all off shore vessels wear personal EPIRBs.

Another recommendation of the State Coroner was that all competing yachts in Class One races carry on board a 406 Mhz EPIRB and not a 121.5 EPIRB. As this case demonstrates, the need extends to all offshore yachts, whether engaged in competition or not.

Accessibility of Life Rafts

The evidence before me indicates that the Excalibur was carrying life rafts. However, the yacht capsized so suddenly that they could not be accessed in time. Hence, I shall recommend that the NSW Maritime Authority examine alternative storage options that would render the life rafts accessible in situations where the yacht has capsized.

Strobe Lights

Messrs. Rogers and McDermott were located when at 11.49 pm on 16 September the search aircraft sighted a strobe light worn by Mr Rogers in the water. This reinforces the efficacy of off shore yachtsmen carrying these devices at all times.

Personal Flotation Devices (PFD's) and Inclusions

Both Mr Rogers and Mr McDermott gave evidence of the difficulties they experienced through the indigestion of salt water as a result of wave action. Mr Rogers was able to limit the amount he swallowed by covering his face with the hood of his jacket. However, Mr McDermott was unable to release his hood so his face was unprotected. He ingested more salt water and, hence, succumbed to fatigue and debilitation more rapidly. In his estimation he would not have survived without the help of Mr Rogers.

Evidence was given by Mr Steeden, NSW Sales Manager for RFD, that his company manufactures a personal flotation device with a transparent face mask that protects the wearer from the ingestion of sea water. Unfortunately, this particular flotation device is made by RFD exclusively for the Australian Defence Forces.

I note that, following from recommendations of the Victorian State Coroner, Magistrate Johnson, Marine Safety Victoria is considering mandating Personal Flotation Devices for all recreational sailors. I will recommend that

the NSW Maritime Authority consider the efficacy of this approach. Additionally, I intend to recommend that the Authority assess what can be done so as to make available to the public the RFD-type personal flotation devices with the see-through face protection. Given my previous comments about the efficacy of strobe lights, the possibility of including such a light as a design feature of, or attachment to, personal flotation devices that automatically activate on immersion in water should also be considered.

Strobe Lighting on Vessels

The inclusion into the design and construction of yachts of strobe lighting was a proposal suggested in the course of the inquest. It is worth a formal recommendation.

Reflective Lighting

Once the Excalibur capsized all lighting within the yacht was extinguished. I heard evidence that relatively inexpensive and simple reflective or fluorescent tape can be affixed to the internal areas of a yacht, thus facilitating orientation and indicating directions to escape routes. I shall recommend that that this feature be included on all offshore yachts.

Rescue Equipment on Merchant Ships

Although the MV Curia sighted Mr McDermott and Mr Rogers at 1am it took until 3.20 am for them to be manoeuvred aboard. Without the assistance of Mr Rogers, Mr McDermott doubted that he would have survived that two and a half hour period. I acknowledge that if the solution to this problem were simple it would have been implemented before now. However, with the continuing advances of technology, I intend to address a recommendation to the Australian Maritime Safety Authority ("AMSA") that research be undertaken into devices that could be carried by large vessels to rescue people from the water. Additionally, I shall recommend that AMSA raise this issue with the

International Maritime Organisation and request that organisation to undertake the appropriate research as well.

Communication Between Search Aircraft and Survivors in Water

Mr Rogers and, in particular, Mr McDermott gave evidence of the demoralising effect on them when they saw the rescue helicopter fly away from them because they did not know whether they had been seen. I will, therefore, recommend that AMSA undertake research to develop some form of standard signal, such as a coloured flare, that would inform survivors that they had been seen. As commented upon by Messrs. Rogers and McDermott, hope plays a large part in these situations.

Certification

In submissions, counsel asserted that there ought to be a uniform standard governing the design and construction of all recreational vessels. Whatever the merits of that submission, it is too broad for the facts of this case. The Excalibur was built as a racing yacht. According to the Cruising Yacht Club of Australia, a certification that it complied with ABS standards was required before it could be entered for races. That certification was provided by Messrs. Lyons and Cittadini. Yet it would appear that at least some of the matters certified were known to Mr Cittadini to be inaccurate. Because he did not have quality control systems in place, he could not be certain of the matters that he certified. As it turned out, the certificate was not worth the paper it was written on! On the basis of this evidence, it is the present certification system in relation to racing yachts that needs reforming rather than the standards themselves. Whatever the need for broader reform, it does not directly arise from the facts of this case.

Debrief

One aspect of this inquest was unnecessary if the appropriate debriefing had occurred. Mr Brown of the RVCP expressed reservations that an area of sea

had remained unsearched for survivors. As it transpired, the geographical area that was the subject of his concern had been searched. His legitimate concern could have been allayed if an appropriate debriefing had occurred. As my learned Counsel Assisting observed,

“ A thorough debriefing of all participants of what occurred after the emergency has ceased is essential not only from the point of view of what could be done better in the future, but also the building up of trust of all participants in the overall command structure.”

Hence, I will make a recommendation that all participants of a rescue operation are debriefed and made fully aware of what happened and why it happened.

The Coroners Act 1980

Under section 19 (1B)(a) of the Coroners Act 1980, if I have formed, at any time during the inquest, an opinion as to the matters set out in section 19(1)(b) (i) and (ii) I may continue the inquest and record my finding under section 22(1). I note for the record that fresh evidence in this inquest continued to be adduced until the final day, including the evidence of the expert witnesses. Having reviewed all the evidence, I have formed an opinion pursuant to section 19 (1)(b) that the evidence is capable of satisfying a jury beyond reasonable doubt that a known person has committed an indictable offence and there is a reasonable prospect that a jury would convict the known person of the indictable offence. Further, that the indictable offence is one in which the question whether the known person caused the deaths of Ms Pope, Ms Luke, Mr McLeod and Mr Heyes is in issue. I will refer the papers to the Director of Public Prosecutions as required under section 19(2) Coroners Act.

What follows by law is:

1. I cannot state what offence, in my opinion, has been committed or who ought to stand trial for it. These will be matters for the Director of Public Prosecutions;

2. I can make formal findings as to whether a person has died and the date and place of death. However, I cannot make any finding as to the manner and cause of death. These are matters that may have to be determined by a jury in a criminal trial.
3. I can also make recommendations on matters such as public safety prior to concluding this inquest.

FINDINGS

Christopher Heyes died on or about 16 September 2002 in the Tasman Sea about 20 nautical miles east of Seal Rocks off the New South Wales coast.

Tracy Luke died on or about 16 September 2002 in the Tasman Sea about 20 nautical miles east of Seal Rocks off the New South Wales coast.

Anne-Marie Pope died on or about 16 September 2002 in the Tasman Sea about 20 nautical miles east of Seal Rocks off the New South Wales coast.

Peter McLeod died on or about 16 September 2002 in the Tasman Sea about 20 nautical miles east of Seal Rocks off the New South Wales coast.

RECOMMENDATIONS

1. The NSW Maritime Authority should consider and implement the best means for the following outcomes to be achieved at the earliest possible time:

- A personal EPIRB (Emergency Position Indicating Radio Beacon) should be carried by all crew members of offshore yachts* at all times while under way.
- Strobe lights should be carried by all crew members of offshore yachts at all times while under way.
- All offshore yachts should carry a 406 Mhz EPIRB.
- All offshore yachts should be fitted with strobe lighting.
- All recreational sailors should wear a Personal Flotation Device (PFD) at all times while under way.
- All offshore yachts should be fitted with fluorescent or reflective tape to facilitate orientation and to indicate directions to escape routes in the event that the yacht capsizes.

*"Offshore yachts" refers to yachts that venture outside inland waters and into the open sea.

2. The NSW Maritime Authority should ascertain how the face protection hoods incorporated in PFD models manufactured by RFD for the Australian Defence Forces can be made available to the general public.

3. The Australian Maritime Safety Authority ("AMSA") should undertake research into equipment that can be carried by large vessels to rescue people from the water.

4. AMSA should request the International Maritime Organisation to undertake similar research into equipment that can be carried by large vessels to rescue people from the water.

5. AMSA should look at developing a standard signal, such as a coloured flare, that would indicate to survivors in the water that they had been seen by search aircraft.

6. AMSA should consider the best way to ensure that all participants in a rescue operation are appropriately debriefed and made fully aware of the reasons for the decisions taken.

7. The Cruising Yacht Club of Australia should consider how best to replace the present certification system for racing yachts with a thorough objective independent assessment of compliance with a prescribed design and building standard, and to implement that system as a matter of priority.

8. The crew of the MV Curia should be formally commended for their efforts in rescuing Mr Rogers and Mr McDermott.

9. The bravery shown by Mr Rogers for his efforts to assist other crew members, particularly Mr McDermott, should be formally recognised.



Magistrate Dorelle Pinch
NSW Deputy State Coroner
16 December 2005