SYDNEY CORONERS COURT

Inquest into the deaths of

Alan BLINN, James ENGERT, Morgan INNES and Simone MOORE

Summary of Findings

This summary is provided to outline the contents of this decision due to its length and as a guide to the principal findings and recommendations I have made. For a full understanding of the reasoning leading to my conclusions, it is necessary to examine the full decision.

Introduction

Late on the evening of 28 March 2007, the HarbourCat ferry *Pam Burridge* and the motor cruiser *Merinda* collided in Sydney Harbour just east of the Harbour Bridge off Dawes Point. Of the twelve people aboard the *Merinda,* four died – Morgan Innes, James Engert, Alan Blinn and Simone Moore. Two others were terribly injured. Miraculously, although the boat was torn in half and was submerged almost entirely within a couple of minutes, the remaining passengers and crew of the *Merinda* survived with minor injuries only.

Probably because the *Pam Burridge* was a much larger vessel and there were only two people aboard her, no one was injured on the ferry. The Master stopped the vessel as quickly as possible after the collision and returned to render what assistance he and his deckhand could to the *Merinda* passengers and crew.

Death, particularly sudden and unexpected death, raises troubling questions and issues. Civilised societies know that what harms one of its members may harm others. This collision, which followed another between a ferry and a dinghy earlier in 2007, inevitably

raised such troubling questions, especially for those who lost people they care about, but also in the wider community.

An inquest of this type attempts to discover the reasons the accident took place and to distil lessons from it with a view to preventing such accidents recurring.

We have inquired into questions of human error and of systemic failure. Both were involved in a chain of causation leading to the collision. An inquest, unlike most court cases, can go beyond questions of personal fault to explore underlying systemic problems. I have discussed general issues relating to principles of causation, human error and a systems approach to accidents in greater detail in Section 2 of the full decision.

The victims

The four victims killed in the accident were involved in the Australian ice-skating community: Dr Alan Blinn, James Engert, Morgan Innes and Simone Moore. All were in the prime of their lives. Alan Blinn, James Engert and Simone Moore were adults. Morgan Innes was a 14 year-old schoolgirl. All were much-loved by their families and their many friends who were shocked and desolated by the tragedy. Fuller biographical details are provided in Section 3.

The accident

In Sections 4 and 5 of the decision, I outline the uncontentious facts concerning the lead-up to the accident, the collision and the rescue effort.

At about 10.50 pm, the *Merinda,* weighing about 10 tonnes, was travelling eastwards and was about 90 metres past the Sydney Harbour Bridge, about 180 metres offshore. She was travelling at a speed of approximately five knots. The ferry, weighing about 35 tonnes, had dropped off a crew-member at Circular Quay and was returning to the yards at Balmain for the night. She had accelerated to a speed of about 22-23 knots and was on a curving port turn westwards when she collided with the *Merinda*.

The ferry struck the cruiser just aft of the helm position at an angle of about 30^{o} on the *Merinda's* starboard (or right-hand) side. Her approach had been from the *Merinda's* starboard bow (that is, from the cruiser's right front). Neither Mr Peter Lynch, the owner of

the boat, nor Mr Sean Carlow, the helmsman, both of whom were in the cruiser's wheelhouse, saw the ferry approach. They literally did not know what had hit them.

The master of the ferry, Mr Shannan Bryde, did not see the cruiser until it was too late to avoid the collision. Once he saw the *Merinda,* he attempted to manoeuvre to avoid the collision but, at the speed the ferry was travelling, had insufficient distance available.

The ferry cut cleanly through the *Merinda's* saloon cabin in about two-and-a-half seconds. Those killed were directly in its path. They suffered multiple injuries and were drowned. Others in the cabin were injured. Miraculously, those forward of the point of collision suffered virtually no physical injuries. The *Merinda* immediately lost power and the stern of the boat was submerged.

The *Pam Burridge* came to a stop some distance from the collision point, then backed up to render assistance to the survivors. Two ferries, the *Fishburn* and *Golden Grove,* plus Water Police, Sydney Ports and NSW Maritime boats immediately converged on the area to assist. Two crew members of the *Fishburn,* Mr Matthew O'Grady and Mr Con Sakoulas did heroic work that night jumping into the dark water to rescue passengers from the *Merinda.* I have made a recommendation that their selfless work be acknowledged with a suitable award by the Royal Humane Society.

Others also conducted themselves admirably in searching for and assisting survivors or seeking to resuscitate the victims. Unfortunately, those resuscitation efforts were in vain. Many will remember that Morgan Innes could not be located that evening. The search for her went on for some days before she was eventually found. While I realise that it will be of little comfort to them, I must observe that, regardless of the causes of the accident and any issues of fault, the conduct of Mr Peter Lynch, Mr Sean Carlow, Mr Eben Kelk (the deckhand of the *Pam Burridge*) and Mr Shannon Bryde following the collision in seeking to find and rescue the missing, the survivors and the dead, and to care for the shattered survivors, was exemplary and does them great credit. The commendable work of others not mentioned here is discussed in greater detail in Section 5 of the decision.

How did the accident happen?

This inquest has explored several issues, most of which are, ultimately, to do with the burning question of how, in almost perfect conditions, two substantial vessels came to collide in the middle of Sydney Harbour.

To answer that question, answers to others had to be found first. Those issues are identified in Section 6 of the decision. They were:

- Where did the collision between the *Merinda* and the *Pam Burridge* occur?
- Were there any relevant environmental conditions that contributed to this collision, e.g. weather, lighting under the Harbour Bridge, background lighting?
- Were there any inherent defects, or other characteristics of either vessel, that contributed to the collision ?
- What were the applicable Collision Regulations or 'Rules of the Road' at the time of the collision?
- Were the Master and the Helmsman of the *Merinda* keeping a proper lookout at the relevant times? If not, why not, and to what extent, if any, did this cause or contribute to causing the collision ?
- Did the *Merinda* display navigation lights, in accordance with the requirements of the *International Regulations for Preventing Collisions at Sea* (Collision Regulations) at the time of collision? If not, why not and, if not, to what extent, if any, did this cause or contribute to causing the collision?
- What evidence is there of the prevalence of unlit vessels in the area of the collision, and to what extent does that relate to the obligation of commercial operators, such as the Master of the *Pam Burridge*, to keep a proper look out?
- Was the Master of the *Pam Burridge* keeping a proper lookout at the relevant times? If not, why not, and to what extent, if any, did this cause or contribute to causing the collision?
- Was the Master of the *Pam Burridge* proceeding at a safe speed? If not, to what extent, if any, did this cause or contribute to the causes of the collision? Is there any evidence to suggest that the Master of the *Pam Burridge* was exceeding the speed limit of 8 knots

within Circular Quay? If so, does that have any relevance to its collision with the *Merinda* in another area of the Sydney Harbour?

- What was the accepted interpretation of the North/South Rule[1] prior to the accident? Did the course taken by the *Pam Burridge* amount to a breach of the North/South rule? If so, to what extent, if any, did this breach cause or contribute to the causes of the collision?
- How skilful and experienced were those in charge of the *Pam Burridge* and *Merinda* at the time of the collision? To what extent, if any, did skill or experience, or the lack of them, contribute to the accident?

The hardest fought issue during the inquest was the question whether the *Merinda's* navigation lights were illuminated at the time of the accident. I came to the conclusion, for reasons set out in Section 12 of the decision, that the overwhelming weight of evidence proves that they were not. The *Merinda* entered Cockle Bay at about 8.30 pm with its lights on. After berthing they were turned off. She left at about 10.30 pm without turning them on again. How that happened is not entirely clear. The evidence is discussed in Section 12.

Other issues vigorously argued during the inquest included questions whether the ferry had cut a blind corner around Dawes Point and whether the ferry had exceeded the speed limit in Sydney Cove. After close consideration, I came to conclusions that the *Pam Burridge* had not cut a blind corner but had, without seeing it, curved towards the *Merinda.* I also found that it had exceeded the speed limit within Sydney Cove. I concluded, however, for reasons that I discuss in detail in Sections 15 and 16 of the decision, that these matters were not of primary significance in causing the collision.

After an exhaustive examination of a large volume of evidence, which is discussed in detail in Sections 7 to 17 of the decision, I came to the following conclusions concerning the cause of the accident:

The accident of 28 March 2007 was, in essence, a failure of seamanship. The most direct and obvious reasons for the collision were, in descending order of importance, that:

- The *Merinda's* navigation lights were not illuminated.

[1] Part of the Code of Conduct for vessels operating in Sydney Cove: see Section 16 of the full decision for details.

- Her crew was not keeping a proper lookout as the *Pam Burridge* approached.

- Consequently, as the give-way vessel in a crossing situation she failed to take any action to avoid the collision

- The master of the *Pam Burridge* did not expect an unlit vessel in the vicinity of Sydney Cove or the Sydney Harbour Bridge and did not specifically look out for such a hazard when changing course in a westerly direction onto a collision course with the *Merinda.* The lookout on the *Pam Burridge* was inadequate in that all reasonably available resources – in particular the deckhand – were not employed in keeping a lookout.

- The *Pam Burridge* was proceeding at a speed that did not allow it to manoeuvre or stop to avoid the collision once the *Merinda* was sighted. That speed was unsafe in the circumstances.

It was the error made in failing to illuminate the navigation lights that allowed the other causal factors to align to create a cascading causal effect resulting in the collision.

The *Merinda* was not, in my view, invisible or effectively invisible, to the *Pam Burridge* but Mr Bryde was keeping a look-out for navigation lights rather than for unlit vessels. He did not expect to encounter an unlit vessel in virtually the middle of the east-west channel under the Sydney Harbour Bridge.

Each of these causal factors was produced by human error. Some or all of them could have been prevented with greater situational awareness on the parts of those in control of each vessel and with greater skill and attention to detail in the *Merinda*. Had any one of these errors not been made, the accident may have been averted. But the most important was the failure of the *Merinda* to show its navigation lights.

Had the *Merinda's* lights been illuminated, it is highly likely that this accident would not have occurred despite the fact that the *Merinda* was not keeping a proper look-out, despite the fact that it did not give-way or manoeuvre to avoid a collision, and despite the speed at which the *Pam Burridge* was travelling. There is no reason to doubt that Mr Bryde would have taken avoiding action had he seen lights he was looking out for in the *Merinda's* position.

Apart from human errors, there were systemic problems that contributed to bring this accident about. I have discussed them in greater detail in Section 18 of the decision but in summary I have concluded that:

- Underlying the *Merinda's* failure to illuminate the navigation lights was the lack of a clear procedure in that vessel for docking and for getting underway.

- Due to their inexperience or lack of structured training both Mr Lynch and Mr Carlow failed to recognise the importance of well-established procedures and checklists for manoeuvres such as getting underway at night or, although recognising them, were insufficiently trained to carry them out correctly.

- Inexperience and lack of training also gave rise to their failure to keep a proper lookout as the *Pam Burridge* emerged from Circular Quay and began to turn onto a collision course with their vessel.

- Similarly, the failure by the *Merinda* to appreciate that it was the give-way vessel in a crossing situation speaks loudly of the inexperience and lack of situational awareness of its crew.

- NSW maritime legislation and regulations allowed two relatively inexperienced boat operators to take a substantial, passenger-carrying vessel out on the Harbour at night with a full complement of passengers. The helmsman was unlicensed and, although Mr Lynch had a boat licence, he had a relatively low level of training and experience in operating boats. In my view, the lack of marine skills and competencies displayed by Mr Lynch and Mr Carlow reflects not so much on them as on a system which, in effect, encouraged them to take to the water without the requisite skills of seamanship to operate their boat safely. I discuss this issue more fully in Sections 17, 18, 19 and 20.

Other systemic issues also came into play.

- Commercial operators on Sydney Harbour at the time of the accident did not routinely and habitually report sightings of unlit vessels to Harbour Control. Such reports as were made were ad hoc responses rather than systemic. It is probable that two commercial operators (at least) saw the unlit *Merinda* as it made its way to the point of collision but

neither reported their sightings. This is not to blame them but to illustrate that reporting sightings was not habitual.

- Mr Bryde's situational awareness would have been greatly improved if, on the night of 28 March 2007, all commercial operators and professional masters on the Harbour that evening had been in the habit of notifying Harbour Control of such sightings. He would then have been alerted by a Harbour Control warning of the location of the boat.

- At the time of the accident, there was no culture of systematically reporting and recording the incidence of such sightings. Consequently, the nature and magnitude of the problem of unlit vessels was inadequately understood by commercial operators, including Sydney Ferries. Thus while ferry masters were aware anecdotally of the possibility of encountering unlit vessels, there was no corporate response to the issue until this accident happened. This left a gap in the understanding of ferry masters of their night time environment, thereby reducing their awareness of potential hazards.

- The accident also squarely raises the issue of the regulation of speeds of vessels in Sydney Harbour.

Conclusions and recommendations

It would be a slick solution to the problems this case raises to point to the errors made by Mr Lynch and Mr Carlow, and to a lesser extent by Mr Bryde, and to leave it at that. In my view, however, Professor James Reason spoke very wisely when he wrote [2]:

> The idea of personal responsibility is deeply rooted in Western cultures. The occurrence of a man-made disaster leads inevitably to a search for human culprits. Given the ease with which the contributing human failures can subsequently be identified, such scapegoats are not hard to find. But before we rush to judgment, there are some important points to be kept in mind. First, most of the people involved in serious accidents are neither stupid nor reckless, though they may well have been blind to the consequences of their actions. Second, we must beware of falling prey to the fundamental attribution error (i.e. blaming people and ignoring situational factors). Third, before beholding the mote in his brother's eye, the retrospective observer should beware of the beam of hindsight in his own.

It is important not to equate the moral culpability of the people involved in bringing this accident about with the terrible magnitude of the consequences. Mr Paul Moore, husband of Simone Moore, spoke on the last day of the hearings of the evidence. He succinctly, and graciously, summed up the meaning of this tragedy:

[2] *Human Error* Cambridge University Press, Cambridge (1990) p.216.

> This was a terrible accident and I understand no-one on either side meant for this to happen… it just shouldn't have happened though. No-one meant it to happen but… it shouldn't have happened. My children will grow up without their mother and that's very difficult…[3]

The mistakes made by those in control of the vessels were not highly culpable reckless gambles. It is evident to me, and it does them very great credit, that the families of the victims are not seeking scapegoats but wish to honour the people they love by leaving as their legacy a safer Harbour for others to enjoy. In my view, they have their priorities correct. Mr Innes put it very eloquently when he spoke at the inquest saying:

> We, the collective "we", are charged with the responsibility that… if your kids are on Sydney Harbour tomorrow, as far as I'm concerned they should be safer today than they were when Morgan got on [the Harbour], regardless of anything else.[4]

That means constructing a better safety culture on the water.

The Greek tragedian Euripides wrote, "What greater pain can mortals bear than this: to see their children killed before their eyes?" [5] Mrs Janice Engert had that terrible experience and the families of those who were killed, and the friends of the victims involved in the accident, have suffered grievously. I do not doubt that Mr Bryde also carries a heavy burden of pain that may remain with him for the rest of his life. Although it would be a foolish coroner who thinks that he could relieve the pain of those who have suffered such terrible losses in this tragedy, I hope that the 24 recommendations with a view to improving the safety culture on Sydney Harbour may provide a small measure of solace to them. All address systemic issues, especially the further development of the safety culture of Sydney Ferries and boat operators generally, questions of licensing and training of recreational boat operators, the reporting of unlit vessels on the Harbour, speed limits on the Harbour and enforcement of marine regulations.

I now turn to the formal findings and recommendations I am required to make under the Coroners Act.

[3] Transcript 2 October 2009 p.70.
[4] Transcript 2 October 2009 p.68.
[5] *The Suppliant Women* lines 1120-1121.

Findings under the *Coroners Act 2009* s 81:

My formal findings under the Coroners Act 2009 s 81 are as follow:

- I find that Dr Alan Blinn died on 28 March 2007 in Sydney Harbour off Dawes Point as a result of the combined effects of multiple injuries and drowning occasioned when the ferry *Pam Burridge* collided with the cruiser *Merinda.*
- I find that Mr James Engert died on 28 March 2007 in Sydney Harbour off Dawes Point as a result of the combined effects of multiple injuries and drowning occasioned when the ferry *Pam Burridge* collided with the cruiser *Merinda.*
- I find that Ms Morgan Innes died on 28 March 2007 in Sydney Harbour off Dawes Point as a result of the combined effects of multiple injuries and drowning occasioned when the ferry *Pam Burridge* collided with the cruiser *Merinda.*
- I find that Ms Simone Moore died on 28 March 2007 in Sydney Harbour off Dawes Point as a result of the combined effects of multiple injuries and drowning occasioned when the ferry *Pam Burridge* collided with the cruiser *Merinda.*

Recommendations under the *Coroners Act 2009* s 82:

My recommendations made pursuant to the Coroners Act 2009 s 82 are as follows:

To the Minister for Transport

- I recommend that Sydney Ferries engage a specialist in "Human Factors" and "Safety Culture" to review its progress in developing a high-reliability, safety culture within the organisation.
- I recommend, if such a review is conducted, that it engage both management and fleet crews in its considerations.
- I recommend that Sydney Ferries consider instructing masters operating ferries to use other crew members as look-outs in the wheelhouse at night and in the transit zone and other busy parts of the Harbour unless other more urgent duties require them elsewhere on the vessel.
- I recommend that NSW Maritime and Sydney Ports, in consultation with relevant Harbour users and representative bodies, consider how best to promote the practice of reporting unlit vessels to Harbour Control.

- I recommend that, if it is technologically feasible and practicable, radio traffic generated by Sydney Ferries be recorded and archived for a suitable period.

- I recommend that Sydney Ferries consider imposing a night speed limit on fast ferries regardless of whether NSW Maritime imposes such a limit.

To the Minister for Ports & Waterways

- I recommend that Sydney Ports and NSW Maritime, in consultation with relevant Harbour users, consider how best to promote the practice of reporting unlit vessels to Harbour Control.

- I recommend that the Marine Safety legislation and regulations be amended so as to require that operators of registered or registrable recreational vessels – vessels powered by engines with a rating of 4 kilowatts (5 h.p.) or more; power-driven or sailing vessels 5.5 metres or longer; and vessels subject to mooring licences – be licensed. **Note**: the intention of this recommendation is to cover boats that are capable either of high speeds or of carrying significant numbers of passengers. If there is a better definition of such vessels, I recommend that it be pursued in the alternative to the above proposal.

- I recommend that the requirements for obtaining a NSW boat licence be amended so as to include comprehensive practical training in accordance with national standards developed by the National Marine Safety Committee, involving a number of lessons, including a night training session, and culminating in an appropriate skills test as well as a theoretical test by NSW Maritime.

- I recommend the inclusion in the Boating Handbook of a night lookout checklist.

- I recommend that NSW Maritime liaise with other State maritime authorities through the National Marine Safety Committee concerning the issue of unlit vessels in busy waterways and request that they consider a unified national regulatory approach to the question whether boats of the relevant type (that is, boats which, if navigating at night would require fixed navigation lights to be illuminated) ought be required to have them fitted.

- I recommend that NSW Maritime give consideration to requiring periodic checks of navigation lights for registered boats in NSW and to the optimal method of conducting such checks.

- I recommend that NSW Maritime consider making the current "50 Point safety check" that it has developed with the Boating Industry Association compulsory on a suitable periodic basis to be determined.

- I recommend that NSW Maritime give consideration to starting a programme encouraging the fitting of radar reflectors and devices warning crews that navigation lights are not illuminated at night to vessels that carry side lights and mast head lights.

- I recommend that NSW Maritime consider providing an online "complaints" section to its website to enable boat operators to report serious breaches of marine rules and legislation.

- I recommend that NSW Maritime immediately reconsiders the Code of Conduct and redrafts such parts of it that require clarification. The North/South Rule is one such part.

- I recommend that NSW Maritime give consideration to the optimal method of enforcing compliance with the Code of Conduct and implements that method.

- I recommend that, insofar as it is able to without diminishing its effort elsewhere, NSW Maritime increases night-time patrols, especially during times of relatively high traffic.

- I recommend that NSW Maritime give close consideration to the best method(s) of enforcing speed limits within Sydney Cove.

- I recommend that NSW Maritime give further and closer consideration to the desirability of imposing speed limits in Sydney Harbour and its tributaries such as the Parramatta River, or in certain areas of the Harbour and its tributaries, and during hours of darkness and restricted visibility.

- I recommend that the Minister commission a comprehensive risk assessment of high-speed vessel operations at night on Sydney Harbour.

To the National Marine Safety Committee

- I recommend that the National Marine Safety Committee seeks, through the Australian Transport Council or other appropriate avenues, to obtain agreement from State and Territory Maritime authorities regarding the implementation of national minimum standards for recreational boat licensing, including training and assessment in accordance with national principles and standards already developed.

To the Commissioner of Police

- I recommend that, insofar as it is practicable to do so without diminishing its effort elsewhere, the NSW Police Force Marine Area Command increases night time patrols on Sydney Harbour, especially during times of relatively high traffic, with a view to detecting unlit vessels and enforcing marine legislation generally.

To the Royal Humane Society of New South Wales

- I recommend that the Society consider conferring an appropriate award on Mr Matthew O'Grady and Mr Con Sakoulas for their efforts in saving lives of survivors of the *Merinda* and for their attempts to save the lives of those who lost their lives in the collision.

Magistrate Hugh Dillon
Deputy State Coroner
Sydney 23 February 2010