INQUEST INTO THE DEATH OF LINDSAY DACK

FINDINGS

Identity, date, place and cause of death

The death of Lindsay Dack[1] occurred in Port Phillip Bay (near Sandringham, south west of Green Point) on 26th December 2000 from drowning.

A summary of the circumstances

On 26th December, Mr. Dack, aged 43, was a member of the crew of *`Spirit of Downunder',* a 12 metre long (forty foot) yacht competing in the *`The Big Bay Race - 2000'* yacht race which was conducted by the Royal Melbourne Yacht Squadron in conjunction with the Ocean Racing Club of Victoria. The *`Cock of the Bay Race 2000'* was also part of the first leg of this race. He was fit, a strong swimmer and according to all reports a competent and safety conscious yachtsman.

Mr. Dack was wearing neither a harness nor a Personal Floatation Device (PFD) when he entered the water. He was wearing full wet weather gear.

During the *`Big Bay Race',* apparently at about 4pm or sometime thereafter, Mr. Dack was accidentally thrown overboard during a sudden squall or *"microburst"*. During the initial stages of the squall, the yacht heeled over and the helm of the yacht was damaged resulting in loss of steerage, with the result that the boat sailed away from Dack's position in the water. Later the yacht returned to Dack's position, and finding him exhausted, the skipper of the boat, Lawrence Ford, jumped into the water in an attempt to save Dack. In spite of his attempts, Dack drowned. During this latter part of the rescue attempt a spinnaker rope from the Spirit fouled the propeller, thus further thwarting attempts to return in time to where Dack was languishing in the water, supported by Ford.

Immediately on Mr. Dack falling overboard a crewmember hit the GPS button, thereby recording Dack's approximate position in the water. Also sometime after Mr. Ford entered the water and the propellor was fouled, a Mayday call was made at 1703 hours by one of the crew of the disabled yacht. The call was received by Melbourne Radio and at 1710 a Victorian Water Police motor launch was contacted and left the St Kilda marina. Shortly after, at 1713 the Police Air Wing was contacted and the police helicopter was fueled and by 1718 hours, it was airborne.

Messrs. Ford and Dack were then spotted in the water by the crew of a trailing yacht, *`Horizon Sprint'* and hauled aboard. CPR was administered but Dack was unable to be resuscitated. At about 1729 the helicopter arrived overhead and a police officer was lowered onto the yacht.

The race was started at Port Melbourne at 10.30am and was planned to finish at St. Kilda. The race was 185 nautical miles in length and conducted entirely within Port Phillip Bay. It was expected that

[1] **Coroners Case Number 4205/00**

portion of the race was to be conducted during the night. The race was called off by the Race Director at about 8.05pm, as a result of Mr. Dack's death in conjunction with the number of competing yacht withdrawals and at the request of the Police.

The *`Spirit of Downunder'* was a competitive racing/cruising yacht of Cameron /Delange design.

The general management of the race by the Yacht Squadron

The *`Big Bay Race - 2000'* yacht race which was conducted by the Royal Melbourne Yacht Squadron in conjunction with the Ocean Racing Club of Victoria and the *`Cock of the Bay Race 2000'* was also part of this race (the first leg of the race).

The race was conducted pursuant to the Australian Yachting Federation (AYF or the Federation) Racing Rules of Sailing 1997-2000. The safety regulations for this race were designated to be those of the AYF Addendum A, Part 1, Category 4, but with some inclusions, which would ordinarily form a part of a racing category (Category 3). Apparently *`Spirit of Downunder'* was a vessel which had a capability of being equipped up to racing Category O.

There were 26 entries and 25 yachts starting, involving a total crew of about 180.

The race was started at Port Melbourne at 10.30am and was planed to finish at St. Kilda. The race was 185 nautical miles in length and conducted entirely within Port Phillip Bay. It was expected that portion of the race was to be conducted during the night.

Apparently a *`Notice of Race'* was posted to various clubs inviting entries to the race. The Notice referred to the fact that it was being conducted pursuant to the 1997-2000 Racing Rules of Sailing and the entrants were advised that they must sign the safety declaration attached to an entry form. Also, after entry forms were received, sailing instructions were forwarded to each entrant.

On 13th December 1999 an information session was conducted by Mr. Brian McDermott from the Squadron. Also in attendance was Keith Jones from Melbourne Coast Guard. Apparently the agenda included reference to the course, safety compliance, safety-role of the coast guard, race logs etc.

The Squadron indicated that the:

> *"weather forecast for the day issued by the Bureau of Meteorology was for north-westerly wind 20-30 knots shifting south-westerly at the same strength with some stronger squalls likely."*

Apparently on the day of the race, the forecast was *"posted at the Squadron for public display at 0840 hours"* and was *"verbally relayed from the start boat to all participating vessels that signed on at the 1005 hours sked."*

The volunteer Race Director, Mr. Dennis Livingston, was absent from the squadron's clubrooms visiting a friend for a significant time during the running of the race. No other person was given instructions as to management or safety issues while he was away from his post. He was returning to the Yacht Club about the time of the May Day call from the *`Spirit of Downunder'*. Under the terms of the Federation Racing Rules of Sailing (discussed below) there appears to be a minimal level of responsibility (in the rules) for the organising yachting club in regard to the safety of competitors.

Yacht racing rules, race preparation, safety procedures and equipment

General Information and Rules

As indicated, the race was conducted pursuant to the Racing Rules of Sailing (RRS). The AYF Special Regulations are intended to be used by race organizers conducting yacht racing. Apparently, these rules are standard practice.

The Squadron, in its submission to the Coroner, states that these Special Regulations *"specifically state that the safety of the boat and crew is the sole and inescapable responsibility of the owner."* Special Regulation 1.2 states under the heading *"Owner's Responsibility"* that:

> *"a. The safety of a boat and the crew is the sole and inescapable responsibility of the owner, or the owner's representative, who must do their best to ensure that the boat is fully sound, thoroughly seaworthy and manned by an experienced crew who are physically fit to face bad weather. They must be satisfied as to the soundness of the hull, spas, rigging, sails and all gear. They must ensure that all safety equipment is properly maintained and stowed and that the crew knows where it is kept and how it is to be used.*
>
> *b. Neither the establishment of these Special Regulations, their use by race organisers nor the inspection of a boat under these regulations in any way limits or reduces the complete and unlimited responsibility of the owner or owner's representative.*
>
> *c. A boat is solely responsible for deciding whether or not to start or continue racing."*

The Squadron noted in its submission that the:

> *"The Notice of Race, Sailing Instructions and Safety Declaration were all in accordance with the RRS and Special Regulations. In the Notice of Race, the safety regulations were said to be those of the A YF addendum A Part 1, race category 4 (RRS) with the following additions:*
>
> *(i) flares to category 3 will be required;*
> *(ii)EPIRB not essential but strongly recommended;*
> *(iii)jack stays and safety harness after dark."*

The Squadron also noted that:

> *"whilst the race could have been conducted as a category 3 race (requiring the mandatory fitting of jack stays), Spirit had jack stays fitted at the time of the incident and as such, whether it was categorised as a category 3 or category 4 race is not relevant to the death of the deceased."*

As indicated as part of the preparation an information session was conducted on behalf of the Squadron which dealt with the course, safety compliance, safety-role of the coast guard, race logs etc.

Also as part of preparation for the race, the Squadron stated that:

> *"The Melbourne Coast Guard, Victorian Channel Authority and the Water Police were written to by the Squadron advising that the race was to be conducted. These bodies were provided with details of the course, start time and duration. It was requested that the Melbourne Coast Guard provide assistance in monitoring radio schedules and provide on-water assistance in the event of any emergency."*

The Squadron had in place an *"emergency rescue plan that had been created by the Squadron in 1999 (in anticipation of the World Sailing Championships)"* and this *"plan was in place for the purpose of implementing an emergency rescue if it was required."*

On the issue of Radio procedures, the Squadron noted that:

> *"Mayday calls are the responsibility of Police and Melbourne Radio and on this occasion, the mayday call was received by Melbourne Radio and immediately transmitted to the Police."*

Also the Sailing Instructions, clause 16, provided:

> *"16.1 Yachts will be required to respond to routine schedules (skeds) on VHF channel 73 as detailed on appendix B. A pre-race sked will be conducted at 1005 hours on Tuesday 26th December to ascertain the status of starters. Any yacht that does not respond to a call on the sked will be deemed not to be a starter and score DMC.*
> *16.2 A yacht shall not request or receive radio transmissions (including mobile phones) which are not available to all boats during the race.*
> *16.3 The coast guard will monitor VHF channel 73. Initial calls should be made on channel 16."*

Apparently it is not necessary for the Club or competitors to monitor the radio outside sked times. Also it is not mandatory, or even expected for the Squadron's radio to be manned at all times.

A participant in the race cannot request or receive private transmissions while racing.

As to the wearing of Personal Floatation Devices (PFD's) / Harnesses, the Squadron submitted:

> *"The Special Regulations require one PFD type 1 and one safety harness be carried on board the boat for each crew member (see s.5 Special Regulations).*
>
> *The Special Regulations do not provide for the mandatory wearing of these devices for a number of reasons...."* (these will be discussed later in this finding - see especially the evidence of Mr. Mooney).

And also submitted:

> *"the skipper/owner is in the best position to determine whether PFD's or harnesses should be worn by crew members.... "*

Thus, as far as is relevant to this incident, the race rules seem to indicate that the primary responsibility for safety rests with the skipper of the yacht and individual crew. In this case, Squadron responsibility, under the rules, appears to be limited to classifying the type of race category,

providing suggestions on safety equipment, and providing the overall facilities and arrangements for a race.

Part 7 of the Racing Rules of Sailing 1997-2000 other than to say that the *"organising authority, race committee and protest committee shall be governed by the rules in the conduct and judging of races"* makes **no** comment about safety **as relating to race management**. The current rules 2001-2004 are effectively no different.[2]

However, this does not completely resolve the matter. There were about 180 individuals (yachtsmen) taking part in the race. This necessitates some greater overall level of management co-ordination and responsibility by the Squadron, as such organization cannot be undertaken by the individual competitors. As race organizers, the Squadron had some knowledge and ability to provide an overall view of what was happening to the weather and the craft taking part in the race. For example, it had the ability to monitor why a yacht withdrew from the race (by co-incidence called the *`Spirit'*) and assess the desirability of advising participants on safety matters; it had the ability to assist with the management of the May Day; to decide whether all yachts' crews should be advised to wear safety gear; to decide whether or not the race should be abandoned. These issues and others are discussed in more detail throughout this finding.

Race categorization

There are a variety of classes of yacht races (the *`Big Bay Race'* was classified by the Squadron's Race Committee as a Category 4). The Racing Rules of Sailing 1997-2000 provide as follows:

> ***"SECTION 2 - APPLICATION & GENERAL REQUIREMENTS***
>
> ***2.1 CATEGORIES OF EVENTS***
>
> *In many types of race, ranging from long-distance ocean races sailed under adverse conditions to short-course day races sailed in Protected waters, eight categories of races are established, as follows, to provide for the differences in the standards of safety and accommodation required for such varying circumstances.*
> *Categories 0-4 are intended for offshore racing.*
>
> *(a)* ***Category 0:*** *Trans-ocean races, where boats must be completely self-sufficient for very extended periods of time, capable of with-standing heavy storms and prepared to meet serious emergencies without the expectation of outside assistance. Specific requirements for Category 0 have been omitted from this version.*
>
> *(b)* ***Category 1:*** *Races of long distance and well offshore, where boats must be self-sufficient for extended periods of time, capable of withstanding heavy storms and prepared to meet serious emergencies without the expectation of outside assistance.*

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[2] The "Fundamental Rules" in the Racing Rules of Sailing provide that "safety" is :

> **"1 SAFETY**
> **1.1 Helping Those in Danger**
> A boat or competitor shall give all possible help to any person or vessel in danger.
> **1.2 Life-saving Equipment adn Personal Buoyancy**
> A boat shall carry adequate life-saving equipment for all persons on board, including one item ready for immediate use, unless her class rules make some other provision. Each competitor is individually responsible for wearing personal buoyancy adequate for the conditions.
>
> *In Australia, "adequate life saving equipment" is as set out in AYF Addendum A."*

(c) ***Category 2:*** *Races of extended duration along or not far removed from shorelines or in large unprotected bays or lakes, where a high degree of self-sufficiency is required of the boats.*

(d) ***Category 3:*** *Races across open water, most of which is relatively protected or close to shorelines.*

(e) ***Category 4:*** *Short races, close to shore in relatively warm or protected waters normally held in daylight.*

(f) ***Category 5:*** *A race in protected waters in trailable boats racing without effective rescue availability.*

(g) ***Category 6:*** *A race for boats other than trailable boats in daylight hours only and with effective rescue availability. OR*

A race for boats including trailable boats on protected waters in daylight hours only and with effective rescue availability.

(h) ***Category 7:*** *A race for boats other than trailable boats on protected waters in daylight hours only and with effective rescue availability."*

Weather information before and during the race

Prior to the Race

The Squadron provided the following detail on the issue of weather. The Bureau of Meteorology weather report issued at 0345 hours on Tuesday 26th December, 2000 for the Bay was:

"North-westerly wind increasing to 20-30 knots during the morning. Wind then shifting south-westerly at 20-30 knots during the afternoon with some stronger squalls likely. Waves 1-2 metres. A strong wind warning is current."

As previously noted, this was posted in the Squadron at 0840 hours on the day of the race; and verbally relayed to participating vessels from the start boat at 1005 hours. It appears that Mr. Laurie Ford. the skipper of the *`Spirit of Downunder'* was aware of the weather, as he was *"in possession of a facsimile from the Bureau of Meteorology indicating the weather forecast for that day"* and disseminated this information *"to the crew prior to the start of the race."*

During the Race and at the incident

According to the Squadron, prior to the wind gust that hit the *`Spirit of Downunder'*, which occurred at approximately 1600 hours, the weather had been:

"(i) consistent with the Bureau forecast; and

(ii) no threat to the participants in the race. In fact, the overwhelming evidence is that prior to the unexpected gust, the weather conditions were perfect for sailing for keel boats which include Spirit. Hammond described it as "champagne sailing". Crew members of Spirit in their statements refer to winds of between 22 and 26 knots etc."

The two gusts of wind that caused the two knockdowns of Spirit were unexpected. It is significant that there is no evidence that the gusts were experienced by any other yacht participating in the race or for that matter, any other boat on the Bay on the day. However, after the incident the weather did deteriorate. According to the Squadron, there:

> *"was no amendment to the weather forecast issued by the Bureau of Meteorology of relevance on the day of the race (for example forecast of worsening weather)."*

And that as:

> *"the weather conditions were not unsuitable for keel boat racing and had not changed from the original forecast, there was no reason to disseminate any further weather information to the participants in the race."*

It appears that the *`Spirit of Downunder'* was hit by what has been described as a *"microburst"* of weather. Two sudden gusts of wind caused the yacht to heel over and, during the second gust Mr. Dack was swept overboard. From Weather Bureau records the *"Plot of Windspeed in Knots"* indicates peaks (between about 30 knots and above) at South Channel Island, Fawkner Beacon and Frankston at about 16.30 and again a little after 17.30.[3]

Microbursts

Microbursts are described in the boating magazine *`Cruising World'* by Earl Hinz (January 1995). Hinz describes *"Seven potentially damaging weather phenomena*" and shows *"how to recognise, avoid and even weather them when there's no place to hide."* One of the models is the *"downburst"* or its smaller version called a *"microburst."* Hinz writes the concept of:

> *"downbursts as a hazard to sailing vessels didn't take hold until popular sail training vessels such as the Pride of Baltimore, the Marques and the Active were lost at sea. Downbursts always have been with us, but we didn't recognize them as being any different than a squall. Nor did the boats of earlier days suffer as much from them when they were rigged with manila lines and cotton sails. Then sails and rigging most likely failed, relieving the loads and preventing a complete knockdown. Not so today when synthetic materials resist extreme wind forces, putting the boat in jeopardy."*

And that downbursts:

> *"start with a highly localized downdraft of air which, when it nears the ground, spreads out radially in all directions, adding to or subtracting from the ambient wind direction."*

Hinz states that the:

> *"size of down-bursts vary from as little as one kilometre outward to tens of kilometres. Small downbursts are called microbursts and they may extend outward from the center to about two miles distant and contain winds as high as 168 miles per hour."*

[3] Exhibit C 1.

Hinz suggests that the safe sailing tactics to cope with this phenomena, is firstly to recognise and understand the warning signs:

> *"Downbursts are the product of a virga or line squall in an otherwise clear sky or they may come from anvil or cumulus clouds associated with cold-front activity...A roll cloud preceding a cold front can be the precursor of downbursts. The roll cloud under a severe thunderstorm is called an arcus and at sea is known as a line squall. Neither virga nor cloud-induced downbursts are clearly visible to the naked eye, although they can be seen on Doppler radar. Generally the virga-induced down-burst, also known as white squall, is without rain while the cloud-induced down-burst is immersed in considerable rainfall."*

And the tactics are:

> *"If a virga or a line squall is seen approaching shorten sail, not only reducing area but lowering the center of effort. Running off downwind under shortened sail is recommended. Downbursts don't last long and they do not capsize the vessel beyond 90 degrees....Many cruising veterans familiar with the Southern Hemisphere's "southerly busters" will drop all sail as the line squall closes in and wait for the soon-to-follow wind shift before re-hoisting sail."*

General discussion on race management and the incident

Race management

As indicated, *`The Big Bay Race - 2000'* was conducted by the Royal Melbourne Yacht Squadron in conjunction with the Ocean Racing Club of Victoria. There were 26 entries and 25 yachts starting, involving a total crew of about 180. The race was classified by the Squadron's Race Committee as a Category 4 Race, which is defined as follows - *"Category 4, short races generally held in daylight with limited rescue capability"*. There are a range of Categories catering for *"trailer sailers"* to racing with ocean going yachts. Throughout this finding comments are dealing mainly with the Categories for the larger group of yachts (as competing in the *`Big Bay Race'*).

The Race Director Mr. Livingston, was absent from the clubrooms visiting a friend for a significant time during the running of the race. Livingston, readily acknowledged this fact in his evidence. No other person was given instructions as to management or safety issues while he was away from his post. He also said he did not know whether, after he left the Club, anybody was in fact listening to the radio to monitor what was going on in the Race but that it would be normal to do so. Livingston was returning to the Yacht Club about the time of the May Day call from the *`Spirit of Downunder'*.

The *`Spirit of Downunder'* was skippered by Mr. Laurie Ford and crewed by Lindsay Dack, Ian Salmon, Peter Dimedio, Brendon Lyndsey, Troy Humphreys, Ian Rothwell and Keith Dickie. According to the submission on the part of Ford:

> *"Dack and Ford were the most experienced sailors on board having completed in many ocean races. This included the 1998 Sydney to Hobart that they successfully completed together as part of the crew on "Spirit". Mr. Ford later successfully completed the 1999 Melbourne to Osaka Two-Handed race with the yacht's builder Mr. Peter deLange as co-skipper. However Mr. Salmon and*

Mr. Lyndsey also had extensive ocean racing and cruising experience, plus Mr. Dimedio had completed a number of Bass Strait crossings."

On the evidence it does appear that Mr. Ford and his crew had considerable experience in yachting and yacht racing. Yet, as can be seen, even this experience did not prepare the skipper and crew for the emergency rescue that was required to save Lindsay Dack.

Mr. Livingston noted that *`The Big Bay Race - 2000'* was the second of these races and he had organised both. The first was held in 1999, the year after Sydney-Hobart Race. Livingston had not specifically addressed issues from the Sydney-Hobart Race. He agreed that in the yachting world the Sydney-Hobart disaster and the subsequent inquiry caused considerable debate. The Dack family summarised his evidence thus:

"Livingston conceded... that before the race there was debate in the yachting world about safety gear to be carried on boats in races and familiarity of crews and skippers with the safety gear and training of skippers and crews in `man overboard' procedures. The debate included the question weather it should be compulsory to wear safety devices and for the crew to demonstrate fitness by some form of training. He conceded… that he had the final authority on the Race Committee in 1999 and 2000 as the agent for the Sailing Committee of the Yacht Squadron... "

Mr. Livingston agreed that if Dack was wearing a harness appropriately secured he would not have drowned. He also agreed that the Race Committee had the power to require that a harness be worn at all times. However, the Committee did not turn their mind to the issue. He noted if he were organising such a race again he would require harnesses but would still leave it to the discretion of the skipper as to whether such harnesses were to be worn. In spite of the fact that crew would be going forward would have, from time to time have difficulty in retaining footing on the deck, Livingston had not turned him mind to making it mandatory for harnesses to be worn, that even with the benefit of hindsight he would not do so.

The family submission summarises Mr. Livingston's approach to safety in the following terms:

"Livingston agreed that the race was called off because of adverse weather, that it wasn't significantly different from the weather reported by Spirit...He agreed...that the weather in fact experienced at 19.30 (when the race was called off) was what had been forecast when the race was started. Although he agreed...that the weather at the time of the first knockdown of Spirit was much as was expected, he didn't agree it called out for the Committee to make it mandatory for the boats to ensure that crews put on a harness...

When Livingston was asked by Mr. Burns....whether a yachtsman who worked up on the bow of a boat, in the sort of weather being talked about in the Inquest, there would be a high risk of them slipping and potentially falling off, he agreed with this proposition and said, "In some yachting terms its called `adventure land' or `frontier land'.

When Livingston expressed the view that it would be of concern that wearing a harness could tether you to a sinking boat, he was forced to modify this by accepting that they had a quick release mechanism on them... Tethers on harnesses, he agreed, were 1.8 metres.... He thought that to wear a harness for 30 hours would contribute to fatigue.... When asked whether he agreed there were downsides to wearing a harness...he answered, "If it turns out to be uncomfortable and heavy that's – that would be a minor down side and it's something I perhaps didn't consider when answering questions previously. "

Mr. Dack's family submitted that *"given the knowledge the race organisers of the weather forecast and the actual weather, they ought have made the wearing of a harness compulsory in this race for crew on deck who were out of the cockpit."*

Mr. Livingston agreed that the Royal Melbourne Yacht Squadron had no comprehensive package on safety and conceded that briefings given the crews of racing yachts were not mandatory. He noted that responsibility for running the Race was with the Squadron. The safety requirements, for the Category 4 Race, were set out in the Notice to Race and which states:

> *"The safety regulations for the Big Bay Race will be those of the AYF Addendum Part One Category 4 additions. Flares to category 3 will be required, EPIRBS are not essential but are strongly recommended. Jackstays and safety harness after dark. Each entrant must sign the safety declaration attached to the entry form. "*

On the issue of weather, Mr. Livingston said it was generally expected that people involved in the Race would obtain their own weather forecast. The Race Management Team would also obtain the forecast, a synoptic chart and a list of current wind observations and this information is made available by the Squadron via the scheduled broadcasts (called *"Skeds"*). Livingston gave evidence that the only weather forecast given to the competitors by the Management Committee was a brief synopsis to all competitors prior to the start of the Race and no other weather information was involved in any of the broadcasts. He noted that Port Phillip waters can get rough as it is relatively shallow and it can whip up steep short waves. He also said he was aware that weather forecasts were for the average wind speed over a 10 minute period and gusts may be up to forty percent stronger than the average speed and that wave heights can be up to twice the forecast.

Mr. Livingston gave evidence that the last radio Sked prior to the incident was 13.05 and there had been at that point no change to the weather forecast. However, he had not sought any additional information at that stage from the Weather Bureau. He noted that for the radio Sked of 13.05, 4 boats had failed to acknowledge the call, but that missing one Sked was not considered a cause for alarm.

Mr. Livingston noted that previously boats had radioed their retirement from the Race generally due to bad weather. The Race was abandoned due to the continued deterioration of the weather and by the time of abandonment at 19.30, 13 of the 25 competitors had retired. Even after Livingston learnt of the fatality, he did not notify skippers to undertake additional safety precautions. He believed most of, if not all, the skippers would, in any event, be monitoring the emergency radio frequency, Channel 16.

Mr. Livingston noted that *"Yes, its generally accepted that the skipper or the individual crew for that matter is in the best position to decide whether he needs to adopt additional safety measures in carrying out his duties on board the boat."* But that it did not occur to him, after the May Day incident, to advise the skippers of the *"man overboard"* incident. Livingston also noted that the Race Committee did not make it compulsory for yachts to have dual band radios which would automatically tune in to Channel 16, an alert on which would override any other Channel being monitored or used on that radio. He considered that it would be a simple matter to require dual band radios and agreed that it would be a reasonable requirement of the race organisers to monitor and disseminate weather information.

Mr. Livingston's approach to the compulsory wearing of PFD's is described in the following answer:

> *"It's required that every yacht carry these, they're part of the state boating regulations. As to the wearing of them as a the person not actually on board the boat, I would always defer to the*

wisdom of the skipper who's in charge of the boat and his assessment of the situation as to whether it is safe."

And:

"I would also suggest that you would be more likely to call for safety harnesses before PFD's."

Mr. Livingston conceded that with the comfort level of some of the modern inflatable type of PFD's, more yachtsmen are now choosing to use this type of PFD (complying with International Standards and Australian Standards).

Mr. Livingston described the Bay and weather as follows (as per family submission). The Bay is, in summary, typically not much more than 10 to 15 metres deep and the winds tending to build up steep waves with a fairly short frequency between them. The family summarised his evidence thus:

"He described the arrival of a front....more often from the south to south west, bringing an immediate change. One can usually see it coming. He said that when the wind is constantly from the south west there can be quite large variations in terms of wind strength....he said of the wind that they expected it to come around to the south west and increase in strength. This was not necessarily a cause for great concern."

On the issue of race categorisation Mr. Livingston gave evidence on a range of matters. The family pointed to the fact that in both 1999 and 2000:

"Livingston decided to make the Race a category 4. The 1999 Race had been slow and occurred over some 27 hours. It therefore involved daylight and evening..... The last yacht in 1999 finished in the dark on the second day....he conceded that it was expected in 2000 that the Race may involve two periods of darkness."

Mr. Livingston acknowledged he could not override the decision of the Race Committee, and:

"Livingston agreed....that it was not a race normally expected to be run entirely in daylight and therefore it followed not properly a category 4 race. He agreed that the nature of the race fitted comfortably within category.... "3 Races across open water, most of which is relatively protected or close to shore lines" ....he agreed that it ought have been a category 3 race. He conceded that making it a category 4 would give a bigger pool of yachts which would enter the race and that amongst the considerations in marketing it would be this bigger pool...."

The family noted:

"Modifications made to the category 4 requirements by the Committee were to provide for additional safety... Rule 1.2 of the Rules of Racing required as follows: "A boat shall carry adequate life saving equipment for all persons on board including one item ready for immediate use unless her class rules make some other provision. Each competitor is individually responsible for wearing personal buoyancy adequate for the conditions."... On the same page he agreed that he did not count a safety harness as an adequate life saving equipment. He agreed to a question from the Coroner, that personal life saving equipment included a vest, life ring, harnesses.... and nowadays personal EPIRBs.... ".

And:

"Livingston had raced in harnesses and said they were not an inconvenient device to wear...It didn't alter the effectiveness of the crew in performing tasks and that they didn't have the problems of restriction and discomfort which PFD's had.... He thought it took approximately 2 to 3 minutes to put on and adjust a harness....To attach the harness to the tether would take perhaps seconds....

Livingston agreed that being a category 4 race made it mandatory to have such harnesses... He said the Rules of Racing did not require that the crew wear a PFD or harness, even at night."

On the issues of lessons learnt from the 1998 Sydney-Hobart race and general yacht racing culture (in this class of yacht racing), Mr. Livingston gave evidence:

*"**Q:** In fact of course, the yachting world now accepts that leaving it to the good sense of adult skippers to determine what is done is no longer adequate, is that so?*
***A:** I suppose it depends on the category of the race but there is a greater duty of care offshore than perhaps on an inshore race.*
***Q:** There may be a greater content of duty but the duty is the same?*
***A:** Yes....*
***Coroner**: Is it a culture, a sailing culture issue, Mr Livingston, in relation to how one looks at safety and safety responsibility when you are talking about yacht racing?*
***A:** I'm not sure I can answer that, Your Worship. I haven't had recent offshore sailing experience.*
***Q (Meldrum):** But you did say, didn't you, that one of the attractions perhaps to crews and skippers entering something like your race is there's an element of danger?*
***A:** I used the word "hazard".*
***Q:** And that was in your mind when you determined what the rules were?*
***A:** When the sailing committee decided on what the rules were, yes...."*

The Dack family argued these answers showed *"a very casual approach by the race organisers to the tasks which they assumed by virtue of having organised the race."* Further, Mr. Livingston gave evidence, on the issue of Sydney-Hobart, that:

"...my understanding that the findings of the Sydney to Hobart inquest were released around about 12 December 2000. That really would have given very little time for any investigation and research into and to recommend changes to things happening in a race which was commencing at the end of December in 2000.
***Q:** That's why I'd asked you, Mr Livingston, that's why I had asked you when organising the race in 99 and 2000, you were conscious of the debate in the yachting world about precisely the issues that get dealt with in that inquest, and you said you were?*
***A:** Yes, I was aware of debate about issues, yes.*
***Q:** And given that those issues were being debated you hadn't bothered to inform yourself as to where your weight might be in the debate?*
***A:** No...."*

It is noted, following this incident, Mr. Ford would now *"make sure all the foredeck crew were wearing some form of emergency floatation"* and he would have a written protocol on *"Man Overboard."* The process would apply to both ocean and bay races and he would *"do it every time."* He would immediately deploy a *"Jon Buoy."* The family suggested that there *"was nothing about the circumstances of the death of Dack which threw new light upon the potential risks faced by competitors in this race and, thus, we submit these precautions ought reasonably have been required by the race organisers of competitors for the race in 2000."*

Mr. Ford acknowledged the conditions at the time of knockdown required the wearing PFD's and if he had been wearing a properly fitted PFD when he went into the water, it would have saved time and made supporting Dack a simpler and more effective task. It would have ensured he could have placed the line over the head of Dack when he went in the water, although he said at the time he went in, Dack was unconscious.

One of the crew, Mr. Ian Salmon gave evidence that the incident had changed his perception of risk and he takes *"more consideration of may happen as opposed to what is happening."*

On the issue of communication by the Squadron on weather information the following analysis of the evidence of Mr. Livingston is relevant. The family summarised the material thus:

> *"Strong wind warnings were faxed to the Club. Livingston did nothing to ensure such faxes were brought to him as race organiser.... He thought such faxes were generated only at times predetermined by the Weather Bureau rather than at a time close to the change in weather.*
>
> *The Race Management Log, which had been tendered as a exhibit, was typed by Livingston on the 27th December, 2000. The Race Log recorded that at 12.20 Rowland Hill queried whether it was safe to fit the light on Carrum No. 2 Buoy. This was ordinarily an unlit buoy which the notice to race had indicated would be lit at night.... Rowland Hill was the Yard Manager of the Yacht Squadron.... The Carrum No. 2 Buoy was close to where the incident occurred. When asked why this inquiry, as to whether it was safe to do so, was made, Livingston said....there was a strong wind warning and reasonably moderate to rough seas. Rowland Hill was making the journey in a 5.5 metre runabout with 110 horse power engine from the Yacht Squadron to the Buoy and back and he was an experienced seaman.... When Livingston was first asked, he suggested this inquiry was only about the timing of this trip but conceded that the way it was recorded related to safety. He thought he might have gone up on the roof to look at the weather. He thought it would take about an hour to the Buoy and somewhere between three quarters of an hour and half an hour back, that he would be away for a total of a couple of hours... Despite the fact that Hill had made this journey, he can't recall having a conversation with him after he came back as to what the weather was like...."*

The family submitted that was *"extraordinary given the responsibility of the race organisers to apparently deliberately deny themselves the opportunity of getting a first-hand account of what weather at a relevant time and in a relevant area was like given the progress of this race."*

The family also noted that another yacht co-incidentally called *`The Spirit'* was noted as *"retired"* at 15.40. Mr. Livingston *"indicated they didn't specifically have a radio log for the race"* and in keeping the Log of the Race, he said, initially *"it was of no interest to him at all as to whether any boat was finding the going too tough"* and later he said it *"was of interest but he didn't ask them why they were retiring."* Livingston also noted that there was no protocol to enquire of a boat as to why it was retiring. The family also noted that *"if the race organisers were required to make a decision at any time that the race should be cancelled, it was essential for it to obtain information as to the reason for the withdrawal of any yacht from the race."*

As to the rules for the calling off of a race, Mr. Livingston was asked:

> *"**Q:**....what determined whether a race should be called off?*
> ***A:** A long race or an ocean race almost never – sorry, but the factors to be taken into account would be the state of the weather, the fitness of the boats in the race to continue racing, whether or not a significant number of boats had made their own decision to retire from the race."*

Mr. Livingston said there had been no thought of abandoning the race up to 16.00 hours. If fact it was not abandoned until much later in the day, in the early evening (officially recorded by the scheduled radio [SKED] contact at 20.05 - although the decision was actually made at 19.30).

As to the issue of the May Day, the family noted that Mr. Livingston *"agreed there was no protocol requiring that the precise time at which a May Day call was heard at the Club be logged..."* and that although vital to record the time *"he had never turned his mind to this."*

The family also pointed to the fact that Mr. Livingston *"agreed that the rescue plan, Exhibit E, laid down that monitoring the fleet and observing the weather conditions were major tasks during the Big Bay Race...."* And submitted *"that the evidence disclosed that the Committee failed to perform these major tasks."* Livingston agreed that *"to effectively monitor the fleet it was required there be a protocol, that retiring boats be asked and the reasons recorded, as to why they had retired and that this be passed on immediately to the Race Director*." The family submitted there *"was no formal or informal system to do this*." Some yachts retired without giving any reason, and the family pointed to the issue that at 19.30:

> *"the Commodore and the Race Officer decided to abandon the race but this was not done until the scheduled radio contact at 20.05....Livingston said that the delay in the broadcast was not because it wasn't thought at 19.30 that it was then unsafe to continue the race, but rather, it was known that if a broadcast was made at the scheduled time of 20.05, that the race participants would then be listening. He agreed that it could have been done earlier...."*

The Dack family considered that *"the proper procedure should have been to broadcast on the emergency channel that the race was cancelled when the decision was made, and then again, to broadcast the same information at the next sked."* And submitted that once again this is *"another illustration of the casual approach by the race organisers to their duties."*

Finally, the family submitted that:

> *"Livingston agreed....that the Yacht Club made a press release in which they announced the race was called off because of deteriorating weather and he agreed that the weather was at least as bad at the time they decided to call it off as it had been at the time Spirit suffered its disaster. He put the delay down to the busy schedule following the May Day...."*

The family argued that, with all of this evidence *"the Coroner ought find that the failure by the Club to ensure that competitors were kept abreast of the weather played a role in the death of Dack."*

The Squadron organised a race briefing for those involved. Mr. Livingston indicated that attendance at the *"briefing"* was not mandatory. Apparently the briefing dealt with issues such as sponsors, hospitality and the likely weather pattern. Livingston noted that the *"briefing didn't draw attention to the emergency rescue plan."* He also noted that it was up to the yachts to find their own forecasts but that the weather report was made available on the Squadron's notice board as well as being broadcast prior to the start of the race. Livingston indicated that it was not the Squadron's usual custom to continue to provide weather forecasts for competitors.

There is also considerable evidence from the yachting community's expert (discussed under the sub-heading "**The evidence by one of the yachting community's experts"** and discussion under the sub-heading **"The Royal Melbourne Yacht Squadron's Submission"** in this finding) which paints a different picture on the issues associated with race management.

The evidence of the skipper and crew of the `Spirit of Downunder'

Mr. Laurie Ford, the Skipper and owner of the *`Spirit of Downunder'* gave evidence on a number of issues. Neither Ford nor the crew attended the Squadron's race briefings. It appears that just before the first knockdown the yacht had a mainsail and spinnaker hoisted.

On the issue of weather, Mr. Ford said as the yacht approached the Number. 2 Buoy at Carrum the weather was 24 to 26 knots from the west. They were going down wind. He said that it *"was excellent, exciting, invigorating sailing"*. Apparently the speed of the boat was between 12 and 14 knots up to 15 or 16. And when Ford was asked before the first knockdown, whether the conditions were anything unusual, anything he hadn't seen before in the Bay, he answered – *"Not that they were aware of."*

The following questions and answers detail Mr. Ford's approach to the weather, and his reasons for dropping the spinnaker:

*"**Q:** Was there anything unusual about the weather?*
***A:** No, no. I mean we were aware of the cloud build up over in the westerly – in the west.*
***Q**: What was that telling you?*
***A:** That was telling us that that was an indication of a front coming through.*
***Q**: Would you have been aware at that point of how strong the front was or not?*
***A**: No we wouldn't.*
***Q**: Were the conditions challenging any of the other gentlemen on the boat at that time?*
***A**: No.*
***Q:** As you approached the No. 2 Foul Buoy, there was a decision made as you've described in your statement. Mr Dack in fact said that he smelt a change coming and there was a decision made to drop the spinnaker'?*
***A:** Yes it actually didn't happen quite in that context. We'd made the decision to get the kite down and as Lindsay was going forward he said words to the effect `Come on, hurry up, I can smell a change coming'. But that wasn't obvious, there was no indication on the water.*
***Q**: That was his perception?*
***A:** Yes, he could smell it.*
***Q**: That was my very question, was the decision to take down the spinnaker made because you had to turn around the buoy or because of the weather?*
***A**: Because we had turn around the buoy, so we wanted to get the kite down early so we could get the headsail up, get the boat ship shape, because the next mark after this rounding was a beat to weather.*
***Q**: So you were preparing for a rounding?*
***A**: Yes.*
***Q**: You weren't dropping the spinnaker because of inclement weather?*
***A**: No."*

Thus it appears that the Spirit was competitively involved in the race and was not dropping the sails in response to the weather (at least according to the skipper) but as part of keeping the competitive edge.

On monitoring the Scheduled broadcasts (Skeds) relating to weather information Mr. Ford indicated that he did not monitor Channel 16 because it was disruptive (this channel broadcasts weather information). Ford also acknowledged that the Bay could be a hazardous stretch of water and noted that following the Sydney-Hobart, yachts were encouraged during radio Skeds to pass on any weather

information, particularly if they are at the head of or at the rear of the fleet. The submission of Dack's family summarises Ford's evidence thus:

> *"Ford agreed that on the run from the West Channel Pile they had been able to lay the mark for the Carrum No. 2 Buoy directly, that when they had come around the South Channel mark the weather had been about 26 to 28 knots and had then abated. The speed had dropped, they decided to put the spinnaker up and the sea conditions were reasonable.*
>
> *Ford said....that absent the knockdown he expected they would have dropped the kite in circumstances where the foredeck would be dry."*

The following questions and answers describe development of the weather in the run up to the knockdowns:

> *"**Q:** There had been had there not, for a considerable part of that passage that you were on at this stage, heading towards Carrum, a change rolling up behind you?*
> ***A**: There was a cloud build up over the Geelong area."*

Mr. Ford agreed this was a weather change which was coming towards them, that such fronts could be quite often violent. He noted that the forecast indicated a gusty change in the afternoon of 30 to 40 knots. Ford could not say whether the weather might have been coming up earlier rather than later. They could see the cloud bank but no evidence of a change on the water. He agreed that the clouds on the horizon seemed threatening.

Mr. Ford indicated that he would not have expected the Squadron to make it compulsory at any stage in the race to wear PFD's. Also he would not have expected communication from the Squadron other than at Sked times.

Mr. Ford gave evidence that a friend who was in the Mornington Race Control Tower on the day of the race said the wind speeds had got in excess of 50 knots. Ford also said that before the knockdown they were sailing in a north westerly breeze but could not say what direction the knockdown wind came from. He described the wind at the microburst going from 24 to 26 knots to 55 knots instantaneously. He said it *"was just a very pleasant sail one moment, and the next moment we're in chaos."* When asked how long the chaos that followed occurred for he said - *"That initial downburst would have lasted for a number of minutes before it slightly abated, but it was still then blowing very heavy."*

Mr. Ford also described the events after the knockdowns. He considered that the crew regained control and when *"that point was reached when we were able to turn the boat around and motor back and try and find, locate Lindsay."* And:

> *"**Q**: That was some 15 minutes after he went overboard?*
> ***A**: Approximately, yes. It was hard to judge the time."*

Mr. Ford also said that they hauled in the spinnaker which had blown out rather than cutting it away as he was concerned they could have drifted on to it.

Mr. Ford also said Dack was going forward at the time of the first knockdown. He estimated that from the first to the second knockdown he said were only seconds. He suggested this was 5 or 10 seconds if that. When asked whether they had time to think about or direct people to put on a harness, he said – *"No – they had a situation on their hands."* Whilst the family suggest that other crew put the time intervals between the two knockdowns considerably longer (giving rise to an ability

for the skipper to instruct the crew to wear a harness), inevitably estimates of time where stressful situations are concerned are notoriously difficult.

Mr. Ford gave evidence that at the time Dack went overboard, he was hanging onto a spinnaker sheet. Ford also considered it was improbable that Dack could have been brought back on board by taking the other end of the sheet. He thought this could well have been out of reach and would have needed a boat hook. Dack, in any event, was only able to hold onto the sheet for a short time. Ford was not aware of any attempt being made to bring Dack back on board via this method.

Mr. Ford described what was done after the knockdowns. This is best summarised in the family submissions, which describe what Ford said:

> *"....it wasn't possible to stop the boat after Dack went overboard....he was asked where he was at the time of the first knockdown. He said he was in the cockpit. He said he immediately realised they had a problem and the thing they had to do was to get the kite down and get the boat back into a controllable situation. He immediately released a tack line to the spinnaker in an effort to spill wind out of it to allow it to be retrieved. It was flogging and pulling the boat over so he released the halyard (the spinnaker halyard) but even that didn't allow the kite to spill all the wind, so Salmon said to him "cut the halyard" which he did. This took all the pressure off the sail which was retrieved and then Ford turned his attention to attempting to get the mainsail down and get the boom off the other steering station which had broken so they could get some steerage and immediately turn around."*

On Mr. Ford's attempt to rescue Dack when he (Ford) jumped into the water. Ford said he was able to get hold of the life-sling, and then the Spirit:

> *"... didn't come around again, what happened was they were able to pull me alongside and just as we got alongside a large wave came and that lifted the boat out of the water. I was hanging onto Lindsay with my right arm and my left arm through the sling and the weight of the two of us versus the weight of this was just getting greater and greater and I had to make a decision whether I let it go or did something else. So I decided to let it go and I yelled to them at the time, `Come around again, throw me the life sling, get me plenty of line so I've got time to put it over Lindsay' and that's what I wanted. "*

Mr. Ford noted that, when he went into the water to help Dack, he was still conscious (although it appears that a short time later he lapsed into unconsciousness).

On the issue of harnesses and PFD's Mr. Ford indicated that Dack was not wearing a harness at the time of knockdown (it appears that the crew wore harnesses after Ford went into the water to help Dack). Apparently because of the nature of the weather harnesses were not required to be worn by the crew. The forecast was *"Nothing out of the ordinary. Good sailing weather from our point of view."*

On the value of the harness in a knockdown Ford said:

> *"My short answer to that is, no. My reasoning is that if a crew's got a harness on, which makes them attached the boat, in a situation where we're on a knock down at a very steep angle, if Lindsay had have had a harness on and gone over and come up, he may have well been underneath the mainsail, which would have kept his head under water. Because he's on the low side of the boat, with the boat still going through, he may not have been able to just keep his head above water because of the speed through."*

The family pointed to the difficulty in Mr. Ford's answer in that:

> *"...it ignores the fact that the lanyard is only 1.8 metres long and that he would have had it secured to the weather rail and, of course, the boat went down on the lee side. He did, however, accept that it would have been preferable for Dack to have worn a PFD and if he did so, he would have survived. The evidence of Ford on the safety gear on the yacht, was the crew were provided with a PFD with a built-in harness rather than a bare webbing harness."*

Importantly, during the inquest Mr. Ford demonstrated the safety gear in the Court. He first placed the webbing harness on back-the-front. The family, rightly submitted that this *"is an excellent reason to require a harness to be worn at all times on deck rather than put on at the time of an emergency."*

The family also submitted that:

> *"Ford agreed he had not shown a great deal of familiarity in putting on the harness in the demonstration given to the Coroner. He was a bit flustered. They can be a bit of a Chinese puzzle to sort out.... He accepted... this meant that if you were to wear a harness, to put it on in a hurry was not a good idea. You would be better off wearing it before you needed it."*

Mr. Ford acknowledged the difficulty of making decisions on the wearing of safety gear in the following questions and answers:

> *"**Q:** So at some stage did you give an instruction to put on harnesses or---?*
> ***A**: I was out of the boat from that point on. That's a dilemma that skippers often face, a situation like we were in where everything's OK and looking good. When the weather suddenly turns, the most important thing is to get the boat set up for it and often it's then – OK, now we put on the safety gear. So it's a matter of the sequence of events and the urgency of it.*
> ***The Coroner:** It becomes a bit late if you haven't worn the safety gear up to then?*
> ***A**: I agree, I agree –."*

Mr. Ford also described the general approach to the compulsory wearing of harnesses. He said regardless of the category of the race, the AYF had never required harnesses to be compulsory. It was left to the discretion of the skipper. He had never heard of race organisers requiring crew to wear harnesses. When asked about the notice to race, he said:

> *"I have no specific recollection but I do have a feeling I've ween that written in notices of races with regard to ocean racing after dark, but I can't specifically recall which particular race. But it may well have been there."*

And had never heard of such requirements for a race in Port Phillip Bay.

Mr. Ford was asked to describe the safety equipment on his yacht. He said that he had 9 life vests and that the only harnesses were built into the life vests. When asked specifically about what were described as "*bare harnesses"* Ford answered:

> *"I have got them and I have a vague recollection they may have even been on the boat as well, but they would have been stored in the anchor locker.*
> ***Q:** So not readily available?*
> ***A:** No."*

Mr. Ford indicated that there would have been 7 vests laid out on the bunk and 2 hanging either side of the companionway on hooks. Ford said the crew on Spirit would wear PFD's at night but he had not said anything to the crew about wearing any form of personal protection. He had said nothing to

them about this on this day, and that he intended to tell them about this again at dusk. Ford said this requirement by him would be regardless of the weather.

On the issue of wearing a PFD at night Mr. Ford was asked wether it was because a crew member who went overboard would be harder to find. He said:

> *"It's a safety thing. It's not just a matter of being able to find, it's something to help preserve their life. "*

On the issue of wearing PFD's during the day, Mr. Ford was asked:

> *"**Q:** Might I suggest to you never thought about the possibility of making that (wear PFD's) compulsory during the day?*
> ***A:** I can't agree with that. Those thoughts have gone through my mind from time to time, but I guess it's become an accepted practice in my experience of – not only on my boat but on other boats, that unless the conditions during daytime make it hazardous not to have one on, people just don't wear them."*

It appears that this approach is part of the overall yachting philosophy:

> *"**Q:** You choose to do that (i.e. insist upon PFD's) as a matter of course at night?*
> ***A:** Yes.*
> ***Q:** But you did not choose to do it as a matter of course during the day?*
> ***A:** No.*
> ***Q:** And the difference was, I put it to you again, that it was your expectation that if somebody did fall off during the day, they would be easier to find than at night?*
> ***A:** Yes, but that's – that's part of the rationale on – at that time of not saying that crews shouldn't – should have them on..."*

And:

> *"**Q:** But Mr. Ford, to put it in awfully simple terms, I suggest you made a wrong call. You understood the risk was small that somebody would go overboard, but if they did, and there was a risk they wouldn't be recovered quickly, it was desirable they have a flotation device. That's the rationale for night time isn't it?*
> ***A:** Exactly."*

Mr. Ford noted that in an ocean race it is mandatory to wear PFD's at night – at sunset or going in or out of the heads – and that his crew were aware of those instructions. Mr. Ford also conceded that his previously held view, that ocean racing was more dangerous than racing in the Bay, was mistaken.

On the issue of requiring PFD's to be worn after the knockdown Mr. Ford said:

> *"....perhaps I should have insisted that the moment we were heading back to locate Lindsay that I should have issued instructions that life vests were to be worn but I guess I didn't because our focus was (a) on getting back to Lindsay as soon as possible, any other sort of instructions would have taken our eye off the water and (b) with the sails down and being under motor the boat was a lot more stable and the associated danger of a sloping deck just wasn't there."*

Mr. Ford was questioned on the issue of throwing a floatation device to Dack while he was in the water:

*"**Q**: Now no attempt is made, given the short distance that separates him from the stern, to throw him any flotation device was there? At this stage?*
***A**: Nothing was - no attempt was made to throw him anything, no. There was a life sling in the water*
***Q**: But no flotation device?*
***A**: No that had already been deployed.*
***Q:** Only one of the two?*
***A**: Yes.*
***Q**: The other one's staring you in the face there – you're looking over it when you're looking over the stern, you're looking at the John Buoy?*
***A**: Its designed as a mark, no as a safety device.*
***Q**: But it will act as a safety device?*
***A**: Well, OK, you've said that before.*
***Q**: Well that is correct, isn't it?*
***A:** I'm sure it would assist, yes.*
***Q**: So the second time that I suggest it ought to have been deployed, was when Mr. Dack let go of the line, that was the obvious time. Anyone deploying it at that stage could have thrown it with some accuracy, very close to where he was?*
***A**: You don't throw them. You just release."*

Mr. Ford acknowledged that had the Jon Buoy been deployed, it would have reduced the risk that Dack was not recovered in time. He acknowledged the Jon Buoy was easier to see than a life ring. Although, with an estimated 3 nautical miles between Dack and the Spirit, it was likely that the yacht (even with Dack being near the Jon Buoy) would, at some stage, have lost sight of the man overboard. It is noted that Ford's knowledge of the Jon Buoy was to a certain extent limited. The family submitted:

"Ford concede he didn't know whether it had a drogue and a whistle. He didn't know the height of the mast... and agreed that it had a high intensity fluorescent pennant with excellent visibility in daylight...And he agreed it was fitted with a light, that he was sure it was there and that it operated upon deployment…He accepted it had retro-reflective tape for night time identification and he was then prepared to assume that it had a drogue..."

Mr. Ford accepted that if he had given a *"man overboard"* briefing on the day of this race, the deploying of the John Buoy would have become second nature to the crew.

Mr. Ford acknowledged that when the line was thrown to Dack and himself, Dack had been in the water for approximately 15 to 20 minutes. Ford said that when he took to the water Dack was clearly in distress, begging the crew to get him out quickly, saying, *"Help me, I'm done."* Ford agreed that Dack at that stage was grey and he knew at that point it was imperative he be retrieved quickly. The original draft of Ford's statement said that when the line was thrown to Dack he did not have the energy to take hold of it, but Ford amended his statement to say Dack took hold of the life line, it became taunt, it began to pull Dack under and Dack let go.

Mr. Ford said there was a life sling in the water. The following questions and answers are interesting:

*"**Q:** Now no attempt is made, given the short distance that separates him from the stern, to throw him any flotation device was there? At this stage?*
***A**: Nothing was - no attempt was made to throw him anything, no. There was a life sling in the water.*

***Q**: But no flotation device?*
***A**: No that had already been deployed.*
***Q:** Only one of the two?*
***A**: Yes.*
***Q**: The other one's staring you in the face there – you're looking over it when you're looking over the stern, you're looking at the John Buoy?*
***A**: Its designed as a mark, no as a safety device.*
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***A**: Well, OK, you've said that before.*
***Q**: Well that is correct, isn't it?*
***A:** I'm sure it would assist, yes.*
***Q**: So the second time that I suggest it ought to have been deployed, was when Mr. Dack let go of the line, that was the obvious time. Anyone deploying it at that stage could have thrown it with some accuracy, very close to where he was?*
***A**: You don't throw them. You just release."*

And:

*"**Q:** We'll leave aside for the moment whether that's wrong (failing to deploy the John Buoy) – he was well within reach at that stage, of a personal vest being thrown to him?*
***A**: Yes, look you could make those assumption but Lindsay was in an exhausted situation?*
***Q**: The more exhausted, the more in need of flotation he was?*
***A**: Yes."*

The family submitted that when:

"Ford was asked again why no flotation device was thrown to him at this stage, why he gave no such instructions, he answered... "The life sling had been used to circle him so we could try and recover Lindsay" ..."

And that Mr. Ford *"by this stage knew Dack didn't have the strength to use the life sling on his own and Spirit failed to give him any method of remaining afloat. The John Buoy, a life buoy, a PFD or even a cushion would then probably have saved him."* In addition:

*"**Q:** And you knew at that stage that flotation would be of assistance to him?*
***A**: Exactly but because of his condition, that's why I elected to go in."*

On the reason why he had not required the fitting of life vests, Mr. Ford gave the following explanation:

*"**A:** The moment we turned to effect that recovery, I instructed everyone to keep an eye out and look for Lindsay.*
***Q:** Because you hadn't found him?*
***A**: He was not within sight, no.*
***Q**: All right, he then got within sight about how long before you got back to him?*
***A**: My recollection is it's some minutes. Maybe three, four, five – some time like that."*

And:

"I guess our attention is diverted and focused just on one action and that's getting back to Lindsay. I mean, hindsight's a wonderful thing.
***Q**: So is foreplanning?*

A: *Yes."*

Also, on return to Mr. Dack, the following question and answer is relevant:

*"***Q:** *But when you get him within sight it's clear, is it not, that he is not fit and strong and well?*
A: *When we first saw him, he seemed to be making swimming movements and initially, I guess, my spirits were lifted if you can say that, but once we got alongside and I saw the fact that he was grey and when he made that first effort to get the life sling and got pulled under and just let it go- "*

And:

*"**Q:** Right, so then the inferences I'm drawing are correct inferences, are they not, that you spent some time circling around him, trying to get a life sling for him to grab?*
A: *As per the instructions when you're picking up a water skier. That's the method that you use and that's the method that we were using.*
Q*: And nobody at this stage had been directed by you to throw him any one of these vests?*
A*: That's true.*
Q*: No-one had been directed by you to hand out vests?*
A*: No.*
Q*: And neither you nor any other crew member has got into a vest?.*
A*: No, not at that stage.*
Q*: And when you go into the water, you are inadequately vested and that's a further cause of problems in the retrieval?*
A*: Yes."*

The family submitted:

"Ford was reminded that when he let go of the life sling he didn't ask anyone to throw in a second vest. When asked whether that was because he hadn't thought of it....he answered: `What I did say was go around and throw the sling to me again so – and give me plenty of slack so I've got time to try and put it over Lindsay's head.' And he conceded on the same page that when rescued by Horizon, he tied the knot around the line and it follows that at that point he still only had one arm through the vest and this was something that was difficult to do. He finally conceded....that if he had gone into the water with his PFD on properly it would have made it easier to have put the life sling properly around Dack..."

And when:

"Ford was asked as to the decision not to throw a life vest into the water whether it was difficult to put one on in the water – see T/289 L/28 et seq - he said you have to do that with the current survival certificate and its not easy."

The family pointed to the fact that the answers *"assume that the life vest would only be of value to Dack had he worn it when they returned to where he was."* Whereas *"if thrown to him he would only have had to have held on to it to have had considerable flotation assistance and have been less likely to have drowned."*

Mr. Ian Salmon, Builder and crew member of the *`Spirit of Downunder'*, checked the weather on Internet. He gave evidence that training could not prepare for actual event. The conditions they enjoyed during the race, and shortly prior to the incident *"would not call for donning of PFD's."* He also said that an individual would *"have to anticipate significant risk to self before donning*

PFD....wind conditions and high sea conditions required". At the time he *"didn't feel in grave danger even after first knockdown..."* even though he been *"thrown across the boat ..."* Salmon stated:

> *"Lindsay, Lawrie and myself could see some frontal cloud to the north and it was agreed we should lower the spinnaker. At that stage I was on the port side helm and saw crew members moving into position to make the change. As the change was taking place we were hit by an unexpected gust of wind and experienced what is known as a round-up or knockdown to the starboard side. I could not maintain my footing and was unable to hold the port side helm any longer when water washed over the side. I subsequently fell to the starboard side of the cockpit and collided with the starboard side steering station. The impact caused damage to the steering system as both stations are inter-connected. On returning to the port side helm I had considerable difficulty in controlling the vessel because of the damage. I arranged for a crew member to free the starboard side wheel, which resulted in the return of some control and allowed us to continue sailing. At this stage Lindsay Dack decided to go forward to get the spinnaker down and walked along the port side to the bow. Lindsay grabbed the lazy sheet and walked to the leeward or starboard side. I was maintaining course with some difficulty when once again we were hit by another unexpected gust of wind. By then the spinnaker was partially collapsed however this gust re-filled it and we sustained another knockdown. This was not as severe as the first knockdown as I was able to retain my footing and remain at the helm. During the second knockdown I saw Keith Dickie being lifted off the deck by the filling spinnaker and thrown about 10 foot into the mainsail. Keith slid to the deck near the mast but appeared to be OK At this stage I could not see Lindsay Dack but heard at least one person, possibly two, call out `man overboard'..."*

Mr. Salmon gave evidence that the spinnaker dropped because of a looming front and the fact that the yacht was about to round a marker. Then there was *"an extraordinary gust"* and before this wind abating or staying fairly stable. The Spirit was about 12 miles ahead of field, *"leading the race"* and the crew were *"busy on board the boat."* Salmon effectively indicated that the crew were going out with expectation of sailing a race not with the expectation of someone being in the water.

Mr. Salmon indicated that one of the reasons the action was taken (to drop the spinnaker) was because of the approach of the frontal clouds. Records indicate that the wind speed was increasing from about 15.30 to 16.30 at various points (South Channel, Fawkner, Frankston, Moorabbin) to between 10 and 32 knots.[4]

It was suggested that the *"man overboard"* call on the boat was made at about 4pm when the actual *"Mayday"* call was made at 5.03pm. Mr. Salmon then described the lead up to the rescue. Apparently Dack was in the water *"at the back of the mainsail holding on to some ropes"* when he was swept overboard. He was wearing his wet weather gear. The boat was travelling at about 6 to 8 knots. Salmon estimated that the time between the entry to the water and the Mayday call was about one hour. He said that he made the May Day call because he felt that he could not rescue either Dack or Ford at that stage (after the attempt the pull them both on board). In the past Ford instructed crew that a Mayday call was to be made when there was no chance of self-recovery or external assistance was necessary.

Mr. Salmon gave evidence that about 10 minutes after Dack went into the water the spotter lost contact then another 15 minutes elapsed before Dack was seen again. The crew had a plot of where Dack was lost on the GPS. He noted that, a few minutes (fairly quickly) after Dack went overboard a lifebuoy was thrown but there was no certainty that Dack had reached it. At this stage Dack was out

[4] Exhibit C3

of sight, encumbered by wet weather gear (used for the rain) and the boat was continuing to sail away. There was no discussion about the "*Mayday*" until he (Salmon) instructed that the call was to be made. An other consideration would be the loss of steering control.

Mr. Salmon indicated that instruction was given to clear all lines (either Salmon or Ford gave the instruction). Once the sails were being lowered it took only a few minutes to regain control. At this stage there was no problem with the motor and the Spirit got back and circled around Dack's position three times trailing a life sling. Ford went in during the first circling manoeuvre. The fouling occurred after the third circling manoeuvre. It was then that the Mayday call was made. Salmon said that he *"knew that he (Dack) would not be able to hold on for very long."*

Significantly, Mr. Salmon said that there was no thought for harnesses after the knockdown. The knockdown was at about a 75-degree angle with the boom in water. Salmon, who was at the wheel, agreed that at this stage there should have been a requirement that the crew *"should have gone forward to lower spinnaker with harness on."* He was in the position to give the direction for the donning of harnesses (which were a combined harness and PFD). During this time there were steering difficulties and problems with keeping a course. Dack made his own decision to go forward and then the yacht was knocked down for a second time, this second knockdown was not as far as the first.

Mr. Salmon indicated that Dack could be described as the yacht's safety officer.

Mr. Brendan Lindsey, carpenter and crew member said that:

> *"The breeze was behind us at around 22 knots and we surfed along at about 14 knots towards Carrum No 2 in relatively calm water. When we were within approximately 2 miles of Carrum we went forward from the cockpit to pull the spinnaker down behind the main in preparation to round the mark. Within a few seconds Lindsay said something like `We've got to get it down right now.' I looked back on the water but couldn't see any irregularity however Lindsay obviously saw something".*

Then the foredeck crew ran forward, and:

> *"...When we took the jib down earlier and put up the spinnaker I placed the halyard under the pulpit to prevent the jib from sliding up. I put the halyard right way round so the jib would slide up properly. By then Keith and Troy were on the leeward rail and Lindsay was on his way back with the lazy sheet which enables us to pull in the back corner. Just as I reached the mast the vessel was knocked down on its starboard side without warning."*

Then when Mr. Lindsey looked around:

> *"...Keith was laying in the life line, Troy...was in the life lines and both Ian and Lawrie were thrown to the starboard side. Ian actually struck the starboard steering station on his way down. For a while I could not see Lindsay but found him laying in the life lines virtually under my feet. Seconds later...the vessel righted itself and in the meantime we had lost the lazy sheet. Lindsay set about re-gathering the lazy shed whilst Keith and I were told to drop the main."*

Mr. Lindsey also described the lead up and loss of Dack overboard:

"We went to the mast but could not get the main down because it was full of wind. That idea was abandoned and both Lindsay and I made our way towards the foredeck along the port side. We were both pulling on the lazy sheet when he said `Don't pull it anymore because we are pulling it back into the wind.' At that point the sail then collapsed and Lindsay said to let it go. I don't know what happened but in that instant the sail Lindsay was holding suddenly filled and threw him off the deck as though he had been shot out of a cannon. About the same time Keith was caught by a rope and thrown almost halfway up the mainsail. By then I was on the port side holding onto the lifelines. As the boat started to right itself I regained my footing and ran towards the cockpit shouting `man overboard'. "

Mr. Lindsey also indicated that there was a problem:

"At this stage there was a further problem because the boom had dropped down across all the halyards which they needed to let go. The sails started to fill once again and we picked up speed to about 6 or 8 knots...."

Mr. Lindsey then observed Dack in the water:

".... hanging onto either sheets or the spinnaker. About the same time Peter Dimedio threw the life ring towards Lindsay who .was just off the starboard quarter. Lindsay kept getting dragged under the water and eventually let go. He appeared to be treading water quite comfortably. In the meantime Peter went below and hit the man overboard button. This was a requirement Lawrie Ford insisted upon when everyone first joined his vessel. The boat was basically out of control because of damage to the starboard steering station and the crew was still trying to tidy up sails. I continued to watch Lindsay whilst the main was lowered and the torn spinnaker pulled aboard. In the meantime I lost sight of Lindsay and reported this to Ian."

Mr. Lindsey then described part of the attempted rescue:

"Eventually we changed course to that recorded on the GPS and motored back in the direction of where I last saw Lindsay. A short while later I saw Lindsay again and as we got closer I could hear Lindsay call out `I'm in trouble. I'm in trouble'. Ian sailed a course around Lindsay who by then had removed his wet weather jacket. He eventually he caught hold of the life sling. At that point I was holding the other end and commenced to haul him in. At some stage the motor stalled and we suspected it may have been fouled by a spinnaker sheet or jacket. As Lindsay slowly approached the boat wave crests kept washing over him and I assume he was taking in a fair amount of water. Lindsay finally let go of the rope and continued to float..."

Mr. Lindsey said that at about this time it was obvious that Dack was in serious trouble and the skipper, Ford, donned a vest and went into the water to help him. He reached Dack fairly quickly and gave him support before taking hold of the lifeline. The line was pulled in and both individuals in the water were within about 2 meters of the boat *"when Lawrie could not hold any longer."* The boat then continued to move away from Ford and Dack, as it had no power.

Mr. Lindsey did not think the conditions after the first and second knockdowns provided *"time to put"* on *"harnesses"* as they were *"flat out"* dealing with the sails. He kept lookout to watch after Dack but *"didn't think it was that dangerous"*. Apparently the *"life sling blew back towards the boat when it was thrown out"* and the *"horseshoe life ring also came back towards the boat."* No one told the crew that a lifebuoy and mast (Jon Buoy) was to be thrown to Dack. Lindsay noted the Ford's vest was *"only partially on and inflated when he hit the water"* and that the *"rope shortened as boat*

when up on a wave." At this stage no one advised the crew that *"when you get them close slack is necessary....."*.

Mr. Lindsey noted that throwing something tied to the yacht was not satisfactory – when the yacht is pulling away. Anything thrown over (including lifebuoy) would be blown back into the boat. He considered that a crash stop would have been risky. Lindsey received no instructions on the Jon Buoy (although he knew it was a flag) but did not know it was to be attached to lifebuoy. He was not aware of the fundamental rules in the "*Blue Book*." Lindsey noted that he had experienced knockdowns before and that in 10 years of sailing he had seen one or two knockdowns, all in the open sea. Lindsey noted that, in Dack's incident, there was *"no opportunity to put harness on between the two knock downs*" as the crew were concentrating on recovering of the sails.

Mr. Peter Dimedio, Optician and crew member of the *`Spirit of Downunder'* stated that when he joined as a member of the crew, Ford showed him where the important items of equipment were stowed and took him through the buoyancy vest/harness procedure. He noted that Ford required crew to wear PFD's during hours of darkness. He noted as part of the pre-race preparations life jackets were places on the *"starboard side bunk next to the communication panel and harnesses were laid on the port side bunk."*

Mr. Dimedio also stated:

> *"There were no hard and fast riles regarding the use of lifejackets with the exception it was compulsory to wear one when on deck during darkness. The lifejackets, harasses, etc were available to any crew member whenever they felt the need to wear one."*

Mr. Dimedio described the lead up to the incident thus:

> *"Ian (Rothwell) suggested we put up the kite which we did and continued on at good speed reaching about 18 knots on our way to the buoy off Carrum. With about two or three miles to the next marker we were aware of some heavy dark clouds to the south and directly behind us. At that stage most of the crew were towards the stern of the vessel as the bow was digging into the water. The vessel was well under control, Lindsay seemed to have a sixth sense about weather and told me in the presence of other crew members that we should get the kite down quickly."*

And within:

> *"twenty or thirty seconds there was quite roundup and knockdown to our starboard side. All crew members fell to the starboard side except myself as I was holding onto a winch."*

It was at this time the helm pillar was damaged. Then most of the crew were waist deep in water and the sails were "*flogging*". Mr. Dimedio described how Dack went overboard. He:

> *"saw Lindsay Dack crawl towards the bow and take hold of the kite sheet In the meantime I was attempting to regain control of the mainsail on the port side. Only a short time later we rounded up again and I noticed Lindsay still had the kite sheet in his hand. We recovered slightly however the kite suddenly filled with wind and flung Lindsay overboard on the starboard side underneath*

the main. I did not see Lindsay strike anything during the incident and knew he was still conscious because I heard him call for help. I also noted he was Holding onto sheets which were trailing in the water. I noted the sheets were not wrapped around him however he could only hold on for a short time. I estimate our speed was still between four and five knots. By then we had no steerage, the kite had blown away and the main was flogging...."

Mr. Dimedio then described the procedures undertaken by the crew:

"Moments after Lindsay was thrown overboard we immediately moved into man overboard procedures. A life sling was thrown out the back of the boat however the strong wind meant it did not reach Lindsay. Brendon Lindsey was assigned to keep watch over Lindsay whilst I ran down stairs and pressed the man overboard button on the GPS."

And:

"We were fearful one of the trailing ropes could foul the propeller so I assisted Ian Rothwell to pull the kite back on board. I seem to recall the motor was already running to charge onboard batteries which we used to run the laptop computer and other equipment. Whilst Ian and myself were pulling in the kite other crew members were keeping the boom away from the broken starboard side wheel so that Ian Salmon had some steerage. In due course we got the main down and were able to get it secured. By then we were under motive power and the vessel was turned around in an endeavour to locate Lindsay."

However, Mr. Dimedio related that unfortunately *"Brendon Lindsey had lost sight of Lindsay Dack so we back tracked along the course recorded on the GPS."* Dimedio noted that for *"a very short period"* they *"followed an incorrect course before the mistake was rectified."* They then regained sight of Dack and headed directly towards him. Dimedio estimated that, by then, 15 to 20 minutes had elapsed since Dack entered the water. He noted that by this time Dack was exhausted. He says that he then went below and made the May Day call. When he returned he saw Ford putting on his life vest and then jump into the water. According to Dimedio he was also in contact with *`Horizon Sprint'* over the radio.

Mr. Dimedio also noted:

"What happened to Lindsay could have happened to anyone in the same position. The incident was probably more a freak of nature and part of the risk involved in ocean racing. Since Lindsay's passing we have all been reviewing and reassessing our safety on board boats and the use of life jackets."

The rescue by `Horizon Sprint'

Mr. Francis Hammond, Sail Maker and skipper of *`Horizon Sprint'* stated that his yacht rounded the mark in third place behind *`Spirit of Downunder'* and *`Ecstasy'*. The *`Spirit of Downunder'* was some distance ahead, and on approaching the next mark of the course (was Carrum No 2 beacon) Hammond: *"noticed `Spirit of Downunder' was sailing under headsail only."* He then radioed to *`Spirit of Downunder'* to:

"enquire if they were in any difficulty or needed assistance. We did not get a reply. We noticed in the water approximately 100 metres (he noted during the inquest that this was closer to 200 metres) to our port side a person wearing a bright orange inflatable lifejacket."

`Horizon Sprint' then immediately rounded up alongside the individual who Mr. Hammond recognised as Laurie Ford. Hammond stated:

"We noticed that he was holding another person who was in a state of unconsciousness. We threw a line to Laurie who tied the rope around the other person. We hauled this person and lifted him on board and immediately commenced mouth to mouth resuscitation and CPR. We could not detect any pulse but continued attempted resuscitation for approximately 15 minutes until a Police Officer arrived by Helicopter and was lowered onto the boat.

We continued resuscitation for probably another ten minutes until the police officer advised that the person was deceased. We made radio contact with the police vessel and we where taken in tow to Sandringham Yacht Club."

Mr. Hammond first noticed a bright orange object in the water and he then noticed the individual had one arm through the jacket. He considered that the time was about 4 to 4.30pm. On coming close to the men in the water Hammond dropped the anchor. He did not want the propellor causing problems and his experience is *"the last thing you want to be doing is trying (sic) to be separated from the connection you've made"* so he called for the anchor.

Mr. Hammond considered that the weather was pretty good. He described it as *"champagne sailing."* He considered that it *"was strong"* but *"wasn't the sort of survival conditions or anything like that..."* He noted that the weather had abated and had *"no worry or concern about the conditions.... "* At the time he first saw the Spirit he did not notice anything unusual about weather. The wind speed was 20-25 knots and `Horizon Sprint' was sailing under mainsail, and had just dropped the spinnaker. Hammond noted a wind speed of about 25-26 knots (and up to 30) with a couple of gusts. He noted that it was not a big sea with wave heights of about a metre.

Mr. Hammond was not monitoring channel 16 during the race. He would not have crew listening to the radio during the race (but the radio was on). He did not hear the May Day. Hammond noted:

*"**Coroner:** With your radio, would you have (sic - hear) it if it came on?*
***A:** If we had been listening to it. What we would normally do is we'd either turn the radio right off or we turn it down so you don't get interference of chatter on the radio in a, sort of which takes off your game plan."*

Mr. Hammond did not consider that the weather conditions necessitated abandonment of the race at any time during the day. He considered that the race management by the Squadron was *"adequate."*

Since the Dack incident, Mr. Hammond had sailed in other major races and the radio was turned off after preliminary checking procedures. He acknowledged that this would mean that May Day calls from other vessels would be missed. On weather change information coming through the radio Hammond said *"we would probably have a better idea of change in the weather conditions than the people giving us the weather report."*

Mr. Hammond noted that no member of his crew was wearing a harness (although he wore an inflatable life jacket under his clothing).[5] He normally gave *"a couple of puffs"* into his lifejacket so as to reduce the risk of injury as a result of falls on deck. Hammond now wears a lifejacket at all times (he used to wear the jacket about 90 percent of the time). Now:

> *"...its probably more important. And I have no qualms in - I don't think there's anything wrong with people wearing life jackets. Or comfortable aids to buoyancy, not necessarily a life jacket but some form of aid to buoyancy. My attitude has changed.*
> ***Q:** Why?*
> ***A:** Because I've seen a man who, in probably the best part of his life, the most exiting part of his life, die.*
> ***Q:** How do you think that message could go through to the rest of the yachting community, Mr. Hammond?*
> ***A:** I think, I don't think it only yachting."*

Then other areas such as recreational boating, commercial fishing and rock fishing were discussed. Mr. Hammond noted that in off the beach sailing *"when your sailing in a boat where the expectation is likely that you may tip the boat over, off the beach dingy racing, it is mandatory that you wear a buoyancy vest."* Mr. Hammond also regarded the wearing of a PFD as *"stock standard normal"* practice *"like putting on a seat belt in the car."* He had been *"brought up that's the normal thing to do"* as he had been sailing dinghies since he was eight. Hammond said:

> *"Now I'm sure there are a number of people who think that because they're on a bigger boat and it's got a fence around it and there's all this other stuff they don't need to wear it. I think that's poppycock..."*

Strangely, as skipper, Mr. Hammond would still not insist that his crew donned PFD's as a matter of normal practice as he considered that it was a matter of individual choice.

Mr. Hammond remarked that with ocean races all the crew get together and discuss tactics and safety issues. He stated that with bay races man overboard procedures would not normally be discussed on a regular basis. Hammond had not practiced man overboard procedures with his crew as *"he didn't think it would be necessary."* Although appearing to be aware of man overboard procedures Hammond did not *"know what the blue book says"* on this issue. There was some discussion of the *"quick stop"* method of recovery which Hammond said was a very *"American thing"* to do.

Mr. Hammond commented on the testing incident and skill of Ford's crew:

> *"I think in this particular incident I think when you take - all the things happening, as they - as the word say, when it hits the fan it all seems to land in one spot, doesn't it and you couldn't have more shit hitting the fan when this incident happened, and I think anybody regardless of their skill or experience or those things, just a number of things just going on top of each other, they would make it very difficult to come back and to sail back alongside a boat and stop alongside."*

The evidence by one of the yachting community's experts

[5] Note: PFD's should be worn outside clothing.

Mr. Anthony Mooney, who had an extensive *"Curriculum Vitae"* relating to yachting and safety (including Technical Manager of the AYF, Experienced Yachtsman, Sport's Judge and member of Standards Australia Committee on Personal Floatation Devices, Harnesses, etc.) gave evidence on the technical aspects of safety. He indicated, for the purpose of this inquest that *"For categories 1 to 4 races, the PFD must comply with AS1512 as a minimum `or an equivalent or more stringent overseas standard and shall be branded with their mark of approval' for category 5-7 races, a lesser standard (AS1499 or AS2260) is acceptable."* A safety harness and line is also required for each member of the crew. Mooney set our the reasons why the *"AYF special regulations do not provide for the mandatory wearing of these devices."* The reasons are:

> *"i. Both the ORC/ISAF and AYF special regulations emphasise the responsibility of the owner or owner's representative (see reg. 1.2 which refers to the safety of the boat and the crew "is the sole and inescapable responsibility of the owner").*
>
> *ii. It is considered that the owner/skipper of the boat is in the best possible position to determine whether or not the devices should be worn.*
>
> *iii. The imposition of a mandatory regulation requiring these devices would seem unnecessary in many racing conditions, for example, flat protected water.*
>
> *iv. There has been no submission or recommendation made to the ORC/1SAF or the AYF to mandate the wearing of these devices. The number of unfortunate deaths either in Australia or elsewhere resulting from such races is very small relative to the number of participants (see for example review by Marine and Safety Tasmania of coronial inquiries in Tasmania between 1987 and 1999. Most accidents occurred in small vessels typically 3-5 metres in length, most are in runabouts and dinghies. 10 of the 46 were wearing PFD's at the time)."*

Mr. Mooney also noted that the *"ORC/ISAF and AYF regulations include an appendix on man overboard procedures for the guidance of competitors."* He stated that this was *"not the only means of achieving recovery of a man overboard but is one means that has proven to be successful."* Mooney also stated that:

> *"It is clear from the statements of crew members upon `Spirit of Downunder' that regrettably the boat was unable to effect a man overboard recovery. This may be due to a number of factors including the crew momentarily losing sight of the deceased, damage to the steering system or a tangle of spinnaker sheets in the propeller of the yacht."*

On radio procedures Mr. Mooney indicated that the Sailing Instructions (Cl. 16) are as follows:

> *"16.1 Yachts will be required to respond to routine schedules (skeds) on VHF channel 73 as detailed on appendix B. A pre-race sked will be conducted at 10.05 hours on Tuesday 26th December to ascertain the status of starters. Any yacht that does not respond to a call on the sked will be deemed not to be a starter, and score DNC.*
>
> *16.2 A yacht shall not request or receive radio transmissions (including mobile phones) which are not available to all boats during the race.*
>
> *16.3 Coast guard will monitor VHF channel 73. Initial calls should be made on channel 16."*

Mr. Mooney noted that the skeds:

> *"would normally be for the purpose of advising the position of the boats for safety reasons, or to advise the media or other interested persons. The club had further arranged for the coast guard to monitor this channel after first making contact on channel 16. I understand that a coast guard representative was at the race briefing held some days before the commencement of the race. In these circumstances, it would not be necessary for the club or competitors to monitor the radio outside the sked times provided in the sailing instructions."*

Mr. Mooney also indicated that:

> *"A boat participating in the race cannot request or receive private transmissions while racing and this includes transmissions with the host club or race officials. It is common for experienced sailors including myself to turn the radio off during competition other than at scheduled times as it is a constant disruption to concentration."*

On the issue of weather Mr. Mooney said:

> *"Weather information plays an important part of sailboat racing both from a tactical point of view as well as safety and to this end, there are a number of sources from which a sailor can obtain that information. There are regular radio transmissions including HF an VHF as well as commercial AM and FM radio stations, facsimile transmissions and the internet. Any or all of these facilities can assist a boat's performance as well as assisting the owner or owner's representative to determine his responsibility under RRS Fundamental Rule 4."*

Mr. Mooney did not believe that, *"in a race of the type we are dealing with in this instant namely a race on protected water, regular or indeed any weather information should be disseminated by the race officials."* He stated that:

> *"There is a strong body of opinion that it is the competitors themselves that must appraise themselves of the weather save in exceptional circumstances and that regular information concerning weather should not be provided by race officials."*

And:

> *"From my observations of the weather information available before and at the time of the race, namely winds of between 20 and 30 knots, I would feel quite comfortable in starting and continuing to race in the conditions. Furthermore, given the category of the race and yachts involved, 1 do not believe the race officials would be expected to abandon the race in these conditions."*

Mr. Mooney noted that there was no system to record the number of times that yachtsmen/women fell overboard and were successfully rescued.

In relation to the timing of the May Day call Mr. Mooney indicated that if he had lost sight of a man overboard for 15 minutes he would be getting a *"bit toey."* He noted, in response to questions from the Coroner:

*"**Coroner:** Once you're overboard, it's the too late factor. You're relying on others to be successful and well trained and competent enough to be able to rescue you?*
***A:** Yes.*
***Q:** You need to go the next step and hoping that things won't go wrong in that rescue process?*
***A:** M'mm..... "*

Mr. Mooney noted the difficulty in providing for a PFD system that applies to all weather and the various yachting conditions. He said:

"We as a national authority and then international authority are addressing a wide range of circumstances, a wide range of events and a wide range of geographical considerations. For example there's obviously a considerable difference between what you would do in Hobart to what you would do in Darwin. The issue of compulsory wearing of either PFD's or of safety harnesses has on the odd occasion been addressed, but again it's been - looking at it on a national basis people keep saying well show us the statistics as to where that should come from. In addition to that you would normally, for example, in the Royal Ocean racing Club in the United Kingdom they have a requirement that harnesses and PFD's be worn whenever one wears - times there wet weather gear. This club conducts only ocean races. So it's only, if you like in our terms, categories one through four. And in the UK it's fairly customary I believe to be wearing wet weather gear even in the middle of summer mainly from a rain point of view than not necessarily a sea condition point of view. That's not quite the case in this country and I would think PFD's or harnesses compulsory on a bright sunny day of thirty odd degrees with very little breeze around could be an encumbrance rather than assistance. You've made mention during the course of the hearing with relation to the bum bag process and principle. My understanding is that the Australian Standards Association has not awarded the standard stamp to any such device and that may be something you might like to look at in your recommendations and maybe you could recommend to the Australian Standards Association that they look at that."

During evidence Mr. Mooney agreed that Dack's death was preventable.

The evidence of a Water Police Officer

Senior Constable Richard Barton from the Water Police, who also undertook the investigation for the Coroner, stated that the entry for the Mayday call to Melbourne Radio from *`Spirit of Downunder'* 1703. He noted that at 1706 the message was received by the Rescue Co-ordination Centre at the Water Police. At 1708 Rescue Co-ordination tasked Marine Rescue and at 1709 the Police Air Wing.

Senior Constable Barton, who also had been a sailor for about 30 years, was of the view:

"Under the Marine Act the carrying of a PFD type 1 on board for each person is mandatory. In my opinion it should be considered that whilst moving out of a enclosed area of a cockpit the wearing of a PFD or use of a harness should be made mandatory. This would in the first instance offer the victim buoyancy if fallen overboard. If in the second instance, the victim had been wearing a harness and harness line the victim would had been over the side but still attached to the vessel. The crew would then, possibly been able to retrieve the victim."

Senior Constable Barton stated that the Police practice "*man overboard*" procedures once a month and PFD's are worn at all times while working.

Senior Constable Barton commented on ***"Race Controller Responsibility in the event of deteriorating weather."*** He stated that the:

> *"race controller via VHF radio contact with vessels could instigate a direction to all vessels to show prudent seamanship. This could be in the way of a warning/direction to wear PFD's or Harnesses or both. The code flag Y covers such instances however, as said it is a flag and it would be impossible to convey this visual information to a fleet of spread out vessels."*

A potential solution to the problem raised by Senior Constable Barton is covered in the Recommendations and Comments to this finding under the sub-heading ***"Radio management by yachtsmen - weather and safety information."***

Senior Constable Barton also had concerns over the shut down of Melbourne Radio (from a safety point of view). He stated that:

> *"The proposed closing down of Melbourne Radio raises a serious concern in such future incidents. Melbourne Radio plays a vital role in listening and relaying distress call from vessels. The professionalism displayed by Melbourne Radio is second to none and in my opinion if this service is withdrawn the possibility of loss of life exists."*

Submissions

There were extensive submissions on the facts delivered on behalf of Mr. Dack's family. Submissions were also received from the Royal Melbourne Yacht Squadron and Mr. Laurie Ford, the skipper of *`Spirit of Downunder'* which were on both the applicable law and the facts. As the various submissions have been useful in determining how Dack died, for the point of completeness, parts of these documents are included in this finding and referred to below (the submissions are also generally used throughout the document). Separate submissions in reply were also filed by counsel for the Royal Melbourne Yacht Squadron and Ford respectively.

The applicable law

Counsel for Mr. Ford and the Royal Melbourne Yacht Squadron both made submissions on the law applicable in the inquest process.

Mr. Ford's counsel submitted that the Coroner:

> *"is required, if possible, to make findings pursuant to section 19(1)(a) to (d) of the Coroner's Act 1985 and may pursuant to 19(2) of the Act `comment on any matter connected with the death including public health or safety or the administration of justice'."*

Counsel submitted that the standard of proof required is the civil standard, *"on the balance of probabilities"* and noted that the Victorian Supreme Court in *Anderson v Blashki* (1993) 2 VR 89 at 95 accepted that the Coroner may *"consider personal reputations and sensitivities in fulfilling its statutory duty."* Counsel said that, accordingly, the Coroner *"should consider Mr. Laurie Ford's considerable experience in sailing, his demonstrated attitude towards the safety of his crew and his impeccable character, before finding that there is no reasonable evidence to support a finding that he or any member of his crew contributed in any way to the death of Mr. Dack."* The Squadron's

counsel agreed as to the applicable law (referring to *Anderson v. Blashki*) and also reiterated that the *"court can consider personal reputation and sensitivity in fulfilling its statutory duty"* and argued on behalf of the Squadron, that there *"is no reasonable evidence to support a finding that it or any member of the Squadron contributed to the death."*

It is noted that as from 1st July 1999, with an amendment to the Coroners Act 1985, a Coroner is no longer statutorily required to find the identity of any person who *"contributed to"* the death. Whilst arguably a Coroner could still find that a person "*contributed to*" the death, in the practical sense the issue is really as to whether the person's act or omission caused the death.

Submissions on the facts

Considerable helpful detail was provided in all of the submissions. As indicated, parts of the various submissions are detailed here as a matter of information.

Submissions for the Dack family

As the submission on the facts for the family was 124 pages long it is useful to repeat the summary points. The family say, in summary:

"A. We submit the Coroner ought be satisfied that the May Day call was made at 17.03. The suggestion by Burns on behalf of Ford that an earlier call was made is now apparently abandoned, and certainly, there is no evidence of it. The sole factual basis for this suggestion was in an entry in the Melbourne Yacht Squadron Race Log. The entry was incorrect. Peter Dimedio, who sent the May Day call, accepted that the call was at this time. See T/560.

B. That had the May Day call been made earlier, Dack would not have drowned.

C. In all the circumstances, it was unreasonable to have made the call so late. By then Dack had then been in the water for approximately an hour. From the time he went overboard there was difficulty controlling the `Spirit of Downunder' (hereinafter called "Spirit"). For a significant time `Spirit' lost sight of Dack.

D. (i)Had the prop not been fouled the death probably would not have occurred. The prop was fouled with a line which had come from the destroyed spinnaker on Spirit. Reasonable seamanship would have ensured that this line was not in the water.

(ii)Its presence there was in part due to the mayhem and confusion on board the Spirit after Dack went overboard. This panic and confusion would have been considerably lessened had the crew practised `man overboard' procedures and had there been a settled `man overboard' protocol.

E. When the Spirit eventually made its way back to where Dack was in the water, and he was able, just before Ford went into the water, to take hold of the life line, he was alive and capable with good seamanship of having been hauled sufficiently close to the Spirit to have been brought on board. Proper training in `man overboard' procedure would have increased the chance that this would have occurred.

F. Although Spirit was then under motor power and therefore able to manoeuvre close to Dack, he was not thrown any buoyancy device and his retrieval was ineffective because he was dragged behind Spirit at such a speed that he was submerged. He was then separated from the life line to Spirit because those hauling him in failed to allow for the obvious fact that Spirit and Dack would each rise and fall with the waves. They would not, however, do so in a synchronised or predictable manner. In this circumstance, the closer Dack came to Spirit, the more critical it was to allow for this movement when hauling him in.

G. Horizon dropped its anchor to pick up Ford and Dack. Dack would have almost certainly been recovered alive had Spirit taken this simple and obvious step. The anchor should have been dropped when Spirit first returned to Dack. At this time, it had not fouled its prop. Dack was then alive.

H. The weather before the first knockdown suffered by the Spirit was as described by Mr. Tardu, a witness from whom a statement was obtained, and as shown in Exhibit C1, the summary of the weather from the relevant stations. In these circumstances the skipper of the Spirit ought have required that crew members involved in hauling down the spinnaker should be equipped with at least a webbing harness attached to the jack stays. It would have been preferable to have worn a PFD with a built in harness which was attached to the jack stays.

I. The likelihood that sight was lost of the man overboard would have been significantly lessened had the Dan Buoy been deployed. Ford believed that had the crew of Spirit followed his `man overboard' protocol, this would have occurred.

J. Any Dan Buoy deployed ought have attached to it a life-ring. Given that such a life-ring was equipped with a drogue, the chances that Dack would have made his way to that life-ring and been supported and survived were significantly better than his chances of surviving absent any flotation device.

K. Immediately after Dack went overboard he ought have been thrown a flotation device such as a PFD, life ring or even a cushion. This could have been done whilst he was vainly attempting to hold on to the trailing spinnaker, or the lines attached to it, before he was finally detached from this precarious connection with Spirit.

L. When Spirit returned to Dack, he should have been urgently supplied with some form of floatation device, e.g. a life buoy, PFD, cushion etc.

M. The Race Organisers ought have required that at least an attached harness be worn by crew members on deck and out of the cockpit.

N. The Race Organisers ought have mandated that Skippers and Crews of competing yachts had relevant knowledge of, and appropriate practice in, `man overboard' procedures, just as the organisers checked whether each yacht was equipped with the safety gear which was appropriate for the category of race."

Much of the detail in the submissions of family is also referred to throughout this finding.

Ford's submissions

Ford's submissions

On the facts, Mr. Ford's counsel submitted:

"In the course of the race `Spirit' rounded the West Channel Pile at about 1520 hours (from the race log of `Spirit'). The wind at this point was of a strength of approximately 24-26 knots. (See the statements and evidence of Messer's Salmon and Ford.)

The deceased was a fit man and a competent swimmer. On this day he was wearing wet weather gear including sea boots. He was not wearing a PFD or harness albeit that both were provided for him and laid out in the cabin of Spirit for immediate use."

And explained the incident, in which Mr. Dack went overboard thus:

"At a position of approximately two nautical miles from the Number 2 Carrum Foul Buoy, which was the next mark of the course, the decision was made to drop the spinnaker. This was a task that was to be performed in readiness for the rounding of the Number 2 Carrum Foul Buoy. It was, however, done with a sense of urgency in this case, largely because the deceased, who was said to have extremely good weather sense, said that he "smelt" a change in the weather coming.

As the deceased went forward, the Spirit was hit by a sudden and unexpected severe gust of wind. This was described by Mr. Ford as a "microburst". A magazine article was tended to the court, which described this phenomenon and supported this view. This microburst caused a sudden and severe knockdown of Spirit. In the course of this knock down, the starboard steering pedestal was broken as Ian Salmon, the helmsman at the time, lost his grip of the port steering wheel and his footing and fell into the starboard steering station and broke the column at the point where it was fitted to the base.

Approximately 30 - 50 seconds later, a second severe gust of wind hit the Spirit. This caused a second knockdown. At this point the deceased was swept from the fore deck into the water."

Counsel for Mr. Ford submitted that, then:

"Mr. Brendon Lyndsey, another foredeck crewman, immediately called "man overboard". As per the training and instruction previously given by Mr. Ford, Mr. Lindsey immediately became the "spotter". He then moved to the stem of the yacht and did his best to maintain observation of the deceased. Mr. Peter Dimedio then endeavoured to throw the "Lifesling" overboard but the wind strength kept blowing it back. He then immediately went below and activated the G.P.S. "man overboard" button to record the location in which the deceased went into the water. Mr. Dimedio was aware of this facility because he'd been specifically shown and trained how to activate this alarm by Mr. Ford.

Both the life sling with a line attached and a life buoy were deployed immediately. Dimedio gave evidence that it was he who had deployed the life sling. It is unclear who deployed the lifebuoy, but it was most likely either Mr. Lyndsey or Mr. Dimedio as both were at the stem at this time. The lifebuoy was found on the beach several days later, and returned to the Royal Melbourne Yacht Squadron who ultimately returned it to Mr. Ford."

As to the ***"timing of the knockdowns"***, Mr. Ford's counsel submitted:

"The time of the first and second knockdowns is not clear. Mr. Ford put the time as being 1615 hours. Mr. Salmon had deposed to it being at around 1645 hours. During his evidence he changed this to 1615 hours. Mr. Dimedio did not agree with this time and was firm that the deceased went over board at around 1645 hrs."

It was argued that then the *`Spirit'* was:

"The Spirit was blown some distance as it dropped and recovered the spinnaker and then lowered the mainsail and lashed it to the boom. Whilst this was being done efforts were made to fix the starboard steering station to an upright position so the steering could again be used. As soon as this was achieved Spirit was able to return to pick up Mr. Dack. Mr. Ford suggested that the distance traveled before this turnaround was 0.3 of a nautical mile.

Initially after turning around, Spirit traveled back towards Mr. Dack on a tangent to his actual position. This was corrected shortly after by reference to the GPS location as activated by Dimedio."

Counsel submitted that by this time the *"deceased had been unsighted for a period of time"* and that:

"Dimedio puts this at no more than fifteen minutes and when Mr. Dack was first sighted Mr. Dimedio was surprised how quickly the deceased's condition had deteriorated. Mr. Dack was located alive, but in some distress. He appeared grey in complexion and frothing at the mouth and called words to the effect "Help me, I'm done". Spirit encircled the deceased trailing a life sling as per the method endorsed within Appendix B of the 1997-2000 RRS. (The Blue Book).

Mr. Dack was able to grab the rope attached to the life sling but unfortunately did not appear to have the strength to hold on whilst he was pulled back towards the boat. It was apparent that he was close to being unable to help himself and was probably nearing unconsciousness."

Counsel noted that when *"Mr. Ford first sighted Mr. Dack he said to Mr. Salmon that it was obvious Mr. Dack needed assistance and so he Mr. Ford, would go into the water to aid Mr. Dack's recovery."* The submission explained that:

"Mr. Ford stripped off his wet weather gear and grabbing a combined auto inflating life vest and harness dived overboard and swam to Mr. Dack. Mr. Ford was able to support Mr. Dack, but was somewhat hindered by the fact that he did not have time to correctly fit the life vest to himself and so had to use one arm to hold the life vest down so as to keep both their heads above the water.

Mr. Ford was able to grab the life sling and the crew of Spirit pulled them alongside, when a very large wave lifted Spirit's hull high and Mr. Ford found he could not hold onto the lifesling as well as Mr. Dack. He let go the lifesling and yelled at his crew to "go around and give me the life sling with plenty of slack so I have time to get it around Lindsay"....".

The submission went on to say *"regrettably, Spirit just drifted away due to the force of the wind on her hull and it was later found she had fouled her propellor with a line from the cockpit."*

Then the mayday call was made at 1703 hours by Mr. Dimedio:

"and was received by Melbourne Radio. At 1710 hours a Victorian Water Police Cougar catamaran motor launch VP03 was contacted and left St Kilda marina.

At 1713 hours the police air wing flight coordination centre was contacted. The helicopter was fueled and by 1718 hours it was airborne.

Shortly thereafter, the deceased and Mr. Ford were spotted in the water by the crew of `Horizon Sprint', skippered by Mr. Frank Hammond. Mr. Ford and the deceased were brought on board `Horizon Sprint'. CPR was administered immediately to Mr. Dack continuously until Constable Hardiman of the Water Police was lowered to `Horizon Sprint' and took control.

At 1729 the helicopter arrived over Horizon Sprint and at 1733 hours Constable Hardiman was lowered onto the yacht."

The submission for Mr. Ford said that is no evidence to suggest that a lack of ***"experience on the part of Mr. Ford or his crew"*** contributed in any way to the death of Mr. Dack. On the contrary:

"Mr. Ford had competed in numerous ocean races including the 1998 Sydney to Hobart. Mr. Dack was himself said to be the most experienced member of the Crew. He similarly had competed in numerous, Sydney/Hobart, Melbourne/Hobart races. Mr. Ian Salmon, the Helmsman at the time of the incident was also a very experienced yachtsman. These three in particular had over twenty years each in sailing experience. All others on board the Spirit that day had sailed on her under Mr. Ford's direction before. All had competed in ocean races aboard her, with all but Mr. Rothwell and Mr. Humphreys completing the Melbourne/ Stanley race across Bass Strait three months earlier."

The submission for Mr. Ford also drew attention to the issue of ***"Safety briefings and training"*** and stated that:

"Mr. Ford was said by all his crew to have a high regard for safety matters. Mr. Dimedio regarded him as the safest skipper he had sailed with or even heard of.

Mr. Frank Hammond, a former world champion yachtsman and Skipper of Horizon Sprint, had sailed with Mr. Ford on occasions prior to this race. He described his attitude towards safety and his reputation for same as being first class, second to none. All crewmembers had received safety briefings from Mr. Ford on voyages prior to this race. All were aware of the location and use of all safety equipment on board including PFD's, harnesses, life buoy, life sling, vessel float pack system and the Jon buoy. They did however believe that the Jon buoy was primarily a marking device and not a flotation device. Whilst this is the case it does utilize flotation.

Mr. Dimedio activated the GPS "man overboard" button because that was an instruction given to him on earlier occasions by Mr. Ford. Similarly, Brendon Lyndsey called "man overboard" and remained the "spotter" because this was an instruction he had received whilst sailing aboard Spirit on other occasions.

All the crew had received safety briefings and training on other occasions. Indeed it was because of Mr. Ford's previous directions that the "Man overboard" process was performed in what police and expert witnesses described as textbook fashion."

On ***"PFD's and Harnesses"*** Ford submitted:

"PFD's and harnesses were available on Spirit and exceeded the quality ordinarily required on a keelboat. These were laid out for the use of the crew on the bunks in the cabin of Spirit, with two vests hanging inside on hooks either side of the cabin -way entrance. Mr. Dack was not wearing either. The weight of evidence suggests he would be alive today if he was. Whilst this is a tragedy, it cannot be said that Mr. Dack's failure to wear either was caused by unavailability or lack of knowledge as to their location.

Mr. Ford did not require his crew to don PFD's or harnesses for this race at the time Mr. Dack went overboard. The evidence was that Mr. Ford's rule was that PFD's and harnesses were to be worn by the crew after sunset or when outside the heads. (Ocean races). This is common practice and there is no evidence to suggest that any skipper in the race that day directed his crew to don PFD's and harnesses. Indeed the Coroner's finding after the fateful 1998 Sydney / Hobart yacht

race did not recommend that the wearing of PFD's and Harnesses become mandatory. Further the relevant RRS did not require this as a mandatory instruction. Similarly Britain's leading offshore event organiser, the Royal Ocean Racing Club whose rules the A YF use in formulating their RRS, whilst recently tightening their rules in relation to PFD's have still stopped short of requiring their use at all times on deck."

Submissions for Mr. Ford on ***"the timing of the man overboard"***, are as follows:

"The time that the deceased went into the water is critical and somewhat ambiguous. Mr. Dimedio was firm that it was around 1645 hours. Mr. Salmon had deposed to this but changed his evidence to around 1615. The Log of "Spirit" is in evidence. It shows that Spirit rounded the West Channel Pile at 1520 hours. The distance of this leg of the race to the next mark of the course, the Carrum Number 2 Foul Buoy is 17.4 nautical miles long. The deceased went overboard approximately 1.6 nautical miles from the Carrum No.2 buoy. Spirit could not have arrived at that position in only one hour since rounding the West Channel Pile. This would require an average speed of 15.8 knots along that leg of the race, which would require Spirit to have attained much higher speeds to achieve this average, which clearly they did not.

The statements of Mr. Ford and Mr. Salmon indicate that the wind speed abated to 22 knots for approximately half an hour after passing the West Channel Pile and Mr. Ford's statement indicates that Spirit sailed for about a half-hour before they hoisted the fractional (smaller) spinnaker. Mr. Salmon's statement indicates that they continued for approximately ten minutes before deciding on their next action. Mr. Lyndsey's statement indicates it was approximately 15 minutes before they decided to put up the fractional spinnaker. Accepting it was somewhere between 15 minutes and 30 minutes before the fractional spinnaker was hoisted it is reasonable to assume the yacht's boat speed was considerably less than the speed of 14 knots reached when they were surfing as estimated by Mr. Lyndsey. (See his statement on page 3 at paragraph 8)

If a yacht reaches a certain speed during surfing under spinnaker then it is reasonable to assume it's average speed would be somewhat less as the yacht runs into the wave in front of the one it is surfing on and consequently is slowed considerably. It then has to wait for the next wave to try and catch, and this relies to a great degree on the skill of the helmsman and crew.

If we assume an average speed for the first 15 minutes (using a worst case scenario) of 8-9 knots when under mainsail and jib this would mean 2 nautical miles of the course leg had been sailed leaving a distance of 13.8 miles to the MOB point.

If we then assume an average speed of 12 knots this would put Spirit at the MOB point at 1644 hours.

West Channel Pile at 1520 hours plus 15 minutes is 1535 hours - spinnaker is hoisted - and 13.8 nautical miles at average speed of 12 knots is 69 minutes making the arrival time at the MOB point of 1644 hours.

Accordingly it is much more likely that the deceased entered the water at a time closer to Mr. Dimedio's assessment of 1645 hours."

On the issue of ***"the timing of the Mayday call"***:

"Mr. Tony Mooney from the AYF, the last witness, was able to state that as long as a yacht thought it would be able to reach a MOB within 15-20 minutes then the need to put out a PAN or MAYDAY call was not warranted. It is now clear that Mr. Dimedio made the mayday call at 1703 hours....DeMedio made this call as he was instructed to in earlier safety briefings from Mr. Ford. If Mr. Dimedio's evidence that Mr. Dack went overboard at 1645 hours is accepted (as the mathematical evidence suggests it should), then the mayday call was made 18 minutes later. This is then in line with the times Mr. Mooney suggested."

The ***"fouling of the yacht's propeller"*** is explained by Mr. Ford's counsel thus:

"Following the second knockdown and retrieval of the spinnaker and deploying it below, plus lowering of the mainsail and lashing it to the boom, it appears evident that at this point any lines overboard were retrieved back on board as no fouling of propellor occurred when there was ample opportunity with Spirit drifting away from the wind.

From hereon it is only conjecture as to how a line was able to foul the propellor and cause Spirit to temporarily lose its ability to manoeuvre. In our submission it is clear that the focus of the crew whilst endeavouring to locate Mr. Dack and when motoring back to the MOB position was on finding him and manoeuvering around him with the Lifesling. This was done without a problem. At this time it was reasonable to envisage that any focus on looking for trailing lines was momentarily lost. It is further possible in our submission that the wave and water action on the yacht as it returned to the MOB position caused a line to slip overboard and trail aft. It may well have been the wave that was so severe it lifted Spirit so high in the water it caused Mr. Ford to let go of the Lifesling that caused the line to fall overboard and foul the propellor. Having two crew now in the water may well have caused the remaining crew to become even more anxious and regretfully miss this trailing line. In Mr. Ford and Mr. Salmon's experience it was the first time they had suffered from a fouled propellor."

In relation to the ***"Racing Rules of Sailing"*** Mr. Ford's submission is as follows:

"There was at the time of Mr. Dack's death no requirement that Skippers complete any "man overboard" training. There is no evidence to suggest that Mr. Ford or any members of his crew breached any rule contained within the RRS. Nor for that matter any convention of sailing."

On the Rules relating to personal floatation devices, Mr. Ford's submission reiterated Rule 1.2 (Part 1 of the RRS, the *"Fundamental Rules"*), which provides:

"A boat shall carry adequate life saving equipment for all persons on board, including one item ready for immediate use, unless her class rules make some other provision. Each competitor is individually responsible for wearing personal buoyancy adequate for the conditions"

The submission for Mr. Ford stated that whilst *"it is clearly a tragedy that Mr. Dack died, it is incontrovertible, having regard to RRS 1.2 that he was individually responsible for wearing the personal buoyancy that was provided on board Spirit."* And also pointed to the RRS Fundamental Regulation 1.2 (Owner's responsibility) which provides:

"(a) The safety of a boat and her crew is the sole and inescapable responsibility of the owner, or owner's representative who must do their best to ensure that the boat is fully found, thoroughly seaworthy and manned by an experienced crew who are physically fit to face bad weather. They

must be satisfied as to the soundness of the hull, spars, rigging, sails and all gear. They must ensure that all safety equipment is properly maintained and stowed and that the crew know where it is kept and how it is to be used. "

Counsel for Mr. Ford submitted that there is *"no evidence to suggest that Mr. Ford has done anything but his best in this matter. Indeed the evidence is that all the matters listed as being the owner's responsibility within these RRS have been followed absolutely."*

In ***"conclusion"***, Mr. Ford's counsel submitted:

"The weight of evidence.... is that Mr. Ford is a tremendously safety conscious skipper who provided the best equipment for his crew. His attitude towards safety was second to none (See Evidence of Mr. Frank Hammond). Mr. Dack's death was in our submission not brought about nor contributed to in any way by Mr. Ford or his crew. Their man overboard recovery procedures were regarded by witnesses such as Mr. Barton, Mr. Mooney and Mr. Hammond as "text book". Barton in particular was asked whether he'd had an opportunity to assess the conduct of the skipper and crew of `Spirit of Downunder' on that day. He indicated that he had and said "I think the Spirit of Downunder's crew and skipper show excellent skills and seamanship above that of the average yachtsman." Barton then confirmed this by saying "Well and truly".

Mr. Dack was an enormously experienced sailor and a strong swimmer. He had successfully completed many ocean races. His death in Port Phillip Bay, during daylight hours could not have been foreseen by Mr. Ford nor indeed by anyone else in the circumstances...."

Ford's submission in reply

Mr. Ford's counsel filed a reply to the various submissions on behalf of the Dack family. Counsel noted that these submissions made a number of assertions in relation to Mr. Ford and his crew. These submissions assert against Mr. Ford (which are refuted) that:

- A purported failure to have a designated and practiced man overboard procedure contributed to the death of Mr. Dack
- A line left trailing in the water which caused the propeller to foul contributed to the death of Mr. Dack
- To make a May Day call only at the time they did contributed to the death of Mr. Dack
- A failure by Mr. Ford to make compulsory the wearing of harnesses or PFD's for all crew at all times contributed to the death of Mr. Dack.

In relation to the issue of ***"Man overboard protocol and practice"*** counsel argued that:

"The evidence in our respectful submission is that man overboard incidents in these races happens rarely. This is perhaps the reason that yachtsman tend not to practice it, just like a motor driver does not practice emergency motor accident procedure. None the less the evidence in this case from experts including Mr. Hammond and Senior Constable Barton was that the man overboard procedure adopted was text book. The fact that such a procedure could be performed in text book fashion without regular practice or defined protocols indicates that the crew of `Spirit of Downunder' ("Spirit") was well drilled. There is no evidence that other skippers perform such practice and the AYF did not at the time require it.

The family of the deceased ("the family") submit that Spirit should have dropped its anchor at the time of the deceased attempted retrieval. This is not the procedure recommended in the Australian Yachting Federation ("AYF"), Racing Rules of Sailing ("RRS"). This manoeuver may well have left Spirit still too far away to assist the deceased."

On the ***"Trailing line/fouled prop"*** it was suggested that whilst this should not have occurred *"human beings in times of duress can make errors. An error by a crew member does not equate necessarily to negligence by the skipper. A skipper engages an intelligent and experienced crew so that he can rely on that crew's abilities."* And that in any event:

"the evidence available, particularly that of Mr. Ford at transcript p.216 was that, the deceased's head had slumped forward at the time he got to him in the water. It is clear that Mr. Dack was at least unconscious at this stage and possible already dead. Accordingly as the fouled propeller occurred after this point there is no evidence that this occurrence contributed to Mr. Dack's death. It did however, hamper the recover of his body if he was in fact dead at the time."

Counsel's reply on the issue of the ***"May Day call/Time of man overboard"*** sets out a number of counter arguments to those proposed by the family:

"A mayday call was made at 1703 hours by Dimedio and was received by Melbourne Radio. At 1710 hours a Victorian Water Police Cougar catamaran motor launch VP03 was contacted and left St Kilda marina. Clearly the entry in the race log which suggests a May Day call at 16.15 hours is an error.

The family's submissions are unfortunately based on a demonstrably floored premise. That premise being that the deceased went into the water at 1600 hours. As a matter of mathematical certainty this can not have been the case. Despite concessions certain witnesses have made, the physical evidence on this point gives the most accurate indication. That is that the time of the deceased became a man over board was 16.44 hours. We submit that Mr. Demedio's evidence on this point should be accepted.

The physical evidence on the time of man over board point is as follows:

Mr. Dimedio was firm that it was around 1645 hours. Mr. Salmon had deposed to this but changed his evidence to around 1615. The Log of "Spirit" is in evidence. It shows that Spirit rounded the West Channel Pile at 1520 hours. The distance of this leg of the race to the next mark of the course, the Carrum Number 2 Foul Buoy is 17.4 nautical miles long. The deceased went overboard approximately 1.6 nautical miles from the Carrum No.2 buoy. Hence Mr. Dack went overboard a distance of 15.8 nautical miles from the West Channel Pile. Spirit could not have arrived at that position in only the 40 minutes to 1600 hours as submitted by the family since rounding the West Channel Pile at 1520. This would require an average speed of 26.4 knots along that leg of the race, which would require Spirit to have attained much higher speeds to achieve this average, which clearly they did not.

The statements of Mr. Ford and Mr. Salmon indicate that the wind speed abated to 22 knots for approximately half an hour after passing the West Channel Pile. Both Salmon and Ford suggest that the fractional spinnaker was hoisted within 30 minutes of the West Channel Pile mark. Mr. Lyndsay indicated that this change was made only 15 minutes into that leg. Mr. Salmon, the helmsman at the time, at transcript p. 229, indicated that the speed of Spirit at the time of the first knock down was 12 knots. Mr. Lyndsey's statement on page 3 at paragraph 8 indicates that Spirit

was traveling at a speed of 14 knots and reached this speed when they were surfing on the wave fronts. It is reasonable to presume that average speed over this must have been less.

Mr. Hammond in his evidence at transcript p. 484 indicates that Horizon Sprint took "a couple of hours" to get to the man overboard point after rounding the West Channel Pile mark. It is accordingly inconceivable to presume that Sprit could have completed the same distance in the 40 minutes between 1520 hours and 1600 hours. The family's submission ignore this point completely.

If we assume an average speed for the first 15 minutes during which time the wind abated (using a worst case scenario) of 8-9 knots when under mainsail and jib this would mean 2 nautical miles of the course leg had been sailed leaving a distance of 13.8 miles to the MOB point.

If we then assume an average speed of 12 knots for the rest of that leg this would put Spirit at the MOB point at 1644 hours.

West Channel Pile at 1520 hours plus 15 minutes is 1535 hours - spinnaker is hoisted - and 13.8 nautical miles at average speed of 12 knots is 69 minutes making the arrival time at the MOB point of 1644 hours.

Accordingly it is much more likely that the deceased entered the water at a time closer to Mr. Dimedio's assessment of 1645 hours.

Adding weight to this submission is that the evidence of Demedio at T.559, Lyndsay at T. 374 and 407 and Ford at T.151 is that Mr. Dack was only unsighted for 10 to 15 minutes.

Mr. Ford suggested in his statement and in the diagram made on the day of the incident that the distance traveled after separation from Mr. Dack before Spirit's turnaround was 0.3 of a nautical mile. This was made at a time when he had conferred with no-one and was done with the aid of a computer plotter. This is more likely to be an unvarnished and accurate narrative on most points. His amendment during evidence to the .3 being 3 is more likely to be an error. The weight of evidence is that the time during which Mr. Dack was unsighted was about 15 minutes.

Accordingly a May Day call made at 1703 hours was not unreasonable. Mr. Tony Mooney an expert from the AYF, the last witness, was able to state that as long as a yacht thought it would be able to reach a MOB within 15- 20 minutes then a decision to put out a PAN or MAYDAY call was not warranted."

On the issue of ***"PFD's & Harnesses"*** Mr. Ford's counsel submitted:

"It is incontrovertible that the Mr. Ford provided PFD's with harnesses for the crew and that they were laid out for immediate use. The crew must be trusted to make their own judgements in this regard over an above Mr. Ford's stated requirement of PFD's outside the heads or after dark. Indeed the Coroner's finding after the fateful 1998 Sydney/Hobart yacht race did not recommend that the wearing of PFD's and Harnesses become mandatory. Further the relevant RRS did not require this as a mandatory instruction. Similarly Britain's leading offshore event organiser, the Royal Ocean Racing Club whose rules the AYF use in formulating their RRS, whilst recently tightening their rules in relation to PFD's have still stopped short of requiring their use at all times on deck "

And argued that:

> *"Mr.Dack was personally responsible for wearing his own buoyancy and as an experienced yachtsman was able to make his own judgements. Part 1 of the RRS details the Fundamental Rules. Rule 1.2 is relevant. It provides:*
>
> > *`A boat shall carry adequate life saving equipment for all persons on board, including one item ready for immediate use, unless her class rules make some other provision.* ***Each competitor is individually responsible for wearing personal buoyancy adequate for the conditions. '*** (emphasis of counsel)"

That whilst acknowledging the nature of the tragedy, counsel submitted that *"it is incontrovertible, having regard to RRS 1.2 that he* (Dack) *was individually responsible for wearing the personal buoyancy that was provided for him on board Spirit."*

Counsel also commented on the ***"family's summary (A to L)"***. Counsel noted that Item "A" is accepted. As to item "B" counsel suggested that the family's conclusion:

> *"appears to rely on the assumption that the arrival of the helicopter or other response would have had a more positive outcome than that of recovering Lindsay Dack by his yacht, `Spirit of Downunder'. There is no evidence of this.*
>
> *We submit that Lindsay Dack was in the water no more than 15-20 minutes before `Spirit of Downunder' was back alongside and with a qualified first aid crew on board we had no reason to suspect other than a successful recovery was the most likely outcome."*

On Item "C":

> *"There is no set protocol for making Mayday calls re MOB. Lindsay Dack was not in the water for an hour. This assumption cum assertion is not supported by the facts of the speed/time/distance traveled by `Spirit of Downunder' from the time it rounded the West Channel Pile."*

On the Fouled propellor (Item "D") Mr. Ford's counsel suggested:

> *"(i) We agree the first part of this claim is reasonable and logical but I would restate the last sentence as follows:- "Reasonable seamanship* ***should*** *have ensured that this line was not in the water."*
>
> *(ii) We can only suggest the lines presence was due in part to the haste and concern on the part of the crew to return and pick up Lindsay Dack."*

On Item "E", counsel commented that:

> *"We have to say that this "recommendation " is also reasonable and logical. However it does not take into account what was recommended at the time. Hindsight is a wonderful thing. But in our case, when Spirit returned to Mr. Dack, he was absolutely exhausted and in the prevailing sea and wind conditions, a simple rescue where he could assist himself was out of the question. He needed*

assistance in the water - and MOB advice at the time says no else to go into the water. Proper training here was contrary to what was necessary - Lindsay needed assistance in the water.

The method adopted is exactly as prescribed in the Blue Book (The Racing Rules of Sailing). To criticise the crew of Spirit for being a little imprecise in the handling of a towed line behind a yacht in rough sea conditions shows little knowledge of the difficulties of handling a boat in such conditions and is unfair. We submit that a MOB who was not as exhausted or weakened as Lindsay Dack was, could have handled the tug of the line quite OK, - but in Lindsay Dack's case the evidence is that he was so exhausted he had little or no strength left."

In relation to Item "G" Mr. Ford's counsel submitted:

"We submit that Horizon dropped his anchor because his motor is in fact a small outboard and is difficult to deploy even in ideal conditions. Thus having come across persons in the water, their main concern was to effect a rescue - which they did. Having got one crew aboard who was in need of CPR - the decision was made to drop anchor so that they could devote all their energies to the crisis on hand.

Anchoring for Spirit to pick up Lindsay Dack would not have been an option. Why? - the motor was working at that stage. And to suggest otherwise shows no appreciation of what is entailed in an anchoring process for a 6 ton yacht in the prevailing conditions. To drop an anchor and hope it bites and to do so in a position so that the yacht can then fall back to pick up a person in the water is in our respectful submission fanciful in the extreme."

On Item "F" contrary to the view expressed by the family *"and obviously similar to the crew onboard Horizon Sprint, the Owner/Skipper of `Spirit of Downunder' as well as the Owner /Skipper of Horizon Sprint did not think the weather at the time necessitated, the wearing of a harness or life vest."* Also whilst the *"Dan Buoy was on board it was in excess of required safety requirements. Under the circumstances it may or may not have helped. Spirit's Dan Buoy was not fitted with a drogue."*

In relation to Items "I" and "J" counsel noted that the *"Dan Buoy on Spirit for this race (within Port Phillip Bay) was in excess of safety requirements for the race in question. This being the case it was not considered necessary to attach the Dan Buoy to a life ring."*

On Item "K" it was submitted in reply that clearly *"the life ring was deployed as it was handed back to RMYS weeks later."*

And finally on Item "L" the *"crew of Spirit were surprised at Mr. Dack's condition when they returned. The trailing line method was what is advised by the RRS and this is what was attempted."*

In the ***"Conclusion"*** to the reply counsel stated:

"There are any amount of what ifs in this case but the key presumption apparent from the evidence in out respectful submission is that if Mr. Dack had worn a PFD, he would most probably have survived the incident. Having regard to RRS 1.2 and Mr. Dack's personal and individual responsibility in this regard, it cannot, in our respectful submission be said that Mr. Ford or his crew contributed to his death."

The Royal Melbourne Yacht Squadron's submissions

The Squadron's submissions

The Royal Melbourne Yacht Squadron, after describing the type of Race being conducted, the Notice of Race, the weather details and the time of the Race start, summarised the chronology thus:

"2.10 Spirit completed the Cock of the Bay Race at Mornington at 1240 hours.

2.11 Spirit rounded West Channel Pile about 1550 hours. Wind was 24-26 knots (see statement of Salmon and Ford).

2.12 The deceased was a competent, experienced sailor. He was wearing wet weather gear. He was not wearing a PFD or harness.

2.13 Approximately 2 NM from no. 2 Carrum Buoy, the deceased went forward to drop the spinnaker. At this stage, an unexpected gust of wind knocked the boat over ("the first knockdown").

2.14 At the time of the first knockdown, the starboard steering pedestal was broken as Salmon fell upon it.

2.15 A short time later, a second gust hit the boat causing a second knockdown. At this point, the deceased was swept into the water.

2.16 It was estimated by Salmon that the time was about 1600 hours when the deceased went into the water.

2.17 Brendan Lindsey called man overboard. Dimedio activated the GPS to record the location that the deceased had gone overboard.

2.18 A life sling was thrown out the back of the boat. The sails were lowered.

2.19 The yacht then went in the wrong direction for a distance of 3 nautical miles (evidence of Ford and his diagram).

2.20 After some time (between 15 minutes and 1 hour), the deceased was located in the water. Spirit circled the deceased. Ford went into the water. The propeller of the yacht was fowled at about this time.

2.21 The mayday call was made at 1703 by Dimedio and was received by Melbourne Radio. The mayday call referred to "2 men were overboard, the engine was not starting, the sails were down, the wind was 15-20 knots and the location of the yacht was given". The rescue co-ordination centre was contacted by Melbourne Radio. At 1710, a VP03 Water Police cougar catamaran was contacted and left St Kilda Marina.

2.22 At 1713, the Police air wing flight co-ordination centre was contacted. The helicopter was fuelled and by 1718 it was airborne.

2.23 Shortly thereafter, the deceased and Ford were spotted in the water by Frank Hammond in yacht "Horizon Sprint".

2.24 At 1729 the helicopter arrived over Horizon Sprint and at 1733, Constable Hardiman was lowered into the water behind the yacht.

2.25 Ford and the deceased were brought on board Horizon Spirit. CPR was administered but to no effect."

The Squadron explained the ***"Race administration"*** and submitted that:

"The race was conducted pursuant to the RRS. The Australian Yachting Federation ("the AYF") Special Regulations are intended to be used by race organizers conducting yacht racing."

And that the *"Special Regulations specifically state that the safety of the boat and crew is the sole and inescapable responsibility of the owner..."* It repeated the regulations (discussed above in Ford's submission and under the sub-heading in this finding dealing with the Race Rules, weather, etc).

The Squadron submitted that there is *"no evidence that the squadron deviated from the relevant RRS or Regulations."*

As to the weather the Squadron submitted that *"prior to the gust that hit the Spirit at approximately 1600 hours, the weather had been.... consistent with the Bureau forecast"* and that:

"no threat to the participants in the race. In fact, the overwhelming evidence is that prior to the unexpected gust, the weather conditions were perfect for sailing for keelboats, which include Spirit. Hammond described it as "champagne sailing". Crew members of Spirit in their statements refer to winds of between 22 and 26 knots etc."

The Squadron suggested:

"The two gusts of wind that caused the two knockdowns of Spirit were unexpected. There is no evidence that they were experienced by any other yacht participating in the race or for that matter, any other boat on the Bay on the day."

And:

"Whilst the weather deteriorated after the deceased had gone into the water (and probably after he was retrieved from the water), there is no evidence that the club could have done anything at this stage by way of cancelling the race or otherwise that would have affected the ultimate outcome."

It submitted:

"There was no amendment to the weather forecast issued by the Bureau of Meteorology of relevance on the day of the race (for example forecast of worsening weather)."

And:

"It is submitted on behalf of the Squadron that as the weather conditions were not unsuitable for keel boat racing and had not changed from the original forecast, there was no reason to disseminate any further weather information to the participants in the race."

On the issue of the ***"Radio"***, the Squadron submitted:

"Mayday calls are the responsibility of Police and Melbourne Radio and on this occasion, the mayday call was received by Melbourne Radio and immediately transmitted to the Police."

And that:

"Mr. Mooney's evidence that it would not be necessary for the Club or competitors to monitor the radio outside sked times should be accepted. This is consistent with the evidence of Hammond."

The Squadron submitted the *"no witness suggested that it was mandatory or even expected for the Squadron's radio to be manned at all times."*

That on the issue of the ***"Compulsory PFD/Harnesses"***:

"The Special Regulations require one PFD type 1 and one safety harness be carried on board the boat for each crew member (see s.5 Special Regulations).

The Special Regulations do not provide for the mandatory wearing of these devices for a number of reasons (see Mooney's statement, page 5).

It is submitted that the skipper/owner is in the best position to determine whether PFD's or harnesses should be worn by crew members. In this case, all crew members that gave evidence commented that Mr. Ford was very particular and safety conscious (see for example statement of Salmon - para. 4, Humphries - para. 3, Dimedio - para. 3, Rothwell - para. 4, Dickie - para. 4 and Lindsey - para. 5). Mr. Ford had not required his crew to fit PFD's or harnesses presumably because the weather conditions did not warrant it. In the circumstances, the Squadron could not be expected to be in a better position than Mr. Ford. "

By way of ***"conclusion"***, the Squadron submitted it had *"a long and incident free history of conducting yacht racing"* and that:

"4.1.2 The Squadron is manned predominantly by volunteer members. Mr. Dennis Livingston was one such volunteer. It is submitted that his evidence was honest and frank.

4.1.3 There is no evidence that there was any act or omission on behalf of the Squadron that contributed to the death of the deceased."

The Squadron also concluded that:

"4.2 All crew members and Mr. Ford commented that the two gusts that hit Spirit were totally unexpected. It was the second knockdown that was the cause of the deceased falling overboard. The Squadron could not have had any knowledge of this incident until at least the time of the mayday which was received by Police.

4.3 The Squadron conducted the race under the rules of the AYF

4.3.1 The Squadron is not qualified to question or alter these rules. These rules are under regular review by the AYF.

4.3.2 Even after the 1998 Sydney - Hobart race, the Coroner who conducted the Inquest did not recommend that the wearing of PFD's or harness be made compulsory and consequently this has been left up to the discretion of the skipper and his crew. If this is the case in Ocean Races then in a race in the Bay where wind speeds and heights of waves are far slower and smaller, it should not be incumbent on the Squadron to require contestants to wear PFD's or harnesses. The AYF rules provide that this is the sole responsibility of the Skipper. Mr. Mooney in his statement identifies possible reasons why PFD's are not mandatory (para. 9).

4.3.3 Further, conditions at the position of any particular boat may vary to that experienced by another boat or of that experienced by the Squadron."

And that it:

"....could not anticipate the various problems and/or sequence of events encountered by Spirit and its crew from the time of the first knockdown to the retrieval of the deceased and Ford by Horizon Spirit. Even if it would, it was not in a position to do anything to alleviate the situation."

The Squadron's submission in reply

The Squadron's counsel filed a reply to the various submissions. The reply, firstly commented on the Dack submission that ***"the Squadron should have required crew members to wear a PFD or an attached harness."*** Counsel said that the

"(i) State regulations apply whether a vessel is a yacht or motor boat of any description and whether competing in a race event or not. Those regulations require the carrying of a PFD for each crew member but does not require the carrying of harnesses or fitting of jackstays. The race was run in accordance with the AYF Rules which are prepared for use by race organisers. The AYF Rules are the international rules and standards for conducting yacht races. They incorporate both local marine safety legislation and substantially increase the safety requirements. Neither State regulations not the AYF Rules require mandatory wearing of race harnesses or PFD's, even for ocean races such as the Sydney to Hobart Yacht Race.

(ii) The safety of the boat and crew are the skippers' and crews sole and inescapable responsibility (see Special Regulations 1.2). `Spirit of Downunder' had jack stays fitted to which harnesses could have been attached if thought necessary. The skipper could have instructed his crew to wear a PFD if the skipper deemed it necessary or an individual crew member could have put one on at any time if he thought it necessary."

As to the issue that the ***"man overboard"*** procedure should have been *"mandated"*. The Squadron replied, somewhat surprisingly (to the Coroner), that *"it is unclear what is meant by the submission."* And suggested that:

"(ii) If it meant that the Squadron should have required skippers and crews to have relevant knowledge of and practise in man overboard procedures, then this was something that Ford and the crew of Spirit had in any event.

(iii) This is not something required of race organisers by State legislation or the AYF Rules.
(iv) This would require the race organisers to assume part of the skipper's responsibility as set out in AYF Rule 1.2."

On the issue raised by Mr. Dack's family of ***"Mandatory safety briefing session"*** the Squadron pointed to the fact that:

"(i)There is no evidence to suggest that Ford's failure to attend the briefing session (if in fact that be the case) contributed in any way to the deceased going overboard or his death.
(ii)This is not required by the rules of the race or AYF Rules.
(iii)See point 3.1.6 of the Squadron's Submissions.
(iv) Most keel boat yacht clubs conduct on average approximately two yacht races per week through out the year. There is no meaningful information which could be given which is not repetitious or which the skippers and crews would not, or should not, already know."

On the issue of ***"Communication by the Squadron of weather details"*** counsel for the Squadron submitted:

"(i) Refer to point 3.3 of the Squadron's submissions.
(ii) The weather at the time of the incident was consistent with the BOM forecast that was posted and verbally relayed to participating vessels before the start of the race.
(iii) The two knock-downs were unexpected and could not have been foreseen or anticipated, even with any additional weather information.
(iv) There is no evidence that the weather conditions prior to the two knock-downs were unsuitable for keel boat racing.
(v) All competing yachts had radios suitable to receive weather forecasts."

As to the ***"race entry log recording mayday call at 4.15pm"*** the Squadron said:

"(i) This was clearly an error but not one which had any consequence to either Lindsay Dack going overboard or subsequent events. It is accepted in paragraph A (page 5) of the Submissions that the mayday call was in fact made at 17.03 (5.03pm).
(ii) See point 3.4 of the Squadron's submissions."

Discussion on the principal issues

The Spirit's approach to the race and response to the weather

There is little doubt that the Spirit's crew were sailing competitively and out to win the race. They were leading the field. The consequences of this approach to yacht racing can be seen in the family's construction of the events leading to the knockdowns. Whether the approach is the subject of proper criticism or comment is another matter.

The family of Mr. Dack suggest that the Spirit's crew *"had no real or no sufficient warning that the change which caused the knockdown."* That, on the issue of the timing of the dropping of the spinnaker the:

"true explanation is, as a competitive yacht, they were racing it as hard as they could and left the decision about change of sail too late given the threatening front. They made this decision in the

context of sailing conditions in which it was reasonable to require the forehead hands to wear a harness."

The family also say that:

"Ford described the weather at the time of the first knockdown as something explained to him by a pilot friend as a `microburst'. He suggested there was nothing unusual about the weather before that."

And, finally submitted that:

"the combination of the decision to lower the sail and the sense of urgency that was agreed had been expressed by Dack about the necessity to do so, merely indicated they had pushed this boat hard in the face of an oncoming change for too long."

No doubt decisions of this type are made every day in competitive yacht racing. Errors will be made whereby a yacht looses its advantage of the wind conditions or the skipper misreads the conditions resulting in problems with the boat's sail configuration. These types of mistakes are part and parcel of the sport of yachting and are not the subject of criticism. They are, however, an indicator of the potential risk.

The timing of the May Day call and issues of call delay

The timing of the May Day call

Mr. Livingston, originally stated that at 4.15pm (16.15), en route to the Yacht Club he received a telephone call on his mobile from Rowland Hill advising that he heard a May Day call. Later, in evidence at the inquest Livingston acknowledged that the May Day was noted at the Club at 5.07pm (17.07).

Senior Constable Barton produced transcript of radio traffic, which showed that the 5.07pm call was the first recording of a May Day. In addition, Livingston's mobile phone records show, that whilst en route from Brighton to St. Kilda he had a telephone conversation between 17.09 and 17.10. Livingston recalled that he was crossing the railway lines at South Road, Brighton when he received notification of the May Day. He also had another conversation, related to the May Day at 17.13. Livingston acknowledged that the notation (of the 4.15 May Day call) in the Squadron's race log sheets had probably been made by mistake.

Mr. Peter Dimedio accepted, during evidence given at the inquest, that the recording of the call played in Court, which is timed at 17.03, was the first call that he made. He made this call at the direction of Salmon. His evidence suggesting the call was made at 4.15pm is incorrect.

The May Day call was made from the *`Spirit of Downunder'* at about 17.03 (5.03pm).

How long was Mr. Dack in the water?

One of the important issues is to determine how long was Mr. Dack in the water prior to the making of the May Day emergency call. No witness appears to have noted the time he entered the water by reference to a watch. In circumstances of chaos this is understandable. Obviously the time Dack

entered the water is critical to determining whether or not the May Day call should have been made earlier, and if it had, would he have been more likely to have survived?

Mr. Salmon said *`Spirit of Downunder'* had finished the Cock of the Bay Race at 12.40. The Yacht Squadron recorded it at 12.41. Salmon estimated that Dack went overboard at 16.00 (his original estimate was 16.45). Salmon said the triggering of the May Day call was a belief that they could not affect a rescue and it was at about the time they lost power and that they were motivated to do so by the fouled propeller. Salmon considered that about an hour had passed while the Spirit's crew were attempting the rescue. He said that for most of this time that Dack was in the water he was out of sight and they were some distance away from him.

According to the submission of Mr. Dack's family, Mr. Salmon said that about 10 minutes after Dack went into the water, the spotter told him he had lost contact and that it was 10 to 15 minutes more before he was again found by somebody on the boat. He agreed they were heading back towards him by the time they saw him again, not continuing to sail away from him.

Mr. Salmon considered that a couple of minutes may have elapsed between the failed attempt to retrieve Ford and Dack and the May Day call. If, as Salmon estimates, Dack went overboard at approximately 16.00 and that the propellor fouled a couple of minutes prior to the May Day call at 17.03, it follows, as is argued by the family *"that sight was lost of Dack for a time considerably in excess of 10 to 15 minutes."*

However, as indicated Mr. Dimedio gave evidence that he went below and made the May Day call at 4.15pm. This is clearly incorrect. He also gave evidence that Dack went overboard at 1645. Accordingly, it is difficult to be confident about this latter estimate.

Mr. Dimedio estimated that he lost sight of Dack for 15 to 20 minutes. Dimedio was surprised that Dack had deteriorated in what he thought was only 10 or 15 minutes.

After Mr. Ford went into the water in an attempt to rescue Dack and when the *`Spirit of Downunder'* returned in another attempt at rescue, Ford was of the view that Dack had been in the water for 15 to 20 minutes.

Mr. Ford's counsel submitted that:

> *"The time that the deceased went into the water is critical and somewhat ambiguous. Mr. Dimedio was firm that it was around 1645 hours. Mr. Salmon had deposed to this but changed his evidence to around 1615. The Log of "Spirit" is in evidence. It shows that Spirit rounded the West Channel Pile at 1520 hours. The distance of this leg of the race to the next mark of the course, the Carrum Number 2 Foul Buoy is 17.4 nautical miles long. The deceased went overboard approximately 1.6 nautical miles from the Carrum No.2 buoy. Spirit could not have arrived at that position in only one hour since rounding the West Channel Pile. This would require an average speed of 15.8 knots along that leg of the race, which would require Spirit to have attained much higher speeds to achieve this average, which clearly they did not."*

Mr. Ford's submission says that the:

> *"statements of Mr. Ford and Mr. Salmon indicate that the wind speed abated to 22 knots for approximately half an hour after passing the West Channel Pile and Mr. Ford's statement*

indicates that Spirit sailed for about a half-hour before they hoisted the fractional (smaller) spinnaker. Mr. Salmon's statement indicates that they continued for approximately ten minutes before deciding on their next action. Mr. Lyndsey's statement indicates it was approximately 15 minutes before they decided to put up the fractional spinnaker. Accepting it was somewhere between 15 minutes and 30 minutes before the fractional spinnaker was hoisted it is reasonable to assume the yacht's boat speed was considerably less than the speed of 14 knots reached when they were surfing as estimated by Mr. Lyndsey..."

And if a yacht:

"reaches a certain speed during surfing under spinnaker then it is reasonable to assume it's average speed would be somewhat less as the yacht runs into the wave in front of the one it is surfing on and consequently is slowed considerably. It then has to wait for the next wave to try and catch, and this relies to a great degree on the skill of the helmsman and crew."

Mr. Ford's counsel reconstructed the potential speeds and distances in order to estimate the time:

"If we assume an average speed for the first 15 minutes (using a worst case scenario) of 8-9 knots when under mainsail and jib this would mean 2 nautical miles of the course leg had been sailed leaving a distance of 13.8 miles to the MOB point.

If we then assume an average speed of 12 knots this would put Spirit at the MOB point at 1644 hours.

West Channel Pile at 1520 hours plus 15 minutes is 1535 hours - spinnaker is hoisted - and 13.8 nautical miles at average speed of 12 knots is 69 minutes making the arrival time at the MOB point of 1644 hours."

And submitted that, accordingly, *"it is much more likely that the deceased entered the water at a time closer to Mr. Dimedio's assessment of 1645 hours."*

Mr. Ford's counsel also repeated these arguments in the reply.

The *`Spirit of Downunder'* sailed about 3 nautical miles away from Dack's position before starting to return. It then sailed in the wrong direction for a short time before correcting the position.

It is also noted that peaks of windspeed in knots are indicated at various recording points in the Bay are at about 16.30 (4.30pm). In view of the fact that the gusts knocking down the yacht are described as localised *"microbursts"* it a hard to say whether these records are a reasonable indicator of time.[6]

Whilst there are estimates of delay of some 15 to 20 minutes to one hour before the May Day call was made, it is more likely in view of the confusion on the *`Spirit of Downunder'*, the number of incidents occurring between Mr. Dack entering the water and the recorded time of the call, the steerage difficulties, etc, that the time period was far greater than 15 minutes. Certainly, Dack was in the water for a considerable period of time, prior to the call being made, he was almost unconscious when the `Spirit' returned. Whilst it is hard to believe that the time was only 15 minutes, other than to say was likely to be far greater, it is difficult to be more certain of precisely how long it was.

[6] See Exhibit C 1.

Should the May Day call have been made earlier?

Looking at the evidence of the developing incidents and the difficulties the *`Spirit of Downunder'* was experiencing during the rescue attempts, without hindsight, it is obvious a May Day call should have been made a lot earlier than it was. The expert, Mr. Mooney effectively did not think so (although he considered that a PAN PAN should have been made before the eventual May Day).

The determining facts on which the decision to make the call should have been made were:

- Mr. Dack went overboard in full wet weather gear (without a PFD);
- The starboard steering pedestal was broken during the first knockdown making steerage difficult;
- Crew on the Spirit lost sight of Mr. Dack and were sailing away with steerage difficulties;
- Considerable time elapsed before Mr. Dack was again sighted and the yacht was returning to his position (no-one kept a record of the elapsed time);
- There was no other boat in sight to assist in rescue.

It is critical that no one on the yacht kept an eye on the elapsed time. With survival sometimes depending on time in water (and with Mr. Dack wearing wet weather gear and having no PFD) this should have been a critical job delegated at an early stage during the rescue attempt. Whilst it is understandable, because of the confusion at knockdown the actual time of the man overboard was not noted (although presumably it would have been recorded in the lost records for the GPS), at some stage time should kept to ascertain how long Dack was remaining in the water.

Mr. Dimedio described the state of the boat immediately Dack went overboard, as being a lot of carnage and that by the time Spirit returned to Dack he appeared very distressed. Salmon too described it as extremely busy on Spirit, and agreed there were times of chaos.

Mr. Salmon commented that the breaking of the pedestal on the starboard side that had first jammed the steering, and that in order to permit any use of the helm, the broken pedestal had to be held in the vertical position. After the pedestal was broken there was difficulty in steering. Holding up the broken the pedestal was a matter of difficulty. He said that he was not sure whether it would jam or un-jam. He was not sure whether this was because of the movement of the person holding the pedestal, but the steering was not easy.

Mr. Salmon was questioned about the responsiveness of the steering:

> "**Q:** *Was that part of the problem in manoeuvring it from the time the pedestal was stood up that it wasn't completely responsive to the wheel on the portside?*
> ***A:*** *It increased the difficulty."*

The family argue that it was put to Mr. Salmon*, "when added to the litany of difficulties facing Spirit in the attempt to rescue Dack, this dictated a May Day call"* and Salmon responded it was an obvious factor in such a consideration. The family say that *"despite this, he asserted that he thought they were quite capable of retrieving Dack."*

Mr. Ford effectively said in attempting to stop the vessel sailing away from Dack, the first thing was to bring down the spinnaker and whatever was necessary with the other sails to bring the vessel back under power. In their submission, the family pointed to the fact that:

> *"Ford commented that the yacht had no steerage at that time because of the broken starboard steering station.... Ford said they only regained steerage after they had dropped the main, got the*

boom lifted up so they could right the steering station and that allowed the cable to work... He said when Dack went overboard he thought he (Ford) was aware there was no steering. Whilst he wasn't aware of the boat speed at this time, he knew Spirit had been moving at about 12 knots prior to the knockdown..."

Mr. Ford said, *"We went from a situation of stable control of the boat to one of immediate and absolute chaos".* He accepted that one of the crew had said the speed was about 8 knots at the time.

Mr. Salmon was asked, *"What was it that prompted the May Day call at that stage? Was it your acceptance at that stage that you wouldn't be able to get back to him?"* He answered, *"That was exactly – we felt that we couldn't rescue either Laurie or Lindsay at that stage."* It is interesting to note that, the trailing yacht, *`Horizon Sprint'* was probably not within sight of Spirit's crew at this time.

Mr. Salmon was also questioned:

"**Q:** *Once you lose sight of the person even though you know you're the only vessel in the vicinity it's moving up to the stage of alert isn't it?*
***A:** It is. It's making other people aware of your situation and that you're endeavouring to recover it, I guess a May Day is a call when ----.*
***Q**: When you can't do it?*
***A:** When you can't do it."*

Mr. Salmon effectively agreed that being the closest vessel was more important when the person was in sight but of less significance when they had lost sight of the person overboard. He then proffered the proposition that, no doubt, because of the GPS they thought that they knew where he was but accepted that this objective position could be conveyed in the May Day call.

As put by the Dack family in his answers, Mr. Salmon appears to have *"contemplated that only a vessel could be a source of rescue. He seems to have been ignorant of the potential for a helicopter rescue. This is peculiar, given the publicity received by helicopter rescues in race disasters prior to this date."*

Mr. Salmon was again taken back to the earlier discussions about *"man overboard"* protocols and May Day calls and answered that it was not specifically discussed in the situation of a *"man overboard"* but was in reference to an emergency situation. He was asked:

"**Q***: Surely it's an emergency if, because your vessel is away from where the man overboard is, you've got no reason to believe he's made contact with the flotation device. You know he's got no personal flotation device. You know that he's encumbered by wet weather gear and your yacht is not yet under control and he's out of sight. Now that scenario surely met the discussion that Ford would have with you. That you would be able to direct the authorities to precisely where he was in an emergency?*
A: *Yes, we would have been able to do that."*

It is telling that there was no discussion on board about the potential for a May Day call until shortly prior to the call actually being made. The following question and answer is apposite:

*"**Q:** And surely there was some discussion on board as you continued to sail away from him, you continued not to find him, do we send a May Day?*
***A:** I don't believe there was."*

The family suggested that the failure to discuss the potential for a May Day call, early in the piece, is a *"consequence of Spirit having no clear `man overboard' protocol and no practice in the procedures."*

The May Day call was made after Mr. Ford went into the water to assist Dack and the propeller jammed, not before.

It is noted that Mr. Mooney suggested that there should have been a PAN PAN call before the May Day and that that should have been quite early in the piece. He also expressed the opinion that if sight was lost of the man overboard for 15 odd minutes and that that person was in wet weather gear without a flotation device, he would be concerned, be getting a bit toey and if he did not get back for nearly an hour, he would be really worried. He said in these conditions there would be a real risk of death if the man overboard was in the water for approaching an hour at 18 degrees and that not being back for an hour or so was described by him as, *"getting pretty desperate."*

Senior Constable Barton was referred to the New Zealand Coast Guard website about when a May Day call should be sent. The Coast Guard protocol suggested was that the call should be made when the yacht was not able to find the person in the water or had any doubt its ability to recover. Barton agreed he would expect most experienced sailors to have followed this protocol. The family noted that if *`Spirit of Downunder'* had acted in accordance with this protocol, the call probably should have been made shortly after they lost sight of Dack.

Clearly on the objective evidence the May Day call should have been made a lot earlier. It should have occurred once the yacht was sailing away from Mr. Dack's position losing sight of the man overboard and in the light of the steering difficulties. This is common sense, whilst yachting rule guidance is silent on this issue the facts disclose the developing risk - not hindsight. Had this call been made earlier, this would have given more chance for an effective rescue of Mr. Dack to be commenced. However, whether the outcome would have been different is a matter of a certain degree of speculation. It would also depend on the precise length of time Dack was in the water before the call was made and the arrival time of professional or other rescuers.

General systems - *`man overboard'* and rescue procedures

The general issue of *`man overboard'* procedures

Effective and well-practised *"man overboard"* recovery procedures are vital for safety of the crew of racing yachts. In relation to man overboard procedures Mr. Mooney noted that the *"ORC/ISAF and AYF regulations include an appendix on man overboard procedures for the guidance of competitors."* He stated that this was *"not the only means of achieving recovery of a man overboard but is one means that has proven to be successful."* Mooney also stated that:

> *"It is clear from the statements of crew members upon `Spirit of Downunder' that regrettably the boat was unable to effect a man overboard recovery. This may be due to a number of factors including the crew momentarily losing sight of the deceased, damage to the steering system or a tangle of spinnaker sheets in the propeller of the yacht."*

From a systemic point of view, the failure of the Spirit's crew to recognise problem factors and act more effectively in relation to them **may also have been as a result of a generalised failure to practice man overboard procedures within the yachting community**. In particular, the Spirit's

crew, as part of the yachting community, did not undertake any practice drills or regularly review the procedures.

Mr. Ford accepted that if he had given a *"man overboard"* briefing on the day of this race, the deploying of the *`Jon Buoy'* would have become second nature to the crew. However, with the number of problems occurring on the day - scenario practice is the only effective way to ensure, as far as is practicable, a *`second nature*' response.

The AYF's *"Man Overboard"* guidance notes (applicable at the time of the Dack incident) are found in the Racing Rules of Sailing 1997 - 2000 (Addendum V) and deal with the American "*Quick Stop*" method of recovery. It also sets out the procedure for operation of a "*Life Sling*". Documented procedures are of little or no use unless they are well known, understood and regularly practiced (see for example the comments on the failures to use existing procedures in the Inquest Findings for the Linton Wildfire and Longford).

Senior Constable Barton of the Water Police stated that the Police practice man overboard procedures once a month and PFD's are worn at all times while working. He also indicated that there is a New Zealand Website, which details a *"man overboard"* procedure.

The use of a *`Jon Buoy'* and/or providing buoyancy support

The family expressed concern that no floatation device (including one attached to a *`Jon Buoy'* - an inflatable `*Dan Buoy*') was thrown to the exhausted Mr. Dack when the yacht returned to his position. The following exchange is important:

> *"**Q**: Now no attempt is made, given the short distance that separates him from the stern, to throw him any flotation device was there? At this stage?*
> ***A**: Nothing was - no attempt was made to throw him anything, no. There was a life sling in the water*
> ***Q**: But no flotation device?*
> ***A**: No that had already been deployed.*
> ***Q:** Only one of the two?*
> ***A**: Yes.*
> ***Q**: The other one's staring you in the face there – you're looking over it when you're looking over the stern, you're looking at the John Buoy?*
> ***A**: Its designed as a mark, no as a safety device.*
> ***Q**: But it will act as a safety device?*
> ***A**: Well, OK, you've said that before.*
> ***Q**: Well that is correct, isn't it?*
> ***A:** I'm sure it would assist, yes.*
> ***Q**: So the second time that I suggest it ought to have been deployed, was when Mr. Dack let go of the line, that was the obvious time. Anyone deploying it at that stage could have thrown it with some accuracy, very close to where he was?*
> ***A**: You don't throw them. You just release... "*

And:

*"...**Q:** We'll leave aside for the moment whether that's wrong (failing to deploy the John Buoy) – he was well within reach at that stage, of a personal vest being thrown to him?*
***A**: Yes, look you could make those assumption but Lindsay was in an exhausted situation.*
***Q**: The more exhausted, the more in need of flotation he was?*
***A**: Yes."*

It is noted that Mr. Ford conceded that the *`Jon Buoy'* was on board but without the lifebuoy attached to it. Apparently, they had failed to consider attaching a lifebuoy and deploying the unit in the Dack incident. However, Ford believed a lifebuoy had been attached to the *`Jon Buoy'* in the past.

The family submitted that when Ford was asked *"why no flotation device was thrown to him at this stage, why he gave no such instructions",* he answered that *?"The life sling had been used to circle him so we could try and recover Lindsay?."* They also drew attention to the following questions about Dack's exhausted state:

*"**Q**: And you knew at that stage that flotation would be of assistance to him?*
***A**: Exactly but because of his condition, that's why I elected to go in?."*

The family submitted:

"Ford by this stage knew Dack didn't have the strength to use the life sling on his own and Spirit failed to give him any method of remaining afloat. The John Buoy, a life buoy, a PFD or even a cushion would then probably have saved him."

Clearly, at this time all involved were in a stressed state and it may be difficult to make a range of effective decisions in this environment. Additional floatation devices in the water at this time would have potentially been of assistance. Whether that would have actually changed the outcome is to a certain extent, speculative and would depend on Mr. Dack's physical condition at the time (whether he was strong enough to be able to swim to and effectively use such a device).

The failure to instruct crew on the wearing of PFD's after knockdown and Mr. Ford's rescue attempt

The issue of the failure to have the crew don personal floatation devices (PFD's) after the knockdown was discussed in submissions by the family. It was suggested:

"Ford asserted...that it would not have been a simple matter to have sent somebody down below to bring up the vests and when asked why it was not as easy as it sounded...he answered: I guess our attention is diverted and focused just on one action and that's getting back to Lindsay. I mean, hindsight's a wonderful thing. He was then asked, "So is foreplanning?" He answered, "Yes". When he replied that he had had a flotation device available to him, namely a life ring, he conceded when they got back to him he knew he was not using such a ring."

And:

"Ford was asked, "At that stage, there's all these life vests, any one of which would have provided a good flotation device for him?" And he conceded this was true and that he himself had made an urgent decision to get into a life vest. He said as they sailed back he hadn't thought that anybody would have to go into the water to help Dack..."

The family also submitted effectively that the likely condition of Mr. Dack was an objective matter, considering his age and fitness, *"the wet weather gear that he was wearing, the time they had been*

away, the coldness of the water." That whilst *"Ford expressed distress and shock when he saw the state of Dack when he has returned, this state was quite predictable well before they got back because of the time that had elapsed... "* This is not an unreasonable comment by the family.

When the *`Spirit of Downunder'* returned to Mr. Dack's position in the water, he was found to be exhausted and Ford jumped into the water in an attempt to assist his crewmember. Unfortunately, Ford did not fully fit his PFD and as a result was struggling when he entered the water and had some difficulty helping Dack. Ford cannot be criticised for his bravery in this failed attempt to rescue his crewmember.

The submission for Mr. Ford explained the sequence thus:

> *"Mr. Ford stripped off his wet weather gear and grabbing a combined auto inflating life vest and harness dived overboard and swam to Mr. Dack. Mr. Ford was able to support Mr. Dack, but was somewhat hindered by the fact that he did not have time to correctly fit the life vest to himself and so had to use one arm to hold the life vest down so as to keep both their heads above the water... "*

Later, the submission went on to explain that *"regrettably, Spirit just drifted away due to the force of the wind on her hull and it was later found she had fouled her propellor with a line from the cockpit."*

The family suggested that Mr. Ford's failure to correctly fit a life vest before entering the water:

> *"reflects the failure of the crew to have practised and thought out a `man overboard' retrieval protocol."*

It is noted, that even after Mr. Dack was knocked overboard as a result of the sudden squall, Ford did not require his crew to put on PFD's or harnesses. Had Ford instructed the wearing of PFD's, immediately following the Dack overboard incident, it may have avoided some of the problems he faced during his rescue attempt in the water. Ford acknowledged this fact and that had his vest been properly fitted it would have made it easier to put the life sling around Dack. Although, it must be noted that whilst the skipper and crew were managing the sails immediately after the knockdown there may not have been time to put on harnesses or PFD's. However, later there would have been time. Had Ford been properly wearing his PFD, whether the outcome would have been different is another matter and can only be regarded as speculation.

Some General issues relating to rescue procedures and safe race management

There are some other general issues relating to the failed rescue attempt and related safe race management that require some further discussion these are: The use of PFD's and/or harnesses, race categorisation and the Sydney-Hobart incident; The absence of the Race Controller and overall safety in race management by the Royal Melbourne Yacht Squadron.

The use of PFD's and/or harnesses, race categorisation and the Sydney-Hobart incident

If Mr. Dack had been wearing a harness and connected line he would have stayed with the yacht and the incident would have been avoided. Certainly, had Dack been wearing a PFD it is likely he would have survived.

However, the Federation's *"Rules of Racing"* place the responsibility for these decisions on the skipper or individual crew. Neither the skipper nor members of the crew of *`Spirit of Downunder'* considered the wearing of PFD's or harnesses prior to the knockdowns. They were also not fitted, when time permitted, after Mr. Dack was thrown into the water. Even after being notified of the incident the Squadron did not advise other yachts to consider harnesses or PFD's.

The Squadron, in its submission stated:

> "*...the skipper/owner is in the best position to determine whether PFD's or harnesses should be worn by crew members. In this case, all crew members that gave evidence commented that Mr. Ford was very particular and safety conscious (see for example statement of Salmon... Humphries...Dimedio...Rothwell...Dickie...and Lindsey...). Mr. Ford had not required his crew to fit PFD's or harnesses presumably because the weather conditions did not warrant it. In the circumstances, the Squadron could not be expected to be in a better position than Mr. Ford. "*

Yet it is interesting to note that the race classification was *"Category 4"* even though the whole race was to expected to straddle sailing during the day and also at night. Under the rules (because of the night time sailing) it should have been a *"Category 3"* which meant the provision (but not compulsory wearing) of harnesses, jack stays and PFD's.

The family in their submission acknowledge that in the outcome of the race decisions by the Race Committee *"played no causative role in the death of Mr. Dack."* But note that it is *"one of the many examples of the race organisers failing to put safety to the forefront of their plans for, and their supervision of, the race."* The family note that:

> "*The first aspect of safety by the race organisers is to make the appropriate determination of the race category. Next, the organisers ought turn their mind to what additional safety requirements, if any, ought be loaded on to those which follow the determination of the category. The organisers wrongly categorised the race and then further failed to properly consider the additional safety requirements... "*

These requirements, according to the family are:

> *"M. The Race Organisers ought have required that at least an attached harness be worn by crew members on deck and out of the cockpit.*
> *N. The Race Organisers ought have mandated that Skippers and Crews of competing yachts had relevant knowledge of, and appropriate practice in, `man overboard' procedures, just as the organisers checked whether each yacht was equipped with the safety gear which was appropriate for the category of race."*

The family pointed to the fact that in both 1999 and 2000:

"Livingston decided to make the Race a category 4. The 1999 Race had been slow and occurred over some 27 hours. It therefore involved daylight and evening.... The last yacht in 1999 finished in the dark on the second day... he conceded that it was expected in 2000 that the Race may involve two periods of darkness."

Mr. Livingston acknowledged he could not override the decision of the Race Committee, and:

"Livingston agreed... that it was not a race normally expected to be run entirely in daylight and therefore it followed not properly a category 4 race. He agreed that the nature of the race fitted comfortably within category... 3 "Races across open water, most of which is relatively protected or close to shore lines"....he agreed that it ought have been a category 3 race. He conceded that making it a category 4 would give a bigger pool of yachts which would enter the race and that amongst the considerations in marketing it would be this bigger pool..."

The family noted:

"Modifications made to the category 4 requirements by the Committee were to provide for additional safety... Rule 1.2 of the Rules of Racing required as follows: "A boat shall carry adequate life saving equipment for all persons on board including one item ready for immediate use unless her class rules make some other provision. Each competitor is individually responsible for wearing personal buoyancy adequate for the conditions." ... On the same page he agreed that he did not count a safety harness as an adequate life saving equipment. He agreed to a question from the Coroner, that personal life saving equipment included a vest, life ring, harnesses.... and nowadays personal EPIRBs...".

And:

"Livingston had raced in harnesses and said they were not an inconvenient device to wear…It didn't alter the effectiveness of the crew in performing tasks and that they didn't have the problems of restriction and discomfort which PFD's had.... He thought it took approximately 2 to 3 minutes to put on and adjust a harness....To attach the harness to the tether would take perhaps seconds?....

Livingston agreed that being a category 4 race made it mandatory to have such harnesses.... He said the Rules of Racing did not require that the crew wear a PFD or harness, even at night."

As to the 1998 Sydney-Hobart incident:

"Livingston agreed....that he had personally learnt nothing from the 1998 Sydney/Hobart Race about leaving the desirability of decisions concerning safety gear to be worn to skippers. He understood that in the present rules, some races required certain levels of training for a percentage of the crew, although this was not presently required for category 4 races...."

The family also says that this *"shows a very casual approach by the race organisers to the tasks which they assumed by virtue of having organised the race."* However, one does not have to look beyond the fact that the Race Controller was absent from the Squadron's Clubrooms for a significant time on private business (without delegating his duties or ensuring that someone was keeping a check on the radio and facsimiles received relevant to the race) to find *"a very casual approach"* to safety. Some aspects of the submissions in reply of the Squadron do nothing to boost that confidence.

The absence of the Race Controller and overall safety in race management by the Squadron

It is difficult not to be concerned over the absence of Mr. Livingston from the Yacht Squadron for a significant time during the race. However, any view of Livingston's actions, must be seen in the context of a volunteer working in a sporting environment where there appears to have been a decided lack of any structured and detailed safety management system (or training) specifically designed for the safe running of a major yacht race. However, it is understood that the AYF now have a management course for race managers. This is to be commended. It is a useful start.

There were also a number of other potential safety issues arising during the race that should have been addressed by race management. These were raised by Mr Dack's family in their submission. The issues raised are as follows (and should be considered as important for **the future management of safety** by yacht clubs organising racing):

> *"Strong wind warnings were faxed to the Club. Livingston did nothing to ensure such faxes were brought to him as race organiser.... He thought such faxes were generated only at times predetermined by the Weather Bureau rather than at a time close to the change in weather.*
>
> *The Race Management Log, which had been tendered as a exhibit, was typed by Livingston, T/88 L/8 – 17, on the 27th December, 2000. The Race Log recorded that at 12.20 Rowland Hill queried whether it was safe to fit the light on Carrum No. 2 Buoy. This was ordinarily an unlit buoy which the notice to race had indicated would be lit at night.... Rowland Hill was the Yard Manager of the Yacht Squadron.... The Carrum No. 2 Buoy was close to where the incident occurred. When asked why this inquiry, as to whether it was safe to do so, was made, Livingston said... there was a strong wind warning and reasonably moderate to rough seas. Rowland Hill was making the journey in a 5.5 metre runabout with 110 horse power engine from the Yacht Squadron to the Buoy and back and he was an experienced seaman.... When Livingston was first asked, he suggested this inquiry was only about the timing of this trip but conceded that the way it was recorded related to safety. He thought he might have gone up on the roof to look at the weather. He thought it would take about an hour to the Buoy and somewhere between three quarters of an hour and half an hour back, that he would be away for a total of a couple of hours...Despite the fact that Hill had made this journey, he can't recall having a conversation with him after he came back as to what the weather was like...."*

The family submitted that was *"extraordinary given the responsibility of the race organisers to apparently deliberately deny themselves the opportunity of getting a first-hand account of what weather at a relevant time and in a relevant area was like given the progress of this race."*

The family noted that another yacht co-incidentally called *`The Spirit'* was noted as *"retired"* at 15.40. Mr. Livingston *"indicated they didn't specifically have a radio log for the race"* and in keeping the Log of the Race, he said, initially *"it was of no interest to him at all as to whether any boat was finding the going too tough"* and later he said it *"was of interest but he didn't ask them why they were retiring."* Livingston also noted that there was no protocol to enquire of a boat as to why it was retiring. The family also noted that *"if the race organisers were required to make a decision at any time that the race should be cancelled, it was essential for it to obtain information as to the reason for the withdrawal of any yacht from the race."*

As to the rules for the calling off of a race, Mr. Livingston was asked "*as to what determined whether a race should be called off?"* He answered: *"A long race or an ocean race almost never – sorry, but the factors to be taken into account would be the state of the weather, the fitness of the boats in the race to continue racing, whether or not a significant number of boats had made their own decision to retire from the race."* He said there had been no thought of abandoning the race up to 16.00 hours. If

fact it was not abandoned until much later in the day, in the early evening (officially recorded by the scheduled radio [SKED] contact at 20.05 - although the decision was made at 19.30).

As to the issue of the May Day, the family submitted that Mr. Livingston *"agreed there was no protocol requiring that the precise time at which a May Day call was heard at the Club be logged..."* and that although vital to record the time *"he had never turned his mind to this."*

The family also pointed to the fact that Mr. Livingston *"agreed that the rescue plan, Exhibit E, laid down that monitoring the fleet and observing the weather conditions were major tasks during the Big Bay Race..."* And submitted *"that the evidence disclosed that the Committee failed to perform these major tasks."* Livingston agreed that *"to effectively monitor the fleet it was required there be a protocol, that retiring boats be asked and the reasons recorded, as to why they had retired and that this be passed on immediately to the Race Director*." The family submitted there *"was no formal or informal system to do this*." Some yachts retired without giving any reason, and the family pointed to the issue that at 19.30:

> *"the Commodore and the Race Officer decided to abandon the race but this was not done until the scheduled radio contact at 20.05...Livingston said that the delay in the broadcast was not because it wasn't thought at 19.30 that it was then unsafe to continue the race, but rather, it was known that if a broadcast was made at the scheduled time of 20.05, that the race participants would then be listening. He agreed that it could have been done earlier...."*

The family considered that *"the proper procedure should have been to broadcast on the emergency channel that the race was cancelled when the decision was made, and then again, to broadcast the same information at the next sked."* And submitted that once again this is *"another illustration of the casual approach by the race organisers to their duties."*

Finally, the family submitted that:

> *"Livingston agreed...that the Yacht Club made a press release in which they announced the race was called off because of deteriorating weather and he agreed that the weather was at least as bad at the time they decided to call it off as it had been at the time Spirit suffered its disaster. He put the delay down to the busy schedule following the May Day..."*

The family argued that, with all of this evidence *"the Coroner ought find that the failure by the Club to ensure that competitors were kept abreast of the weather played a role in the death of Dack."*

However, it is important to consider the evidence of Mr. Mooney on this issue. He did not believe that, *"in a race of the type we are dealing with in this instant namely a race on protected water, regular or indeed any weather information should be disseminated by the race officials."* He stated that:

> *"There is a strong body of opinion that it is the competitors themselves that must appraise themselves of the weather save in exceptional circumstances and that regular information concerning weather should not be provided by race officials."*

And:

> *"From my observations of the weather information available before and at the time of the race, namely winds of between 20 and 30 knots, I would feel quite comfortable in starting and continuing to race in the conditions. Furthermore, given the category of the race and yachts*

involved, 1 do not believe the race officials would be expected to abandon the race in these conditions."

Whilst Mr. Mooney's evidence is interesting, as it related to the actual safety approach as applying in this area of the sport of yachting at the time of Mr. Dack's death, there is significant material pointing to the fact that there should be a different approach by race organisers and yachtsmen in the future (see also the critical comments on ineffective race management by the State Coroner in the 1998 Sydney-Hobart race). However, even then, in view of the fact that **a yacht racing club running a significant event is in the best position to have a broad overview (on safety)** of what is happening, an overly narrow construction of responsibilities is not a sufficient explanation. The responsibility for the overall safe running of a yacht race should not just be left solely in the hands of diverse individual skippers of yachts and their crews.

Conclusion

Mr. Dack drowned after being accidentally thrown overboard from the *`Spirit of Downunder'* when the yacht was twice knocked down in a sudden squall or "*microburst*". He was working on bringing in the spinnaker at the time he entered the water. During the subsequent rescue attempts a number of problems were incurred. In spite of the suddenness of the event, many of these problems may have been avoidable by detailed procedures and regular, practical training for an emergency such as struck the yacht. Up until the time of the death of Dack, regular, practical training for an emergency (especially *"man overboard"*) does not appear, at least on the evidence given at this inquest, to have been part of general yachting culture. As it is a part-time hobby or sport for most participants, to a certain extent this is understandable, as time for such training may be at a premium.

Also notwithstanding the initial problems with the rescue attempts, had Mr. Dack been wearing a Personal Flotation Device (PFD) he would have survived. However, the underlying philosophy for safety in the sport of Yachting is that it relies heavily on the safety management skills and experience of the individual skipper and, ultimately, the individual crew member to decide whether or not PFD's (or harnesses) are to be worn. The wearing of a PFD (or harness and connected line) depends on how well the risk is understood by an individual and, problems anticipated. This case should demonstrate the flaws in this philosophy as it relates to safety. Even following incident in which Dack was thrown overboard, the skipper still did not require the wearing of PFD's by the crew.

In accordance with the underlying safety philosophy and racing culture, the regulations for the sport do not specify the mandatory wearing of PFD's (or harnesses and connected lines). This underlying philosophy is fundamentally flawed, especially where there is a risk of a yachtsman falling overboard for any number of reasons, principally related to human factors like *`human error'* in a sometimes unforgiving environment and ranging from accidental slipping on a deck to being thrown overboard in a sudden and largely unexpected squall. In the event the yachtsman falls overboard and is unnoticed or problems with timely rescue procedures occur (as happened with Mr. Dack) drowning is a likely consequence. The collorolory is a different management process aimed at avoiding these unintended consequences of *`human error'* - like for example the requirement to wear a PFD at all times whilst working above deck. It is understood that there are problems with wearing the current basic design of PFD's (as approved by the Australian Standards) at all times during racing as many of the basic units are not comfortable, practical (for use in yacht racing) and have some safety problems. This is an issue that **urgently** needs addressing by the yachting community, the PFD manufacturers, Regulators and Standards Australia.

The problems with the rescue attempts that directly effected survivability were as follows:

(1) A May Day call from the *`Spirit of Downunder'* that should have been made much earlier (as soon as the yacht's crew were losing sight of Dack and in light of the problems with steerage);
(2) Problems with steerage as a result of the helm being broken during the first knockdown;
(3) Fouling of the spinnaker line in the propeller (after Mr. Ford went into the water to help his crewman) resulting in the yacht not being able to return to rescue Mr. Dack. The spinnaker line should have been managed early in the incident to avoid the risk of line fowling occurring;
(4) Failed *"man overboard"* and general rescue procedures (which probably resulted from a lack of effective training and practice). Issues under this topic include:

- Failure to make the May Day call at the earliest possible time;
- Failure to release the Jon Buoy (with flotation device attached) as soon as Mr. Dack went into the water;
- Failure to ensure PFD's were worn as soon as possible after the man overboard incident;
- Skipper going overboard without a PFD properly fitted.

As indicated, it does appear that Mr. Ford and his crew had considerable experience in yachting and yacht racing. However, one thing is certain, each of the problems mentioned above may occur where pressure is placed upon even experienced individuals to perform and make effective and efficient decisions in emergency and potentially life threatening circumstances. The only way to reduce these types of mistakes is to develop and repeatedly practice emergency drills (such as "*man overboard*").[7] Again where for some reason, even after regular training for an emergency, something goes wrong, protective devices such as harnesses or PFD's should be worn as standard and **required** equipment for the yachtsman.

Finally, it has been suggested by some yachtsmen that the rescue attempt by the skipper and crew of the *`Spirit of Downunder'* was *"textbook."* Clearly, even common sense dictates the rescue attempt could not be so described. There were too many potentially avoidable errors in seamanship.[8] The rescue attempt was far from a *"textbook"* operation. Textbook operations occurring in situations of high stress require regular practice to reduce the risk of errors that could cost a life. The crew of the *`Spirit of Downunder'* did not undertake such practice prior to the incident - in the management of the incident it shows.

However, there is no doubting the good intentions and tireless efforts of the skipper and crew of the *`Spirit of Downunder'* in their thwarted attempt to rescue Mr. Dack. In the context of events such as faced the skipper and each and every one of the crew of the Spirit during the incident human error and misreading what was happening were common factors (these are not unusual factors in the management of any disaster). What must be recognised is that these failures are due, in part to an overlying culture in yachting that puts sole responsibility for decisions as to the wearing of available

[7] Note: The "*man overboard*" procedures do not provide sufficient guidance on assessment of risk as relating to the timing of the calling of a May Day.

[8] For example: The failure to require the donning of PFD's by the crew as soon as possible after the knockdowns; the failure to ensure all lines were stowed (resulting in one line fouling the propellor); the failure to make an early May Day call (once sight was lost of the *"man overboard"*, in the light of the steerage difficulties); the failure to ensure that Dack had an additional floatation device once he was located for the second time.

and protective safety equipment, in the hands of individual skippers and the crew. Also mandatory training and drills in "*man overboard*" procedures was not part and parcel of standard operation in yacht racing. Had any, or all, of these protective systems been in place and operating in the yachting community prior to 26th December 2000 the skipper and crew would have been likely to have had a successful outcome (or Dack may not have gone overboard - if wearing a mandatory harness). **To focus solely on what the skipper and crew did or did not do during the rescue, other than to show what can be learnt, would be a mistake. There are far wider lessons for the whole of the yachting community.**

On one view, there was a lack of effective safety management during the running of the race, with the Race Controller being absent from the Yacht Club, visiting a friend, at potentially critical times. Whilst absent, the Race Controller's duties were not devolved to any other person at the Club. During the Controller's absence, safety, in respect of Mr. Dack, could have been compromised (although in this case, the absence of the Race Controller probably did not significantly effect the eventual outcome). The absence of the Race Controller for a significant time during the race, on private business, is not demonstrable of an attitude to race management that leaves any confidence that safety was being appropriately considered. In addition, there were a number of issues raised by the family that are indicative of less than adequate attention to detail by the Squadron in safety management. Conversely, the approach by the Squadron was simply that safety was in the hands of the individual skipper and crew, according to the racing rules that existed at the time. Other responsibilities were delegated to agencies like Melbourne Coast Guard, Police and Melbourne Radio.

In the future, race management by an organisation such as the Royal Melbourne Yacht Squadron (through it's Race Committee), can be in a position to broadly oversee and assist with the safety of a large number of individuals (in this case about 180). Whilst there is a clear role for the skipper and crew for their own safety, the overview and protective pre-race safety checking, ensuring the delivery of appropriate safety messages and related weather information (before or during the running of the race) and an overall safety audit role needs to be, and remain with, race management. This case has identified a significant number of areas for improvement in this regard.[9]

It is noted that Race management issues were a far more critical issue in the management of the 1998 Sydney-Hobart race than they have been in this case (see State Coroner Abernethy's finding pp. 128-142). However the Coroner made a number of points that management should address which appear not dissimilar to some of those surrounding the management of the *`Big Bay Race'*. In part, these are:

- Sailing office staffed at all times and messages passed on.
- Organisers' whereabouts were known.
- Organisers discussed the weather forecasts and other information.
- Information was passed onto the Race Fleet.

[9] See discussion in this finding under the sub-heading "**Discussion on the principal issues**" - `The use of PFD's and/or harnesses, race categorisation and the Sydney-Hobart incident' and `The absence of the Race Controller and overall safety in race management by the Squadron'

COMMENTS AND RECOMMENDATIONS

The findings, comments and recommendations will be forwarded to the:

- Attorney General (Victoria),
- Minister for Sport (Victoria),
- Minister for Transport (Victoria),
- Minister for WorkCover (Victoria),
- Federal Minister for Communications,
- Chief Commissioner of Police,
- Chief Executive Officer, Marine Safety Victoria,
- Chief Executive Officer, WorkSafe Victoria,
- Commodore, Royal Melbourne Yacht Squadron,
- National Marine Safety Committee,
- State Boating Council,
- Victorian Volunteer Coastguard,
- Victorian Yachting Council,
- Australian Yachting Federation,
- Ocean Racing Club,
- Australian Maritime Safety Authority,
- Australian Transport Safety Bureau,
- Standards Australia, and
- The Insurance Council of Australia.

Introduction

The sport of yachting has some element of danger and, whether the yachting community is desirous of further improving safety is a matter for it, and in the long term ultimately the regulator. However, it is also necessary to acknowledge that others, working in areas such as Police Search and Rescue, Police Air-Wing and Coast Guard also put their lives at risk in undertaking rescue and assisting when problems develop on the water.

The organising body, the Australian Yachting Federation (called AYF or the Federation), already regulates issues such as the types of PFD's available to be used in racing[10] and harnesses, and provides for some guidance in relation to *"man overboard"* procedures. It has developed safety courses and undertaken other safety related work since the 1998 Sydney to Hobart yacht racing disaster. Having taken steps such as these, the yachting community has already recognised the need to manage and reduce the risk of drowning. It is a question for yachtsmen whether they are prepared to mandate the use of existing equipment and procedures in order to approach the issues far more pro-actively to further reduce the risk.

The New South Wales State Coroner, Mr. John Abernethy, made similar points in his finding in the 1998 Sydney to Hobart yacht race Inquest. He said:

> *"bearing in mind that Yachting Clubs, such as the CYCA, are voluntary organisations that depend upon the willingness of their members to implement change. In this respect, such organisations are unlike statutory bodies, which can regulate with the force of law.*
>
> *I also realise that the costs of these recommendations will, ultimately, be borne by the yacht owners and crews themselves. However, when one considers the cost of the rescue to the community, not just in monetary terms, nor risk of damage to rescue aircraft and vessels, but in the very real risk of injury to the rescuers themselves, then such costs to the yachting community are not great. When these costs are considered, society, which never hesitates to aid those in distress, has the right to ask of the yachting community that it also plays its role in such efforts and adopts these recommendations."*

And the New South Wales State Coroner, when commenting on the need for partially mandated crew training, made the plea that:

> *"each crew member of a yacht to pursue this training and to look upon it as an extra safeguard and part of the ordinary practice of sailors. It is, after all, for your own benefit."*

This plea is wholeheartedly supported. Clearly, improvements in safety practices and procedures in a sport like yachting are primarily for the benefit of all those taking part in the sport.

Finally, it is noted that the Federation has taken on board many of the lessons learnt from Sydney-Hobart and developed a range of countermeasures and solutions. The Federation comments in the Power Point Presentation and Handouts for its recently introduced *"Safety & Sea Survival Course"* (developed as a result of the State Coroner's Findings and Recommendations in Sydney-Hobart):

> *"Irrespective of Regulations there is a clear need for owners, skippers and crew members to be pro-active about safety and survival."*

However, safety and survival also requires a constant level of pro-active work and review by regulators, yacht race officials, race managers, the broader yachting community and its representative bodies. It also requires a level of co-operative work with the regulator and other specialists in safety and risk management.

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[10] Equipment (PFD's) complying with the European Standard (EN 396) is able to be used in racing, provided the PFD's are equivalent to or in excess of the Australian Standards and this may also mean that other PFD's complying with the Australian Standard AS 1512 are on board (to ensure compliance with the Victorian Marine Regulations).

These recommendations generally apply to the Category 3 and Category 4 class of yacht races. However, the recommendations may also be relevant to other categories of yacht races[11] and to recreational sailing (in particular, mandatory wearing of PFD's, the use of harnesses [where appropriate] and training and practice in *"man overboard"* procedures). In some classes of yachts the PFD/Harness combination may not be relevant.

Finally, it is important that, where possible there be a uniformity of approach to safety equipment and training across Australia and these Comments and Recommendations are designed with the wider focus in mind. Also, work on the Australian Standards should be viewed as a matter of some urgency as delays in modification of the Standard (AS1512) to embrace the more appropriate overseas Standards will cost lives.

Mr. Dack's death was avoidable - by use of a PFD (or harness)

Mr. Dack's death was preventable. His death follows other deaths in recreational yacht racing where a competitor and/or crew member accidentally falls overboard as a result of a sudden squall or an incident on deck during the race, survives for a short time, and drowns because fellow sailors are unable to reach the yachtsman in time.[12] As with other cases, Dack's death could have been avoided by the use of an easy to use (and purpose made), comfortable, personal flotation device (PFD) worn by yachtsmen at all times whilst on deck during a race. Even more importantly, Dack probably would not have fallen overboard **if he had been wearing a harness and a connected line**.

However, as a rule, yachtsmen do not wear PFD's (Type 1 which are required to be on board) at all times when working above deck whilst sailing. It appears that they also do not, as a rule, wear harnesses at all times. Simply put, in certain categories of racing, they are not required to be worn as part of the AYF's Racing Rules of Sailing.

It is noted that deaths associated with the lack of wearing of PFD's also occur in recreational boating and commercial fishing. As with yachting, these types of deaths are not uncommon and equally preventable by the wearing of PFD's. Of course, there is a necessity to ensure that the type of device worn is safe, practical for the type of operation, comfortable to wear at all times (and weather conditions) whilst working on deck, and affordable. Apparently, notwithstanding the existing safety philosophy and yacht racing rules, there is a view that in general, the cheaper PFD's currently available, do not necessarily meet with these, not unreasonable expectations. Also the applicable Australian Standard (AS 151**2) does not have a particularly high bar for modern safety design as compared with other comparable international standards**.[13] That having been said, there are more expensive PFD's (self-inflatable jackets, vests and horseshoe designs)[14] complying with International Standards that do comply with Australian Standard AS 1512 and provide many of the solutions such as maximum safe operation in most situations, practicability, wearability the option of harnesses (with crotch straps) and some have pockets for survival equipment.

No doubt the argument that PFD's are bulky, uncomfortable and restrict movement at one stage had some limited merit in persuading the yachting community that the wearing of such devices should be left to when the danger was obvious or to the last moment. Also Standards that provide a low bar for

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[11] Category 0, 1-2, 5-7.

[12] See Coroner's Case Number 2234/95 (Brian Fredrick Wood). Obviously, there will be cases where hypothermia takes a toll where the downed crewmember remains in the water for a considerable time.

[13] Such as the European Standard EN 396.

[14] There are horseshoe PFD's available for about $136 as compared with the cheaper type of PFD, also complying with the Standard for $15-20.

safety and wearability in design may have tempered an approach by the yachting industry to develop and adopt more user-friendly, affordable and modern personal flotation equipment.

International standards have, in some cases, been more flexible and provided for the use of a far more satisfactory product (combining safety, comfort, wearability and practicality). New materials and innovative design, in the context of a constantly changing safety environment have apparently not been embraced by the entire yachting community in a way which has forced a change to the relevant Australian Standards. Had this occurred it may have eventually encouraged the development, manufacture and sale of more affordable suitable equipment resulting in more widespread use by the entire yachting community. As indicated, in the area of commercial fishing PFD manufacturers are now working with fishermen to develop more suitable products for all round wearing.

The management of risk associated with going overboard during a yacht race should not solely rely on the skipper to assess the weather and notify all crew of the need to don a PFD (or harnesses and lines) nor should it rely on *"man overboard"* procedures, *`Jon Buoys'*, etc. It should also not depend on the assessment of an individual sailor. Passing what is a system responsibility, on to the individual sailor (like Mr. Dack) is flawed safety logic and, if it persists will result in many more yachtsmen or women dying and, in some cases, further risking rescuers' lives.

For any number of reasons the assessment of the need to wear flotation devices may not happen in time, or at all. The skipper may be below decks, not be listening to weather broadcasts or not aware of a rapid change in conditions, a crew-member may accidentally fall or be washed overboard during a change of tack, be struck by a boom or slip on a wet deck. Also something may go wrong with the *"man overboard"* procedure. By way of example, in this case at some stage during the incident, the yacht was without power and following the propeller fouling by a spinnaker line as a result, the boat was making between 6 and 8 knots away from Mr. Dack's position. Earlier it had partially lost steerage as a result of damage to the helm pedestal. In any over-the-side rescue process ***"recovery time is of the essence"*** without a PFD being worn by an individual sailor the time from identification of a man overboard to rescue this time is even more critical, and because of weather, sea conditions or other difficulties may not be possible to control. Dack's death is but a telling example of how things can go wrong.

The need for a decision-making process to occur before the donning of PFD's, is one area where problems can and do occur. The facts surrounding the drowning of Mr. Dack highlight the need to reduce this potential risk. A requirement that PFD's be worn in all yachting activities (whilst crew are on deck) would significantly reduce the risk of drowning. Once a person is in the water it is often too late and these events can occur suddenly with little realistic time to react.

Many types of PFD's are very difficult to don once the individual is in the water (exhaustion or the need to keep afloat takes over). Practices aimed at testing and training sailors to don PFD's when in the water, whilst an appropriate risk management technique for those who are not wearing the equipment and end up in the water, essentially miss the point. Sensible risk management should aim at eliminating the difficulties associated with donning PFD's in water by providing for the wearing of such devices in anticipation of the risk of going in the water. **Mr. Dack's death serves to illustrate just some of the surprises that even experienced sailors can encounter in apparently normal conditions.**

It is noted that the Squadron submitted that:

> *"Even after the 1998 Sydney - Hobart race, the Coroner who conducted the Inquest did not recommend that the wearing of PFD's or harness be made compulsory and consequently this has*

been left up to the discretion of the skipper and his crew. If this is the case in Ocean Races then in a race in the Bay where wind speeds and heights of waves are far slower and smaller, it should not be incumbent on the Squadron to require contestants to wear PFD's or harnesses. The AYF rules provide that this is the sole responsibility of the Skipper. Mr. Mooney in his statement identifies possible reasons why PFD's are not mandatory..."

Surprisingly, even after this incident the Yacht Squadron appears to be of the view that compulsory wearing of PFD's is not required. As indicated, if this safety philosophy is not revised then preventable deaths of individual yachtsmen like Mr. Dack will continue to occur. Surviving families and fellow crew will continue to suffer from the emotional trauma of loss. Considerable time and resources of police and rescue authorities will be at risk with, in spite of their repeated efforts, the real potential of the tragic outcomes being unaltered. It is noted that the commercial fishing industry (as a result of recent deaths and coronial research) is appropriately reviewing the approach to the wearing of PFD's and working with the manufacturers of PFD's and regulators in order to come up with more suitable and generally usable products.

Significantly, Mr. Dack's family support this approach. The family submitted as follows:

"...Ford was asked what he would do differently for this race today and he answered....he'd make sure all the foredeck crew were wearing some form of emergency flotation. He would have a protocol about `man overboard' which would be in writing and on cards. He would do it, not only for ocean races, but for Bay races. He would give directions that the Dan Buoy was to be deployed. These acknowledgements are vital to the findings of the Coroner. There was nothing about the circumstances of the death of Dack which threw new light upon the potential risks faced by competitors in this race and, thus, we submit these precautions ought reasonably have been required by the race organisers of competitors for the race in 2000.

Ford agreed that the conditions at the time of knockdown...were such that they needed to be wearing PFD's and... he accepted that if he had a PFD on when he went into the water, it would have made supporting Dack a simpler and more effective task. It would have ensured he could have placed the line over the head of Dack when he went in the water, although he said at the time he went in, Dack ceased to be conscious so that he expressed not to be sure what would happen with a life sling on an unconscious person.... Unfortunately, this action was easily taken by Ford. The risks which flowed from failing to take these precautions were obvious, and the failure to take this action was probably a cause of the death of Dack.

In answer to the Coroner....Salmon said since the incident he had changed his perception of risk and he takes more consideration of what may happen as opposed to what is happening…of course common sense dictates that one doesn't have to experience such a tragedy to be aware that all assessments of risk involve precisely these considerations." (Submission, pp 91-92)

Some of the detail of the evidence of the yacht's skipper Mr. Ford, is worth considering:

*"**Q**: So at some stage did you give an instruction to put on harnesses or---?*
***A**: I was out of the boat from that point on. That's a dilemma that skippers often face, a situation like we were in where everything's OK and looking good. When the weather suddenly turns, the most important thing is to get the boat set up for it and often it's then – OK, now we put on the safety gear. So it's a matter of the sequence of events and the urgency of it*
***The Coroner**: It becomes a bit late if you haven't worn the safety gear up to then?*
***A**: I agree, I agree –"*

Support for mandatory wearing of PFD's is also found in the evidence of Senior Constable Barton (Water Police). As already indicated he stated:

> *"Under the Marine Act the carrying of a PFD type 1 on board for each person is mandatory. In my opinion it should be considered that whilst moving out of a enclosed area of a cockpit the wearing of a PFD or use of a harness should be made mandatory. This would in the first instance offer the victim buoyancy if fallen overboard. If in the second instance, the victim had been wearing a harness and harness line the victim would had been over the side but still attached to the vessel. The crew would then, possibly been able to retrieve the victim"*

The recent Marine Safety Victoria pamphlet titled, *"Life Jackets Save Lives"* also makes the point *"In fact you could wear a PFD whenever you are on deck - it sets a good example."*[15]

Also, most recently Coroner Byrne, in a case involving drowning of two individuals involved in recreational fishing at Corner Inlet [16], commented (in part):

> *"... it is clear that one's prospect of survival is infinitely greater if wearing a life jacket appropriate to the circumstances and properly fitted."*

Historically, coroners have investigated deaths associated with recreational boating and yachting for a considerable number of years. Whilst recommendations by coroners for improvements in the design of PFD's and improvements in Standards (so that they are affordable, practical, purpose designed and comfortable enough to facilitate all-round wear) are only relatively recent origin, the technology has also only recently been sufficiently robust enough to be able to come up with potential solutions.

The problem in the case under investigation is that the personal flotation device was not there when it was *"needed the most"* when Mr. Dack was fatigued and needed the device to save his life. In addition, a number of things went wrong during the failed rescue attempt, which had the effect of not optimising the chances of a successful outcome. All, or for that matter any, of these errors (or different errors) could occur in any rescue situation where the potential for difficulties multiplies as a result of the pressure of the need to recover an individual from the water.

In the sport of yacht racing **deaths will no doubt continue in circumstances where they are preventable** unless crew are required either by legislators or the sport's own rules to wear PFD's when working or relaxing above decks. This would equally apply to recreational sailing, in flat water, bay and ocean racing.

It is recognised that there are a variety of conditions, applications and types of vessels that need consideration in any new design brief for PFD's (see the evidence of Mr. Mooney cited under the sub-heading **- "The evidence by one of the yachting community's experts"**). That is why the yachting community and PFD manufacturers need to work closely together to find additional practical solutions and design modifications to equipment.

In any new design brief for PFD's consideration would need to be given to providing utility pockets for safety and survival equipment such as: a personal EPIRB; strobe light/torch; a knife. The pockets

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[15] There are three recognised types of PFD's:
Type 1 - Is a recognised life jacket and provides a high level of buoyancy and keeps the wearer in a safe floating position.
Type 2 - Is a buoyancy vest - not a life jacket. It provides less buoyancy than a PFD Type 1. (Often used by canoeists and off-the-beach sailors).
Type 3 - Is a buoyancy garment - not a life jacket, similar in buoyancy to Type 2. (Often used by waterskiers and PWC riders).

[16] See Coroners Case Nos. 2777/02 & 2798/02 - Cooke & McNeil

would also need to include lanyard ring/s (so that the survival item could be attached by a lanyard and therefore would not be lost while in the water). Currently, in accordance with the new requirements of the AYF individuals are required to have these items "*on deck*" - they all should be lightweight and kept in **worn** PFD's.

Also, ideally PFD's should provide a harness combination (in accordance with AS 2227) with crotch or thigh straps as required by the new AYF rules. With crotch straps, it may be useful to consider designing a retractable system for comfort and convenience.

It is noted that the Marine Safety Victoria is responsible for the regulation of marine safety in this State by virtue of the Marine Act 1988 and Marine Regulations 1999. Ultimately, **the mandating of PFD wearing rests with Marine Safety** but it cannot successfully change the safety approach without the co-operation of the yachting community, in particular the AYF. Changes to Australian Standards are urgently needed (if lives are to be saved) and also require co-operation of the yachting community.

Recommendation 1

That in circumstances where yacht crews are required to work on the deck of a yacht the wearing of PFD's (as a minimum safety requirement) should be a ***mandatory requirement*** *and not left to the skill and good judgement of a skipper or individual crew member. This should occur for recreational sailing, in flat water, on bay and ocean racing.*

To ensure that the yachting community accept the mandatory wearing of PFD's it is essential that ***safe, simple, easy to wear and purpose built, affordable personal floatation devices be recommended for use in the various yachting operations.*** *Where modifications are required to meet the need it may necessitate the yachting community working with the manufacturers of PFD's to ensure that any solutions that enhance the usefulness and value of this equipment are adopted. Examples of the types of practical, self inflatable PFD's already on the market that could possibly be mandated as a minimum are shown in Appendix A*

Other examples to consider would be the more modern self inflatable jacket or vest style (there are a number of the these types of units currently available, manufactured by a variety of companies and complying with AS 1512 - some also have harnesses and lines complying with AS 2227) .

Designs should include utility pockets with provision for a lanyard ring.

A harness combination (complying with AS 2227) should be considered as ***mandatory*** *with all PFD's required to be used in yachting. A retractable crotch strap should also be considered (see also sub-heading "The use of harnesses and PFD combination" below).*

The yachting community should also work with the National Marine Safety Committee, PFD manufacturers and Australian Standards to ensure that the design and standards are appropriate for safety (it is understood that the National Marine Safety Committee is currently conducting a review of a national standards for recreational boat safety equipment). This work should be regarded as most urgent as delays will cost lives.

Recommendation 2

That the Australian Standard (AS 1512) be reviewed in relation to the design and style of PFD's required to be carried on yachts for use by crew (in the light of Recommendation 1 and the general comments in this case). By way of example, some of the issues to be considered in this review would be:

- *Ensuring the PFD remains on the wearer in most water entry situations (considering distance from vessel to water);*
- *Ensuring the worn PFD does not slip off the wearer whilst in the water;*
- *The worn PFD does not create problems in a situation where the individual is trapped under an overturned vessel;*
- *The unit is functional and comfortable for wear at all times (in most weather and/or work situations);*
- *Appropriate contemporary fastening devices;*
- *Level of buoyancy is improved (as compared with the European Standard - which provides a greater level of buoyancy than the Australian Standard) .*

The use of harnesses and PFD combination

The use of harnesses and lanyards (lines) complying with the Australian Standard AS 2227 should be required in all areas where there is a risk that the crewmember could fall overboard during work on the deck of a yacht. It should be remembered that the risk is increased where there is concentration by a crewmember on the job during a race, combined with the fact they are expected to work quickly in a slippery, unstable and potentially chaotic environment.

As with PFD's, it is often too late to fit a harness and connect the line whilst the work is underway and problems start to unfold. The facts of the Dack incident nicely illustrate this point.

As indicated, ideally PFD's should be designed for use with a harness combination (fitted with a crotch/thigh strap). **Mandatory wearing of PFD's designed with harness combination would address both issues and reduce risk.**[17]

Personal Locator Beacons linked to a vessel as a rescue system

There are two systems to assist in identifying an incident and subsequently in locating a *"man overboard"*. These systems are the Emergency Position Indicating Radio Beacon (EPIRB) and the Personal Locator Beacon (PLB) both of which work off satellite technology.

The New South Wales State Coroner, Mr. John Abernethy, examined elements of the EPIRB system in his finding in the 1998 Sydney to Hobart yacht race Inquest. He recommended that *"all crew members of competing yachts wear a personal EPIRB when on deck in all weather conditions."* He also recommended all crew be trained in their use.

Coroner Abernethy also noted that:

[17] See also Recommendation 1.

"the 121.5 MHz system will, in a few years, cease to function. I am told that the 121.5 system will be superseded by the 406 MHz system."

And suggested that the *"406 MHz personal EPIRB be acquired in preference to the 121.5 MHz. Also the 406 MHz EPIRB. Also the 406 MHz EPIRBS reduces the area of search from 20 km to a 5 km area."*

Currently, the modern EPIRB system operates on certain frequencies and information is downloaded from a satellite automatically advising Australian Search and Rescue (ASAR) of position. It is noted that currently there is an inbuilt delay in the rescue process (in some circumstances for some hours) following an activated signal from some personal EPIRBs (especially on the 121.5 MHz frequency). This is because of the timing of satellite passes and checking processes. There is also a 406 MHz personal EPIRB system combined with a GPS operating through GEOSAR which responds immediately, not waiting on satellite passes. The GPS combination gives the ability to locate and pinpoint the individual within meters of his/her position.

However, in spite of the delay in response problem (which in some circumstances compromise timely rescue), the wearing of an EPIRB can also make the difference between a successful outcome and failure. Thus a mandatory, lightweight EPIRB carried on the person at all times whilst above deck is an essential item of safety equipment for all yachtsmen and women who are sailing in open water. Whilst the wearing of an EPIRB is more relevant for open water sailing, in some circumstances in a more closed water environment an EPIRB or PLB worn by an individual may also make the difference between life and death.

If possible, the EPIRB system should also be designed to maximise the capacity for the nearest vessel to perform the rescue (in most cases this will be the vessel from where the individual falls overboard). Possibly this could occur by adding an optional PLB to the personal EPIRB (provided the technology is such that it provides for an overall compact light weight unit). It may be appropriate for the relevant agencies to look at combining the personal EPIRB system with a system enabling the vessel from where the yachtsman/woman has fallen overboard to return to position by following a radio signal (called Personal Locator Beacon - PLB).

Had Mr. Dack been carrying a PLB and a receiver or direction finder was on the *`Spirit of Downunder'*, and all other things being equal, it may have resulted in a slightly quicker recovery operation. It is noted that following the original GPS plotting, the *`Spirit'* sailed in the wrong direction for a short time on the way back to Mr. Dack's position. It is understood that some PLBs have the option of providing a warning signal on the vessel when the person has gone overboard and the PLB is activated.

It is understood there is already a PLB system operating on 121.5 MHz using a light weight, waterproof wristwatch with a suggested range to a helicopter of 15 nautical miles and to a rescue vessel (with a Receiver or Direction Finder) of half (.5) a nautical mile. The use of a GPS option in this type of system would be of benefit. It is noted that this system does not operate on 406 MHz.

In many circumstances in water such as Port Phillip Bay, a PLB (perhaps which combines an inbuilt GPS) may assist in automatically providing early warning to the crew of the originating vessel about a *"man overboard"* and, as a consequence, in rapidly and accurately locating the individual in the water. It is understood that problems with the Standards with this type of system (such as interference with the Distress Beacon Satellite) have now been remedied thereby making this type of

system feasible. Thus PLB's should now be encouraged by yachting organisations for generalised and standard use in racing and recreational sailing in large areas of water such as Port Phillip Bay.

Recommendation 3

The Yachting Community (in particular the AYF) encourage yachtsmen and women to use individual, lightweight Personal Locator Beacons with direction finders on the vessel for assistance in warning of an incident, finding and recovering a `man overboard' in more localised yachting situations (such as large bays or large expanses of closed water).

Eventually, consideration should be given to combining such a system with the personal EPIRB system.

Mandatory safety courses and practising for *`man overboard'*

The New South Wales State Coroner, Mr. John Abernethy, made a point in his finding in the 1998 Sydney to Hobart yacht race Inquest when he said:

> *"trained crew have a greater likelihood of survival than untrained crew."*

Whilst this comment is made in the context of yachts capsizing or in trouble in offshore racing it equally applies to rescue processes for a single "*man overboard*" in the bay environment. As to the broader issue of safety training, Coroner Abernethy recommended that:

> *"at least 50% of a competing yacht's crew should have completed a Yacht Safety & Survival Course every three (3) years."*

The Coroner said that the course should be *"course ABF511 of the Australian National Training Authority."* He noted that the Safety Seminar Certificates are valid for three years and thus requiring *"the competitors' continual safety training."* Importantly Coroner Abernethy said:

> *"I realise that such training will, of course, take time and effort. Not only from the yachting organisations but also from the individual yachtsmen and yachtswomen.*
>
> *There will also be those who will consider this training unnecessary because of their knowledge acquired over many years of yacht sailing.*
>
> *But before dismissing safety training as simply another requirement I would ask each crew member to look at the facts from which this recommendation sprang."*

The Coroner then quoted evidence of two survivors of the Sydney-Hobart Race who were on the ill fated *"Winston Churchill",* Messrs Richard Winning and Richard Stanley. Both survivors discussed the need for training in relation to the use of life rafts. In the aftermath of the Dack incident it is obvious that training is also required in the area of *"man overboard"* procedures. Water Police regularly train for a *"man overboard"* (and have a simple document procedure).

Coroner Abernethy also had some research and practical trials completed on the benefits of training on life raft operation. This was undertaken by Mr. Tony Boyle from the Australian Marine College in Tasmania. Briefly the comparison of trained and untrained were summarised in Boyle's report. He said that:

> *"In addition to the generally distribution of higher scores attained by the trained subjects, further evidence that training may be valuable for a survival situation can be derived from the following observations made during the trials:*
>
> - *1 untrained subject failed to board the Pro Saver life raft.*
> - *3 untrained subjects failed to right the 10-person Beaufort life raft.*
> - *4 untrained subjects became entangled in lines or in the canopy hatch during the underwater escape and required assistance from the safety diver to get free.*
> - *9 untrained subjects failed to don the helicopter strop in a manner that would not result in injury or falling from the strop compared to 1 trained subject.*
> - *9 untrained subjects failed to maintain contact with the life raft via the rescue quoit and line."*

And concluded that:

> *"Sea survival training makes a significant difference to the general survival skill knowledge of a racing yacht crew member.*
>
> *Trained racing yacht crew members were observed to be generally better able to perform practical survival tasks than untrained racing yacht crew members."*

Mr. Boyle commented that the *"recommendation for 50% of a yacht crew to undertake a "Survival at Sea", "Marine Survival Course" should be implemented as* ***a minimum*** *requirement"* (emphasis added for the Dack finding). He said that such a course *"should be independent of general safety and seamanship courses."*

Coroner Abernethy said that from the evidence of the *"survivors of "Winston Churchill" and the tests conducted by Mr. Tony Boyle, it is indisputable that trained crew have a greater likelihood of survival than untrained crew."* In his recommendations he then asked:

> *"each crew member of a yacht to pursue this training and to look upon it as an extra safeguard and part of the ordinary practice of sailors. It is, after all, for your own benefit."*

It is understood that the Australian Yachting Federation has introduced, as part of its "*Safety & Sea Survival Course*" practical pre-race drills for a range of safety issues such as using PFD's, Rafts and working in darkness. The drills start with a theoretical in class component and develop to practicing the skills in a swimming pool. As indicated, these drills have been introduced following the Coroner's findings and recommendations in Sydney-Hobart. It is noted that they do not include drills on "*man overboard*." What occurred in the Dack incident indicates that there may be a need to extend the course to provide drills and scenario training for "*man overboard*."

Training has long been recognised in a range of professional and general work areas as a way of increasing knowledge, understanding and performance in order to partially address issues such as safety. Where there is a risk of death or serious injury practical solutions such as regular intensive

training by way of theory and drills in order to improve skill and response levels makes a good deal of sense - it should be mandatory for all those at potential risk. Training, in the area of occupational safety (where the problem cannot be engineered out), is regarded as one of, what is termed as the **"hierarchy of controls".** To a certain extent, the problem (falling overboard) can be engineered out by the use of a harness and line. However, where this solution is not practicable or something goes wrong, the worn PFD and training in "*man overboard*" procedure (as just some aspects of yachting safety) are necessary.

There is no reason why safety training should not be fully embraced by the yachting community and that the aim of "*50%*" crew compliance with safety training (for a competing yacht), be substantially improved (with the eventual aim of mandating safety and survival courses for all competing crew).

There are a number of suggested procedures for "*man overboard*" (by way of example the AYF - Racing Rules of Sailing 2001 - 2004 Appendix B, New Zealand Website and the Victoria Water Police's Standard Operating Procedures - Man Overboard). In the light of the facts of the Dack incident there may be potential improvements or clarification required for the existing procedures. Also it might be considered prudent to review all of the suggested procedures to determine whether there is a preferred model (or models for varying situations). Clear examples of where certain steps (like calling *"May Day"*) may be necessary to assist in guiding the management of risk.

Recommendation 4

In the light of the Dack incident "Man overboard" procedures be reviewed in order to find the best practical model or models for varying circumstances.

Recommendation 5

"Man overboard" procedures with theory, developed scenario and general drills be part of ***mandatory****, standardised "Safety & Sea Survival" training for all crew in the appropriate race category (obviously it would apply to the general classes of yachts that raced in the `Big Bay Races'. This comment does not exclude application to other appropriate classes of vessels and races).*

The changes to systems introduced by the Yacht Squadron

The Royal Melbourne Yacht Squadron indicated that it has *"implemented a number of changes to its safety procedure and race operations in an attempt to minimise the chance of re-occurrence of this tragedy."* It is appropriate that volunteer sporting organizations such as the Royal Melbourne Yacht Squadron learn from incidents. It is noted, however, that there are a number of additional issues that require addressing (see for example the sub-heading below **"Race management for safety and organisational audit"**).

The changes introduced by the Squadron following Mr. Dack's death are as follows:

> *"4.5.1 A general increase in the awareness by committees including the sailing committee of the need for a best practices attitude when it comes to safety.*

4.5.2 Random inspections of vessels and safety equipment by a designated safety officer.

4.5.3 Increased education and member participation in courses including:

(i)Radio Operator's Course;

(ii)Safety Survival Course run by the AYF/ORCV.

4.5.4 The Squadron itself has been a participant in conducting these courses.

4.5.5 Alteration of the "sked" system for races so that yachts call in prior to the start and then at each race mark rather than at designated sked times.

4.5.6 With night time races, it is now mandatory for a radio check to be done prior to commencing the race.

4.5.7 The existing emergency rescue plan has now been incorporated into each member's handbook."

These changes are limited and do not consider mandatory use of potentially protective safety devices such as PFD's and/or harnesses or improving the use of safety rescue equipment such as EPIRBS. Compulsory undertaking of the Radio Operators Course or the AYF/ORCV Safety Survival Course is also not mentioned in the new changes.

Race management for safety and organisational audit

The family submitted that, by way of example, the race categorisation process undertaken by the Squadron, and the resultant safety shortcomings, whilst playing *"no causative role in the death"* of Mr. Dack, is *"one of the many examples of the race organisers failing to put safety to the forefront of their plans for, and their supervision of, the race."*

It is hard not to agree with this submission. Although, as indicated, it could not be said that the actions of the Yacht Squadron were causative in the death of Mr. Dack, there are significant areas identified as a result of his death, where organisers of yacht races need to seriously consider improvements in safety management. It is clear that race organisers are in a unique position to provide an overview of the event, and whether it is for a race in protected water or the ocean, ultimately assist in safety management.

These areas may include, by way of example:

(1) Attention to race **categorisation or classification decisions** (where safety depends on the level of classification);
(2) Pre-race, during and post race **organisational management and documentation of principal safety issues,** i.e.:

- requirement to have **appropriately trained Race Directors or Supervisors** present at race command at all times (a national course for race managers has been developed by the AYF);
- **constant monitoring of race safety**;
- timely relay of safety and weather information (and ensuring the racing channel is monitored by yachts, as far as is practicable, **at all times** - not just at Skeds);
- recording of reasons why yachts choose to **abandon** racing (and determining whether this effects safety and race continuation);
- completing race log sheets in a timely way;
- **recording and investigation of racing incidents** that may effect safety (including instances of *"man overboard"*);

(3) Safety **audits** of racing competitors' **equipment and training** (i.e.: *"man overboard"*);
(4) Safety **audits of race management** processes and protocols;
(5) Development of **guidelines** to ensure decisions that may effect safety are made in an appropriately structured manner.

Where large numbers of individuals are involved in a yacht race, the measure of success of the event will depend no doubt on the level of enjoyment and achievement attained by the competitors. A tragic outcome like the death of Mr. Dack totally negates what the organisers and competitors set out to achieve. Relying solely on the safety management of individual skippers and their crews, in the context of a large event, is flawed logic. Race organisers are in a position to, and should, provide an overall safety envelope in the sense of audit, race rules and compliance, provision of timely and up to date safety information (including weather) and management of the event.

Quality Management Systems dealing with safety (like Victorian WorkCover's *"Safety Map"*) may provide some additional clues or directions for improvement in the safe management of a yacht race. Of course, any help that these type of systems may provide must be balanced by the fact that yachting is a sport controlled largely by volunteers who are focussed on enjoying their sport. It is important to reach a balance between safety management and the enjoyment or achievement factors of the sport. The role and workload on volunteer organisers also needs to be considered in this balancing exercise.

Again, it is noted that race management issues were critical in relation to the 1998 Sydney-Hobart race [18] and this area of yacht racing should receive considerable attention if safety is to be significantly improved in the future. Racing management teams and organisers cannot escape a level of overall responsibility for safety in both the lead up to a race and in management of a going race. To ensure that safety for yachtsmen and women is constantly being improved, Race Management may also need to review, document and, where appropriate, provide action following incidents occurring during a race.

The *"need for a best practices attitude when it comes to safety"* requires considerable ongoing work by organisations such as the Royal Melbourne Yacht Squadron and the Australian Yachting Federation.

It may be advisable for the AYF to engage the services of a speacialist Risk Management and Safety Consultant to review its yacht racing safety and management procedures in order to identify any areas where safety improvements may be required.

[18] Sydney-Hobart Inquest finding (pp. 128-143).

Recommendation 6

The Australian Yachting Federation consider improving the quality of the overall safety management of yacht races, and in particular deal with the issues referred to above (especially the cited example Items 1 - 5).

Recommendation 7

The Australian Yachting Federation consider engaging a specialist consultant on risk management and safety to review its yacht racing safety and management procedures in order to identify any additional areas where safety improvements may be required.

Radio management by yachtsmen - weather and safety information

The evidence at the inquest indicates that a yacht's radio is not generally monitored at all times during a race. In some cases, even Skeds may not be responded to by yachtsmen. From a safety point of view, this is unsatisfactory. It is noted that the Royal Yacht Squadron have introduced new radio procedures:

> *"4.5.5 Alteration of the "sked" system for races so that yachts call in prior to the start and then at each race mark rather than at designated sked times.*
>
> *4.5.6 With night time races, it is now mandatory for a radio check to be done prior to commencing the race."*

This does not adequately answer the problem. For example, if a yacht is in the vicinity of a stricken yacht (which has called "*May Day*") unless it is monitoring the radio for safety and emergency information it is obvious that a potentially successful response may be lost. Also if race management improve the safety systems some of the benefit may be lost if those needing the information (yachtsmen), are not listening.

It is concerning that evidence on the need for the monitoring of a yacht's radio during a race is casual. After the Dack incident one owner/skipper sailed in other major races and the radio was turned off after preliminary checking procedures. This experienced yachtsman acknowledged that this would mean that May Day calls from other vessels would be missed. On weather change information coming through the radio he also said *"we would probably have a better idea of change in the weather conditions than the people giving us the weather report."* In this context it is noted that the *"Fundamental Rules"* of the AYF's Racing Rules of Sailing, under the heading *"Safety - Helping those in Danger"* states:

> *"A boat or competitor shall give all possible help to any person or vessel in danger."*

When at sea, the *"Mariners Diary 2002"* (Safety at Sea) says:

> *"Turn it on -*
> *When at sea, a radio equipped yacht is required to keep watch on Channel 16(VHF)... for obvious reasons, if the radio's only switched on to transmit messages you may miss a distress call from a*

nearby vessel. Also important weather information and navigation warnings could not be heard. If you hear a call for assistance you must be prepared to respond if necessary...."

The international rule on response is clear on this issue. There is no reason, where time also may be critical in Bay Races for safety, for a distinction between ocean and bay.

Thus consideration needs to be given to mandating the monitoring of radios at all times during a race. This could be enforced by mandating response to all Skeds and making limited random calls during a race. If a competitor does not respond to say, two calls, then disqualification could be the result in order to ensure compliance.

Recommendation 8

The Australian Yachting Federation consider mandating the monitoring of radios by competitors ***at all times*** *during a race.*

AYF's Racing Rules of Sailing - a format for safety information

The Racing Rules of Sailing 2001-2004 ("*Blue Book*") deals with many safety issues throughout the document. However, it is not easy to quickly reference the rules and guidance notes relating to potentially urgent or relevant safety issues. Whilst safety procedures should be a matter of developed instinct (as a result of training and practice), it may still be necessary to quickly reference the safety information in the Blue Book in potential emergency situations.

It may be appropriate for the Australian Yachting Federation to consider a redesign of the layout of the Blue Book to enable easy and quick reference to all safety information. As the booklet is designed to run to 2004 unless it is necessary (as a result of other significant rule changes, etc) to publish a new addition it is not suggested this recommendation should necessarily apply before the new addition is due.

However, it is noted that the *"Blue Book"* provides little guidance on how to safely manage a yacht race. This is an area that, in the light of the Dack incident, may necessitate a review of safety information and guidance in the *"Blue Book"*.

Recommendation 9

The Australian Yachting Federation consider a redesign of the layout of the "Blue Book" so that safety information can be easily and quickly referenced.

The Federation may also need to consider a review of the contents of the "Blue Book" to improve guidance on safety for Race Managers, etc.

Availability of radio weather/rescue information for yachtsmen

It is understood that the services of *"Melbourne Radio"* ceased on 1st July 2002. It is also understood that Lonsdale light took over the role from that date, but at reduced capacity. The closure of the

service without complementary coverage being established is of concern both to the Water Police and Yachting community. From a Coroner's perspective any reduced public communication service, in circumstances of safety information or for a rescue situation, is of serious concern as an issue of public health and safety.

Graeme Johnstone
State Coroner
21st May 2003

Messrs John Molnar and James Mighell (as from 27th May) for Dennis Livingston and the Royal Melbourne Yacht Squadron,
Mr. Tony Burns for Laurie Ford,
Mr. Ron Meldrum QC for the family, and
Sergeant Jane Welsh, Assisting the Coroner.