Report of the Board of Inquiry into the Collision between *Sun Paradise* and *Pride of Airlie*

Report of the

Board of Inquiry

Into the collision

Between *Sun Paradise*

and *Pride of Airlie*

Whitsunday Passage

on 18 November 2001

REPORT/ ANNEXES

AUTHORISATION

The Chair and Members of the Board of Inquiry into the collision between "Sun Paradise" and "Pride of Airlie" - Whitsunday Passage - on 18 November 2001 confirm that we unanimously support the findings, conclusions and recommendations presented in this report.

Peter Baston

Chair

Robert Hume

Member

Roger Hickman

Member

9 October 2003

ON BEING WISE AFTER THE EVENT

For those who pick over the bones of other people's disasters, it often seems incredible that these warnings and human failures, seemingly so obvious in retrospect, should have gone unnoticed at the time. Being blessed with both uninvolvement and hindsight, it is a great temptation for retrospective observers to slip into a censorious frame of mind and to wonder at how these people could have been so blind, stupid, arrogant, ignorant or reckless…

First, most people involved in serious accidents are neither stupid nor reckless, though they may well be blind to the consequences of their actions. Second, we must beware of falling prey to the fundamental attribution error (i.e blaming people and ignoring the situational factors)

***Reason J* Human Error**
Cambridge Uni Press 1991

TABLE OF CONTENTS

ONE

EXECUTIVE SUMMARY

1. In accordance with the Terms of Reference as published by the Minister for Transport and the Minister for Main Roads the Honourable Mr Steve Bredhauer MP in the Queensland Government Gazette No 45 of 21 June 2002, an inquiry into the collision between the ships "Pride of Airlie" and "Sun Paradise" which occurred at Whitsunday Passage on 18 November 2001, has now been completed.

2. On the afternoon of 3 July 2002 a Directions Hearing was held in Brisbane. The Board of Inquiry (BOI) was then conducted at Proserpine between 26 – 30 August 2002.

3. The Board of Inquiry was conducted by the panel consisting of:

Chair - Mr Peter Baston, Barrister at Law;
Mr Robert Hume, Barrister at Law; and
Mr Roger Hickman, Mariner

4 The Terms of Reference directed the panel to investigate all the relevant circumstances and probable causes of the incident. Special reference was directed to:

a) The operational factors which contributed to the Incident;

b) The environmental factors which contributed to the Incident;

c) Whether any systemic or regulatory arrangements contributed to the Incident;

d) Whether the relevant persons were appropriately qualified and experienced in their roles on the respective vessels;

e) Whether the number of crew on the respective vessels and their qualifications were adequate for the circumstances;

f) The processes, management structures, procedures, training, equipment and workplace environment procedures in force or implemented on the relevant vessels at the relevant time, including any hazard identification, risk assessment and consideration of appropriate control measures;

g) The extent to which personnel on the respective vessels performed their duties (whether supervisory or otherwise) in accordance with procedures and policies in force at the relevant time and, if applicable, the extent to which personnel

failed to perform their duties (whether supervisory or otherwise) and the reasons for any such failure; and

h) Whether a "culture of complacency" or familiarity exists within the marine industry in the application of the International Regulations for the Prevention of Collisions at Sea, as identified in the investigating shipping inspector's report into this incident.

5. The Board has made 13 recommendations. The most important of these focus on the administration of vessel operations within the marine environment in Queensland and the development, implementation and maintenance of a culture of safety mindfulness at all levels of the bureaucracy and the industry. It was the express intention of the Board to address the Terms of Reference with an overarching aim of working toward a safer system of vessel operations in Queensland.

6. The Board's recommendations have been made with the clear aim of preventing the recurrence of such a collision and making maritime operations in Queensland, and in the Whitsundays in particular, safer for all. It is acknowledged that ship operations are inherently dangerous and only through strict adherence to safety processes and safety management principles will a safer maritime environment be achieved. This requires the development of a culture that focuses on safety mindfulness. The aim of the Board has not been to apportion blame, it has been to understand how the Incident was able to occur and to make recommendations designed to reduce the likelihood of recurrence.

7. While this approach has been taken with the intention of purposely focussing on a safer system of maritime operations in Queensland, nothing herein seeks to exonerate the individuals involved for their lapses in judgement nor for their failure to comply with their responsibilities. It is important, though, to highlight the fact that the accident was a combination of human error and inadequate training and procedures. While the recommendations of this report place most of the focus on the procedural and systemic shortcomings it is important to avoid placing an excessive amount of faith in correct procedures alone. No recommendation that the Board has made can reverse the actions of the individuals on the day. What the recommendations of this BOI seek to do is encourage the development of procedures to ensure that the likelihood of a repeat of such an incident is minimised. In the end, though, it is necessary to be able to rely on a person's good judgement. Hence, well-trained operators following processes developed in a safety system model should be the ultimate aim of any outcomes of this report.

8. The recommendations made in the content of this report are made with safety mindfulness as the overarching ideal. A culture of safety mindfulness will not be achieved by individual operators focussing solely on their operations. This focus is only a part of the requirement. Even more important is the collaboration of industry

with policy formulation representatives at all levels. These participants need to be involved in the identification of risks, the development of risk prevention methods and the formulation of the safety education packages that result. The development of such a system is not a simple process and it is one that requires a genuine commitment to change at all levels.[1]

9. There has been considerable effort within Maritime Safety Queensland (MSQ) to make progress towards a safer system of vessel operations in the period of time that has elapsed since the conduct of the BOI and this has largely been independent of the expected outcomes of this report. Much progress has been made by MSQ separate to the BOI and this effort should be encouraged. Some examples of this follow.

- Between 1997 and 1999 four model manuals plus two model records documents were developed and distributed by Queensland Transport to meet the priority need identified within the industry.

- In 2002, unrelated to the BOI, a wider set of documents for guidance within the industry was developed for application to the commercial and fishing sectors. These documents are designed as a guide for owners from which they can create documentation specifically designed for their vessels.

- The latest version of the Small Ships Manual (now called "Small Ships Training and Operational Manual") was published in 2002 in greater detail than the old Small Ships Manual.

It is the opinion of the Board that these are merely initial and somewhat ad hoc steps in what needs to be a longer-term approach to making vessel operations in Queensland safer.

10. The implementation of the recommendations of this report and a package of Continuing Maritime Education should be developed by the Queensland Government in conjunction with an Industry Reference Group.

11. The recommendations implementation package should include, but not be limited to, the following:

a.) a method of implementing the recommendations and measuring their effectiveness;

---

[1] For a recent discussion of the issues that surround the development of a safety culture see Hopkins, A. Working Paper 7 – *Safety Culture, Mindfulness and Safe Behaviour: Converging Ideas?* ANU National Research Centre for OHS Regulation. December 2002.

b.) the development of a 'Guide to Ship Safety Management' for distribution to vessel owners and operators for their guidance in applying the techniques and methods used to develop and implement a ship safety management plan for their own vessel operations; [2]

c.) the outlined procedure for the development of a Continuing Maritime Education (CME) package;

d.) a method of widely distributing the CME package to interested parties for comments in the development phase;

e.) an overarching statement reiterating the obligation of all persons involved with the operation of a ship to operate it safely (including the owner, master, pilot and crewmembers) in accordance with section 43 of the *Transport Operations (Marine Safety) Act* 1994 (The aim of this statement should be to link this general obligation with the concept of safety mindfulness throughout their operations, with an obligation for Queensland Transport to develop and implement a similar conceptual approach to its own operations, future planning and monitoring programs for ships.); and

f.) a commitment from Queensland Transport through MSQ to conduct a review of the implementation of this report annually for the next three years.

12. Whilst it has not been possible during the conduct of this Inquiry to give a full consideration to the content of the recently passed Commonwealth *Transport Safety Investigation Act* 2003 (*TSIA* – which came into effect 1 July 2003), the Board encourages Queensland Transport to take a proactive approach to its implementation by making a full appraisal of its content to validate any actions resulting from this BOI report with the requirements of the *TSIA* and to avoid any duplication.

13. Whilst the Board has not conducted a full appraisal of the content of the relevant Australian Standards it seems appropriate that the content of the Australian Standards for Occupational Health and Safety Systems, with appropriate modification and supplementation for the marine industry be the benchmark for the development of system safety. In particular, it is suggested that AS/NZS 4581:1999 : *Management System Integration - Guidance to Business, Government and Community Organizations* be a useful starting point for development of a systems approach to safety. This Standard provides the framework and guidance for an overall

---

[2] See: Kuo, Chengi. *Managing Ship Safety* LLP London 1998; Vincoli, J.W. *Basic Guide to System Safety* Van Nostrand Reinhold 1993.

management system in which the common requirements of individual systems are integrated to avoid duplication and to provide a uniform basis for the unique characteristics of each of the individual systems. AS/NZS 4801:2001 : *Occupational Health and Safety Management Systems - Specification with Guidance For Use* specifies the requirements for an occupational health and safety management system, to enable an organization to formulate a policy and objectives taking into account legislative requirements and information about hazards or risks.[3]

14. Such an approach would ensure that in the development of ship safety plans and ship operations manuals, the *Transport Operations (Marine Safety) Act* 1994 and Workplace Health and Safety legislation[4] are considered by all vessel owners and operators.

15. In conducting the BOI it became apparent that vessel incident investigations generally go no further than apportioning responsibility to and directing charges be filed against vessel owners and operators. This focus on operator error as a method of accident explanation is flawed and is focused upon in detail in the report. The operator error explanation does little to contribute to accident prevention. It is evident that no authority actually exists with the resources to conduct thorough investigations of marine incidents with an accident prevention focus. The recommendations of this report are a starting point for the alleviation of this shortfall.

16. It is only through the conduct of major inquiries like this one or detailed system safety investigations that systemic issues such as those detailed in this report are revealed. It is of prime importance then, that to warrant the expense of the inquiry and to lead to a safer marine environment, that the findings and recommendations of this Board are acted upon. It is important that the Queensland Government takes the lead in safety mindfulness, since as a part of the safety cycle, a failure to do so exposes it to the potential of being named as a recalcitrant component of the identified systemic problems.

17. A summary of the major findings as related to the Terms of Reference follows.

a. <u>Operational Factors Which Contributed to the Incident</u>

- The inability to determine the existence of a risk of collision.

- Neither vessel was fitted with an adequate compass and neither, therefore, was able to accurately determine if the risk of collision existed.

---

[3] The full listing of standards can be accessed through the Standards Australia website www.standards.com.au .

[4] *Workplace Health and Safety Act* 1995 (Qld)

- The Masters' absence from the bridge when a close quarters situation was developing and when the subsequent risk of collision existed.

- The absence of the maintenance of a proper lookout in both vessels.

- The inadequacy of the handover routine in both vessels.

- The inadequate use of radar equipment.

- The inadequate use of warning signals.

b. Environmental Factors That Contributed to the Incident

There do not appear to be any environmental factors that contributed to the collision.

c. Contribution of Systemic or Regulatory Arrangements to the Incident;

Many vessel operations manuals do not contain appropriate guidance in the following areas:

- Emergency actions detailing individual crew responsibilities;

- A list of Standard Occasions for calling the master; and

- An adequate procedure for the handover of conning responsibility.

The ship operations manuals of the vessels were not developed in a holistic risk assessment and management process context.

d. Vessel/ Role Specific Relevance of Qualifications and Experience

Masters. It appears evident that both Masters were appropriately qualified and experienced in the operation of the particular class of vessel that each was operating at the time.

Crew. Each crewmember was appropriately qualified to conduct their designated duties. What emerges from a consideration of the details of specific actions of individual crewmembers is that ignorance contributed significantly to the Incident. In particular, a lack of appreciation for the application of the Collision Regulations and a lack of vessel specific knowledge was evident. These issues are dealt with in specific detail in Chapter Four of the report.

e. Adequacy of Crew Numbers and Qualifications for the Circumstances

There is little evidence to support a claim that the crew numbers were in any way inadequate. For the type of vessels and for the nature of their operating cycles, the crews were both adequate in number and appropriately qualified. The specifics of the qualifications of individual members of the crews were addressed above.

The deficiency that was highlighted by the inquiry specific to this criterion was with regard to the allocation of the crew to duties. In particular, the requirement for the maintenance of a proper lookout was not delegated appropriately and must be reinforced. In addition, the allocation of responsibility for duties as unsupervised helmsman to a crewmember with limited experience when a close quarters situation was developing was an oversight. These deficiencies are discussed in detail in Chapter Five of the report.

There also emerged a necessity to better manage the balance between the desire of passengers for involvement in vessel operations with the prime responsibility of crew for vessel safety. This aspect is also addressed in Chapter Five.

f. Processes, Management Structures, Procedures, Training, Equipment and Workplace Environment Procedures

Operations Manuals. It became evident as a result of the Inquiry that the relevant vessel operations manuals did not contain appropriate guidance in the following areas:

- Emergency actions detailing individual crew responsibilities.
- The circumstances in which the master was able to leave the wheelhouse.
- A list of standard occasions for calling the master.
- Adequate procedures for the handover of responsibility.

In addition, the ship operations manuals examined were not developed in the context of a holistic risk assessment and safety management process. From this assessment, it is clear that owners and operators of commercial passenger carrying vessels need to undertake the following, in the context of a holistic risk assessment and safety management process:

- the development and updating of the content of ship operations manuals;

- the training of masters and crew in the procedural implementation of the content of ship operations manuals onboard; and

- the periodic review and assessment of the ship's operations manuals by owners/operators and from time to time by external reviewers.

Satisfaction of Human Needs. There were examples presented to the Board of safety oversights when the satisfaction of human needs clashed with supervisory responsibilities. As a result, reinforcement in the form of policy guidelines is necessary to ensure that the vessel operators can balance human needs with the priority of marine safety.

MSQ Inspections. It also became evident that MSQ Shipping Inspectors do not have the resources or requisite knowledge to conduct audits of this documentation. Nor should it be said that they should undertake this task. Their skills should, however, be updated so that they can assess the adequacy of documentation in a generic context and where an incident or near miss has occurred, determine whether the documentation contributed to the event under investigation. MSQ needs to remind the industry that the obligation to operate a vessel safely is one that rests with the owners, operators, master and crew of a vessel. In this context the industry needs to be reminded that compliance with this obligation will be assessed in an operational context and usually with the benefit of 20/20 hindsight following an incident.

There is no doubt that many within the industry have the view that their safety obligation is met if their ship operations manual survives an inspection by a shipping inspector. Such an approach fails to come to grips with the non-prescriptive approach adopted by the current legislative regime.

Vessel Specific Training. It emerged that vessel specific training for operators was often lacking and that there was a necessity for ship's crews to be trained so as to be competent to operate vessel specific systems safely in everyday and emergency conditions before operating them unsupervised. What was readily apparent to the Board was the approach taken by the marine operations managers involved in this incident. Both relied heavily upon the fact that both masters possessed the required master certificates. All that these certificates prove is that at some stage in the past a regulatory authority issued the individuals with a certificate. It is clear to the Board that no ongoing professional development was undertaken or planned to be undertaken. These issues are detailed in Chapter Seven.

Generating a Safety Culture. The generation of a safety culture within the marine industry in Queensland should be the highest priority of MSQ. One mechanism of organisational learning that the Board believes would be particularly valuable to the future safety of marine operations in Queensland is the championing of a Safety

Occurrence Reporting System. A similar system is used by the Royal Australian Air Force (RAAF) Directorate of Flying Safety which aims to prevent disasters by learning from small events.[5] The examination of individual marine incidents in the Queensland Transport Marine Safety Incidents Annual Report is one way that this process is already underway. A method of reporting minor occurrences and then promulgating these within a localised area should also be considered by Queensland Transport, as should a method of learning from the relevant experience of others in similar environments. MSQ should learn from within and from like organisations in Australia and overseas by studying their experience in relation to common problems.

g. The Performance of Individual Duties

There were significant shortcomings in the performance of duties. These are covered in detail in Chapter Three of the report. It has been the intention of this Board to focus further up the causal chain with a mind to the generation of a culture of safety mindfulness. In order to avoid the unnecessary direction of attention to issues of operator shortcomings, it is not the intention of the Board to reproduce these in this Executive Summary.

h. International Regulations for Preventing Collisions at Sea – A "Culture of Complacency" or Familiarity?

In determining if a culture of complacency or familiarity exists it is essential to consider a definition of the concept. Included is particular reference to the following:

- **Culture** - the distinctive customs, achievements, products, outlooks etc of a society or group.

- **Complacency** – tranquil pleasure, self-satisfaction especially when uncritical or unwarranted; contented acquiescence or consent.

- **Familiarity** – informality, unceremoniousness, impertinence.[6]

The Board is unable to say whether a "culture of complacency" or familiarity exists within the marine industry in the application of the International Regulations for Preventing Collisions at Sea. However, the Board is of the view that such a culture could be said to exist within the sector of the marine industry investigated. It is reasonable to assert that this "culture of complacency exists" within a portion of the industry significant enough to cause concern to the regulator, MSQ.

---

[5] RAAF *F111 Deseal/Reseal Board of Inquiry Report* Vol 1 Ch 10.
[6] *The New Shorter Oxford English Dictionary* Clarendon Press Oxford 1993

It became evident to the Board that there exists within the maritime environment of the Whitsundays a lack of safety mindfulness. The encouragement of the industry to develop a culture of safety mindfulness overarches all recommendations of the Board.

TWO

INTRODUCTION

Exitio estavidum mare nautis
The greedy sea is there to be a doom for sailors
- Horace

2.1 GENERAL

2.1.1 On 18 November 2001 a collision occurred in the Whitsunday Passage between the "Pride of Airlie", an 18.66 metre alloy catamaran sailing ship and the "Sun Paradise", a 34.7 metre alloy monohull passenger ferry. Both vessels were carrying fare-paying passengers, at least one of whom was thrown into the water as a result of the impact. Several passengers suffered minor injury.

2.1.2 There is no single, simple explanation for this accident occurring. The two vessels collided in an area of the Whitsundays known locally as 'the Paddock', due to the wide expanses of safely navigable water in that area. Neither vessel was constrained by its draught and there was a broad expanse of safe water in the vicinity. The nearest navigational danger to the collision site for either vessel is more than one nautical mile away, leaving a vast tract of navigable water in which safe operations could be conducted.

2.1.3 Neither does the ephemeral data of the day give any insight into the reasons for such a collision occurring. The waters of the Whitsunday Passage are partially sheltered, the sea state of the day was small wavelets (with 5-10 knots of breeze and the wave height at 0.2 metres) and the sun was still so high in the sky so as not to have constituted glare as a contributing factor.

2.1.4 In all, these were ideal weather conditions for maritime operations. To add even more to the bewilderment of outside observers seeking an explanation for this case, is the fact that each vessel had sighted the other before the collision. There were a number of independent factors at play, the timing of which, unfortunately, coincided.

2.1.5 Definitions. For clarity it is important to note that the term 'owner' has been used throughout this report to describe the owner and/or administrator of the vessel and the term 'operator' has been used to describe the vessel's master and crew.

2.2 SIGNIFICANCE

2.2.1 There were four fare-paying passengers and a number of Hayman Island staff onboard the "Sun Paradise". The "Pride of Airlie" was carrying some forty-six

passengers and the evidence indicates that at least one (Martin statement of 20/11/01 para 9) passenger was knocked into the water as a result of the Incident.

> MR MARTIN: I went out the front around - around the side and there was a couple of people in the water so I threw the life ring in.
>
> THE CHAIR: What, there is a life ring on the side of the bridge area, is there?
>
> MR MARTIN: Yes, outside on the starboard side.
>
> THE CHAIR: Outside on the starboard side. And you lifted it off and threw it in for them. Did you shout out anything?
>
> MR MARTIN: No. There was lots of people shouting.

Had the point of collision on the "Pride of Airlie" been a few metres aft then there is every possibility that death, or at least more serious injury, could have resulted. It is extremely fortunate that no one was killed, or more seriously injured in the Incident and thus it is particularly important to look beyond simple explanations with a view to developing outcomes that minimise the potential for the future occurrence of similar accidents.

2.2.2 Having considered the factors outlined above it would be easy, then, to reach a conclusion that the responsibility for what could easily have been a fatal accident lies solely with the operators of the two vessels. Put simply, one operator failed to maintain a proper lookout, while the other, through ignorance, held firm to his position as the stand on vessel until is was so late that his avoiding action was insufficient to avert the collision. Indeed, each vessel operator must shoulder some of the responsibility for the collision and separate proceedings have commenced to address those issues.

2.2.3 In general though, looking to operator error alone as an explanation of such events should be resisted, as it is often unjust, generates few insights into the prevention of future accidents and is therefore unhelpful from an accident prevention point of view. A more thorough examination of the facts of this case has indicated that, while there were undoubtedly mistakes made by various operators, this operator error explanation is but a starting point for a proper understanding.[7] In order to learn valuable lessons and in an attempt to avoid future disasters incident analysis needs to be detailed and findings and recommendations acted upon. From an accident prevention point of view this means the direction of focus to factors further back along the causal chain than operators, in an effort to eliminate such factors. The aim of such detailed and costly investigations as this one must be improved systems and a

[7] Hopkins, A. *Lessons from Longford: The Esso Gas Plant Explosion* CCH Australia Ltd, pp10-24

heightened level of safety mindfulness to avoid situations that place operators in a position where critical errors are possible.

2.3 LEARNING FROM 'NEAR MISSES'

2.3.1 The evidence that emerged during the Board of Inquiry should be considered a "wake up call" to the marine industry in the Whitsundays, and perhaps to the broader tourist marine industry in Queensland. It is obvious that the Whitsunday's area depends upon tourism for economic livelihood and any accident that occurs reflects poorly on the industry. It follows, that only through maintaining the highest of vessel safety practices can the reputation of the Whitsundays as a safe and desirable tourist destiny be protected.

2.3.2 Since a loss of reputation may be caused by an incident in which any given operator may be involved, it behoves the entire industry, and not just the operators involved in the subject collision, to take appropriate measures to ensure safety for the future. This means that members of the marine industry at all levels must make efforts to assess their operations against an acknowledged and accepted safety system.

2.3.3 In presenting this report the Board encourages the industry-wide adoption of an attitude of safety mindfulness. The Board acknowledges that the systemic changes recommended are far-reaching and in some applications will be onerous on those involved. The opportunity is presented for the adoption of systemic measures that are practically based, realistically achievable and aim to serve to the immediate benefit of all within the marine industry in Queensland with a view to the longer term.

2.4 BACKGROUND

2.4.1 Environmental Conditions. The weather conditions of 18 November 2001 in the Whitsunday Passage were fine, visibility was unimpeded by weather or sea, the sky was blue, there was no rain and only a light breeze. The visibility was described in evidence submitted to the Board variously as being "…just perfect" with 5-10 knots of wind (AJ Neilson answer to Q35-36) and "very favourable conditions for the day" (Liddell answer to Q38).

2.4.2 There were no obstructions to navigation in the surrounding waters, that part of the Whitsunday Passage being known colloquially as "the paddock" due to the broad expanse of clear water available.

2.5 THE VESSELS AND CREW

2.5.1 The "Sun Paradise". The "Sun Paradise" was a 34.7 metre alloy monohull passenger ferry owned by BT Trust, trading as Permanent Trustee Australia Limited and operated by the Hayman Island Resort.

2.5.2 The "Sun Paradise" was under the command of Mr Allen Daniel who at the time held a Certificate of Competency as a Master Class Four, a Certificate of Competency as Skipper Grade 3 and a Certificate of Competency as a Marine Engine Driver (Motor) Grade 1. The Engineer on board the "Sun Paradise" was Mr Scott Liddell. Mr Liddell held a Certificate of Competency as a Marine Engine Driver (Motor) Grade 1 and also held a Certificate of Competency as a Coxswain. The other member of the crew of the "Sun Paradise" was Mr Seamus Martin, who was performing duties as a host attending to the fare-paying passengers. There were four fare-paying passengers on board the "Sun Paradise". As well, there was a number of staff from the Hayman Island Resort returning to Hayman Island, who had no official duties to perform on board the "Sun Paradise" at the time.

2.5.3 The "Pride of Airlie". The "Pride of Airlie" was an 18.66 metre alloy catamaran sailing ship owned by Everest Holdings No 2 Pty Ltd and operated by Koala Resort Management, operators of the South Molle Island Resort. At the time of the collision the "Pride of Airlie" was operating under engines and as such was categorised as a power driven vessel in accordance with Rule 3 of the *International Regulations for Preventing Collision at Sea* (the Collision Regulations).

2.5.4 The "Pride of Airlie" was under the command of Mr Barry Nichols who at the time held a Certificate of Competency as a Master Class Four and also a Certificate of Competency as a Marine Engine Driver (Motor) Grade Three. Mr Nichols was acting in the dual roles of both Master and Engineer on the "Pride of Airlie". The other crew on the "Pride of Airlie" were Adam Neilson, who at the time held a Queensland Certificate of Competency as a Coxswain and James Watson, who held a Tasmanian Certificate of Competency as a Coxswain. The "Pride of Airlie" was carrying some forty-six passengers.

2.6 CONDUCT OF THE BOARD OF INQUIRY

2.6.1 The Board of Inquiry was established by the Gazette Notice of 21 June 2002 (the content of which is reproduced in the Executive Summary above) and was conducted in accordance with Part 12 of the *Transport Operations (Marine Safety) Act* 1994 (TOMSA).

2.6.2 On the afternoon of 3 July 2002 a Directions Hearing was held in Brisbane. The BOI was then conducted at Proserpine between 26 – 29 August 2002, with the final day of hearings held in Brisbane on 30 August 2002.

2.6.3 Subsequent to the BOI, the legal representatives of parties that had appeared before the Board were invited to provide written submissions to the Board addressing the Discussion Paper written by Counsel Assisting. It should be noted also that the Engineer of the "Sun Paradise" Mr Liddell was in Europe at the time of the Inquiry

and so was unable to appear before the Board. He provided written evidence to the Board, as did a number of other persons who did not appear before the Board.

2.6.4 Dr Gerard Sammon was Counsel Assisting the Board.

2.6.5 One issue that arose from the conduct of the Board of Inquiry was the lack of statutory protection afforded to the support and investigative staff of such Boards. The Board proposes that the support and investigative staff of Boards of Inquiry should be given a similar immunity to that afforded to the Board and the Counsel Assisting. This is not a new or unique suggestion, having been identified by Dr Leonard Hallett in his authoritative text on Royal Commissions and Boards of Inquiry over twenty years ago.[8] Dr Hallett identifies that the staff of the Board of Inquiry are the one group of persons who do not have statutory protection from any actions that might be taken against them. It is proposed then, that the support and investigative staff of Boards of Inquiry established under the Act should be afforded the same protection as the Board and the Counsel Assisting.

2.7 APPLICATION OF THE COLLISION REGULATIONS

2.7.1 The *International Regulations for Preventing Collision at Sea* (the Collision Regulations) apply to this case. The relevant Queensland legislation is the *Transport Operations (Marine Safety) Act* 1994 (Qld) (TOMSA) which in s.211 states that a regulation made under the Act may give effect to a treaty, convention or international agreement or document about ships. One of the examples specifically quoted is the Prevention of Collisions Convention (within the meaning of the Commonwealth *Navigation Act*, Part IV).

2.7.2 Such a regulation has been made, in s.93 of the *Transport Operations (Marine Safety) Regulation* 1995 (Qld) (TOMS Regulations) which simply provides that the Collision Regulations have effect as if they were a part of that regulation.

2.7.3 The term "collision regulations" is defined in the Dictionary to the *Marine Safety Regulations* (Schedule 11) as meaning the Prevention of Collision Convention within the meaning of the Commonwealth Navigation Act. Schedule 3 of the *Navigation Act* sets out the Prevention of Collision Regulations.

2.7.4 The Crossing Situation. Applying the Collision Regulations to the subject incident, Rule 15 deals with a "crossing situation" as was present in the approach of the "Sun Paradise" to the "Pride of Airlie". This provides that:

---

[8] Hallett, LA *Royal Commissions and Boards of Inquiry: Some Legal and Procedural Aspects*, The Law Book Company Ltd, 1982 pp319-20

> *When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel.*

Applied to the facts of this case, clearly the "Sun Paradise" was obliged to keep out of the way of the "Pride of Airlie" and , if the circumstances of the case admitted, avoid crossing ahead, since the "Pride of Airlie" was on the starboard side of the "Sun Paradise".

2.7.5 Rule 16 deals with the action required to be taken by the give-way vessel (in this case the "Sun Paradise"). This rule provides:

> *Every vessel which is directed to keep out of the way of another vessel shall, so far as possible, take early and substantial action to keep well clear.*

Clearly, the "Sun Paradise" failed to follow this rule.

2.7.6 The Prime Cause. There is no doubt that the prime cause of the collision was the failure of the "Sun Paradise" to give way to the "Pride of Airlie", as it was obliged to. Paragraphs 2.7.7 and following detail what could be considered as secondary causes.

2.7.7 Concurrent Obligations. There was also an obligation on the "Pride of Airlie" to take some action to avoid the collision. The overarching obligation of the Collision Regulations is to avoid a collision occurring and each vessel is required to take action, including the vessel to which another vessel has to give way ("the stand-on vessel").

2.7.8 Rule 2 (a) dealing with Responsibility, specifies that:

> *Nothing in these rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.*
> [Board's emphasis]

2.7.9 Lookout. Rule 5 deals with the obligation to look out and provides that:

> *Every vessel shall at all times maintain a proper look-out by sight and hearing as well as all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.*

2.7.10 Safe Speed. Rule 6 deals with obligations in so far as safe speed is concerned and provides that:

> *Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and to be stopped within a distance appropriate to the prevailing circumstances and conditions.*

2.7.11 Determining the Risk of Collision. Rule 7 deals with assessing risk of collision and Rule 7 (a) provides that:

> *(a) Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist.*

2.7.12 Action to Avoid Collision. Rule 8 describes the action which must be taken to avoid collision and Rule 8 (a) provides that:

> *(a) Any action taken to avoid collision shall, if the circumstances of the case admit, be positive, made in ample time and with due regard to the observance of good seamanship.*

2.7.13 Obligation of the Stand on Vessel. The obligation of the stand-on vessel to avoid collision is also underscored by Rule 8(f)(iii) which provides that:

> *A vessel which is not to be impeded remains fully obliged to comply with the rules of this part when the two vessels are approaching one another so as to involve risk of collision.*

2.7.14 The obligations of the "Pride of Airlie" as the stand-on vessel are specifically dealt with in Rule 17. Rule 17(a) provides as follows:

> *(a) (i) Where one of two vessels is to keep out of the way the other shall keep her course and speed.*

This was certainly the approach of Adam Neilson who was directing control of the "Pride of Airlie" in the minutes leading up to the collision. He was aware of the approach of the "Sun Paradise" and correctly assessed that the "Pride of Airlie" was the stand-on vessel. However, he was under a greater obligation than merely standing-on through to a collision situation.

2.7.15 Action by the Stand-on Vessel. Rule 17(a)(ii) provides that:

> *The latter vessel may however take action to <u>avoid collision</u> by her manoeuvre alone, as soon as it becomes apparent to her that the vessel required to keep out of the way is not taking appropriate action in compliance with these rules.*

[Board's emphasis]

2.7.16 Rule 17(b) also behoves the stand-on vessel to avoid collision, providing that:

> *When, from any cause, the vessel required to keep her course and speed finds herself so close that collision cannot be avoided by the action of the give-way vessel alone, she shall take such action as will best aid to avoid collision.*

Clearly, the "Pride of Airlie" was also under an obligation to avoid collision, notwithstanding its position as the stand-on vessel and that the primary obligation to give way rested with the "Sun Paradise".

THREE

SEQUENCE OF EVENTS

3.1 THE SUN PARADISE

3.1.1. Departure. The "Sun Paradise" departed Hamilton Island with Mr Daniel at the helm. After exiting Hamilton Island Harbour and clearing the channel between Dent and Henning Islands (about ten minutes into the trip) and radioing Hayman Island with the estimated time of arrival there, Mr Daniel set a straight-line course of approximately 330° to Hayman Island. Mr Daniel then handed over to the Engineer Mr Liddell while Mr Daniel went two decks below to the galley for his lunch.

3.1.2 Handover. After approximately twenty minutes in the galley Mr Daniel returned to the helm position. There followed a very cursory hand over of duties. It is important to note that Mr Liddell did not tell Mr Daniel that he had sight of the "Pride of Airlie" during this handover, despite having seen the latter ship. On assuming bridge duties Mr Daniel claims that he had a look around but did not see the "Pride of Airlie".

3.1.3 Intercom. Engineer Liddell then conducted a check in the engine room and called Mr Daniel to say that he was out of the engine room. Mr Liddell's check of the engine room must have taken at least some minutes, so there were some minutes available for Mr Daniel to look around and observe what was around him. The "Sun Paradise" was on autopilot at this part of the trip (see Transcript, Day 3, p.26).

> DR SAMMON: Okay. Now, can you tell the Board was the "Sun Paradise" fitted with auto pilot at the time?
>
> MR DANIEL: It was.
>
> DR SAMMON: Okay. Was it on during the trip to Hayman Island?
>
> MR DANIEL: It was, yes.
>
> DR SAMMON: Okay. When did you turn it on? Or probably more correct to say, when did you apply the auto pilot, put it in operation?
>
> MR DANIEL: It would have been once - I don't remember but I'm just - it would have been once we had cleared Dent Passage and straightened up for the course for Hook Island.
>
> DR SAMMON: Okay. For Hook Island. In terms of your transit, then, from that point when you had straightened up, are you basically in the Whitsunday Passage then after you - - -

MR DANIEL: Yes, basically yes.

DR SAMMON: Okay. And was the track that you were taking basically then a straight line for some period of time?

MR DANIEL: Yes.

3.1.4 When Engineer Liddell called Mr Daniel to say that he was out of the engine room, the evidence of Mr Daniel, both in his Record of Interview and in verbal evidence, is that he had to leave the ship operating (helm) console to remove the intercom from its hook, which was located at the chart table a metre or so behind the console. Mr Daniel's evidence is that he looked aft at this stage. Mr Daniel admits that the cord on the hand piece was long enough to allow a Master to return to the console whilst having the intercom in hand.

DR SAMMON: Okay. And the inter-ship intercom is located, by the looks of it, on a post near to the chart table?

MR DANIEL: Yes, that's correct.

DR SAMMON: Okay. Now, does the intercom cable, to your recollection, stretch all the way around the wheelhouse?

MR DANIEL: No.

DR SAMMON: It doesn't.

MR DANIEL: No.

DR SAMMON: Is it necessary, from your recollection, to go to the intercom, you can't take it forward with you to the console?

MR DANIEL: Oh you can, sorry, yes you can move forward again with it. You just can't reach it from the - from the helm position here.

DR SAMMON: Yes.

MR DANIEL: You've got to move back but then the cord will stretch back again, yes, yes.

DR SAMMON: Okay. So if you receive a call, you've got to step back from the console to take the call, but once you have the intercom hand-piece in your hand you can then move forward to the console?

MR DANIEL: Yes, yes.

DR SAMMON: Okay. Now - and I think you say this, too, in your Record of Interview as well - when you took the call over the intercom from Engineer Liddell you were looking aft at all times?

MR DANIEL: Well, it was only a couple of seconds, but yes I would have turned around and got it, taken the call, put it back on, turned back.

DR SAMMON: Okay. But there is no reason why you have to look aft, is there? You can, as you say - - -

MR DANIEL: No.

DR SAMMON: - - - take the intercom and you can look forward.

MR DANIEL: Yes.

DR SAMMON: In fact, all around the wheelhouse and even take it up with you to the console.

MR DANIEL: Yes.

DR SAMMON: Okay. Can you recall whether it was part of your practice to look aft as you took a call from the Engineer over the intercom?

MR DANIEL: No.

DR SAMMON: It was just something that happened that day?

MR DANIEL: Yes.

3.1.5 Master Sights "Pride of Airlie". Mr Daniel then replaced the intercom and upon looking forward, for the first time saw the "Pride of Airlie" off his starboard bow at a stage when the collision was imminent.

3.1.6 Around this time the host, Seamus Martin, entered the bridge area and again, a matter of seconds before hearing Mr Daniel exclaim and seeing the "Pride of Airlie" himself for the first time. (for the evidence as to the sequence, see Exhibit 32 and the Transcript, Day 3, pp.137-140).

DR SAMMON: So the point when you visited Mr Daniel to see if he wanted a drink, that was as you say half an hour into the trip, but only briefly, shortly before the collision?

MR MARTIN: That's correct.

DR SAMMON: Okay. And you say in your statement that's just a normal practice on that run.

MR MARTIN: Yes, we do go and see the skipper to see if they want a drink or something.

DR SAMMON: Okay. So your statement reads on that you walked into the wheelhouse and saw the skipper Alan Daniel. What was he doing at the time?

MR MARTIN: He was just looking out the window. He - yes, he was just at the wheel looking out the window and he said - I think it was right as - as we collided, about a few seconds before we collided.

DR SAMMON: Okay.

MR MARTIN: I hadn't even looked out the window. He - he's remarked there and I looked out the window and the "Pride of Airlie" was right in front of us.

3.2 THE PRIDE OF AIRLIE.

3.2.1 **Master Departs the Bridge.** Shortly before the collision Mr Nichols, as Master of the "Pride of Airlie" went off the helm and proceeded below into the coachhouse, or passenger saloon, to clean his glasses. He was in that position when the collision occurred. He had seen the "Sun Paradise" before he went below, but did not consider the "Sun Paradise" to be a threat (see Exhibit 35, Record of Interview with Mr Nichols, answer to question 46).

MR NICHOLS: I had sort of grown up with the Hayman speed boat problem, but I've never had one run over me before, so now with my handovers that usually includes some mention of high speed ferries, water taxis and so. But the difference between the Hayman attitude and the water taxi is quite - quite marked. It's like they are on a different team. And my one - on that day was I had seen the ferry coming and with the instance of fire, I sort of not kept them in mind. I remember thinking that there was another professional boat. There were not many boats on the ocean. We were like the two biggest out there at the time. And sort of in the back of mind I had written him off the list of problems for the day. So I won't do that again.

3.2.2 Mr Nichols left the deckhand, Adam Neilson, in control of the helm, but a passenger, Nicholas Arnold, was at the helm itself. The evidence also was that Mr Nichols liked to stay at the helm and does not like to be "off the deck" (see Exhibit 35, answer to question 54, and see Transcript, Day 2, p. 88).

DR SAMMON: Yes, okay. Now, can you estimate how long you - what was it in time between the time when you left the helm to the point of the collision, you heard the crash?

MR NICHOLS: Might have been 5 minutes at the outside.

DR SAMMON: 5 minutes; okay. Did you have to do anything else downstairs apart from clean your glasses?

MR NICHOLS: No, that's all I did. I rarely ever leave the deck on the boats that I'm skipper.

DR SAMMON: Okay.

MR NICHOLS: Unless it's through necessity like clean my glasses or go to the toilet.

In his verbal evidence to the Board of Inquiry, Mr Nichols said that in the past, he had merely cleaned his prescription glasses whilst on deck. However, on the trip concerned, it was his first trip with a new pair of prescription sunglasses he had bought which cost him $300 and it seems to be that this was the reason that he left the deck to clean his new sunglasses more carefully than usual (see Transcript, Day 2, pp.104-105).

> DR SAMMON: Okay. Now, you went downstairs to clean your glasses. It would have been possible, surely, to clean your glasses on the deck though, because you say you were covered with sweat more than fog. There was no rain around the place that day.
>
> MR NICHOLS: I had just paid $300 for the things and I usually wear the square old-fashioned type glasses which I would clean with a spit and a lick and an old tissue. These are brand new wrap-around glasses. I had the proper spray downstairs. I thought they were a little bit of an investment and so I was trying to look after them. That was like trip one with the things on.
>
> DR SAMMON: Okay. So that was really the only reason you had to go downstairs, is to clean your glasses?
>
> MR NICHOLS: Yes.
>
> DR SAMMON: And what you're saying is that in this case you had to go downstairs to clean your glasses because they were new and expensive and that's where the fluid was.
>
> MR NICHOLS: That's right.

This is an example of the unfortunate coincidence of events that lead to the collision.

3.2.3 In his verbal evidence to the Board, Mr Nichols said if he had established that the "Sun Paradise" was on a collision course with the "Pride of Airlie" then even being the stand-on ship, he would have made an obvious sign that he was altering course to alert the other ship, and so avoid the collision (see Transcript, Day 2, pp. 100-101, 128-129).

> DR SAMMON: Have you ever had any other experiences with Hayman Island boats when you've been in the stand-on mode and you've been forced to change course at the last minute - - -
>
> MR NICHOLS: Well - - -
>
> DR SAMMON: - - - when the Hayman boat has - - -
>
> MR NICHOLS: - - - the method I use, if they - I'm in that situation or if there seems to be any doubt, I'll make a huge alteration in my course. I sometimes heading for a reef, a ridiculous change of course to make sure that they know that I'm playing by the rules.

DR SAMMON: What has been their response to that? Have they just woken up and corrected their course?

MR NICHOLS: Well, quite often they'll turn also and play by the rule.

DR SAMMON: And then is that going to allow you - - -

MR NICHOLS: That's quite close .....

DR SAMMON: Okay. But does that allow you to adopt a more, as it were, sensible course or correct your course?

MR NICHOLS: Yes, oh certainly.

DR SAMMON: Yes. What you're saying is would you have sometimes adopted when you've been the stand-on boat, adopted almost an extreme change of course?

MR NICHOLS: Of course, yes.

DR SAMMON: Was the purpose of that to alert - - -

MR NICHOLS: Just to let them know that I'm asking them what they're doing, really, yes.

This action would not be in accordance with his obligation under the Collision Regulations as the stand-on vessel. Of course, his absence from the deck cleaning his glasses meant that this did not happen.

3.2.4 It is difficult to be critical of Mr Nichols in this sense, because it could equally have occurred that he had left the deck for a short time to go to the toilet with the same outcome. The timing of his absence though, is just one more of the unfortunate coincidence of events that led to a collision occurring.

3.3 LEADUP TO THE COLLISION

3.3.1 Planned Track. The "Sun Paradise" was on a run from Hamilton Island to Hayman Island, on a heading of approximately 330° according to the evidence of Mr Daniel (see Transcript, Day 3, p.26).

DR SAMMON: Okay. And was the track that you were taking basically then a straight line for some period of time?

MR DANIEL: Yes.

DR SAMMON: Okay. Can you recall approximately what the compass heading was?

MR DANIEL: No, but it would have been a little west of north. It's - - -

> DR SAMMON: Okay. I think you may actually mention the compass heading at some point in your Record of Interview. Yes, at page 6 of your Record of Interview, in the top of the page you were asked about that at question 31 and your answer was:
>
> *It would have been around 330.*
>
> MR DANIEL: Yes.

The "Pride of Airlie" was on a course from Border Island heading back to South Molle Island in a south-western direction having passed through the channel between Hook and Whitsunday Islands.

3.3.2 "Sun Paradise" Sights the "Pride of Airlie". In the "Sun Paradise", the Engineer Liddell had the helm of the "Sun Paradise" whilst the Master of the ship, Allen Daniel was having a meal in the ship's galley two decks below. While at the helm, and approximately ten minutes before the collision, Engineer Liddell saw the "Pride of Airlie" at a distance of approximately 1.5 nautical miles away on the starboard side (see Exhibit 33 - Record of Interview with Liddell, answers to questions 14, 51 and 55). Unfortunately, in handing over the con Engineer Liddell did not tell the Master (Mr Daniel) about the presence of the "Pride of Airlie" thinking:

> *"It would be silly for me to him, to be telling the skipper "Look, don't forget there's a boat in front of us""* (see exhibit 33, Record of Interview with Liddell, answer to question 57).

It is clear that an adequate handover was not conducted in the "Sun Paradise".

3.3.3 In the event, Mr Daniel apparently did not see the "Pride of Airlie" until a matter of seconds before the collision (see Exhibit 32, Record of Interview with Mr Daniel, answer to question 15, question 20 question 21, evidence by Mr Daniel – Transcript, Day 3, pp.37-38 and 41).

> DR SAMMON: Okay. All right. And then just to complete your answer to question 20, you say that you just saw "it". I take it that means the "Pride of Airlie"?
>
> MR DANIEL: Yes.
>
> DR SAMMON: Out of the corner of your eye, and you turned back and it was just there off your starboard bow.
>
> MR DANIEL: Yes.
>
> DR SAMMON:

I ripped off the throttle and turned the helm, but it was all too late anyway. And, um, until we collided and the bow on "Paradise" actually went over the port bow of "Pride of Airlie" and stayed there.

Okay.

3.3.4 To his credit, Mr Daniel freely admitted in evidence to the Board of Inquiry that he simply just did not see the "Pride of Airlie" (see Transcript, Day 3, pp. 24, 41, 67, 70-72). It would have been easy for Mr Daniel to think of all sorts of excuses or to blame others, but he freely admits to not seeing the "Pride of Airlie".

THE CHAIR: There is no reason why you ought not to have seen the "Pride of Airlie"?

MR DANIEL: No.

THE CHAIR: At 18 knots it's about - well, something like 8 or 10 minutes you ought to have had her in observation. Do you accept if - the evidence seems to be that when the "Sun Paradise" was abeam of Cid Island, that it was clear and visible from the "Pride of Airlie"?

MR DANIEL: Yes. Yes, that seems - - -

THE CHAIR: Do you accept that the contra would have been true given - - -

MR DANIEL: It should have been, yes.

THE CHAIR: You should have had her visible much sooner than that.

MR DANIEL: Yes.

THE CHAIR: Because you would have been another 6 to 8 feet - - -

MR DANIEL: Higher up.

THE CHAIR: - - - higher up.

MR DANIEL: Yes.

THE CHAIR: Right. So you would have had her visible. I see that she's a smaller vessel and depending upon - you may have only been able to pick up the mast but at some particular point in time you would have been able to see it all. Do you accept this would have been the area you should have been looking for a right of way crossing situation?

MR DANIEL: And normally do. It's - I have just no idea why.

3.3.5 When Engineer Liddell called Mr Daniel to say that he was out of the engine room, the evidence of Mr Daniel, both in his Record of Interview and in verbal evidence, is that he had to leave the console to take the intercom off its hook, which

was located at the chart table a metre or so behind the console. Mr Daniel's evidence is that he looked aft at this stage. Mr Daniel admits that the cord on the hand piece was long enough to allow a Master to return to the console whilst having the intercom in hand.

3.3.6 The sequence is then that Mr Daniel replaced the intercom, then upon looking forward, for the first time, saw the "Pride of Airlie" off his starboard bow at a stage when the collision was imminent.

3.3.7 It was at about this stage that the host, Seamus Martin entered the bridge area and again, a matter of seconds before hearing Mr Daniel exclaim and seeing the "Pride of Airlie" himself for the first time. (for the evidence as to the sequence, see Exhibit 32 and the Transcript, Day 3, pp.137-140).

> *"As usual I did look around, looked everywhere um, continued on."*

3.3.8 In the same Record of Interview, in answer to question 20 it seems that the first that Mr Daniel saw the "Pride of Airlie" was when he left the intercom and:

> *Just saw it out of the corner of my eye and I turned back and it was just there off me starboard bow.*

3.3.9 When asked was there any reason why he did not see the "Pride of Airlie" prior to the impact, in the same exhibit in answer to question 21, Mr Daniel said:

> *Not that I'm aware of. I've just, I've searched and searched and I can't think of any reason why I can't look. Continually looking out there and, I just didn't see it.*

3.3.10 The sequence of events does not really explain why Mr Daniel did not see the "Pride of Airlie". Certainly, it seems that there was opportunity for Mr Daniel to look out for, and see the "Pride of Airlie" after taking the helm from Engineer Liddell, even if Liddell did not tell Mr Daniel about the presence of the "Pride of Airlie".

It is clear that a proper lookout was not being maintained in the "Sun Paradise".

3.3.11 As stated above, Rule 5 deals with the obligation to look out and provides that:

> *Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.*

3.3.12 **Position.** The collision occurred at approximately 3:20pm, while both ships were under engine power between South Molle Island and the northern end of Whitsunday Island. There were no obstructions to navigation in those waters and, as explained above, that part of the Whitsunday Passage was known as "the paddock" due to its open expanse.

3.3.13 The Master of the "Sun Paradise", Mr Allen Daniel, took a position shortly before the ships were separated after the collision and shortly before leaving his ship, of 20° 11 minutes south, 148° 52 minutes east approximately 1.4 nautical miles SW of Hook Island. The deckhand on board the "Pride of Airlie", Mr Adam Neilson, thought that the position of the actual collision was somewhat to the south of that, and that the ships had drifted with the tide when that position was taken. Regardless, there was ample safe water in the vicinity for avoiding action to have been taken.

3.3.14 The actual position of the collision is unknown. Anecdotal evidence was provided by the professional mariners onboard both vessels at the time of the collision, that the collision actually took place considerably further to the SE than the position (20° S 11; 148° E 52) recorded by Mr Daniel around 1530 as he was disembarking. This evidence suggested that the set and drift carried the vessels NW during the subsequent hour. Tidal stream data calculated by the RAN Hydrographic Office and provided as evidence to the Board by Mr GJ Broadbent (Transcript Day 5 and Exhibit 85) Senior Maritime Officer of Queensland Transport provides evidential support for this assertion. The application of the tidal data reveals that the actual position of the collision was nearer to 20° S 12.4; 148° E 52.9, some 1.5 nm SE of the final recorded position and that during the ensuing hour the vessels drifted NW with the stream.

3.3.15 At least two claims were made (see evidence of Mrs Enright and Mr Neilson at 3.4 below) that there was no-one on the bridge of the "Sun Paradise" at the time of collision. After a cursory handover to the Master, the Engineer Liddell then conducted a check in the engine room and called Mr Daniel to say that he was out of the engine room. Mr Liddell's check of the engine room must have taken at least some minutes, so there were some minutes available there for Mr Daniel to look around and observe what was around him. The "Sun Paradise" was on autopilot during this part of the trip (see Transcript, Day 3, p.26).

3.3.16 Towards the end of his Record of Interview (Exhibit 32) Mr Daniel was asked a number a questions obviously directed to ascertain any explanation for his not seeing the "Pride of Airlie". He denies being effected by any medication or drugs (see answers to questions 81 and 82) or suffering from any blackouts or epilepsy (answer to question 88). In his verbal evidence to the Board of Inquiry, Mr Daniel said he did not suffer from any other medical conditions, such as diabetes, which required him to be off the helm for periods of time (see Transcript, Day 3, pp. 45-46).

Mr Daniel denied that there was anything in particular worrying him at the time that would cause him to be distracted (see Transcript, Day 3, p. 71).

> THE CHAIR: Did you have anything on your mind? Were you worried? Were there - had you lost your mobile phone that day and you were worried about where that was or mind on something else?
>
> MR DANIEL: Not - no. I mean, in that previous few months I had gone through a couple of hassles with my son being diagnosed with diabetes and family problems, but not specific that - - -
>
> THE CHAIR: You didn't feel that was having an impact on your capacity to do your work?
>
> MR DANIEL: No.

3.3.17 Fatigue did not seem to have been an issue effecting Mr Daniel (see Exhibit 32, answers to questions 74-80 and 91-94, see also verbal evidence Transcript, Day 3, pp. 46-47, 113-114).

3.3.18 Bridge Design. The mullions and pillars supporting the windshield on the bridge of the "Sun Paradise" would have had an effect on restricting visibility from the "Sun Paradise" bridge area. When prompted in the Record of Interview (Exhibit 32) about why Mr Daniel did not see the "Pride of Airlie", he mentioned the limiting effect that the mullions and pillars would have had on visibility, in his answers to questions 37-45. The range of visibility from the bridge position was approximately 180° (see answer to question 43, Exhibit 32). In any event, it was clearly possible for the "Pride of Airlie" to be seen from the "Sun Paradise" because Mr Liddell saw it.

3.3.19 During the repair of the "Sun Paradise", the horizontal mullions and vertical pillars were reduced in size, at a cost of approximately $20,000 (see the evidence from Mr Peter Stowe, Marine Operations Manager, Hayman Island, Day 3, pp. 223). This has no doubt improved visibility.

> DR SAMMON: All right. Now, I think you also made or caused some changes to be made in the "Sun Paradise" to - and this is the wheelhouse - to the mullions and the verticals.
>
> MR STOWE: Yes, indeed.
>
> DR SAMMON: Okay. Just briefly describe to the Board - - -
>
> MR STOWE: Okay. The reason - okay, the reason why we did this, this was - the vessel was going up to - for repair. A decision was made that how can we help, how can we fix - like if this is an issue that has caused or contributed to the problem, then Hayman is 100 per cent committed to improving where we can. So the decision was made at great cost. I think we spent about 20-odd - $24,000 to do that repair or

> modification, and we reduced the size the best we could to keep the structural integrity, and improve vision to a degree, yes.

3.3.20 Glare. Mrs Enright was one of the fare-paying passengers on board the "Sun Paradise". She thought that there may have been some glare on that day (see her evidence to the Board of Inquiry, Day 4, p.9).

> DR SAMMON: Yes. And was there much glare about?
>
> MRS ENRIGHT: Just let me look at my photos to see if I've got sunglasses on. Yes, I have. Yes, it was quite bright.
>
> DR SAMMON: Okay. Did you notice glare on the water at all as you seemed to be sitting on the outside deck - - -
>
> MRS ENRIGHT: Well, we - we remarked on how beautiful crystal clear the water was, so I suppose you would get a bit of glare from that, yes.

However, the evidence is that the windscreen from the bridge on the "Sun Paradise" was smoked so this should have removed most of that glare. Also, at the time of collision, the sun would not have obscured Mr Daniel's view since it would have been on his port side while the "Pride of Airlie" was on his starboard side.

3.4 WAS MR DANIEL ON THE BRIDGE AT THE CRITICAL TIME?

3.4.1 There are two suggestions in the evidence that Mr Daniel was absent from the bridge at the critical time. Firstly, in her letter to Mr Kevin White (Shipping Inspector) dated 18 August 2002 (Exhibit 10) Mrs Enright states that:

> *I did glance periodically at the bridge and noticed the absence of the Master at times, thinking that the "Sun Paradise" must be on auto drive.*

3.4.2 Secondly, the deckhand on the "Pride of Airlie", Mr Adam Neilson, in his Record of Interview (Exhibit 36) in answer to question 10 says that the bridge was vacant.

3.4.3 Against this must be contrasted the evidence of Mr Daniel that he did not leave the bridge after resuming control from Engineer Liddell (see Transcript, Day 3, p. 37), although he agrees to taking the call over the ship's intercom from Engineer Liddell. The evidence suggests that Mr Daniel was not in fact absent from the bridge at the critical time.

> DR SAMMON: All right. But you had a smoke down there after your lunch, anyway; okay. All right. So then after that, anyway, you went back up to the bridge deck and resumed control of the ship. After the time that you took over from Mr Liddell, up to the point of collision, did you have any reason to - well, I will rephrase that - did you leave the air-conditioned wheelhouse area?

MR DANIEL: Not at all, no.

DR SAMMON: Okay. You were inside there at all times; okay.

MR DANIEL: Yes.

DR SAMMON: Because there are doors there, aren't there, on both the port side and the starboard side - - -

MR DANIEL: There are, yes.

DR SAMMON: - - - immediately from - almost immediately behind the windows - - -

MR DANIEL: Yes.

DR SAMMON: - - - of the bridge wheelhouse; okay. You didn't go through those, say the port door at any time?

MR DANIEL: No.

3.4.4 Evidence. Mr Daniel appeared to be honest when giving his evidence, freely admitting that he just did not see the "Pride of Airlie". Certainly, when Mr Martin as the ship's host on the "Sun Paradise" entered the bridge to offer Mr Daniel a refreshment, at a point only seconds before the collision, he saw Mr Daniel on the bridge.

3.4.5 Mr Neilson's evidence that he did not see anyone on the bridge of the "Sun Paradise" can be explained by the fact that the windscreen of the "Sun Paradise" was smoked glass, a point admitted by Mr Neilson (see Transcript, Day 2, p.11).

DR SAMMON: Okay. And it's that point in time you noticed there was not anyone on the bridge?

MR NEILSON: To me I couldn't see anyone on the bridge, that's right.

DR SAMMON: Okay. With the windows to the bridge - I'll rephrase that. You're aware of where the bridge is on the "Sun Paradise"?

MR NEILSON: Yes, I am.

DR SAMMON: All right. The windows to the bridge, are they smoked glass or is it clear glass on - - -

MR NEILSON: It's - it's smoky glass.

Ms Connors, a passenger on the "Pride of Airlie" could not see through the bridge glass (see Transcript, Day 2, p.139).

DR SAMMON: Did you see - were you able to see where the bridge of the boat was, the "Sun Paradise"?

MS CONNORS: Which - sorry, which part is the bridge?

DR SAMMON: Well, okay. That's the part - well, I will rephrase that. As you saw the "Sun Paradise", the other ship approach.

MS CONNORS: Yes.

DR SAMMON: Did you see a glassed area a couple of decks high towards the front of the boat, a rounded part of the boat?

MS CONNORS: Yes.

DR SAMMON: Glass windows. Probably rounded glass windows is the best way to describe it.

MS CONNORS: Yes.

DR SAMMON: Could you see through that?

MS CONNORS: I couldn't see through it, no.

DR SAMMON: Okay. I'll ask you this anyway but could you see anybody operating the controls of the other ship?

MS CONNORS: No, I couldn't.

DR SAMMON: Okay. Is that because of the - were the windows dark on the other ship?

MS CONNORS: They were but I also didn't look that closely at it.

DR SAMMON: Sure, okay.

3.4.6 The evidence of Mrs Enright that she could not see anyone on the bridge from time to time can be explained by the fact that her view of the bridge was impeded. As well as her verbal evidence to the Board about her location on the “Sun Paradise” she marked on the cross section of the “Sun Paradise” contained in Exhibit 86 her location as being with her husband in an outside area of the bridge deck, outside the enclosed bridge area. From her position she would have had to look through the glass doors separating her from the bridge. Certainly, there would have been pillars inside the bridge and the chart table as well as features of the central staircase that would have impeded her view.

3.4.7 Board’s Conclusion. The Board has concluded on the evidence submitted that the Master of the “Sun Paradise” Mr Daniel was, on the balance of probabilities, on

the bridge of the “Sun Paradise” in the immediate lead up to and at the time of the Incident.

3.5 THE PRIDE OF AIRLIE SIGHTS THE SUN PARADISE

3.5.1 On the part of the “Pride of Airlie” the Master of that ship, Mr Barry Nichols had seen the “Sun Paradise” some four to five nautical miles away (see Exhibit 35, Record of Interview with Nichols and evidence by Mr Nichols – Transcript, Day 2, p 103).

> MR NICHOLS: The first time I seen it, it was down - I think I said Cid Harbour there; it was more like along side Cid Island.
>
> DR SAMMON: Okay. Yes, okay, so you really mean Cid Island in that case rather than Cid Harbour in your Record of Interview.
>
> MR NICHOLS: Yes.
>
> DR SAMMON: That's more correct; okay. So you've seen the "Sun Paradise" at Cid Island and that was at sometime before you went downstairs to clean your glasses. Can you estimate what time you would have seen the "Sun Paradise" around Cid Island before you went downstairs?
>
> MR NICHOLS: It would be a guess, but as long it takes two people to stand up and have their photograph taken and chat with the two girls involved with that, so maybe 5, 6 minutes.
>
> DR SAMMON: Okay. So it's really 5 or 6 minutes then between the time you see the "Sun Paradise" at around Cid Island. Then you go downstairs, another 3 minutes or so up to the point of collision, so putting that altogether, what, about 9 to 10 minutes from the time you first see the "Sun Paradise" at around Cid Island till the point of collision?
>
> MR NICHOLS: Yes, I guess. It is a guess.

Mr Nichols left the helm position to enter the galley area of the deck below to clean his prescription sunglasses, leaving the ship under the control of the deckhand Mr Adam Neilson. Mr Neilson had the “Sun Paradise” in view for a considerable distance before the collision (see Exhibit 36, Record of Interview with Neilson, answer to questions 10, 40, 48, evidence of Mr Neilson – Transcript, Day 2, pp.10-11, 20).

> DR SAMMON: It's the answers to - a whole series of answers really to question 10. The second-last paragraph on the page you say that:
>
> *I noticed the Hayman Island boat coming off Cid Island quite a distance away.*
>
> What distance was the - and this is the "Sun Paradise" you're talking about there, isn't it?

MR NEILSON: Yes, that's correct.

DR SAMMON: What distance was the "Sun Paradise" away from you when you first saw it?

MR NEILSON: Approximately 4 miles.

DR SAMMON: 4 nautical miles.

MR NEILSON: 4 nautical miles, yes.

DR SAMMON: All right. And you kept an eye on her and you say that the "Sun Paradise" was heading north.

MR NEILSON: Yes.

He made efforts to determine whether the risk of collision existed by aligning the jackstaff of the "Sun Paradise" with a stanchion on the "Pride of Airlie".

It is clear that Mr Neilson failed to appreciate the correct method for determining if the risk of collision existed.

3.5.2 It is worth noting also, that each vessel was only fitted with a steerage compass. No compass was carried from which a bearing could be taken. This again evinced a lack of understanding of the application of the Collision Regulations.

3.5.3 Handover of the Con. There was no formal procedure on the "Pride of Airlie" for handing over control of the helm from the Master to a member of the crew and vice versa (see the evidence from Mr Nichols, Transcript, Day 2, p.94).

DR SAMMON: Okay. I might ask you to quickly look at this. Is there anything in the Operations Manual, and bear in mind that's as it is now, and I'll ask you if it was different at the time, about the handover arrangements when the boat is being handed - or the control of the wheel is being handed over from the Master to someone else, and vice versa.

MR NICHOLS: I shouldn't think it would be any different.

DR SAMMON: I will just see if you can find anything in there on that subject.

MR NICHOLS: No, it's the standard form.

DR SAMMON: Is there a procedure there for handover of control from the Master to the Deckhand and vice versa?

MR NICHOLS: Not really. No, it just gives the instructions that each person is responsible.

> DR SAMMON: Okay. Do you think that Operations Manual could be improved by a documented process about handover of the wheel?
>
> MR NICHOLS: Yes, it could be. The basic Queensland Transport Small Ships' Manual does look at it more specifically.
>
> DR SAMMON: Okay. That covers handover arrangements, does it?
>
> MR NICHOLS: Mm.

The Operations Manual for the "Pride of Airlie" (Exhibit 8) does contain a section dealing with responsibilities of the "officer of the watch" (see p28). However this is clearly more applicable to a formal "officer of the watch" situation involving passages being conducted by night. The issue of the applicability of operations manuals to specific vessels is covered in more detail in Chapter Seven below.

3.5.4 As it is, this lack of a formal hand-over procedure was not a causative factor in the collision, since both Mr Nichols, as Master of the "Pride of Airlie" and Mr Neilson, had seen the "Sun Paradise" before Mr Nichols went below to clean his glasses.

3.5.5 It is clear that an adequate handover was not conducted in the "Pride of Airlie".

3.5.6 It is also clear that there was no documentation of an appropriate formal procedure in the "Pride of Airlie" for handing over control of the helm from the Master to a member of the crew and vice versa.

3.6 USE OF THE SHIP'S WHISTLE

3.6.1 Horn Fitted. The evidence is clear that there was a horn fitted to the "Pride of Airlie" which was accessible from the helm position. The evidence is also clear that Adam Neilson did not use the horn (see Exhibit 36, answer to question 68). He admitted that there was no reason why he did not use the horn, though felt that it would not have made any difference, given his view that there was no one on the bridge of the "Sun Paradise" (see his answers to questions 76 and 77). This ignores the fact that regardless of the question as to whether there was a presence on the bridge of the "Sun Paradise", the use of the horn may have alerted *someone* on the vessel to the presence of the "Pride of Airlie" which she was rapidly bearing down on.

3.6.2 Horn Not Used. The evidence by Mr Nichols as to the horn, is that the horn was defective, and that it was only capable of making a sound the equivalent of that of a rubber duck of a kind that an 18 month old child may own (see evidence to the Board, Day 2, pp.90-92).

DR SAMMON: Okay. Did you show him where the horn or helm was?

MR NICHOLS: Not that I recall. I may have, but the horn on "Pride of Airlie" at that time made about as much noise as an 18 month old child's rubber duck.

DR SAMMON: Did you find that an unsatisfactory situation?

MR NICHOLS: Yes, I did but with - that's just the way with a lot of the vessels here, you can put in your reports on it and what happens between your request and the money coming forth to supply you with the proper equipment, is sometimes quite a ways away.

DR SAMMON: All right. About the horn, had you put in specifically a complaint or request for some action about the horn being - - -

MR NICHOLS: I had spoken of it to the Marine Manager, Geoff Buckingham, and said that it was ridiculous and there was some talk about who was going to pay.

DR SAMMON: Who was going to pay?

MR NICHOLS: Mm.

DR SAMMON: Well, surely, it had to be the operators or the owners responsibility to pay.

MR NICHOLS: One would think so.

DR SAMMON: All right. So in any event, the horn - can you recall how soon before the collision you had put in the report or the complaint about the defective horn?

MR NICHOLS: No. I mean, I've been working on the boat for 11 months and a lot of things I put complaints in since I had taken over the boat because I come from another situation where the boat wasn't adequate and almost cost me a heart attack but these things I complained of and the Marine Manager at the time was very sincere and very hard-working and what happened to his efforts I can't say.

DR SAMMON: All right. I don't know if you can answer this question but I'll ask you anyway. Who had the ultimate responsibility for authorising repairs of that nature? Was it Geoff Buckingham's responsibility or authority or was it the owner's?

MR NICHOLS: I think it would be the owner's.

DR SAMMON: Up to the owner, okay. So as far as you're aware Mr Buckingham didn't have sufficient authorise repairs of that nature?

MR NICHOLS: That's right.

Whilst this is likely to be an exaggeration, the point that Mr Nichols was making is that the horn was defective. In his evidence, Mr Hayes contests that the horn was defective (see Transcript, Day 4, pp.114-115).

DR SAMMON: Okay. I wonder if you might tell me this, too. On Tuesday we heard evidence that the horn on the "Pride of Airlie" was not working effectively at the time of the collision. Are you aware of that - - -

MR HAYES: No.

DR SAMMON: Okay.

MR HAYES: Not at all.

DR SAMMON: And the evidence was that whilst the horn was fitted, it had a very weak sound. Can you - are you aware of that or can you comment on that?

MR HAYES: I did give Geoff a hand on - on one occasion on the turn-around, to hoist him up the mast to adjust it and so forth, and we were both quite happy that it was working more than adequately at that stage. I would have to look through my diary to see exactly what date that was, but yes.

DR SAMMON: Yes. Can you recall approximately, and what I'm interested in is before or after the collision?

MR HAYES: It was before the collision, yes.

DR SAMMON: Okay.

MR HAYES: Yes.

DR SAMMON: Can you approximately when before the collision?

MR HAYES: No. No, I'd have to look in my diary.

DR SAMMON: Okay.

MR HAYES: Yes, yes.

DR SAMMON: What kind of horn is it actually in - - -

MR HAYES: Well, the one that was on at the time was - what does a horn look like? It's a horn, yes.

DR SAMMON: Yes. But a marine horn.

MR HAYES: Oh yes.

DR SAMMON: A proper marine horn.

MR HAYES: Yes, yes. Well, everything on the boat has been done properly, and actually I - I don't know whoever built the boat but I understand he was a Naval Architect or - or a Naval Engineer and everything was done properly and yes, the horn certainly looked like the one that should have been on the boat.

DR SAMMON: Would it be as loud as a car horn for example?

MR HAYES: Yes.

DR SAMMON: Okay. And to your knowledge, does it operate in a similar way to a car horn, you know electric - - -

MR HAYES: Push the button.

In any event, it is submitted that the fact the horn was not used (assuming that it was effective), can be considered to be a causative factor in the collision to the extent that it may have warned Mr Daniel of the presence of the "Pride of Airlie".

3.6.3 Further, Rule 34 of the Collision Regulations refers to Manoeuvring and Warning Signals. It states:

> *d) When vessels in sight of one another are approaching each other and from any cause either vessel fails to understand the intentions or actions of the other, or is in doubt whether sufficient action is being taken by the other to avoid collision, the vessel in doubt shall immediately indicate such doubt by giving at least five short and rapid blasts on the whistle. Such signal may be supplemented by a light signal of at least five short and rapid flashes.*

It is clear that Mr Neilson failed to act in accordance with Rule 34 (d).

3.7 SIGHTING THE SUN PARADISE

3.7.1 A number of passengers on the "Pride of Airlie" also saw the "Sun Paradise" approaching. Mr Nicholas Arnold, a passenger on the "Pride of Airlie" had the helm of that ship from the time that Mr Nichols went below to clean his glasses until shortly before the collision, when Mr Neilson quickly resumed control of the helm (see Exhibit 27, statement of Nicholas Arnold and Mr Arnold's verbal evidence - Transcript, Day 2, pp.144-165).

DR SAMMON: Okay. And you were at the wheel. You were at the wheel of the ship - did anyone point out to you any other ships coming from any other direction, initially I mean too?

MR ARNOLD: Initially, no they didn't.

DR SAMMON: Okay. Now, you say left Adam by the mast.

MR ARNOLD: Yes.

DR SAMMON: That's the mast of the ship?

MR ARNOLD: Yes.

DR SAMMON: Okay. So when you took the wheel - - -

MR ARNOLD: Yes.

DR SAMMON: - - - are you saying that Adam was by the mast of the "Pride of Airlie"?

MR ARNOLD: I'm pretty certain he was.

More questions follow, then:

DR SAMMON: Okay:

He looked up, looked at me and said "Oh fuck".

MR ARNOLD: Yes.

DR SAMMON: Okay. They were his words?

MR ARNOLD: Absolutely.

DR SAMMON: Okay. And what did he do then?

MR ARNOLD: He - he dived down to where I was, and I jumped out of the way, and I'm pretty certain he slammed it into reverse. He swung the wheel around. I jumped down into the area where everyone was having a drink, grabbed hold of a pole, and said "Hold on", and then we hit.

DR SAMMON: Okay. Now, can you recall in which direction he spun to the wheel?

MR ARNOLD: To the right.

The evidence of Mr Arnold, which is uncontested on this point, is that he kept pointing out the approaching position of the "Sun Paradise" to Mr Neilson who responded that the "Pride of Airlie" was the stand-on ship and that it was not necessary for Mr Arnold, with control of the helm, to change course.

3.7.2 Evidence was also given by another passenger on the "Pride of Airlie", Ms Jane Connors, that she had also seen the approach of the "Sun Paradise" (see Exhibit 20, statement of Jane Connors and her verbal evidence - Transcript, Day 2, pp.133-144).

DR SAMMON: Okay. What were you doing at the time?

MS CONNORS: I was reading.

DR SAMMON: Okay. And did you look up and see something?

MS CONNORS: Yes. I look up - I looked up and saw the other boat approaching us and I thought that it seemed a bit strange as it was quite close to us, and I looked back down and - at my book, and then I looked back up at it straight away because I kind of

> thought that it wasn't right, and everyone got up and moved at the same time when they realised the boat was not going to stop, it was going to hit us.
>
> DR SAMMON: Okay. Now, about how far away was this other boat from you when you first saw it?
>
> MS CONNORS: When I first saw it, it was probably a couple of hundred metres away.
>
> DR SAMMON: This may seem difficult almost a year down the track, but when you say a couple of hundred metres, can you be a little bit more precise than that? 200 metres, 300 metres?
>
> MS CONNORS: I - I'd say about 2.
>
> DR SAMMON: About 200 metres, okay. So you looked up and you saw the other boat coming towards you.
>
> MS CONNORS: Yes.
>
> DR SAMMON: And then I think you say in your statement that you then got up and ran towards the back of the boat.
>
> MS CONNORS: Yes.

Clearly, each vessel had seen the other before the collision. The lookout and the handover were inadequate.

3.8 RELATIVE POSITION OF VESSELS

3.8.1 The "Sun Paradise" had the "Pride of Airlie" on its starboard side as it progressed. In accordance with Rule 15 of the Collision Regulations, this is deemed to be a crossing situation, and as such "the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel".[9]

3.9 SPEED OF ADVANCE

3.9.1 The "Sun Paradise" was travelling between 18 and 20 knots (see Exhibit 32, Record of Interview with Mr Daniel, answer to question 32). The "Pride of Airlie" was travelling approximately 8 to 9 knots (see Exhibit 36, Record of Interview with Neilson, answer question 41).

---

[9] *International Regulations for Preventing Collision at Sea* Rule 15 Crossing Situation

3.10 THE IMPACT

3.10.1 Seconds before the collision, Adam Neilson, who had been observing the rapid closing rate of the "Sun Paradise", resumed control of the helm from one of the passengers; Mr Arnold. Mr Neilson threw the helm hard to starboard and engaged the starboard engine to full astern. The "Sun Paradise" collided with the port side pontoon hull of the "Pride of Airlie" at a position slightly forward of midships around the forward area of the coachhouse that comprises the passenger saloon. This last – second manoeuvre at least had the effect of minimising to some extent the impact of collision on the "Pride of Airlie".

3.10.2 Mr Neilson took appropriate action, but by the time he acted it was too late to avoid the collision. He failed to fully and adequately appreciate the risk of collision and thus failed to take avoiding action in an appropriately timely manner.

3.11 OPERATIONAL FACTORS

3.11.1 Inability to Determine if Risk of Collision Existed. Risk of collision is "deemed to exist if the compass bearing of an approaching vessel does not appreciably change". [10] Neither vessel was fitted with a compass or plotting machinery capable of taking a compass bearing and thus determine such risk. Neither vessel was able to accurately determine if the risk of collision existed as defined by the collision regulations.

3.11.2 In the "Pride of Airlie", Mr Neilson made efforts to determine if the risk of collision existed by lining up a stanchion on the "Pride of Airlie" with the jackstaff on the bow of the "Sun Paradise". In effect this was equivalent to taking relative bearings (which will be affected by heading), rather than compass bearings of the other vessel and proved unreliable as a method of determining the risk of collision. While this is an operational factor it directs attention to possible training shortfalls that will be further discussed under systemic contributions.

3.11.3 This indicates that even if the "Pride of Airlie" had been fitted with a compass, this knowledge deficit may have meant that the collision would still have occurred. This, also, is further addressed in the systemic issues section below.

3.12 MASTERS' ABSENCE FROM THE BRIDGE

3.12.1 Both Masters were absent from the bridge for significant periods during the lead-up to the collision.

---

[10] *International Regulations for Preventing Collision at Sea* Rule 7 Risk of Collision

3.12.2 Mr Daniel gave evidence that he was effectively forced to have his lunch in the galley of the "Sun Paradise", and thus be absent from the bridge for an extended period, due to company policy. This will be considered in more detail with the systemic factors below.

> THE CHAIR: Well, why couldn't you have that at the wheel?
>
> MR DANIEL: You can't eat in front of the guests, really. You've got to - it's company policy.

3.12.3 As detailed above (see 3.2) Mr Nichols the Master of the "Pride of Airlie" left the helm of the "Pride of Airlie" and proceeded into the coach-house to clean his glasses and was in that position when the collision occurred. He had seen the "Sun Paradise" before he went below but did not consider the "Sun Paradise" to be a threat and left the deckhand, Adam Neilson, in control of the helm, with a passenger at the helm itself. Despite having seen the "Sun Paradise" he left no instructions as to what action the deckhand should take should a risk of collision or a close-quarters situation develop.

3.13 ABSENCE OF MAINTENANCE OF PROPER LOOKOUT

3.13.1 The visibility from the fixed Captain's seat in the "Sun Paradise" was poor due to the design of the mullions and pillars supporting the windshield on the bridge. This is perceivably one of the operational factors that led to the collision and is addressed in detail at 3.3.18 and following above.

3.14 HANDOVER ROUTINE

3.14.1 Neither vessel had in place an adequate handover routine. In particular, the failure of the watchkeepers in the "Sun Paradise" to handover the position of the "Pride of Airlie" was an operationally significant shortcoming. This inadequacy is part of a broader lackadaisical approach to the duties of watchkeeping and has been addressed in more detail with the other causative factors below in sections 3.19 and 3.20.

3.15 RADAR EQUIPMENT

3.15.1 The "Sun Paradise" was fitted with a radar for tracking vessel movements. Evidence was submitted to the Board that suggested the absence of an aural warning system in the radar was an operational factor that contributed to the collision. Had an aural warning system been fitted and had the radar been in use, this could have been configured in a way that would sound an alarm when vessels approached within a predetermined range. This alarm, if used, would alert a prudent mariner to the

proximity of other vessels and those with whom a close quarters situation is developing, or a risk of collision exists.

3.15.2 It is important to note that operationally this point is largely moot, as the radar was switched to standby at the time of the collision (see Exhibit 32 Q53 –Q55). As such, even if an alarm were fitted to the radar equipment it would not have sounded in the circumstances.

3.16 WARNING SIGNALS

3.16.1 Warning signals are prescribed by Rule 34 (d) of the *International Regulations for Preventing Collision at Sea* (as detailed at 3.6.3 above). The lack of action in the "Pride of Airlie", when there was obvious doubt as to whether sufficient action was being taken by the "Sun Paradise" to avoid collision, was of operational significance. Further attention is paid to this detail in the consideration of the actions of individual crewmembers (at Chapter Four below).

3.17 ENVIRONMENTAL FACTORS

3.17.1 There do not appear to be any environmental factors that contributed to the collision.

3.17.2 The nearest navigational danger to the final resting position of the vessels is more than one nautical mile away, and from the actual collision sight was likely in excess of over 2.5 nautical miles for either vessel. There was clear, safely navigable water for at least that distance around, in which safe operations could be conducted.

3.17.3 Conditions and visibility were very good. Thus, the ephemeral data of the day gives little insight into any reasons for such a collision occurring. The waters of the Whitsunday Passage are partially sheltered, the sea state of the day was small wavelets (with the wave height at 0.2 metres) and the sun was still so high in the sky that it is doubtful that glare would have amounted to a contributing factor.

3.18 CAUSATIVE FACTORS

3.18.1 The following factors are considered to have contributed to the collision between "Sun Paradise" and "Pride of Airlie" at approximately 1520 on 18 November 2001. These conclusions identify the different contributing factors to the incident and should not be read as apportioning blame or liability to any particular organization or individual.

3.18.2 "Sun Paradise"

1. At the time that the Master of "Sun Paradise" returned to the bridge he should have been aware that the "Sun Paradise" was in a crossing situation with "Pride of Airlie" and that there may exist a risk that the "Sun Paradise" and "Pride of Airlie" would pass at close quarters.

2. At the time that the Master of "Sun Paradise" returned to the bridge the Engineer had no instructions as to a correct hand over thus ensuring that a situation did not develop whereby the possibility might exist that the "Sun Paradise" would be in a close quarters situation with another vessel.

3. On the afternoon of 18 November 2001 the Master of "Sun Paradise" did not have an adequate knowledge of the Collision Regulations and in particular Rule 7 (d) (i) which states that *such risk is deemed to exist if the compass bearing of an approaching vessel does not appreciably change.*

4. The "Sun Paradise" was not equipped with a compass capable of taking a bearing of an approaching vessel.

5. In order to determine whether a deemed risk of collision might exist within the meaning of the Collision Regulations a compass bearing of "Pride of Airlie" should have been taken from "Sun Paradise".

6. The helmsman on "Sun Paradise" did not appreciate that as the give way vessel "Sun Paradise" should take early and positive action in ample time to result in "Sun Paradise" passing at a safe distance from "Pride of Airlie".

7. The "Sun Paradise" Operations Manual did not contain any directives or protocols dealing with:-
(a) crew management or ongoing crew training;
(b) procedures for the hand over of the helm;
(c) compliance with the Collision Regulations;
(d) what was expected in the operation of the "Sun Paradise" to ensure that a situation did not develop whereby the possibility existed that "Sun Paradise" would be in a close quarters situation with another vessel.

8. The owners of "Sun Paradise" did not appear to appreciate the need for crew to maintain an adequate knowledge of the Collision Regulations.

9. There was no evidence to suggest that the owners or operators of "Sun Paradise" appeared to have addressed either the Collision Regulations or the knowledge of the common practice of seamen in any:-
(a) crew induction training;

(b) vessel operation risk assessment;
(c) ongoing crew training;
(d) internal crew assessments;
(e) external crew assessments; or
(f) vessel operating procedures.

10. There was no evidence to suggest that, in respect of:-
(a) crew compliance with the Collision Regulations; or
(b) what would be expected in the operation of the "Sun Paradise" to ensure that a situation did not develop whereby the possibility existed that "Sun Paradise" would be in a close quarters situation with another vessel;
the owners of the "Sun Paradise" did anything other than rely upon the discretion of the master to set the operating standards of the vessel.

3.18.3 "Pride of Airlie"

1. At the time that the master of "Pride of Airlie" proceeded below decks he should have been aware that "Pride of Airlie" was in a crossing situation with "Sun Paradise" and that there may exist a risk that the "Pride of Airlie" and "Sun Paradise" would pass at close quarters.

2. At the time that the master of "Pride of Airlie" proceeded below decks the Deckhand had no instructions as to what was expected of him to ensure that a situation did not develop whereby the possibility might exist that "Pride of Airlie" would be in a close quarters situation with another vessel.

3. On the afternoon of 18 November 2001 neither the Deckhand on watch nor the Master of "Pride of Airlie" had an adequate knowledge of the Collision Regulations and in particular Rule 7 (d) (i) which states that *such risk is deemed to exist if the compass bearing of an approaching vessel does not appreciably change.*

4. The "Pride of Airlie" was not equipped with a compass capable of taking a bearing of an approaching vessel.

5. In order to determine whether a deemed risk of collision might exist within the meaning of the Collision Regulations a compass bearing of "Sun Paradise" should have been taken from "Pride of Airlie".

6. The Deckhand on "Pride of Airlie" did not appreciate that as the stand on vessel "Pride of Airlie" may take positive action in ample time to result in "Sun Paradise" passing at a safe distance by the action of "Pride of Airlie" alone when it was apparent that "Sun Paradise" was not taking appropriate action in compliance with the Collision Regulations.

7. The Deckhand on “Pride of Airlie” appreciated that “Sun Paradise” was not taking appropriate action in compliance with the Collision Regulations.

8. The action taken by the Deckhand on “Pride of Airlie”, whilst it may appear to have prevented loss of life or serious injury, was not taken in ample time to result in “Sun Paradise” passing at a safe distance.

9. No one on “Pride of Airlie” made radio contact with “Sun Paradise” after identifying the ship visually, and ascertaining that there was a possibility that the vessels would be passing at close quarters in a crossing situation.

10. The “Pride of Airlie” did not sound an audible signal upon ascertaining that there was a possibility that the vessels would be passing at close quarters in a crossing situation.

11. The “Pride of Airlie” Operations Manual did not contain any directives or protocols dealing with:-
    (a) crew management or ongoing crew training;
    (b) procedures for the handover of the helm;
    (c) compliance with the Collision Regulations; or
    (d) what was expected in the operation of the “Pride of Airlie” to ensure that a situation did not develop whereby the possibility existed that “Pride of Airlie” would be in a close quarters situation with another vessel.

12. The “Pride of Airlie” sank at approximately 2100 on 18 November 2001. The sinking of the “Pride of Airlie” may have been as a result of the lack of water tight integrity due to the inadequacy of a bulkhead fitted to the vessel prior to it entering service in Australia.

13. The owners of “Pride of Airlie” did not appear to appreciate the need for crew to maintain an adequate knowledge of the Collision Regulations.

14. There was no evidence to suggest that the owners or operators of “Pride of Airlie” appeared to have addressed either the Collision Regulations or knowledge of the common practice of seaman in any:-
    (a) crew induction training;
    (b) vessel operation risk assessment;
    (c) ongoing crew training;
    (d) internal crew assessments;
    (e) external crew assessments; or
    (f) vessel operating procedures.

15. There was no evidence to suggest that, in respect of:-
    (a) crew compliance with the Collision Regulations; or
    (b) what was expected in the operation of the "Pride of Airlie" to ensure that a situation did not develop whereby the possibility existed that "Pride of Airlie" would be in a close quarters situation with another vessel

    the operators of the "Pride of Airlie" did anything other than rely upon the discretion of the master to set the operating standards of the vessel.

3.19 LACK OF HANDOVER PROCEDURES IN SUN PARADISE

3.19.1 The handover procedures in the "Sun Paradise" were inadequate. There was no procedure which specifically required a member of the crew handing over the helm to the Master (or vice versa) pointing out aspects such as the present course of the "Sun Paradise", the state of the engineering plant, any defects, outstanding work and of particular relevance to this case, the presence of any other ships in proximity (see the evidence from the Manager, Marine Safety, Mr Steve Whalley, Transcript, Day 1, p.62).

> MR PRIESTLY: "Sun Paradise", yes. That's - when we're talking about the handover, changeover, I appreciate the comment can be made in relation to both operations, but in relation to the "Sun Paradise" there was a changeover of control.
>
> MR WHALLEY: Well, the weakness there - the thing that sort of - it's a year ago, it's hard to recall, but I think in Scott Liddell's statement he said he could see this boat out there but he felt stupid saying to the Master "Look out for that boat out there because after all he's the Master of the boat; I'm only an Engineer or the watch-keeper", and he didn't actually report it. He - the procedure, he didn't actually say the words. He walked off the bridge without discussing it further. To me that sort of - there was a break-down in their procedure, their - their watch-keeping, how they handed over the watch from person to person wasn't formalised in any way; it was more a casual arrangement.
>
> MR PRIESTLY: And I take it from what you're saying that if there had been a handover procedure, both documented and practiced, then Liddell would have been expected to have identified nearby vessels to the Master and then said "Handing over, taking over", whatever the practice might be.
>
> MR WHALLEY: That's basically where I'm coming - well, that's my opinion I'm forming, yes.

3.19.2 Evidence was presented, however, that other "Sun Paradise" crew, including Mr Liddell himself, were in the habit of explaining to Mr Daniel what other ships were around (see evidence from Mr Daniel to the Board was Transcript, Day 3, p.22).

DR SAMMON: Okay. And was there some sort of handover process between Scott Liddell and yourself at that point?

MR DANIEL: Yes, there was on - on course and speed, but there was no mention of any - any vessels. That's - that was the only difference to normal handover procedure that day.

DR SAMMON: When you say "difference", is it normally part of the process that whoever else you as skipper hand the wheel to, will tell you and give you a briefing about what other ships are around?

MR DANIEL: Standard, yes.

DR SAMMON: And that had happened on other occasions, that - - -

MR DANIEL: Yes, yes.

DR SAMMON: What about from Scott Liddell, had he told you on earlier occasions - - -

MR DANIEL: Yes.

DR SAMMON: - - - when he handed the wheel over to you that there were other ships around?

MR DANIEL: Yes.

Unfortunately, that did not happen on the subject occasion.

3.19.3 Evidence was presented to the Board that the owners of the "Sun Paradise" have subsequently inserted a detailed handover procedure into the operations manual of the "Sun Paradise" (see Exhibit 4, Operations Manual - "Sun Paradise", and the policy/procedure "Operating Hayman Vessels - Handing over the Con", effective date 21 December 2001). Operations Manuals of all vessels connected with Queensland should contain such a procedure.

3.19.4 The lack of a formal handover procedure meant that Mr Daniel remained unaware of the presence of the "Pride of Airlie" which had been identified by the previous watch.

3.20 LACK OF HAND OVER PROCEDURES IN PRIDE OF AIRLIE

3.20.1 Similarly, there was no formal procedure in the "Pride of Airlie" for handing over control of the helm from the Master to a member of the crew and vice versa (see the evidence from Mr Nichols, Transcript, Day 2, p.94).

DR SAMMON: Is there a procedure there for handover of control from the Master to the Deckhand and vice versa?

> MR NICHOLS: Not really. No, it just gives the instructions that each person is responsible.

The Operations Manual for the "Pride of Airlie" (Exhibit 8) does contain a section dealing with responsibilities of the "officer of the watch" (see p.28). However this is clearly more applicable to a formal "officer of the watch" situation involving passages being conducted by night. This section of the Operations Manual refers, on several occasions to a "bridge" on the "Pride of Airlie". As a sailing catamaran, it is submitted that the "Pride of Airlie" did not have a bridge as such, only dual helm positions. This section of the Operations Manual appears to have been taken, as a "cut and paste" from another document without much thought being given to application to the "Pride of Airlie". The evidence of Mr John Hayes who currently has responsibility for overseeing the Marine Division of the South Molle Island operation on the Operations Manual is at Transcript, Day 4, pp.105-113.

> DR SAMMON: Yes, in fact it is, you're right. Yes, the cover sheet has probably been taken off for some reason. So it should be the page numbered 3 at the bottom.
>
> MR HAYES: I have no idea what that reference is about.
>
> DR SAMMON: Okay. Could it have been that that part of it has been taken from some other document and - - -
>
> MR HAYES: Possibly, yes.

3.21 ABSENCE OF MASTER FROM BRIDGE TO EAT LUNCH

3.21.1 It is worth considering whether the fact that the master of the "Sun Paradise" Mr Daniel felt forced to eat in the galley was a causative factor in the collision. To some extent, of course, this is hypothetical, but it is reasonable to think that the longer Mr Daniel was at the helm, the greater the chance he would have had to see the "Pride of Airlie" even if only as the result of a casual glance. Even a casual glance would have put him on notice and it can be expected that an experienced Master such as Mr Daniel would then have kept the "Pride of Airlie" under observation, and undertaken his responsibilities as the vessel required to keep out of the way of the other.

3.22 CREW RESPONSE AND ACTION

3.22.1 Failure to Call the Master. The evidence clearly establishes that while Barry Nichols was below in the passenger saloon cleaning his glasses, the deckhand in the "Pride of Airlie", Adam Neilson kept the "Sun Paradise" under observation. While Adam Neilson's exact location on the deck is the subject of a conflict in evidence it can be accepted that Adam Neilson tried to determine the relative bearings of the "Sun Paradise" and the "Pride of Airlie" by lining up a stanchion on the "Pride of

Airlie" with a flag pole, or jackstaff on the bow of the "Sun Paradise" (see evidence he gave to the Board, Transcript, Day 2, pp. 20-21. 23-24).

> THE CHAIR: How did you assess the risk of collision?
>
> MR NEILSON: I lined up "Sun Paradise". There's a bow flag on the front of their bow. I lined up that bow flag with a handrail on our boat and kept him lined up with that. It didn't change appreciably so I decided that risk of collision, his bearing didn't change appreciably so I decided that - or made a decision that risk of collision did exist. I went to make my actions to manoeuvre my boat to get out of the road of his but as I was making - going to make those actions, I saw his bow flag come around to my stern, therefore alleviating some of my concern that he was following - following the Collision Regulations Rules.

3.22.2 He thought he detected a course correction by the "Sun Paradise" which would have resulted in the "Sun Paradise" passing astern of the "Pride of Airlie" (see Exhibit 36, answer to question 54 and evidence to the Board of Inquiry, Transcript, Day 2, pp. 20-22).

> MR HUME: Well, can you be more specific? What you're saying is if you noticed his bow jack staff had moved towards the rear of your boat - - -
>
> MR NEILSON: Yes, yes.
>
> MR HUME: - - - that's, in effect, saying that he's making a change of direction to go behind you.
>
> MR NEILSON: That's - that's what I - - -
>
> MR HUME: And that's what you assumed.
>
> MR NEILSON: Yes.

This was obviously not enough, or Mr Neilson was mistaken about this because the collision resulted. Alternatively, and despite this being a relative not compass bearing, the shift may have been observed at too close a range as warned against in Rule 7(d)(ii) of the Collision Regulations. Rule 7 (d) states that:

> *(d) In determining if risk of collision exists the following considerations shall be among those taken into account:*
>
> *(i) such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change;*
>
> *(ii) such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or a tow or when approaching a vessel at close range.*

3.22.3 In his Record of Interview (Exhibit 36) at question 66, Mr Neilson was asked whether he tried to contact Barry Nichols prior to the collision. Mr Neilson answered that he yelled out to him but Mr Nichols was inside the passenger saloon and Mr Neilson thought that Mr Nichols would not have heard him (see Exhibit 36, answer to question 67 and also the evidence given to the Board of Inquiry, Transcript, Day 2, pp. 56-57).

> DR SAMMON: Okay, sure. Now, at the bottom of page 9 of the Record of Interview you were asked about contacting the skipper, Barry Nichol, and your answer in answer 66 that you yelled out to him.
>
> MR NEILSON: Yes.
>
> DR SAMMON: You say:
>
> *But I mean he just - he was inside.*
>
> MR NEILSON: I was - Mr Sammon, when I - I should have explained myself in the interview a little bit better that. I yelled something out - - -
>
> DR SAMMON: Sure.
>
> MR NEILSON: - - - just prior to the collision. I don't know what it was. I may have yelled for Baz, I may have yelled - I don't know. All I - all I yelled out - I say yelled out. So whether it was to Barry or whether it was to - I don't know - the good Lord himself, I don't know who it was to. All I remember is yelling out.

However, as to the location, the evidence of Mr Nichols is that he was only a few steps away from the helm position (see Exhibit 35, Record of Interview with Nichols, answer to question 15 and Mr Nichols' evidence to the Board of Inquiry, Day 2, p. 88).

> MR NICHOLS: I was in the galley area, like at the hand basin, the wash basin. I just cleaned my glasses, I put them back on, and I was just putting my hat on, I heard - I felt the boat turn and then bang this thing was through us.
>
> DR SAMMON: Okay. Now, is the galley at the aft section of the saloon?
>
> MR NICHOLS: It's in the aft section of the saloon. It's about one and half paces from the cockpit.
>
> DR SAMMON: Okay. How do you get from the cockpit - sorry, from your position in the galley to the cockpit and then up to the helm position? Is that - - -
>
> MR NICHOLS: That's about four paces. You step through it - it's a double door - double glass door. That day I had gone down the side deck and into the saloon through the other way, through the side - the starboard hull entry. And, of course, we had most of the people sheltering under the shade in the cockpit.

3.22.4 Given the time available, Mr Neilson could have taken the few steps down to where Mr Nichols was located and called him, as Master of the ship back to the helm. Had this occurred, then Mr Nichols, as the experienced Master that he is, would probably have taken evasive actions to avoid the collision, even though he was the stand-on vessel in accordance with Rule 17 (a) (ii).

3.22.5 Mr Neilson may not have taken the step of calling Mr Nichols to the helm position, perhaps, because of over reliance on his position as being on the stand-on ship but overlooking the overarching obligation under the Collision Regulations to avoid a collision in any case. It also seems true that in assessing the risk of collision, he relied on taking a relative bearing of the position of the two ships, whilst Rule 7(d)(i) refers to a compass bearing as opposed to a relative bearing. As discussed in 3.11 above the absence of a compass in the "Pride of Airlie" from which a *compass bearing* could be taken precluded this action (see evidence to the Board of Inquiry, Day 2, pp. 22-23, 25-26).

> THE CHAIR: Where was the compass on the "Pride of Airlie"?
>
> MR NEILSON: I can't tell you that, sir; I don't know.
>
> MR HUME: So there's no compass binnacle forward of the helm position?
>
> MR NEILSON: Not - not that I know of, sir. I'll check but - - -
>
> THE CHAIR: So you couldn't have taken a compass bearing of - - -
>
> MR NEILSON: Well, there you go, sir. If you'll allow me to show you. That's the compass just down the helm's position, but as you can see the dome is quite clouded and cracked.
>
> THE CHAIR: Quite significant - - -
>
> MR NEILSON: And I didn't - no, I didn't have - I didn't have the means to line him up from there, no.
>
> THE CHAIR: Are there any hand-held compasses?
>
> MR NEILSON: No, not that I know of, sir.

3.22.6 There may also have been an element of inexperience on Adam Neilson's part or perhaps a reluctance to call Barry Nichols as Master of the ship, given that Adam Neilson had only a few moments before been given the control of the ship by him. In any event, it was clear from Mr Neilson's evidence to the Board of Inquiry that he had learned from the experience. It is also clear that Mr Neilson is serious about pursuing a career in the marine industry. He had already attended a course at the Australian Maritime College in Tasmania and was enrolled to do another course commencing in 2003.

3.23 COORDINATED RESCUE RESPONSE

3.23.1 "Pride of Airlie". The evidence establishes that the rescue effort on behalf of those in the "Pride of Airlie" was commendable. The "Pride of Airlie" was the ship in the most immediate danger of sustaining serious injury or loss of life. Mr Neilson's evasive action, though too late to avert the collision, undoubtedly diminished the damage that resulted from the impact of the "Sun Paradise". His efforts in this regard should be acknowledged. It seems likely that had the point of collision been a few metres aft of where it resulted, which it likely would have been had Mr Neilson not reacted, then there would have been a serious risk of the loss of life resulting. After the collision the Master of the "Pride of Airlie" Mr Nichols and his crew, Mr Neilson and Mr Watson took swift action to calm their passengers, dispense life jackets to them and to arrange the passengers in an orderly fashion at the stern of the "Pride of Airlie".

3.23.2 The appropriate mayday signal was given by radio. Very quickly, two rescue ships, the charter yacht the "Pyrenees" and the large passenger ship, the "Voyager" were on hand. After that, the transfer of the passengers from the "Pride of Airlie" to the "Voyager" proceeded smoothly. For this, the calm and methodical approach of Messrs Nichols, Neilson and Watson should be acknowledged.

3.23.3 "Sun Paradise". The suggestion was made by Mr Neilson (see answer to interview Q98) that the Master of the "Sun Paradise" did nothing after the collision. While this may have been the appearance that Mr Neilson received, it is unlikely that the Master should have raced to the scene. In fact, his obligation under s124 of TOMSA is to assist the other vessel *"to the extent that the master can do so without danger to the master's ship or persons onboard…"*(s124 (2)). His prime responsibility, therefore was to assess any danger to his own crew, passengers and vessel, which it appears that he did.

FOUR

RELEVANCE OF CREW QUALIFICATIONS AND EXPERIENCE

4.1 GENERAL

4.1.1 This section specifically addresses criterion 'd' of the terms of reference, identifying whether the relevant persons were appropriately qualified and experienced in their roles on the respective vessels.

4.1.2 It must be borne in mind that the application of the meaning of sea service or sea time as defined in USL code Section 2 Clause 3 (f) as being '*performance of a duty related to the functions normally permitted to the holder of a certificate for which the service qualifies*'.

4.1.3 In addition to the following, the systemic implications of the relevance of sea service to specific vessels is further addressed in Chapter Seven below.

4.2 MASTERS' QUALIFICATIONS AND EXPERIENCE

4.2.1 General. It appears evident that both Masters were appropriately qualified and experienced in the operation of the particular class of vessel that each was operating at the time.

4.2.2 "Sun Paradise". Despite the adequacy of the qualification and experience, the Master of the "Sun Paradise" did not have an appreciation of the risk of collision as it developed, due to his poorly conducted lookout (see 4.4 below for details). This appears to have been a lapse in his judgement, rather than an inadequacy in his qualifications or an error arising from inexperience.

4.2.3 "Pride of Airlie". Likewise, (and also detailed in 4.4 below), the absence of the Master of the "Pride of Airlie" from the bridge in the minutes leading up to the collision meant that the deckhand was left at the helm and the Master was unaware of the developing close quarters situation. Again, this appears to have been a lack of judgement or simply a poor choice of timing to depart the bridge, but does not appear to be resultant from any inadequacy in his qualifications or an error arising from inexperience.

4.3 CREW QUALIFICATIONS AND EXPERIENCE

4.3.1 All crew of both vessels were appropriately qualified to conduct their designated duties. What emerges from a consideration of the details of specific actions of individual crewmembers (see in particular 4.4.2 below) is that ignorance,

inexperience and lack of appropriate training contributed significantly to the Incident. In particular, it was a lack of appreciation for the application of the Collision Regulations that led to the evasive action being taken too late in the "Pride of Airlie". In addition, the lack of experience of the crewman at the helm of the "Pride of Airlie" meant that he failed to appreciate the stopping distance and turning ability of the vessel. It is likely that his inexperience led to his failure to appreciate the gravity of the situation and the necessity for calling the Master to the bridge. These issues are dealt with in more specific detail below.

4.3.2 There emerges a requirement for the provision of vessel specific training to be conducted by Masters to ensure that their crew are able to react appropriately in the event of an emergency. This responsibility remains with operators, due to its specific nature, though will require the vessel owner/managers to schedule the commitment of resources (time and vessels) to allow for such training to be conducted. While it is not unlikely to think that Masters would be able to provide such training, without the support of owners and administrators the training of crew will not be achievable without the allocation of time for the specific achievement of crew training within the busy timetabled operations of vessels.

4.4 SPECIFIC QUALIFICATIONS AND ACTIONS

4.4.1 MASTER "Pride of Airlie" – B.W.J. Nichols (below decks at time of collision)

Qualifications:
Certificate of Registration as MASTER CLASS 4 (no A004546)
Certificate of Competency as Marine Engine Driver (Motor) Grade 3 (no C010134)

Actions:

- Proceeded below decks knowing that close quarters situation could develop;
- Did not have an adequate knowledge of the application of the Collision Regulations in particular 7(d) (i) relating to compass bearing;
- Did not conduct comprehensive handover;
- Left relatively inexperienced (in shiphandling and stopping distances in particular) crewmember in charge without a handover of basic facts, nor provision of guidance as to the occasions he should be called or what action should be taken in the event of a close quarters situation developing.

Mr Nichols handover to Mr Neilson was not comprehensive. He simply stated "have you got it?" to which Mr Neilson replied "yeh I've got it". This communication between the Master and the crewman was "unclear" (Mr Neilson answer to Q45).

Due regard to the observance of good seamanship would dictate that:-

1. **Each handover of responsibility (of the con) be accompanied by a summary of at least the following:**
   - **State of the machinery;**
   - **Visual contacts;**
   - **Radar contacts where appropriate;**
   - **Course to be steered;**
   - **Speed; and**
   - **Special Instructions (as to when to call the master for example).**

2. **Vessel operations manuals reflect the above and in addition specify the following instructions from a master:**

   - **When the master expects a crewmember to take action to avoid collision, whether as the give way or stand on vessel; and**

   - **What action to avoid collision the master expects to be most appropriate in ordinary circumstances.**

Such action is simply reflective of the duty incumbent upon masters to provide clear, detailed and comprehensive instructions in order to comply with section 182(2)(b) of the *Transport Operations (Marine Safety) Regulation* 1995 (TOMS Regulations).

Periodic reinforcement of the responsibilities of masters should take place to ensure that legislated safety requirements are being understood and met across the industry. This should be as part of a programme of continuous maritime education as discussed further in Chapter Nine below.

4.4.2 DECKHAND "Pride of Airlie" – A.J. Neilson (at wheel at time of collision)

Qualifications:
Certificate of Competency as Coxswain (no C014449)

Actions:

- Took control of wheel while Master proceeded below;
- No handover of course or contacts;
- Observed "Sun Paradise" for duration of time from handover to collision;
- Attempted to take relative bearing to determine if risk of collision existed;

- Unaware of requirement to take compass bearing to determine if the risk of collision existed (in accordance with the Collision Regulations);
- Unable to take compass bearing due to lack of adequate compass;
- Understood obligation to take action to avoid collision (see answers Q59-60), though took avoiding action when "Sun Paradise" at approximately 200-250m;
- Called out to the Master but did not alert him to close quarters situation;
- Did not attempt to raise "Sun Paradise" on VHF radio;
- Horn not used in accordance with the Collision Regulations;
- Took action to avoid collision, though failed to do so in an appropriate timeframe;
- Collision impact was reduced as a result of this action, though not avoided;
- Had no previous training or experience of emergency stopping or turning the vessel and so had no knowledge of the vessel's stopping distance (see Q 82-86).

Mr Neilson's qualifications were appropriate for his position as a deckhand, but his experience level in the particular vessel was inadequate as was his level of operational knowledge of the Collision Regulations. While he appreciated the risk of collision (see answer to question 50) – he "observed that if we weren't going to slow down or change course, um, he was going to hit us", he failed to take appropriate action in good time.

This points to a failure in that the operations manual failed to specify in what circumstances the master should be called and that the master failed to provide clear instructions as to when he should be called when he handed over the con.

Due regard to the observance of good seamanship would dictate that all crew who are to 'take the con' be under direct supervision of the Master until such time as they have demonstrated a basic competence in shiphandling in that class of vessel. In particular, with reference to stopping distances, turning ability and the recovery of a man overboard (noting that the person lost over the side may be the Master).

This could be undertaken by way of the completion of a task book with competencies marked off by the Master and then submitted to MSQ for validation.

Mr Neilson was aware that Hayman Island vessels had a reputation for passing close to other vessels when passing on occasion (see question 10 statement 2nd interview). It appears that this assumption combined with the fact that there was neither a radar nor a method of plotting the approach of the "Sun Paradise", contributed to a lack of action.

Assuming that Mr Neilson had gained a reasonable theoretical knowledge of the Collision Regulations, at the Australian Maritime College, he was let down in its practical application. In addition, while understanding the requirement to take action, his limited appreciation for the manoeuvrability of the vessel meant that he was unable to appreciate the timeframe in which any action should be taken. He was also in a position where he doubted whether sufficient action was being taken by the "Sun Paradise" to avoid collision, but failed to sound at least five short blasts on the ship's whistle in accordance with Rule 34(d).

Further he had not been provided with any advice as to what action to undertake should a close quarters situation develop.

4.4.3 DECKHAND "Pride of Airlie" – J.H. Watson (Acting as a host to the guests)

Qualifications:
(Tasmania) Certificate of Competency as Coxswain (no 11470)

Actions:

- Radioed Mayday Call to Airlie Comstat;
- Conducted head count;
- Recommended starting pumps; and
- Assisted in transfer of passengers to "Voyager".

Assessment: Actions adequate

4.4.4 MASTER "Sun Paradise" – A.J. Daniel (at helm at time of collision)

Qualifications:
Certificate of Competency as MASTER CLASS 4 (no C010708)
Certificate of Competency as Skipper Grade 3 (no C008147)
Certificate of Competency Marine Engine Driver (Motor) Grade 1 (no C006721)

Actions:

- Absent from bridge for considerable period in lead-up to collision;
- No comprehensive handover on return to bridge;
- Adequate lookout not maintained;
- Facing aft when taking call on intercom;
- Seated in position with poor visibility;
- Not operating any method of plotting; and
- Not operating radar (radar in standby mode).

Due regard to the observance of good seamanship would dictate that:-

- **Vessel owners implement policy guidelines and conduct refresher training to ensure that at least one person is allocated to maintaining a lookout at all times as required by Rule 5 of the Collision Regulations.**

- **Vessel owners implement policy guidelines and conduct refresher training to ensure that those allocated to maintaining a lookout do so from a position that allows them a comprehensive view of the surrounding waters. This should also include advice that in some vessels this may require the lookout to move around the bridge to afford a non-obstructed view.**

- **Vessels fitted with radar operate the radar when in transit.**

- **Vessels required to be fitted with radar units install and operate radar units with an audible alarm designed to alert the crew to vessels closing so as to involve a close-quarters situation or a risk of collision.**

4.4.5 ENGINEER "Sun Paradise" Scott Liddell

Qualifications:
Certificate of Competency Marine Engine Driver (Motor) Grade 1 (no C015659)
Certificate of Competency as Coxswain (no C013970)

Actions:

- Saw "Pride of Airlie" at approximately 1.5 nm (when 10 degrees off the starboard bow);
- Handed over the helm to Master then went below to conduct engineering rounds;
- On handing over helm to Master discussed the engineering state but not the contact ahead in crossing situation for which the "Sun Paradise" was the give-way vessel;
- Assessed the post-collision situation;
- Accepted alarm and isolated the electrics;
- Closed down watertight compartment and isolated the leak;
- Started bilge pumps; and
- Attended to guests.

Assessment - Handover of helm duties inadequate. Response to the incident appears adequate and proficient.

4.4.6 DECKHAND "Sun Paradise" S. Martin (Acting as host on the day)

Qualifications:
OH&S at Sea Course
Senior first aid

Actions:

- Acting as host;
- Ran to bow and sighted "three" persons in water. (Note that this appears to be the only reference to the number of persons in the water being three): and
- Threw life ring into water

Assessment: Response adequate

FIVE

ADEQUACY OF CREW NUMBERS AND QUALIFICATIONS

5.1 CREW NUMBERS AND TRAINING

5.1.1 This section specifically addresses criterion 'e' of the terms of reference, identifying whether the number of crew on the respective ships and their qualifications were adequate in the circumstances.

5.1.2 There is little evidence to support a claim that the crew numbers were in any way inadequate. For the type of vessels and for the nature of their operating cycles, the crews were both adequate in number and appropriately qualified. The specifics of the qualifications of individual members of the crews were addressed above.

5.1.3 The deficiency that did emerge from the inquiry with regard to this criterion was with regard to the allocation of the crew to duties. In particular, the requirement for the maintenance of a proper lookout was not delegated appropriately and this shortcoming must be reinforced. In addition, the allocation of responsibility for duties as unsupervised helmsman to a crewmember with limited experience when a close quarters situation was developing was an oversight in the Master's judgement. These deficiencies are discussed in more detail in the following assessment of the shortcomings of personnel on respective ships.

5.1.4 At paragraph (e) sub paragraph 1 of the submission made to the Board on behalf of Mr Daniel it was stated that had there been a second watch in "Sun Paradise", then the collision would not have occurred. While this is potentially accurate, the suggestion of additional crew seems excessive for a short duration trip. It may be somewhat trite, but it could be equally accurate to suggest that had the watch that *was* in "Sun Paradise" been maintaining a proper lookout, then the collision would likely have been averted.

5.2 TENSION BETWEEN SAFETY AND PROFIT

5.2.1 There emerged evidence that what could be referred to as a "tourist theme-park mentality" exists to the detriment of marine safety in the Whitsundays. It appears that in some situations the desire of guests to be a part of the Whitsunday marine experience takes precedence over the safe management of vessels. This situation places the vessel crew in a difficult and potentially dangerous situation. The evidence given by Mr Neilson as to his previous reprimand for a bad attitude to passengers is one such example of this. His distraction by guests seeking photographs operating the vessel is another. Evidence was also presented by the master of the "Sun Paradise" that his involvement in overseeing the loading of baggage and the greeting of

embarking passengers was a distraction from the satisfaction of his other responsibilities.

5.2.2 Balancing the safe management of vessel operations with the satisfaction of the tourist market requires careful management. The Board makes no recommendation for the increase of crew numbers, but recommends that every vessel owner reinforce their commitment to safety by evaluating the amount of time that the use of vessel masters in hosting roles, distracts from their key safety responsibility.

SIX

SHORTCOMINGS IN PERFORMANCE OF DUTIES

6.1 GENERAL

6.1.1 This section specifically addresses criterion 'g' of the terms of reference, the extent to which personnel in the respective vessels performed their duties (whether supervisory or otherwise) in accordance with procedures and policies in force at the relevant time and, if applicable, the extent to which personnel failed to perform their duties (whether supervisory or otherwise) and the reasons for any such failure.

6.2 EXTENT TO WHICH DUTIES WERE PERFORMED

6.2.1 The performance of duties has been addressed and the extent to which they were adequate has been assessed above in Chapter Four.

6.3 SHORTCOMINGS IN PERFORMANCE OF DUTIES

6.3.1 All shortcomings of the crews of the vessels "Pride of Airlie" and "Sun Paradise" have been detailed above in Chapter Four. They are reproduced here for ease of reference.

- Departure from bridge of Master of the "Sun Paradise" to take meals;
- Failure of Engineer Liddell to handover visual contacts;
- Absence of Master of "Pride of Airlie" from Bridge when in crossing situation and as a close quarters situation was developing;
- The failure of the Masters to provide adequate guidance as to the occasions on which they should be called;
- The allocation of helm duties and watchkeeping responsibilities to an inexperienced crewmember as a close quarters situation was developing;
- The failure of both vessels to take the appropriate avoiding action;
- The absence of an effective manner of communication between the helm and the Master in the "Pride of Airlie"; and
- The poor understanding of the meaning and application of the Collision Regulations across the board.

6.3.2 With an eye to accident prevention it is important to not only consider the shortcomings of the crew but to also look further along the causal chain for systemic and training shortcomings. Chapter Seven addresses these issues and the above shortcomings should be read with the content of Chapter Seven in mind.

SEVEN

SYSTEMIC ISSUES

7.1 LEGISLATIVE REQUIREMENTS

7.1.1 General. A consideration of all of the evidence presented to the Board highlights the requirement for greater participation in the administration of vessel documentation and procedures by the Regulatory Authority.

7.1.2 Documentation. *Transport Operations (Marine Safety) Regulation* 1995 (TOMS Regulations) prescribes that all vessels over the length of 6 metres must carry the following documentation:

- Operational manual for the ship;
- Technical manual for the ship;
- Maintenance and service manual for the ship;
- Marine Occupational Health and Safety Manual for the ship; and
- Safety management plan for the ship and onboard emergencies.

It appears that a number of the procedural shortcomings that contributed to the accident should have been covered in the Operations Manuals for the specific vessels. In the course of the Inquiry evidence emerged that challenged the relevance of individual vessel documentation to that particular vessel. There appear to be industry examples of documentation being ‘cut and pasted’ across vessel type and size. Examples of this practice are detailed below at para 7.1.4.

Guidance on the content of ship operation manuals needs to be provided and should include handover procedures, stopping and turning distances particular to the vessel; the requirement for Masters to specify occasions on which to be called to the bridge (with a suggested list included for modification to suit the specific Master/situations); assessment requirements for crew before they undertake duties unsupervised; the necessity of crew to display an operational understanding of the Collision Regulations, emergency procedures and sound signals, before undertaking unsupervised helm duties.

It was apparent to the Board that the ship operations manuals were not developed in a holistic risk assessment and management process context.

It is clear that owners and operators of commercial passenger carrying vessels should undertake the following in the context of a holistic risk assessment and safety management process:

- **the development and updating of content of ship operations manuals;**

- **the training of masters and crew in the procedural implementation of content of ship operations manuals onboard; and**

- **the periodic review and assessment of the ship's operations manuals by owners and operators.**

Further, evidence emerged in the course of the Inquiry that while MSQ do monitor compliance with the documentation requirements of the TOMS Regulations, inspection staff do not have the appropriate levels of knowledge to be able to determine the applicability of the content of such documentation to the specific vessel type.

7.1.3 Guidance from Regulatory Authority. It is evident that the vessels involved in this collision fall into a category that lies in a shadow between large ship operations, which are highly regulated, and the operations of smaller vessels that operate relatively unhindered by regulatory intervention. The very fact that this 'wake-up call' has highlighted these shortcomings without the loss of life should encourage MSQ and the marine industry to adopt a collaborative and proactive role in the provision of practical training in the application of risk assessments and ship safety management plans to the marine industry in Queensland.

7.1.4 Operations Manuals. Section 106(2) of the TOMS Regulations requires certain ships to carry operations manuals, and importantly requires the owner and master to ensure that the operations manual is available to the crew and that the crew are familiar with its contents. The procedural applicability of the documentation and the content of operations manuals is one area in which there is a particular absence of any proper assessment mechanism. There is an absence of any process that ensures that Masters and crew are aware of and proficient in the application of the content of operations manuals. The Operational Manual of the "Pride of Airlie" for example, refers on several occasions to a "bridge" on the "Pride of Airlie". As a sailing catamaran, the "Pride of Airlie" did not have a bridge as such, only dual helm positions. It is submitted that this section of the Operations Manual appears to have been taken, as a 'cut and paste' from another document without much thought being given to application to the "Pride of Airlie". The presence in it also of references to the checking of compass deviation (page 29) and of radar heading markers (page 31) in the absence of both a compass and a radar in the vessel, further supports this assertion. The evidence of Mr John Hayes who currently has responsibility for

overseeing the Marine Division of the South Molle Island operation on the Operations Manual is at Transcript, Day 4, pp.105-113. The relevant section of this evidence is reproduced above at 3.20.1.

7.1.5 Objectives of the Transport Operations (Marine Safety) Act 1994. The objectives of the *Transport Operations (Marine Safety) Act* 1994 (TOMSA) include the provision of:

> '*a system that achieves an appropriate balance between –*
>
> *(a) regulating the maritime industry to ensure maritime safety; and*
>
> *(b) enabling the effectiveness and efficiency of the Queensland maritime industry to be further developed'* (section 3 (1) TOMSA)

Section 29 TOMSA also provides:

> *'Achieving an appropriate balance between safety and cost…*
>
> *(2) Even though it is possible to regulate to achieve the highest level of safety, this would ignore the impact of the regulation on the effectiveness and efficiency on the Queensland maritime industry.'*

7.1.6 Endorsement of qualifications and the training alternative. Certificates of Competency evidence that the holder has successfully completed the competencies contained within the competency standard (Universal Shipping Law Code). Section 41 (1) and (3) TOMSA place an obligation on the owner and the master to ensure that they employ crews who hold appropriate certificates of competency and that crews are competent to operate their particular ship. As demonstrated by the lack of requisite ship knowledge evidenced in the circumstances of this case (eg. related specifically to stopping distances and turning abilities in the "Pride of Airlie") the certificate does not qualify the mariner to operate any ship without further vessel specific training. Owners and operators must ensure that this vessel specific training is conducted to ensure all crew are competent in the safe operation of the vessel and of their specific conduct requirements in the event of an emergency in order to comply with TOMSA.

7.1.7 It is clear that the owners and masters of ships have an obligation to ensure that the crew operating a ship are trained so as to be competent to operate that particular ship safely in everyday and emergency conditions.

7.1.8 It is the responsibility of the maritime administration to support the owners and operators of ships in their responsibilities by providing guidance standards and

assistance in the implementation of such guidance. Currently the National Maritime Safety Committee (NMSC) is working with industry to develop standards that give guidance on the development of operations manuals for small ships. **This standard should be published in 2003 and will assist the industry to comply with the regulatory requirements in a practical and applicable manner.**

7.1.9 MSQ should ensure that model documents for small ship operations manuals are produced and given the widest possible distribution within the industry.

7.1.10 MSQ should also ensure that vessel owners and operators are made aware that model documents for small ship operations manuals are provided for guidance only and that each needs to be adapted to suit individual vessels.

7.1.11 STCW Code – Guide or Checklist? The circumstances of this case highlight the failure of the adequate implementation of the guidance on watchkeeping arrangements and principles to be observed that are laid down in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and promulgated in Part B of the STCW Code. This Code also contains standards for keeping a proper lookout. The STCW Code places the onus on companies to issue guidance on proper bridge procedures, and promote the use of checklists appropriate to each ship taking into account national and international guidance.[11]

7.1.12 Furthermore, the onus rests on administrations to ensure they "direct the attention of companies, masters, chief engineer officers and all watchkeeping personnel to the requirements, principles and guidance set out in the STCW Code…" to ensure the observance of safe watches at all times.[12]

7.1.13 The STCW Code also details the requirements of the lookout, the requirements for taking over the watch and the occasions the officer in charge of the watch is required to immediately notify the Master. This includes occasions where the traffic conditions are causing concern.

7.1.14 The attention of all companies, masters, chief engineer officers and all watchkeeping personnel of ships connected with Queensland should be drawn to the principles and guidance set out in the STCW Code, with particular reference to

---

[11] See Cockroft, AN and Lameijer, JNF, *A Guide to the Collision Avoidance Rules* 5th Ed Butterworth Heinemann 2000 p18, p218ff and pp221-3 for a discussion of the application of the STCW to the Collision Regulations and its watchkeeping requirements.

[12] STCW Code 1978 as amended Regulation VIII/2 *Watchkeeping Arrangements and Principles to be Observed* 1 – 2

Regulation II/1 'Basic Principles to be Observed in Keeping a Navigational Watch and STCW Code Part A Chapter VIII - 'Standards Regarding Watchkeeping'.

7.2 PROCEDURAL FITNESS

7.2.1 Meals Policy in "Sun Paradise". As discussed above (in 3.12.2) Mr Daniel gave evidence (Transcript, Day 3, pp.48-50, p.57, p.85) that he was effectively forced to have his lunch in the galley of the "Sun Paradise", and thus be absent from the bridge for an extended period, due to company policy. He said that there was no time to eat, before the trip concerned while the "Sun Paradise" was tied up at Hamilton Island because of the short stopover involved and the need for him to be on duty when passengers and luggage were being embarked and disembarked.

> THE CHAIR: Well, why couldn't you have that at the wheel?
>
> MR DANIEL: You can't eat in front of the guests, really. You've got to - it's company policy.
>
> DR SAMMON: Okay. Now, can you recall, the trip that resulted in the collision, of course the trip from Hamilton Island to Hayman Island, can you recall how long you were tied up for at Hamilton Island immediately after the previous trip, if you know what I mean? How long were you stopped at Hamilton Island for?
>
> MR DANIEL: Well, if we arrived there at 1415 and left at 1450 - - -
>
> DR SAMMON: That's about - - -
>
> THE CHAIR: 35 minutes.
>
> DR SAMMON: 35 minutes, okay. Given your knowledge of the ship's operations, would it have been possible to take your lunch meal then?

7.2.2 Mr Daniel's evidence was that the company policy of Hayman Island was not to permit staff to eat in front of passengers. This company policy was confirmed by Mr Stowe, Marine Operations Manager at Hayman Island (see Transcript, Day 3, p.201 and following).

> DR SAMMON: Then his answer is - your answer is, sorry, that:
>
> *I don't know why he did that. Taking 20 off for a meal on a one hour trip is not according to operating policy.*
>
> Is that so?
>
> MR STOWE: Okay, as far as - obviously we're getting into whether it's actually written down as a policy. Certainly it's been made very clear to Masters on a transfer backwards and forward, that is only of an hour duration at - at maximum, that I found it very unusual that I had Masters taking a break for 20 minutes and having another

> member of crew at the helm. Since that, that's how we came about changing policy and ensuring that this didn't continue.
>
> DR SAMMON: Okay. But now at the same time is it accurate to say that it is also company policy that employees of Hayman Island not eat in front of the guests?
>
> MR STOWE: Indeed it is.
>
> DR SAMMON: Okay.
>
> MR STOWE: Absolutely. That is written in the Employee Handbook, yes.
>
> DR SAMMON: That actually is written in that book, that policy?
>
> MR STOWE: It is, indeed.

7.2.3 Mr Stowe said, however, that there was time for Masters to have a meal either when the ship was tied up at Hamilton Island or, (and somewhat fancifully, it is submitted) in the staff diner at Hayman Island. These comments were only related to the general run of things and Mr Stowe did not give evidence about the actual timing available on the day in question. He did admit, though, when he finally came to answer the question (see Transcript, Day 3, p. 207) that as a matter of marine safety, it is preferable for the Master to eat at the helm rather than in the galley.

> DR SAMMON: I'll ask you to listen to my question carefully. Is it safer to have a meal at the helm or in the galley?
>
> MR STOWE: It would be safer to have it at the helm.

7.2.4 For the Master of a ship, marine safety should take priority over such matters as keeping up appearances by not eating in front of guests. It appears preferable, as a matter of marine safety, that a Master be permitted to eat something as simple as a sandwich at the helm, rather than being forced to eat some distance away in a galley. There is no doubt that for the Master of a ship, marine safety should be the highest priority. Owners should provide policy guidelines that provide for the realistic achievement of the human needs of vessel operators balanced with the overarching requirement of marine safety.

7.2.5 Since the incident the new policy for the procedure on "Handing Over the Con" in the Sun Paradise (effective date 21 December 2001) provides that:

> *The Master should not leave the conning position for refreshments while underway. The hostess or deckhand is to serve refreshments to the Master when required and only when clear of guests needs. Having said that the crew should try to eat or take refreshments when the boat is stopped between transfers or trips.*

When asked about this, Mr Stowe (Day 3, p.210-211) said that here, although the word “refreshments” is not defined in the policy/procedure, the word did not extend to food, allowing a Master to eat at the helm. His evidence was to the effect that the company policies still prevail, that Masters are not to eat at the helm and that the term “refreshments” was really only meant to mean a cup of coffee, tea or soft drink.

> MR STOWE: When we're talking refreshments here, I suppose we're particularly talking in like a drink or a cup of coffee. I suppose, we're rather than specifying refreshments - if - the worse case scenario, if the guy had been working for - we're not going to stop somebody from having a sandwich at the helm, if that's what you want to hear.
>
> DR SAMMON: All right.
>
> MR STOWE: There is no policy to say "Right, we cannot - definitely you're not going to have anything to eat".
>
> DR SAMMON: Right.
>
> MR STOWE: But that case scenario I haven't - I'm not aware of has existed or been brought to my attention that "we haven't had a break today". I've got no written evidence of that, yes.
>
> DR SAMMON: No, that's all right. So what you mean by refreshments there is really liquid refreshments?
>
> MR STOWE: Yes.
>
> DR SAMMON: Okay. Tea or coffee. Is there any policy about having tea or coffee in front of the guests or - - -
>
> MR STOWE: No, that's fine, yes. Yes.

EIGHT

CULTURE OF COMPLACENCY

8.1 GENERAL COMMENTS

8.1.1 Criterion (h) of the Terms of Reference specifically directs the Board to inquire into;

> *Whether a "culture of complacency" or familiarity exists within the marine industry in the application of the International Regulations for the Prevention of Collisions at Sea, as identified in the investigating shipping inspector's report into this Incident.*

8.1.2 It seems that the apprehension that a "culture of complacency" existed especially within the Whitsundays area first appeared in Mr Whalley's report to the Regional Harbour Master (Mackay) dated 13 December 2001, which is before the Board as Exhibit 50. At page 11 of that report, Mr Whalley expressed his opinion that:

> *It is apparent that a culture of complacency or familiarity exists within the marine industry in the application of the rules of the Collision Regulations. Particularly in relation to the fast ferries that operate or* [sic] *regular routes in the Whitsunday area. Close quarters events in crossing situations appear to be a common practice and may warrant further investigation.*

8.1.3 Terms of Reference criteria (a)-(f) also direct the Board to inquire into the factors which contributed to the incident including, in Term of Reference criterion (c) "whether any systemic or regulatory arrangements contributed to the Incident". The Board has investigated those matters and herein makes recommendations as to how an incident such as the subject collision may be avoided in the future.

8.1.4 In terms of the apprehended "culture of complacency" Mr Whalley also produced a report specifically dealing with the apprehended culture of complacency (see Exhibit 60).

8.1.5 In that report, Mr Whalley identified some ten aspects of what he considered to demonstrate the "culture of complacency" within the marine industry in the Whitsundays. For each identified factor, he also referred to specific incidents which he considered demonstrated the existence of the factor. He did this by reference to incidents, most of which are the subject of a Marine Incident Report provided to Queensland Transport (Maritime Division). The relevant Marine Incident Reports are then attached to his report in the exhibit that was submitted before the Board.

8.1.6 Also before the Board was a report by Mr Doug Weston, as the officer within Queensland Transport (Maritime Division) responsible for collating and analysing data about Marine Incident Reports (see Exhibit 75). This report focuses on marine incidents reported in the Whitsundays area in the year prior to the date of the subject incident. Queensland Transport (Maritime Division) produces an annual report on marine incidents, and before the Board was the Marine Incidents Annual Report for the year 2000 (Exhibit 76) and 2001 (Exhibit 77). It is important from an accident prevention perspective that this information and the lessons learnt from it are given the widest distribution within the industry.

8.1.7 Interestingly, Senior Constable Pettigrew of the Whitsunday Water Police, in his report to the officer in charge of the Whitsunday Police Station dated 23 November 2001 (Exhibit 65 at p.3), concluded that at least in respect of the Master of the "Pride of Airlie" (Mr Nichols) there was some complacency towards the Collision Regulations and a proper appraisal of the risk of collision.

8.1.8 Senior Constable Pettigrew also produced a report for the Board in which he analysed a number of factors that he considered demonstrated a "culture of complacency" within the Whitsundays area (Exhibit 66). In a similar way to the "culture of complacency" report of Mr Whalley, Senior Constable Pettigrew also set out a number of factors that he considered demonstrated a "culture of complacency" within the Whitsundays area and then set out a number of examples demonstrating his opinion. Senior Constable Pettigrew did not have the same access to the Queensland Transport database of Marine Incident Reports that Mr Whalley had, and Senior Constable Pettigrew was only able to go by a number of incidents of which he was aware.

8.1.9 Returning to Mr Whalley's report on a "culture of complacency" he identified a number of factors which specifically go to shortcomings in navigation practices in the Whitsundays. They are:

- **Bullet Point 1** - The presence, in the Whitsunday area, of an itinerant population of ship's Masters with a high turnover rate. Many in the industry in the Whitsundays lack the skill and knowledge of navigation practices to operate ships safely.

- **Bullet Point 2** - Because of the geographical nature of the Whitsunday area, nearly all voyages are conducted in daylight hours and by using line of sight navigation. Mr Whalley states that in his experience this has led to complacency in passage planning and safe navigation. Navigation aids such as radar and plotters (if available) are seldom used. Chart work and position plotting is a non-existent or at best, very rare practice. Mr Whalley noted that

there was a heavy reliance on voyages carried out on "way points" stored in GPS (Global Positioning System). Numerous groundings occurred because of a failure to maintain a proper lookout and a failure to appreciate the true position of a ship.

- **Bullet Point 4** - Repetitive voyages with fixed courses and predetermined destinations incite over-familiarity. On these routine voyages, recurring traffic is encountered with other vessels in similar locations every day. This leads to the Master making assumptions in relation to what action will be taken by the other ship. Mr Whalley gives the subject incident as an example of this.

- **Bullet Point 9** - Mr Whalley also identifies a factor where the most common cause of marine incidents may be that many Masters have the necessary knowledge of the rules stipulated in the Collision Regulations to pass examination for a certificate of competency, but lack experience or knowledge in the application of the rules in real situations.

8.1.10 In his report, Mr Whalley also identified a number of factors that could generally be considered to concern "commercial pressures" in the tourism industry leading to the occurrence of marine incidents or at least unsafe situations:

- **Bullet Point 3** - Mr Whalley's opinion was that commercial pressures are placed upon ships' Masters to maintain stringent timetables, particularly in the passenger ferry sector. Charter yachts often proceed on voyages in adverse weather conditions to meet booking commitments. Mr Whalley recalled occasions where he had received complaints of charter yachts proceeding on voyages when cyclone warnings have been in effect for the Whitsunday area. In Mr Whalley's opinion this often places the Master in a situation where an error of judgment is made and an incident results.

- **Bullet Point 6** - Mr Whalley's opinion was that bridge or crew resource management issues arise from the industry practice of minimum crewing standards. Often the Masters have numerous other duties to perform, in relation to the management of the business and the entertainment of the passengers and become distracted from their core duties of marine safety. Some companies lack proven procedures for watch keeping practices on board their ships. Mr Whalley identified a number of marine incidents having occurred immediately after the handing over of control of the ship to another person.

- **Bullet Point 7** - In Mr Whalley's opinion, in some sectors of the marine industry, competition for market share was acute and this led to the running of "lean and mean" business operations. This results in poor or barely acceptable levels of hull, machinery and equipment maintenance and on some occasions the deliberate operation of unserviceable ships.

- **Bullet Point 8** - In Mr Whalley's opinion "attitudes" and "ownership" issues often arise in the competitive environment that exists. This leads to poor seamanship practices and unsafe operation of ships because of the "personality bias" of the Masters involved. Mr Whalley said that on occasion he had identified instances where Masters had become angry and aggressive and have operated the ships in an unsafe manner.

8.2 VERBAL EVIDENCE BEFORE THE BOARD OF INQUIRY

8.2.1 Mr Whalley gave additional evidence to the Board of Inquiry, in support of his views about a "culture of complacency" (see Transcript, Day 1, pp.46 and following and various places until p.126).

> MR WHALLEY: I go on to say in my report there that sometimes you walk on board a vessel and the Master doesn't even know where to find the Operations Manual, and from my own awareness I know it's in that cupboard over there and I go and get it. This is where I form this opinion of complacency in the marine industry. There was - there was a water taxi operator years ago who put quite comprehensive documentation systems on their boats and over a period of about 3 years they all went missing, and they ended up having nothing, and had to start from scratch. So it's just this - that's why - why I have this gut feeling if you want that things aren't all that well out there.

8.2.2 Other witnesses also gave evidence to the Board of Inquiry about what might, in general terms at this stage, be described as the "culture of complacency". Importantly, this evidence was given by those involved in the marine industry in the Whitsundays. The evidence may be divided into the following categories:

- **Taking ships out in bad weather** - see evidence by Mr Nichols in Transcript, Day 2, pp.122-123

> MR HARDY: - - - the "Pride of Airlie"? Not at all. Okay. Now, do you have any experience of commercial pressure on you to you go out, for instance, when the weather is bad? You've got - - -
>
> MR NICHOLS: Quite often. I ran a dive charter boat for 14 years. You bring them back a day early in a cyclone, you could be in a lot of trouble. We don't give refunds.
>
> MR HARDY: And would you - - -
>
> MR NICHOLS: The weather is not our fault.
>
> MR HARDY: Would you say it's a recurring theme in the industry around this area that you get the fares no matter what?
>
> MR NICHOLS: Well, unfortunately the way the industry's gone, yes it's - there's quite a bit of pressure on that. It's a good quality cruise and they're now giving it away for a night at the pub sort of money, so - - -

- and Mr Neilson, Transcript, Day 2, pp.76-77.

DR SAMMON: May it please the Board, I just have a couple of quick questions. The weather on this day was good. Describing the sort of safety situation in the Whitsunday's generally and what we might call the commercial pressure by the operators, do you have any experience of being required to take ships out in weather conditions you felt were unsafe?

MR NEILSON: Yes, plenty of times, yes. There was an example, one of my last trips driving "Molo", I - they had the strong wind warning. I had 12 people on board in a 40 foot catamaran. I was going across Whitsunday Passage with 42 knots coming across my deck and waves breaking into my cockpit. Now, I thought that was unsafe but it was still - because it was only a strong wind warning, I was told to go. I wasn't very happy that I had to go because I could see what the conditions were like out there.

DR SAMMON: Yes.

MR NEILSON: But I was still - I was told "You're going".

DR SAMMON: You were told to go?

MR NEILSON: I was - yes, I was told - - -

DR SAMMON: Your preference, you preferred to stay - - -

MR NEILSON: I would have preferred to wait until that afternoon and then left because that morning - the wind dropped right out in the afternoon but it was just that morning that it was just - the strong wind warning was basically in its last hours of being called over the radio, but it was giving its all for the last couple of hours that it was around for. So I would have preferred to have waited and then gone. But if I was in a larger vessel, I wouldn't have. If, you know - like it was just all relative to the size of my vessel.

DR SAMMON: Sure, okay. But in that situation you described - you would have preferred to stay put anyway and anchor somewhere?

MR NEILSON: Well, I ended up doing that. I ended up going straight across Whitsunday Passage and get to the lee of Hook Island, travelling up the western side of the Hook Island and hiding in Stone Haven for a day just - you know, but I mean, as - as it turns out, I had an inexperienced crew on board and I mean, we broke the headsail. The actual car ripped out of the deck and now that could have just been catastrophic if it had actually hit someone but - yes.

- **Bareboat charters - lack of training/experience** (see evidence by Mr Hayes, Transcript, Day 4, pp.98-99).

DR SAMMON: Okay, sure. Let us just focus, though, on the problems that you have experienced in the Whitsunday area. And you say here that:

In various aspects, complacency is rife in the area. Not so much with the skippering but in bare boats.

MR HAYES: Correct.

DR SAMMON: Okay. Can you just elaborate a little bit on that then?

MR HAYES: I just think it's totally illogical to ensure that all skippered vessels, similar to the ones we run, have - all the people on board have all these qualifications and yet you can have - I don't mean this against yourself - but you can have a lawyer from Sydney who might be quite good at his job and gets on a bare boat with no qualifications and after two hours is sent out to sea. Yes.

DR SAMMON: Does the South Molle Island Resort charter out boats on a bare boat basis?

MR HAYES: No.

DR SAMMON: Okay. And what sort of problems - have you encountered any particular problems with bare boats, of people getting on with really no training qualifications or experience?

MR HAYES: The main - main thing that I see is vessels anchored in Bauer Bay dragging anchor. They haven't got enough, I suppose, education in the industry to let enough chain out and lee shores. The basics of the boat manoeuvring and safe handling, I don't think that's quite what it should be in the bare boat industry.

- **Commercial pressures operating to the detriment of marine safety** generally (see evidence given by Mr Whalley, Transcript, Day 1, pp.69-70).

MR PRIESTLY: You also make the observation in relation to commercial pressures, imposing constraints on operations. Are there any specific actions that you would like to see taken that might address those issues?

MR WHALLEY: I think I mentioned in my report there that the Marine Incident Investigation Unit - they're now called the Australian Transport Safety Bureau - did a report on the grounding of one of Fantasea Cruises boats, and I think from memory the recommendations in that report addressed this activity that was going on in the wheelhouse of these vessels. I, for example, would like to see crew only in the wheelhouse, the Master and his Mate maybe. The wheelhouse tends to be the administration office for the vessel, and the Master is not only talking on the intercom, he's advising the hostess that the T-Shirts are $32 today and not $30, and the Diving Instructor wants to know when he can start the briefing, and there's just so much going on that - and it's all got to do with the Masters being asked to do too much in the involvement of the business of the vessel rather than the navigation of the vessel.

- and Mr Neilson (Transcript, Day 2, pp.71-73 and 77-79).

MR NEILSON: Okay. No, I didn't mean more important than safety, sir; I meant they're more important than actually being - it appears to me, and I felt like, especially in the Whitsunday area, you're not really a seaman; you're more of a tour guide.

You're not - you've got to place a more emphasis on the passengers than actually learning more about, you know - and furthering your skills as a seaman.

Because the emphasis is put so much on you as a Deckhand or a Master to make sure these people have the best time of their life, so word of mouth comes back, we get more people. It's - it's - you seem to be, yes, basically a tour guide.

MR HUME: All right. Now, you resiled from what I proposed to you, and I can understand what you're saying, but did you feel - and I'm not asking you whether there are examples - but did you feel that in certain circumstances you could be asked to compromise yourself as a seaman to accommodate the passengers?

MR NEILSON: Yes, I would say that, sir, very much so. Very much so.

MR HUME: Okay. Well, we'll go to the next step. Do you have any examples that you can tell us where you were obliged to compromise your own standards as a seaman to oblige passengers.

MR NEILSON: All the time, sir. I mean, one example would be alcohol on board the boats. As a seaman I have always been taught alcohol is fine, but you know in moderation. But yet these - these boats encourage people to drink. They encourage them to - to drink a lot, and on board the vessels. So for me being a seaman, I've said - you know, you don't go drunk on board a boat because, you know, they're dangerous things, but I was told that no, you've got to let them drink as much as they want. Let them do whatever they want on board the vessel.

So if you see someone doing something unsafe, and you pick them up on it, it's - they then - they, the passengers, then see it as "Well, it's my time - my turn to have a good time; who are you to, you know, tell me to be careful", and then that gets reflected in their report card at the end which then eventually gets back to your boss. So - - -

- **Multiple obligations of Master and crew** - see evidence by Mr Nichols, Transcript, Day 2, by Mr Bates (instructor, Canonvale TAFE college and Master Class 4), Transcript, Day 4, pp.167, 185, 186 and Mr Daniel, Transcript, Day 3, pp.72-73.

MR DANIEL: My belief is that's definitely the case, that on all those - all the high speed craft, it should be dedicated totally to the operation of them, not the passengers or anything else; they should have a separate crew.

THE CHAIR: Who reads out this little ditty in the beginning about "Welcome on board" and - - -

MR DANIEL: The Master does, yes.

MR HICKMAN: When do you start that? You back out, turn around - - -

MR DANIEL: Turn around - - -

MR HICKMAN: - - - you've got Hamilton Island entrance, do you start it about there?

MR DANIEL: Yes, just about as we're starting to leave. The Engineer - - -

- **Lack of maintenance of ships** (including perceived shortcomings of the current system for annual registration of ships) - see evidence by Mr Watson, Transcript, Day 3, pp.6-7, Mr Stowe, Transcript, Day 3, pp.175-176, 186-188, 188-189 and Mr Nichols, Transcript, Day 2, pp.90-93, 105-106.

DR SAMMON: 1987. So at the time of the incident it's about 14 years. I'm going to ask you about your experience with maintenance of ships generally that you've worked on? Has it been unsatisfactory in your experience or - - -

MR NICHOLS: For a long time it was. Things are starting to improve.

DR SAMMON: Starting to improve now in the last year or so?

MR NICHOLS: No, in the last 5 or 6 years.

DR SAMMON: Okay. But it sounds like you - before you had started work with the South Molle fleet had come from an unsatisfactory situation in terms of a ship being maintained?

MR NICHOLS: Mm.

DR SAMMON: Okay.

MR NICHOLS: It's a funny thing, too. It's - I think I should make a point here. A lot of it stems back to the surveys. While the marine - the Queensland Transport guys were doing their inspections, the standards were a lot better. Now, that they're civilian inspectors, the standards are slipping.

DR SAMMON: Okay. And by that you mean that once upon a time it was only Queensland Transport employees who were the Surveyors able to survey a ship.

MR NICHOLS: That's right.

DR SAMMON: Now, there is a situation of accredited Surveyors where they get a licence, as it were, to survey ships but if they surveyed a ship that's satisfactory for all administrative purposes?

MR NICHOLS: That's right.

DR SAMMON: Okay. It sounds to me like it's a bit like people who do road worthies on cars.

MR NICHOLS: Same - similar situation.

- Specifically as to the current system for registration of ships and certificates of seaworthiness (see the evidence given by Mr Whalley, Transcript, Day 4, pp.36-40, 66-69 and 70).

MR WHALLEY: Ships can operate in Queensland with registration only and the owner has to make a separate application and pay for a Certificate of Survey to be issued. Registration can be renewed by the owner or the owner's agent by signing a declaration on the Renewal Notice, whereas a Certificate of Survey has - the vessel has to be inspected by an accredited Surveyor and compliance documentation raised each year. So the owner actually has a choice.

THE CHAIR: So under a Certificate of Registration, an owner signs a declaration that the ship is compliant to class?

MR WHALLEY: It's - it is seaworthy and - - -

THE CHAIR: It's seaworthy.

MR WHALLEY: - - - there is a statement, like a declaration on the Renewal Notice that the - that the owner signs, and his signature is witnessed. The owner can engage the services of an accredited Marine Surveyor to sign the form for him, or indeed, the - a person holding Masters qualifications can sign the form on behalf of the owner.

THE CHAIR: Is that the same system that operates throughout Australia?

MR WHALLEY: No, it's peculiar to Queensland under the Marine Safety Legislation. That was one of the fundamental changes in the Marine Safety Legislation when it came into effect or the Regulation came into effect on 1 January '96 was Government officers ceased being the Surveyors and doing prescriptive inspections every year at time of renewal of a vessel's survey, and the system of self-regulation and accredited Surveyors and ship designers and builders was established so that the industry could do that themselves under their general safety obligations.

- On the other hand, see the evidence given by Mr Bundschuh, Director, Marine Safety, and Mr Murrie (Transcript, Day 5, pp.38 and following).

MR BUNDSCHUH: None whatsoever because it's a fallacy to think that the regulation actually has something called self-compliance in terms of a declaration. There is no - you will find nothing in the regulation that requires an owner to actually make a declaration. What actually happened at an administrative level is somebody thought it was a clever idea in the registration renewal process to make life easier for us to have an owner notify us when he's made further buildings and modifications to put us on notice, and they turned that into a declaration.

But it's not a declaration pursuant to the regulation. It's not in the nature of a Surveyor's declaration or designer's or builder's declaration. In terms of administering the legislation, it's simply a renewal notice that the owner pays or hands over with a bit of money. Now, we happen to have attached to that some questionnaire at the bottom says, like "Have you made any changes in the last year".

Now, of course, if he has made any changes he should have already complied with the legislation and already engaged accredited people to sign off on any further building, right. In the event that an owner is - is open enough to admit that, you know, he hasn't actually complied with the registration and he's ticked that said "I have made further

> buildings", well then we catch it at that stage. But we don't rely on that information because we actually have a - you know, as you probably know 24 Marine Safety Officers up and down the coast to actually monitor actual vessels, and we get our own intelligence on that.

8.3 PERCEPTIONS ABOUT HAYMAN ISLAND SHIPS

8.3.1 Even before the commencement of the public hearings of the Board of Inquiry, there was evidence in the documents prepared as part of the investigation into the subject incident, and made available to the parties seeking leave to appear at the Board of Inquiry, of at the very least, a perception that Hayman Island boats (of which the "Sun Paradise" is one) "running close" to other ships in the Whitsundays. For examples, see the first Record of Interview with Mr Nichols (Exhibit 35) in his answer to question 60, and Transcript of second interview, Mr Neilson, (Exhibit 49) answer to question 10, p.3, Transcript of Record of Interview with Mr Geoff Buckingham (Exhibit 28).

8.3.2 There was also verbal evidence given before the Board of Inquiry about the perception of Hayman Island ships "running close". See, for example, Mr Whalley, Transcript, Day 1, pp.103-104 and Transcript, Day 4, p.55, Mr Neilson, Transcript, Day 2, pp.43, and 59-61, Barry Nichols, Day 2, pp.99-101, 115-116, 123, Mr Watson, Transcript, Day 3, pp.8, 11-12.

> DR SAMMON: All right. Have you had any difficulties, apart from this particular incidence on 18 November last year, have you had any particular difficulties in your encounters with Hayman Island ships?
>
> MR WATSON: Well, before the accident they - they did run fairly close to us.
>
> DR SAMMON: Fairly close?
>
> MR WATSON: Yes.
>
> DR SAMMON: And - - -
>
> MR WATSON: It was close quarter situations a lot of the time.

On the other hand, there was other evidence that this had not really been noted as a problem (see evidence by Mr Hayes Day 4, pp.101-103, 129-130, 142). Certainly, for his part Mr Stowe's evidence, as Marine Operations Manager for Hayman Island was that he was not aware that there was a problem in this regard with the Hayman Island ships (see Transcript, Day 3, pp.215-219). Certainly, there was an incident of a grounding of a Hayman Island ship "Reef Goddess" referred to on p.3 of Mr Whalley's report on the perceived "culture of complacency" (Exhibit 60).

8.3.3 The evidence is that the two large Hayman Island passenger ships, the "Sun Paradise" and the "Sun Princess" are among the larger and faster ships plying the

Whitsundays. It may be that because of the size and speed of those ships, that the rapid approach of such large ships to other smaller, slower ships has caused some trepidation in the minds of other mariners in the Whitsundays. Certainly, an incident such as the subject incident where there is no doubt that there was an obligation on the "Sun Paradise" to give way to the "Pride of Airlie" generates sound reason for such trepidation.

8.4 SEAWORTHINESS OF THE PRIDE OF AIRLIE

8.4.1 Apart from the complaint by Mr Nichols in his evidence about the ship's horn on the 'Pride of Airlie' (dealt with above), evidence about the vessel's seaworthiness first emerged in the evidence before the Board given by Mr Stephen Strong, on Day 3 of the public hearings of the Board of Inquiry (see Transcript, pp. 173-198). Mr Strong's statement is Exhibit 70. Mr Strong gave evidence about concerns he had about whether the hulls of the 'Pride of Airlie' were sufficiently water-tight, within the relevant requirements, as at the date of the collision. He took steps to repair the problem he described.

8.4.2 Following Mr Strong's evidence, Mr Whalley inspected the 'Pride of Airlie' on 28 August 2002 as to its present seaworthiness, even after repair, and prepared a report on his inspection, dated 29 August 2002 which was admitted into evidence as Exhibit 78. Mr Whalley's supplementary evidence about this aspect is in the Transcript, Day 4, pp. 34-40, 60, 66-77.

8.4.3 Mr David Hayes, representing the owners of the 'Pride of Airlie' responded to the evidence given by Mr Strong, on Day 4 of the public hearings of the Board (see Transcript, Day 4, pp. 89-153).

8.4.4 Subsequently, Mr Bundschuh, as Director of Marine Safety (and a qualified naval architect) addressed this issue in his report, provided to the Board after the completion of the public hearings of the Board (Exhibit 88). Mr Bundschuh indicates his intention to issue a 'show cause' letter to Mr Wort, in relation to his accreditation as a ship designer, and a marine surveyor. Mr Bundschuh's evidence to the Board on this issue, and concerning registration of ships in Queensland is in the Transcript, Day 5, pp. 30-33, and 38-39.

8.4.5 The evidence that has been given about this aspect should be noted, and left to MSQ to pursue.

8.5 CONCLUSION ON "CULTURE OF COMPLACENCY"

8.5.1 It appears that the term "culture of complacency" might not be the correct term to cover all the factors considered under this heading. Certainly, a "culture of

complacency" is submitted to be a suitable term to describe some of these factors, such as assumptions about how other ships usually approach a crossing situation.

8.5.2 It is submitted that there was so much evidence before the Board of slackness of standards of different kinds, that the phenomenon cannot be dismissed as one or two isolated examples. It could be considered that the marine industry in the Whitsundays was a disaster waiting to happen. The factors discussed under this heading point to endemic problems, at least in the Whitsundays area, that require changes to be made to the systems that have allowed the examples of slackness to occur.

NINE

DISCUSSION – THE WAY AHEAD

9.1 WHERE ARE WE NOW?

9.1.1 In Queensland, the current system of managing marine operations is designed with the overarching focus on the provision of a safe system of vessel operations. By intent this system seeks to avoid the prescriptive approach to safety[13].

9.1.2 A definition of safety was proposed by Kuo as follows:

> Safety is a perceived quality that determines to what extent the management, engineering and operation of a system is free of danger to life, property and the environment. [14]

9.2 THE TOMSA APPROACH TO SAFETY

9.2.1 In 1994 the present approach to vessel safety was legislated for with the TOMSA.

9.2.2 Significantly, when presenting the *Transport Operations (Marine Safety) Bill 1994*[15] to the Queensland parliament on 18 February 1994 the then Minister for Transport, the Honorable D.J. Hamill MP, included the following in the Explanatory Note:-

> *GENERAL OUTLINE*
>
> *1. Objectives*
>
> *The objectives of the Bill are to establish a regime which will regulate the maritime industry to ensure marine safety while at the same time increase the effectiveness and efficiency of the maritime industry and its administration in Queensland.*

---

[13] The prescriptive approach is well defined by Kuo, C in *Managing Ship Safety* LLP Reference Publishing London 1998 p26 as where "one party prescribes the safety features, or rules and regulations to be obeyed and the other parties comply with these requirements."

[14] Ibid pp20-1

[15] Originally presented as the *Marine Safety Bill 1994*

> *The Bill differs significantly from the current legislation, which it will replace, in that it provides for greater self-regulation by the industry and its users and places the principal onus for safety on the designers, owners, operators and masters of ships, boats or other vessels. The Bill correspondingly places accountability provisions and obligations on the administration to ensure that the needs of the industry and its users are met within an appropriate balance between safety and cost.*
>
> *The move to greater self-regulation in the maritime industry with the focus of responsibility for safety being primarily that of industry and users is one of the major innovations of the Bill. . . .*
>
> *General safety obligations will also extend to the owners, operators, masters and crew of all ships, boats or other vessels. To assist them in meeting their general safety obligations the administration will be required to develop standards. . . . Compliance with a standard will provide evidence of fulfilling the general safety obligation in relation to the matter covered by the standard.*
>
> *The standards will deal with matters about ships, boats or other vessels including, for example, their design, construction, cargo handling, crewing and operation.*
>
> . . .
>
> *Another major innovation in the Bill is the establishment of a Maritime Industry Consultative Council*[16] *to provide for a continuing formal consultative process and the provision of information and advice to the Minister on any matter concerning marine safety. The Council may give advice on its own initiative or after having considered a matter referred to it by the Minister.*

9.2.3 In 2001 the collision between the "Sun Paradise" and the "Pride of Airlie" occurred. This collision caused the launching of this inquiry and now, almost a decade after the commencement of the TOMSA, the release of the report into the collision presents MSQ and the industry with an excellent opportunity to take stock of where the safety process has evolved to and to ask whether this is an appropriate moment to adjust or steady its course. For government and the industry, it is a useful barometer of the state of progress towards the outcomes envisaged by the drafters of TOMSA and a useful insight into the current safety culture within the industry in Queensland.

---

[16] Replaced by the *Transport Operations (Marine Safety) Act* 1994 with the Marine Board of Queensland.

9.2.4 The aim of this process must be to create a high standard of safety throughout the industry and to work directly toward developing what the Board refers to in this report as a culture of safety mindfulness.

9.2.5 The collaborative operationally focused approach reflected in TOMSA represented a significant shift in focus for the industry. At the time it was acknowledged that the regulator, now known as MSQ, would have to take the lead by the development of Marine Safety Strategies[17], Marine Safety Implementation Programs[18], and Marine Safety Standards[19]. The creation of a culture of safety mindfulness throughout the industry required drastic changes in the management of marine safety, and it may also have required a significant increase in resource allocation. It would be imprudent to suggest that any of the TOMSA changes could have been achieved quickly. No doubt one could expect pockets within the industry resistant to change. TOMSA obliged the regulator to confront these obstacles with a dedicated and systematic approach to create an environment in which the marine industry in Queensland operated safely.

9.3 MARINE OPERATIONS AS AN ANCILLARY FUNCTION

9.3.1 The Board was directed by its Terms of Reference to examine a single incident that included the operations of two passenger vessels in a tourist environment. In particular it became evident that the marine operations of the vessel owners were not approached as core business. To a large extent the marine operations of both vessel owners could be described as merely an ancillary function in their larger tourist operations. This appears common to the approach of marine operations of many similar vessel owners.

9.3.2 This ancillary approach to passenger vessel operations has seen the devolution of responsibility for significant aspects of the safety management function from company senior or middle management to marine operations managers or vessel masters. It appears that this transfer has left the management functions of safety system design and vessel operations administration to those with little or no skill in safety system management or risk assessment. Many vessel owners appear to be in a position where they have little involvement in the conduct of their safety management responsibility. This is an unacceptable position and requires remedying.

9.3.3 While the inquiry was conducted with regard to a specific set of circumstances there is no reason to suggest that activities revealed in the Whitsundays are greatly different to those elsewhere in the waters of Queensland. Similarly then, it is the view of the Board that this analysis should, to an appropriate degree, apply equally to the operations of vessels throughout Queensland.

---

[17] See TOMSA section 19
[18] See TOMSA section 25
[19] See TOMSA section 31

9.3.4 Now, almost ten years after the beginning of this process, this incident provides a useful snapshot of the progress that has been made. It is the view of the Board that MSQ needs to take a decisive and immediate lead in moving the industry toward a safety management system where safety mindfulness is the cultural norm.

9.4 SHIFTING THE FOCUS – A CULTURE OF SAFETY MINDFULNESS

9.4.1 The aim of all actions that result from this report must be to consolidate what has been done and to redirect efforts to move decisively ahead. The focus of this shift must be on developing a system based on the adoption of best practice. The achievement of best practice requires cooperation between government and the industry to work toward a system whereby safety is not simply prescribed, but is accepted as a shared function jointly owned by all. According to Kuo a brief overview of the options that exist are detailed below.

9.4.2 The Prescribed Regulatory Approach.[20] While the prescriptive approach to safety provides a clearly defined reference standard, it lacks the flexibility to suit the safety management needs of a technologically advanced industry. One of the drawbacks of this approach is that it allows operators to assume that once they have met the requirements of the relevant regulations the responsibility for safety shifts to the regulatory authority. In addition, the prescribing authority is faced with the difficult task of attempting to prescribe regulations to suit a variety of situations that are responsive to a host of ever changing circumstances. On the side of the operator this approach inhibits innovative thinking toward safety to suit particular circumstances.

9.4.3 The Goal Setting Approach.[21] The goal setting approach seeks an appropriate level of safety by identifying hazards, assessing and reducing risks and preparing a system to manage emergencies. The key merit of the goal setting approach is its focus on the significant hazards that exist. Its potential drawbacks are that in vesting the responsibility for safety solely in the user or operator, cross industry standards may vary greatly and thus the application of safety systems may be vastly inconsistent from one vessel to the next.

9.4.4 The Responsibility-shared Safety Management Approach.[22] The approach for the next decade should be to strike a balance between the two extremes described above. This approach is described as Responsibility-shared Safety Management (RSM). It is a joint approach that is based on goal setting between the authority and the operator whereby the hazards in vessel operations are jointly identified by a team of prescribers and users.

---

[20] Kuo, C. Managing Ship Safety LLP Reference Publishing London 1998
[21] Ibid
[22] Ibid p 31ff

9.4.5 At this point it is significant to note that the approach reflected in the Explanatory Note to the *Marine Safety Bill 1994* and reflected today in TOMSA appear to satisfy the parameters of the Responsibility-shared Safety Management Approach supported by Kuo in his 1998 work.

9.5 HOW DOES THE MARINE INDUSTRY IN QLD MOVE AHEAD?

9.5.1 An important question that needs to be addressed is what process will best allow the system to move ahead. Consideration should be given to the following question: Have the objectives of TOMSA been achieved?

9.5.2 The Board suggests that responsibility for safety needs to be made the purview of all parties involved. This responsibility will best be implemented using a collaborative approach as suggested by Kuo and reflected in TOMSA.

9.5.3 A collaborative approach. The Marine Board of Queensland is an independent body established by TOMSA. TOMSA provides that the function of the Marine Board is to give information and advice to the Minister about marine safety issues and advise the Chief Executive on marine safety standards. The Board is in an ideal position to advise on safety, training and to otherwise nurture the industry to a high standard of compliance with the safety obligation and improve the industry understanding of safety management systems.

9.5.3 It was the clear impression of the Board that the master and crew of the "Sun Paradise" and "Pride of Airlie" were well intentioned conscientious employees who would have complied with detailed ship operations manuals and would have readily participated in and benefited from industry sponsored or employee vocational training. Not surprisingly, the marine operations managers presented as conscientious managers who were keen to adopt best practice and seemed to the Board to be genuinely surprised that the procedures in place were found to be inadequate.

9.5.5 Further, these mariners clearly were aware of their general safety obligation. The master and crew were aware of the need to keep a proper lookout, the need to avoid a close quarters situation and the need to apply the collision regulations. The marine operations managers were aware of the need to undertake processes such as a risk assessment and had some appreciation of the concept of a safety management system. Clearly this awareness did not lead to an adequate level of understanding and competence required of an organization possessing operational safety mindfulness or an effective safety culture. The next questions to ask is – What deficiencies are evidence by this analysis? Additionally, how are these deficiencies best remedied?

9.5.6 As suggested by Kuo[23] safety related skill deficiencies need to be overcome by a variety of methods, depending on the particular deficiency.

9.5.7 It is the clear view of the Board that the safety related skill deficiencies of the master and crew can only be remedied by the introduction of appropriate education and training together with the introduction of process based documentation including a comprehensive ship operations manual setting out standards for every task which has critical safety implications and establishing effective monitoring systems to check their constant implementation.

9.5.8 Kuo[24] suggests that "at a more senior level, there is a need for educational programmes in the form of workshops where safety concepts are explained and discussed, group exercises are undertaken and results presented, and participants' new understanding is underpinned by means of personal assignments". This broadly put reflects the approach taken in some competency based training currently in operation in Australia.[25]

9.5.9 It seems to the Board that any information or training resource provided to the industry in relation to safety ought include some worked examples. Little is achieved by merely reminding mariners of their general safety obligation or setting out in some piecemeal way a safety concept or process. The most valuable way to present material on risk assessment or safety management systems is to not only describe the process but also to include practical guidance on conducting a risk assessment or developing a safety management system preferably including worked examples.[26]

9.6 COMMERCIAL ENTERPRISE

9.6.1 Commerce has long played the predominant role in the conduct of operations at sea, and mariner skills and the practice of good seamanship have evolved from commercial requirements. It is imperative, if the lessons of this collision are to be of benefit, that best practice in marine operations be employed by the commercial vessel operators in the waters connected with Queensland. If there is any need to emphasise the importance of this renewed approach to vessel safety in Queensland it could easily come from the potentially adverse effects that unsafe operations are likely to have on tourism throughout the state. The intense scrutiny that befell the dive industry after two American divers were lost from a charter dive on St Crispins Reef in the Great

---

[23] Ibid pp 172 ff
[24] Ibid p 173
[25] e.g Certificate IV in Workplace Assessment
[26] See e.g. *Play It Safe – A Guide to Risk Management for Sport & Recreation Organisations*, Office or Sport and Recreation, November 1997; *Drugs in Sport – Reference Manual*, Department of Tourism, Sport and Racing, August 1999.

Barrier Reef Marine Park in January 1998 needs only be recalled to emphasise this point.

9.6.2 The changes to the current system that the Board is recommending are onerous and much of the effort of achieving a higher level of vessel safety will be required of vessel owners and operators. It should be remembered though, that the vessels being administered under TOMSA are not pleasure craft. These vessels are a part of a larger commercial enterprise and as such the owners of these enterprises must, if they are to satisfy the duty of care they owe to their employees and their customers, be prodigious in their efforts toward achieving this safer system.

9.7 MARINE SAFETY STANDARD FOR SHIP OPERATIONS MANUALS

9.7.1 Failure in Handover Procedures. It is clear from the evidence before the Board that there was a failure in the procedures for handover of the helm, for both the "Sun Paradise" and "Pride of Airlie". Certainly, as far as the "Sun Paradise" is concerned, Engineer Liddell had seen the "Pride of Airlie" at the time he handed the helm back to the Master, Mr Daniel, but without informing Mr Daniel of the presence of the "Pride of Airlie". As detailed above, there was also a deficiency in the handover of the helm on the "Pride of Airlie" from Mr Nichols to Mr Neilson. Both Mr Nichols and Mr Neilson had seen the "Sun Paradise" and both were aware that the "Pride of Airlie" was the "stand-on ship" but still in at least a potential collision situation.

9.7.2 Requirements of Operations Manuals. The risks of collision resulting from shortcomings in the handover procedures behoves owners and operators of substantial passenger-carrying ships to have in place in their operations manuals a process that specifies what is to happen in the handover of the helm of such a ship. At the very least, the handover should detail the present course of the ship and the presence of any other ship in the area.

9.7.3 Applicability of Operations Manual Content. Certainly, both ships had operations manuals in place at the time, although neither operations manual had adequate provision for handover of the helm. It should be noted that since the date of the incident, the operators of the Hayman Island ships have put in place a procedure specifically dealing with handover arrangements.

9.7.4 This was not the only evidence that identified shortfalls in the operations manuals of both ships. There was evidence about the lack of critical analysis of the quality of sea time for crew that come aboard ships in the Whitsundays - see the evidence of Mr Whalley, Transcript, Day 1, p.108,

> MR WHALLEY: At the moment, and in the past, we've relied on qualifying service to be signed off by the owners and the Masters of the vessel, and there is no real

documented evidence that the young mariners coming through have been proven competent in all of the aspects of seamanship. Everyone is well aware that, for example, a dive instructor could get a Master Class 5 Certificate of Competency without actually steering the vessel, just by doing 900 and something days out to the reef as a Deckhand on a boat, passing a written exam and an oral test and getting his Certificate of Competency.

Thankfully, that under the National Training Agenda, we're turning now to a competency-based training system and I understand that there's moves afoot to introduce tasks books or work books of such a nature that as - as a trainee has completed each level of competence, that a responsible person will sign off to actually demonstrate that he has achieved that. And - and I think that will be a great thing when - when it's introduced.

MR HUME: Okay. All right. Now, another aspect of this is one that I have problems with, and that's revalidation. Have you got any views on revalidation of certificates?

MR WHALLEY: Yes, revalidation at the moment is that they simply have to have 365 days qualifying service on any vessel. So you get the situation where a person with a Master Class 4 Certificate of Competency can do 365 days doing crocodile tours in the Pioneer River and get his Certificate of Competency revalidated, and he hasn't done a night-time voyage, hasn't been in open waters, for example, and I would - I would like to see some more rigor brought back into the revalidation either by a competency log or by maybe a written examination again - some level of assessment, and perhaps limitation on a certificate.

If - if the person in question hasn't been doing the appropriate qualifying service, that his Certificate of Competency may be reduced or limited until he could actually pass the course or - or demonstrate competence.

MR HUME: Now, something that's been mentioned a couple of times this afternoon is induction training. Are you aware of the level of induction training conducted by employers, particularly with Masters, and to a lesser extent Deckhands, when they join an organisation, or particularly when they join a different class of ship if the organisation maintains more than one class of ship?

MR WHALLEY: From my experience, the bigger the operator they seem to be more aware of their obligation in that area. There is definitely a break-down in the - the lower end of the market, maybe one vessel operations, the charter boat type where a person's employment might be terminated that evening and the next morning a new Master takes the vessel out and that's the extent of his induction training.

MR HUME: Okay. If I could just pursue that, you have been at pains today to inform us all that the Department is not engaged in prescriptive activities, and that's the way the Act is couched. Can you think of any way of inducing people to conduct meaningful induction courses?

MR WHALLEY: I think it - it comes back to education and review, conducting the education programs and then going back revisiting, say, in three months or whatever, and - and gauging to what level the industry has adopted it.

9.7.5 Also, that of Mr Daniel, Transcript, Day 3, pp.109-110, Mr Stowe, Transcript, Day 3, pp.255-256, Mr Hayes, Transcript, Day 4, pp.95-96, Mr Kilby (Marine Operations Manager, Fantasea Cruises), Day 4, p.84 and Mr Bates, Day 4, pp.176-177. The evidence was to the effect that Masters and crew can present with the relevant certificate, but it is possible for the Masters/crew to have obtained the relevant certificate, in terms of sea time, by carrying out duties as a cook on a ship for example, or carrying out the same trip many times over. An example involved in the specific incident concerns the experience of Adam Neilson as the newly arrived deckhand on the "Pride of Airlie". Although the Master of that ship, Mr Nichols, had assessed Mr Neilson's capabilities, and found them to be adequate, the subject trip was still only the third trip that Mr Neilson had been on with the ship (see Exhibit 35 - Transcript of first Record of Interview with Barry Nichols, answer 38).

9.7.6 Up to that point in time, Mr Nichols knew that Mr Neilson did not have any shiphandling experience. He had not stopped, berthed or manoeuvred the vessel before and his experience in the "Pride of Airlie" basically consisted of standing behind the wheel and driving it in a straight line. (see Exhibit 35 - answers to questions 67 and 68). **Operations manuals for substantial passenger-carrying ships should at least include some requirement for the Master to assess crew for their capabilities against a number of criteria before they are given control of the helm.**

9.7.7 Relevant Legislation. TOMSA allows for development of marine safety standards. The relevant purpose of marine safety standards is outlined under s.31 of TOMSA. Section 31(1) provides that standards will help people to understand the general safety obligations under the TOMSA. The limited role of standards is explained in s.31(3) which provides that a standard can not prescribe offences, fees or charges.

9.7.8 Perhaps the most significant provision of the TOMSA in relation to the effect of standards on prosecutions for offences under the Act, is s.32(1) which provides that if a person does not comply with the relevant standard, this may establish non-compliance with a general safety obligation; for example, for a prosecution under s.41(1) that the owner or Master of a ship has operated the ship whilst being unsafe. Such a prosecution could be supported by a failure to establish compliance with a general safety obligation, under s.32(1). In other words, breach of a marine safety standard is not an offence in itself, but it goes towards proving an offence.

9.7.9 The use of a breach of a standard to establish an offence under the Act, is also dealt with in s.42 of the Act. For the purposes of that section, a "regulatory provision" is defined to mean a provision of a regulation or standard about the condition, equipping or crewing of ships. Section 42(3) provides that if it is proven that the safety issue concerned was not dealt with in the way provided by the regulatory provision, the general safety provision (meaning either s.40 or s.41) is

taken to have been contravened unless the court is satisfied that the matters set out in s.42(3)(a) or (b) are established.

9.7.10 There are currently nine such standards under the TOMSA. Interestingly, the existing Queensland marine legislation already deals with requirements for operational manuals to be kept on board certain ships. Section 106 of the TOMSA applies to a ship over 6 metres if it is -

(a) A registrable commercial ship operating within Queensland waters;
(b) A registrable fishing ship operating beyond partially smooth Queensland waters.

9.7.11 Section 106(2) requires the owner and Master of the ship to ensure that the following documents are aboard the ship, are available to the ship's crew and the crew is familiar with the contents of -

(a) The operational manual for the ship;
(b) The technical manual for the ship;
(c) The maintenance and service manual for the ship;
(d) The marine occupational health and safety manual for the ship;
(e) *The safety management plan for the ship for on board emergencies.*

Failure to comply with this obligation is an offence for which the maximum penalty is 100 penalty units.

9.7.12 Evidence was given to the Board on the implementation of s.106 by Mr Bundschuh, Director, Marine Safety, Queensland Transport (Maritime Division) and Mr Murrie as Acting Principal Advisor (Maritime). It appears that the approach of the Department is, at this stage, an educative process rather than enforcing the obligation in s.106 by way of investigation and prosecution for non-compliance (see Transcript, Day 5, pp.17-22). Their evidence was that the compliance rate in the industry is quite low, comprising some ten percent of ships as of the year 2001.

9.7.13 Although there is a legislative requirement for an operational manual to be developed for the applicable ships, there is no specification of the form that the operational manual should take. The development of a marine safety standard for what is to be contained in an operational manual for a ship would be useful guidance for ship owners, operators and Masters. The standard should specify such things as the procedure for handover of the helm, and also assessment of the capabilities of crew before undertaking certain tasks on the ship. Other topics which could be contained in such a marine safety standard, include emergency procedures and drills, and a list of standard occasions for calling the master.

9.8 CHECK SKIPPERS

9.8.1 Evidence emerged before the Board of Inquiry about the desirability of use of "check skippers" whose task is to travel with Masters and crew of ships, to ensure that complacency has not set in, and that Masters and crew have a good understanding of safe navigation practices - see evidence by Mr Whalley, Transcript, Day 1, p.69.

> MR WHALLEY: Fantasea Cruises has got - one of the larger ferry operators here in the Whitsunday. Their company has been subject of two fairly major marine incident investigations. I know that they are monitoring the outcome of this Board of Inquiry very very closely, and they have already employed one of their Senior Masters as a Check Skipper, and his primary role is to move around the fleet just as you explained, making sure that training exercises are being done in accordance with the procedure that the Masters are following all the laid down criteria. So they've actually gone to the - to that extent of actually employing a specific person as Check Master for all their vessels.
>
> MR PRIESTLY: But I take it, though, in relation to smaller operations, you're suggesting that someone like the Operations Manager, if he has the qualifications - - -
>
> MR WHALLEY: Or the owner.
>
> MR PRIESTLY: Or the owner.
>
> MR WHALLEY: Or the owner's friend. It would be someone that could go out and do that function.

9.8.2 The example that Mr Whalley gave was of recent developments in Fantasea Cruises in proposing to employ such a check skipper. The Marine Operations Manager of Fantasea Cruises, Mr Kilby gave evidence about this on Day 4 (see Transcript, pp.79-88).

> THE CHAIR: Mr Kilby, Mr Whalley was very complimentary of some innovations that you have introduced at Fantasea Cruises about having check skippers.
>
> MR KILBY: Yes.
>
> THE CHAIR: Could you tell the Board why you introduced that system?
>
> MR KILBY: Basically in my position as Operations Manager I find it hard to spread myself throughout the whole fleet when it is operational so I can't keep an eye of everything that's going on. Obviously a lot of my duties find me in the office. So we need someone in the field that we could relay training, relay new procedural changes and provide the experience to make sure we're getting the job done properly and safely.
>
> THE CHAIR: And that sounds like quality control and on-the-job training and the like.

> MR KILBY: Yes. Yes, precisely. We do have a number of new procedures that we add to our operational manuals on a regular basis, as things arise. We have to produce new procedures to - to keep the operation safe and legal, obviously.

9.8.3 This practice was clearly a desirable one in the circumstances in which the owner and operators found themselves. It certainly represents a best practice model for many operators but is merely an example of the application of appropriate risk assessment processes within a broader safety management system. Bearing this in mind, it is an option available to all owner/operators of commercial passenger vessels. This scenario would be an appropriate model for use in the workshops envisaged by the recommendations contained in this report.

9.9 CONTINUING MARINE EDUCATION

9.9.1 The circumstances of this incident, and all of the evidence given to the Board suggest an immediate need for the development of a comprehensive Continuing Marine Education system.

In general terms, the evidence from the witnesses before the Board on this point was as follows:

- Mr Whalley – Transcript, Day 1, pp.108-109;
- Mr Nichols – Transcript, Day 2, p.123;
- Mr Daniel – Transcript, Day 3, pp.64-65; and 82 and following;
- Mr Bates – Transcript, Day 4, pp.171-174.

9.9.2 Masters. In the case of masters the general issue is the absence of vessel specific training and familiarisation required after the attainment of marine qualification. For example, a Master may qualify as a Master, Class 5 or Master, Class 4, having had experience in a particular kind of ship, but he may then be employed in another ship, with totally different characteristics. The case of Mr Daniel commencing work on very fast passenger catamarans, and describing them as “scary” is a case in point. While this was not a direct cause of the collision, it does indicate the need for some form of additional training to be undertaken, perhaps even by way of a refresher course, when Masters move to different categories of ships. The concept of endorsements for master qualifications is further addressed below (see 9.9.5 below and also Section 7 above).

9.9.3 Determination of the Risk of Collision. This case highlighted a general lack of knowledge that the mariners involved had about the differences between the need to rely upon a compass bearing rather than a relative bearing, for the purposes of determining if a risk of collision exists. Rule 7(b)(1) of the Collision Regulations provides that in determining if risk of collision exists, such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change.

All of the relevant mariners (Mr Daniel, Mr Nichols and Mr Neilson) and for that matter, both of the relevant Marine Operations Managers, Mr Stowe and Mr Hayes, in their evidence indicated that they were not aware of this requirement of the Collision Regulation.

9.9.4 It is probable that they were all aware of the correct requirement at some time during their marine training, but had forgotten, overlooked, or simply not applied the rule in practice. It is submitted that this further suggests the need for Continuing Marine Education during the course of a mariner's career.

9.9.5 Endorsements on qualifications. There was evidence before the Board about the need for mariners to obtain endorsements (following completion of the relevant course) before Masters take command of particular types of ships (see Mr Bates' evidence – Transcript, Day 4, pp.158, 169-171, 186).

9.9.6 The requirement to balance the regulation of the industry for safety purposes against the efficiency and cost of operations was discussed above (in Section 7). There are already classifications of vessels that require specific validation (such as that required under Section 74 TOMS Regulations for hovercraft and the proposed new category for 'wing in ground effect vessels'). The requirement for endorsements for specific vessels within the general class seems overly onerous. Instead, resources should be allocated toward the achievement of a higher quality of crew training in vessel specific operations. Owners should be encouraged to ensure that time was consistently allocated to maintaining high standards of safety, rather than burdening masters who are generally operating to meet strict timetable requirements.

9.9.7 Comparative Professional Development Requirements. Vessel owners should ensure that masters and crews undertake ongoing vessel specific training. The professional development topics should include but not be limited to general operations, emergency procedures, vessel manoeuvring with specific attention to emergency manoeuvres, procedures to be adopted for the conduct of safe navigation. Consistent with the operational focus of the general safety obligation vessel owners are in the best position to determine the extent of such training. In some circumstances a requirement for some hours per week may be warranted. In other circumstances five hours each quarter may be sufficient.

9.9.8 The requirement for five hours per quarter compares favourably with the professional development requirements of various other industries. For accountants the requirement for professional development is 120 hours over three years. The figures also compare favourably with the requirements of RAN bridge watchkeepers[27]

[27] Navigation specific training requirements include: Pilotage training for the Navigation Officer (NO) - 12 per year with the duration of each as required; Pilotage training for the Officer of the Watch (OOW) - 3 per OOW per year - duration as required; Blind pilotage training for the NO - 3 per year –

and with the more onerous recent experience requirements for airline pilots (which are detailed in the Part 40 of the Civil Aviation Orders). The requirements that must be met by commercial airline pilots are illuminating, as are those of the RAN bridge watchkeepers, and both should be given due consideration when determining the professional development requirements for application to the marine environment. The CASA Orders are detailed at *http://www.casa.gov.au/download/orders/cao40/400105.pdf*.

9.9.9 Revalidation of approvals. There was evidence given before the Board of the need for the system for licensing of mariners to contain some form of obligation for approvals to be re-validated, as against assessment of the quality of sea time undertaken by Masters, or as against the need to demonstrate that further types of Continuing Marine Education had been carried out (see: Mr Whalley, Day 4, pp.55 and following, p64 and following).

9.9.10 The current legislation requires all licences, with the exception of some perpetual licences and licences applicable to the fishing industry, to be revalidated every five years. The national development and approval of training for the purpose of revalidation in line with the recently published Part D of the National Standard for Commercial Vessels (NSCV) includes a requirement for revalidation for all licences above Master Class 5, Skipper Grade 3 and MED 2 and now includes fishing licences.

9.9.11 The Board understands that it is intended by MSQ that the NSCV be adopted for Queensland.

9.10 COMPETENCY-BASED TRAINING

9.10.1 Allied with the training issues detailed above, evidence was presented to the Board supporting the need for competency-based training. The evidence on this point was:

- Mr Whalley – Transcript, Day 1 - p.118, 108, 123, Day 4 – pp.44-45;
- Mr Kilby – Transcript, Day 4, p.84; and
- Messrs Murrie and Bundschuh – Transcript, Day 5, pp.27-28;
- Mr Bates – Transcript, Day 4, around p.158.

---

duration as required; Blind pilotage training for the OOW - 3 per OOW per year - duration as required; Precise navigation training - 4 per year - 1 hour duration each; OOW Manoeuvres - 12 per year - duration 1.5 hours each; Other manoeuvring exercises - total of 40 times per year at 1 hour each. In addition Engineering Breakdown Emergency drills are required to be conducted 18 times per year at 1 hour each. In addition, all bridge watchkeeping officers are required to pass a test of the International Regulations for Preventing Collisions at Sea each month.

9.10.2 What is clearly required, in terms of training to achieve licensing as a mariner of the various categories, even commencing with that of deckhand, is a more rigorous approach than presently exists. It is submitted that it is all too easy to obtain a marine qualification without undertaking the range of experiences necessary. Clearly, it is submitted, that what is required is practical experience that demonstrates, in terms of sea time, the kind of tasks that a mariner may have to perform, in the routine course of events, and perhaps, even in emergencies. This should be conducted in the form of a "task book" that requires the candidate to demonstrate, and the candidate's supervisor to certify, that the candidate has undertaken the range of tasks necessary to achieve the qualification.

9.10.3 The evidence from a number of witnesses and in particular, that of Mr Bates, and Messrs Murrie and Bundschuh, is encouraging, in the sense that it seems to be the case on the national level, that the training of mariners is indeed shortly to be adopted as a competency-based system. The evidence before the Board and the Board's report will add further weight to the impetus towards competency-based training.

The relevant exhibits tendered before the Board were:

- Exhibit 79 – comprising a bundle of training documents concerning qualification as Coxswain, and Masters classes 5 and 4
- Exhibit 81 – Final draft, National Marine Safety Committee, Part D, Crew Competencies (July 2001)
- Exhibit 82 – Guide for candidates for qualification as Coxswain, and Master classes 5 and 4, prepared by Queensland Transport
- Exhibit 83 – Assessment sheets for examiners for qualification as Coxswain, and Master classes 5 and 4.

9.11 LEARNER'S CERTIFICATE FOR DECKHANDS

9.11.1 The suggestion was made before the Board that to achieve a staged entry into the maritime industry, there should be a learner's certificate for deckhands. The concept would allow for a person aspiring to be a deckhand to, after demonstrating some theoretical knowledge, be able to use that learner's certificate to gain useful sea time while highlighting the limitations of the learners' experience for employers. It is noted that Mr Murrie was not enthusiastically in favour of the idea – see Transcript, Day 5, pp.15-16.

> MR MURRIE: That's - yes, when will we have it here? When it goes into legislation, probably - let's get - stop a little bit. When - when you ask me that, I actually immediately respond in a - in an overview situation instead of in a regulatory situation because the fact of regulating for a Deckhand's course is not on the menu here at the moment, or the agenda.

> But what - what is on the agenda is the introduction of the new training package which has this facility into it. So if you draw a picture where you have maritime driving a little bit larger than just straight licences, then that's a better picture to look at I think, and I think the responsibility for ensuring that these guys actually know how to operate their vessels, and the changeover bit, doesn't necessarily reside with the - with the regulator who is devoid from that.
>
> It should better reside with the people who have got more control of it, and that's the operators and the industry itself.

The Board sees no value in the introduction of a learner's certificate. This observation is made in the context of competency based training being introduced.

9.12 RELATIONSHIP BETWEEN MASTERS AND OTHER CREW

9.12.1 In addition to shortcomings in the formal handover procedure between masters and crew when operating the helm, a problem potentially exists in the working relationships between master and crew. Junior crew who are given control of the helm by the master, when the master is elsewhere on a ship, must understand that if they are in any doubt as to the safe conduct of the vessel, they should immediately call the master for advice or to resume control.

Evidence on this point was:

- Mr Whalley – Transcript, Day 4, pp.53-54;

> THE CHAIR: You know, when Barry Nichols was going down through the doors going into the saloon, he turns around and says "Have you got it" or words to that effect to Adam, you know Adam should have said "Well, Baz, what about him", you know, because then minutes have transpired for when the "Sun Paradise" is first seen and as best we can do on a reconstruction, now that's about the point when the "Pride of Airlie" should have taken decisive and clearly visible evasive action, or someone got on Channel 16 and said "Are you guys up there on the Hayman thing awake or what; now, what are you going to do?"
>
> MR WHALLEY: "Pride of Airlie" on the day had a - had a full complement of qualified crew on board. A similar vessel with another operator may have had a Master and a few backpackers with no marine qualifications at all.
>
> THE CHAIR: So - - -
>
> MR WHALLEY: So the way - - -
>
> THE CHAIR: You're obviously concerned about it?
>
> MR WHALLEY: Oh yes, I've - I've - I've lost sleep over some of these things, some of these incidents that have happened in the past. They have been near-miss type situations but I just have this gut feeling that one day we'll have 15 or 20 people in the

water just on dark on a rough and rainy night, and it's going to be a disaster, and luck's been with us so far and - and I hope - I hope it never happens but - - -

- Mr Hayes – Transcript, Day 4, pp.129-140, 143-144.

MR HICKMAN: Do you think that a policy that might work based on what you have said is that if there is a risk of collision that's deemed to exist, that perhaps not only the skipper should be called but the person that actually sees the risk - I am just thinking of a policy to try to eliminate this - - -

MR HAYES: Yes, definitely.

MR HICKMAN: You know - - -

MR HAYES: Yes, I understand where you're going, yes.

MR HICKMAN: Firstly, you know, any - if there is a risk of collision, the Deckhand should call the skipper. The skipper, Barry, says he's normally on deck and this was just a one time in his life where he wasn't. Do you think that if you harped on your Deckhands that if - however they deem risk of collision exists that they should call the skipper and maybe if the risk of collision exists, the skipper shouldn't hand over until that risk is past and clear.

MR HAYES: Yes, yes. I would agree.

9.13 RELATIONSHIP BETWEEN MASTERS/CREW AND PASSENGERS

9.13.1 The difficulties that presented in the relationship between Mr Neilson, as deckhand on the "Pride of Airlie" and passengers may have been a contributing factor to this incident. It is clear on Mr Neilson's own version that shortly before the collision, he had a passenger ask something of him, whom he then cut off curtly because he had the "Sun Paradise" under observation. After he had considered that the "Sun Paradise" had changed course to avoid collision (obviously an incorrect perception), Mr Neilson then turned to the passenger and apologised. Mr Neilson says he did this because on a previous trip, he had received a report that some six passengers had made a complaint on their end-of-cruise questionnaire about Mr Neilson being blunt or curt.

9.13.2 This reflects favourably upon Mr Neilson in his attitude toward improvement of his professional conduct. As stated above the priority of crewmembers of a ship must be the safety of the ship. In a tourism environment, such as the Whitsundays of course, this must be tempered with the expectation that masters and crew should aim to develop a sound rapport with passengers. It needs to be re-emphasised, though, that at all times marine safety remains paramount.

The evidence on this point was:

- Mr Whalley – Transcript, Day 4, pp.62-64;
- Mr Hayes – Transcript, Day 4, p.144;
- Mr Bates – Transcript, Day 4, p.186.

9.14 MISCELLANEOUS ISSUES

9.14.1 There were also other suggestions made before the Board as to other areas where marine safety may be improved, as a systemic matter. For example:

- an obligation for a hand-held compass to be included as mandatory equipment on a ship, perhaps under the relevant marine standard (see evidence of Messrs Murrie and Bundschuh – Transcript, Day 5, pp.37-38); and

- a vessel tracking system for fast ships. Mr Whalley referred to a project underway investigating this concept (see Transcript, Day 1, pp.120-121). It is submitted that the Board should note this project work and encourage its development. Certainly, such a system would not have prevented the collision in this case.

TEN

THE WAY AHEAD – FINDINGS AND RECOMMENDATIONS

10.1 THE NECESSITY TO MAKE RECOMMENDATIONS

10.1.1 The Board is required by the Terms of Reference to inquire into the circumstances and probable causes of the collision between the "Pride of Airlie" and the "Sun Paradise" with special reference to a number of issues. The Board is to produce a report on its findings and recommendations, if any, in writing to the Minister. Section 132 of TOMSA provides that a Board of Inquiry must inquire into the circumstances and probable causes of the relevant marine incident and give the Minister a written report of the Board's findings. The report of the Board may contain the recommendations the board considers appropriate.

10.1.2 It is clear from TOMSA and the Terms of Reference that the Board is only obliged to report on and make findings in relation to the circumstances and probable causes of a particular incident. There is no obligation on the Board to make any recommendations. However, it would be most unusual for a Board of Inquiry not to make recommendations arising out of its findings or conclusions, particularly when the Inquiry is concerned with safety related issues.

10.1.3 It is the view of the Board that in determining the extent to which the Board might make recommendations regard ought be had to the legislative arrangements in place, the currency of these arrangements and the circumstances in which these arrangement came into effect. The Board is cognisant of the fact that TOMSA was enacted in 1994:-

- after extensive consultation with industry and the Australian and New Zealand Maritime Law Association;
- and provided for various consultations to take place in the development of Marine Strategies, Marine Safety Implementation Programs and Marine Safety Standards;
- and established the Marine Board of Queensland whose function it is to give information to and advise the Minister about marine safety issues; and
- with the express provision that the general safety obligation imposed on ship owners/operators and ship masters and crew are intended to be performance based, allowing and encouraging people to find more cost efficient ways of achieving safety, rather than prescriptive.

10.1.4 Given these factors the Board intends to adopt a non-prescriptive approach to the recommendation function and leave the detail of any Marine Strategies, Marine

Safety Implementation Programs or Marine Safety Standards to be developed in accordance with the provisions of TOMSA.

10.2 THE REGULATOR AND TOMSA

10.2.1 Kuo correctly opines that "it is necessary to have a mechanism for reviewing the performance of a system and to seek ways of continuously improving it. Key aspects include how the organisation's policies, procedures, controls and standards have been implemented. By auditing and analysing performance the lessons learned can be fed back into the system for its enhancement."[28]

10.2.2 TOMSA provides for a number of ways in which the regulator, now known as MSQ, is required to discharge the obligations imposed. The Board notes that:-

- To the date of this report there appears to be no published coordination plan in relation to marine safety designed to give effect to the marine safety objectives of TOMSA;[29]
- To the date of this report no Marine Safety Strategies have been developed for consideration by industry and approval by the Minister[30];
- The 2001-2002 Annual Report of Queensland Transport[31] did not include a report on the way in which effect has been given to the TOMSA section 23 obligations about marine safety[32];
- The 2001-2002 Annual Report of Queensland Transport did not include a report on the operation of the marine safety implementation programs during the financial year to which the annual report relates[33]; and
- To the date of this report no Marine Safety Standards have been developed dealing with the operation of commercial vessels other than for limited specific applications.

10.2.3 It is open to speculation as to why these mandatory aspects of the legislation have not been complied with. This concept is well known to government. The Board does not seek to enter that arena, however, it is interesting to compare the take up of similar provisions contained in the empathetic Workplace Health & Safety (WH&S) Act.[34]

---

[28] Kuo, C. Managing Ship Safety LLP Reference Publishing London 1998
[29] TOMSA sections 3 and 19
[30] TOMSA section 19
[31] This was the only Queensland Transport Annual Report examined by the Board.
[32] TOMSA section 24
[33] TOMSA section 24
[34] *Workplace Health and Safety Act* 1995

10.2.4 The WH&S Act makes provisions for the creation of Guides, Advisory Standards and Industry Codes of Practice. Their similarity to Marine Safety Strategies, Marine Safety Implementation Programmes and Marine Safety Standards is obvious. It appears to the Board that 56 Guides, 16 Advisory Standards and 12 Industry Codes of Practice have been promulgated under the WH&S Act since 1995.

10.2.5 It is inherent throughout this report that had appropriate Marine Safety Standards, addressing the issues of keeping a proper lookout, handover/takeover of the con, standard occasions on which to call the Master and practical knowledge of the Collision Regulations, been in place prior to this incident, the incident might not have taken place.

10.2.6 The Board is of the view that the production of appropriate Marine Safety Strategies, Marine Safety Implementation Programmes and Marine Safety Standards is not an impossible task provided that appropriately qualified and experienced personnel are provided to undertake the task. An holistic approach, balancing the inputs of "safety experts" with that of practical mariners is recommended.

10.3 THE NEED FOR CONFORMITY

10.3.1 The Board is acutely aware that a prescriptive approach to its recommendations could lead to the situation where Queensland was out of step with the rest of the country. However, the huge area of accessible boating waters in Queensland, the proximity of the Great Barrier Reef and the world-wide interest that it generates should not be overlooked. In the Board's view, the necessity for conformity should not operate as a brake upon MSQ being the front runner in Australian best practice.

10.3.2 As Professor Kuo continually points out in his excellent book, the production of the plans is nothing without these plans being accepted by the stakeholders which is achieved through education and training.

10.3.3 MSQ should take the lead in the development of a "safety culture". This does not mean that the vast fund of operational experience gained over a very long period should be abandoned. To do so would be illogical and counterproductive. However, this seems to be what has happened in practice. The new regime set up by TOMSA is attempting to work in a vacuum which should be occupied by a mindset of safety mindfulness.

10.4 THE NEED FOR CONSULTATION AND REVIEW

10.4.1 The need for continuing consultation and review is inherent in everything that has come from the Board. It appears that having opted out of the prescriptive

approach MSQ must instigate the processes necessary to achieve a safety culture on the big screen and in so doing address the operational shortfalls identified in this report in the smaller perspective.

10.5 FINDINGS

Finding 1: On the afternoon of 18 Nov 2001 the 34.7 metre alloy monohull passenger ferry "Sun Paradise" carrying 4 fare paying passengers, a number of Hayman Island staff and 3 crew was transiting along Whitsunday Passage at a speed of approximately 18 to 20 knots on a heading of approximately 330 deg on a routine passenger run from Hamilton Island to Hayman Island.

Finding 2: On the afternoon of 18 Nov 2001 the 18.66 metre alloy catamaran sailing ship "Pride of Airlie" carrying 46 fare paying passengers and 3 crew was transiting across Whitsunday Passage on a south-westerly course at a speed of 8 to 9 knots on a routine tourist run from Border Island to South Molle Island.

Finding 3: On 18 Nov 2001 both vessels, "Sun Paradise" and "Pride of Airlie", were under the command of masters possessing the requisite qualifications, and adequately manned for the prevailing sea conditions and passage.

Finding 4: The weather conditions in the Whitsunday Passage on the afternoon of 18 Nov 2001 were ideal for maritime operations. It was a sunny clear day, there was a 5 – 10 knot breeze and small wavelets at a height of 0.2 metres. Whitsunday Passage is designated as partially sheltered waters with wide expanses of safely navigable waters.

Finding 5: The passage track of both vessels was such that a crossing situation may develop.

Finding 6: The passage track of both vessels was such that each vessel was clearly visible to the other such that a potential risk of collision could be readily identified and positive timely action taken to avoid a collision situation.

Finding 7: Each vessel was sighted by the other well before a risk of collision situation developed and had positive timely action been taken by either vessel a risk of collision situation would not have presented.

Finding 8: Had positive timely action been taken to avoid a risk of collision situation developing a close quarters situation could have been avoided.

Finding 9: Shortly after clearing Dent Passage the master of the "Sun Paradise" set a course for Hayman Island of approximately 330 deg, placed the vessel on auto

pilot, left the wheelhouse for some 20 to 30 minutes (to have his lunch in the ship's galley) leaving the con in the hands of the engineer.

Finding 10: When the engineer took control of the wheelhouse he exercised an absolute discretion in the management and control of the vessel as neither the master nor his employer had provided him with any instructions or guidance as to[35]:-

1. the details with which he should familiarise himself prior to taking the con;
2. the procedure for handing over control of the helm;
3. the manner in which he should conduct the bridge watch;
4. the manner in which he should conduct the broader vessel operations;
5. any circumstances in which the master should be called back to the bridge;
6. any circumstances in which another vessel should be contacted;
7. what action should be taken should he be in any doubt regarding the circumstances in which the vessel was operating;
8. what action should be taken in the event of an emergency;
9. what action should be taken in the event that a close quarters situation should develop; and
10. the application of the Collision Regulations to the operation of the "Sun Paradise". (e.g. – Policy guidance[36] such as 'action is to be taken to avoid approaching other vessels within 1 nm when travelling at speeds in excess of 12 knots but less than 18 knots'[37])

Finding 11: In acting as he did the master of the "Sun Paradise" exercised an absolute discretion as his employer had not provided him with any instructions or guidance as to:-

1. what instructions the master should provide to the crew in relation to the operation of the "Sun Paradise" (eg - the procedure for handing over control of the helm);
2. the circumstances when the master may handover the con to another crew member;
3. the circumstances when the master may leave the wheelhouse;
4. the circumstances when the vessel may be placed on autopilot;

[35] This list is not intended to be exhaustive but merely indicative of the matters which the Board consider most relevant to the incident under investigation.
[36] This example is illustrative and ought not be taken as representing the view of the Board as to appropriate response parameters such as speeds and distances.
[37] Note that any policy guidance of this nature should be couched in positive rather passive terms.

5. the application of the Collision Regulations to the operation of the "Sun Paradise". (e.g. – Policy guidance[38] such as 'action is to be taken to avoid approaching other vessels within 1 nm when travelling at speeds in excess of 12 knots but less than 18 knots'[39])

Finding 12: Sometime after clearing the passage between Hook and Whitsunday Islands the master of the "Pride of Airlie" set a south-westerly course for South Molle Island, placed the vessel under the control of a deckhand, proceeded below decks (to clean his glasses) leaving the helm in the hands of a passenger.

Finding 13: When the deckhand took control of the "Pride of Airlie" he exercised an absolute discretion in the management and control of the vessel as neither the master nor his employer had provided him with any instructions or guidance as to[40]:-

1. the details with which he should familiarise himself prior to taking control of the vessel;
2. the procedure for handing over control of the helm;
3. the manner in which he should conduct the bridge watch;
4. the manner in which he should conduct the broader vessel operations;
5. any circumstances in which the master should be called back to the bridge;
6. any circumstances in which another vessel should be contacted;
7. what action should be taken should he be in any doubt regarding the circumstances in which the vessel was operating;
8. what action should be taken in the event of an emergency;
9. what action should be taken in the event that a close quarters situation should develop; and
10. the application of the Collision Regulations to the operation of the "Sun Paradise". (e.g. – Policy guidance[41] such as 'action is to be taken to avoid approaching within 50 metres of other vessels'[42])

---

[38] This example is illustrative and ought not be taken as representing the view of the Board as to appropriate response parameters such as speeds and distances.
[39] Note that any policy guidance of this nature should be couched in positive rather passive terms.
[40] This list is not intended to be exhaustive but merely indicative of the matters which the Board consider most relevant to the incident under investigation.
[41] This example is illustrative and ought not be taken as representing the view of the Board as to appropriate response parameters such as speeds and distances.
[42] Note that any policy guidance of this nature should be couched in positive rather passive terms.

Finding 14: In acting as he did the master of the "Pride of Airlie" exercised an absolute discretion as his employer had not provided him with any instructions or guidance as to:-

1. what instructions the master should provide to the crew in relation to the operation of the "Sun Paradise" (e.g. - the procedure for handing over control of the helm);
2. the circumstances when the master may handover the helm and or lookout to another crew member;
3. the circumstances when the master may leave the wheelhouse;
4. the circumstances when a passenger may take the helm;
5. the application of the Collision Regulations to the operation of the "Sun Paradise". (eg – Policy guidance[43] such as 'action is to be taken to avoid approaching within 50 metres of other vessels'[44])

Finding 15: The operators of the "Sun Paradise" had aboard the "Sun Paradise" and available for inspection by a Shipping Inspector "the operational manual for the ship".[45]

Finding 16: The operators of the "Pride of Airlie" had aboard the "Pride of Airlie" and available for inspection by a Shipping Inspector "the operational manual for the ship".[46]

Finding 17: The Shipping Inspector responsible for the Whitsundays had conducted annual inspections of the "Sun Paradise" and "Pride of Airlie" and sighted the operational manual in respect of each ship.

Finding 18: Despite inspecting the operational manual for the "Sun Paradise" and "Pride of Airlie" the Shipping Inspector did not appreciate and therefore could not inform the operator or master of the "Sun Paradise" or "Pride of Airlie" of the deficiencies identified by this Board of Inquiry in relation to crew or wheelhouse management or collision avoidance.

Finding 19: At the time the master of the "Sun Paradise" returned to the wheelhouse the engineer had the "Pride of Airlie" in sight and under observation.

---

[43] This example is illustrative and ought not be taken as representing the view of the Board as to appropriate response parameters such as speeds and distances.
[44] Note that any policy guidance of this nature should be couched in positive rather passive terms.
[45] See *Transport Operations (Marine Safety) Regulation* 1995 Section 106.
[46] See *Transport Operations (Marine Safety) Regulation* 1995 Section 106.

Finding 20: When conducting the handover of the helm and lookout for the "Sun Paradise" the engineer did not tell the master of the presence of the "Pride of Airlie".

Finding 21: Had proper crew or wheelhouse management procedures been in place in the "Sun Paradise" the engineer would have:-

1. known what was expected of him in the safe operation of his duties at the helm and lookout;
2. informed the master that a crossing situation was developing; and
3. informed the master of the presence of the "Pride of Airlie" prior to handover of the helm and lookout.

In these circumstances a risk of collision and close quarters situation could have been avoided.

Finding 22: At the time the master of the "Pride of Airlie" left the upper deck it was clear that the "Pride of Airlie" was in a crossing situation with the "Pride of Airlie" being the stand-on vessel.

Finding 23: At the time that the master of the "Pride of Airlie" left the upper deck he was aware that:-

1. a passenger was at the helm under the supervision of a being not holding a master certificate; and
2. a high speed passenger craft operated by Hayman Island, now know to be the "Sun Paradise", was in a crossing situation with the "Pride of Airlie" being the stand-on vessel.

In these circumstances it was imprudent and contrary to the practice of seaman for the master to proceed below deck. Had the master remained on deck a risk of collision or close quarters situation could have been avoided.

Finding 24: When a risk of collision situation developed neither vessel took positive timely action to avoid a close quarters situation developing.

Finding 25: At the time of impact the master of the "Sun Paradise" was in the wheelhouse of the "Sun Paradise" and the vessel was on auto-pilot.

Finding 26: At the time of impact the master of the "Pride of Airlie" was below deck in the passenger saloon of the "Pride of Airlie".

Finding 27: At all material times shortly prior to the time of impact an unqualified tourist was at the helm of the "Pride of Airlie".

Finding 28: A proper lookout was not being maintained in the "Sun Paradise".

Finding 29: An adequate handover was not conducted in the "Sun Paradise".

Finding 30: The deckhand in the "Pride of Airlie" failed to appreciate that a "deemed" risk of collision existed.

Finding 31: The deckhand in the "Pride of Airlie" failed to appreciate that a close quarters situation had developed.

Finding 32: An adequate handover was not conducted in the Pride of Airlie.

Finding 33: Whilst the "Sun Paradise" and the "Pride of Airlie" were fitted with a compass suitable for steerage[47] neither was equipped with a compass from which a bearing could be taken[48].

Finding 34: The first person on the "Pride of Airlie" to appreciate that the vessel was in a close quarters situation with the "Sun Paradise" was the tourist acting as helmsman. At this point in time the deckhand in the "Pride of Airlie" ought to have:-

1. taken the helm;
2. made a bold alteration of course starboard;
3. sounded one short blast on the ship's horn;
4. made contact with the "Sun Paradise" by marine radio;
5. reversed the starboard engine; and
6. called the master to the helm.

Finding 35: Had the deckhand understood how to determine whether a risk of collision was deemed to exist and when action was required to avoid a risk of collision or close quarters situation the collision could have been avoided.

Finding 36: No instructions were available to the crew of either vessel as to what action should be taken should a risk of collision or a close-quarters situation develop.

Finding 37: None of the marine operations managers responsible for, the masters or the crew of either vessel had an adequate understanding of the application of the Collision Regulations, in particular Regulation 7(d) to the circumstances that existed. In particular none appreciated that Collision Regulation 7(d) required the taking of a

[47] This possibly being sufficient for classification purposes.
[48] Collision Regulation 7 (d) provides for a compass bearing when determining whether a risk of collision exists.

compass bearing and in the case of the deckhand of the "Pride of Airlie" misunderstood the rule such that reliance was made of a relative bearing for inaction.

Finding 38: That on 18 Nov 2001 at approximately 1530 hrs the vessels "Sun Paradise" and "Pride of Airlie" collided in the Whitsunday Passage in a position near to 20 12.4S 148 52.9E. This area of Whitsunday Passage is commonly known as "the Paddock" because of the wide expanses of safely navigable waters and the lack of proximity to any navigational hazards.

Finding 39: The vessel operations manuals for the respective vessels did not contain appropriate guidance in the following areas:

- Emergency actions detailing individual crew responsibilities;
- The circumstances in which the master was able to leave the wheelhouse;
- A list of Standard Occasions for calling the master; and
- An adequate procedure for the handover of responsibility.

Finding 40: That the ship operations manuals did not appear to have been developed as part of an appropriate marine operations safety management system or following a detailed risk assessment.

Finding 41: The Board is of the view that "a culture of complacency" could be said to exist within the sector or the marine industry investigated by the Board to such an extent and in circumstances that it is reasonable to believe that such culture may exist within a significant portion of the industry in Queensland as to cause concern to the regulator, MSQ.

10.6 SAFETY CULTURE – THE NEED FOR EDUCATION AND TRAINING

10.6.1 The findings of the Board and the report produced by Mr Whalley are generally consistent with the suggestion that there is a lack of safety mindfulness within the marine industry in Queensland. In a performance-based system a safety culture must exist due to its operator-reliant nature. The move to a performance based system is a considerable change for an industry which has traditionally operated in a prescriptive regulatory system.

10.6.2 The only way that the TOMSA can operate effectively in the marine industry in Queensland is if a safety culture exists. For this system to operate effectively there needs to be an appropriate level of involvement by the regulatory authority in the

instigation of these strategic initiatives. In this case the Queensland Government through MSQ needs to operate in conjunction with the Marine Board.

10.6.3 The recommendations presented regarding the management of the BOI review process are quite specific. The members of the Board are aware that the findings of Boards of Inquiry are often shelved after review and analysis in favour of directing attention to other more current and seemingly pressing operational concerns. This creates the potential to leave unresolved the implementation of the recommendations. The recommendations suggest a course of action that the Board believes will ensure this is avoided.

10.6.4 At this juncture it is perhaps worthwhile quoting some of the Kuo observations regarding these issues in particular. He notes that 70% of marine incidents are the result of human error. It is easy to blame operators, though if operator error is considered the be all and end all of accident investigation it is likely that no advances will be made toward minimising nor mitigating against the potential for future human errors.

10.6.5 While this is the approach that has been adopted throughout this report, it is worthwhile to readdress the fact that had the mariners in charge of the lookout in both vessels undertaken their duties in a proper and seamanlike fashion, the collision would have been avoided. This basic fact, however, does not mean that there is nothing to learn from the issues that have been presented. It is trite to say we should never let a good accident go by without learning from it.

10.6.6 It is recognised that the Board is recommending the establishment of a new and distinct body as a training resource. The Board is aware that the Marine Board exists and that MSQ has training regimes in place. It may well be that the Marine Board together with the existing resources within MSQ refocus to undertake these functions. Regardless of the approach settled upon it needs to be a sharply focussed and critically assessed process. The aim of the recommendation to develop this separate body is to establish an arm of MSQ that is seen by the industry as separate and distinct from the policing arm and separate and distinct from the performance of the duties of the shipping inspectors, police, boating and fishing patrols. The industry should feel confident that they can discuss their concerns in this transitional process 'warts and all' without fear of prosecution.

10.6.7 It became clear to the Board that the mariners involved had no real understanding of the application of the Collision Regulations in practice and that while it is difficult to define, there developed an impression that the regulations were viewed with the approach of "how close can I go?" rather than perceiving them as a

set of regulations that engendered in the profession an attitude of vessels aiming to pass at safe distances and with ample sea room for manoeuvre.[49]

10.6.8 The approach to marine operations presented to the Board highlighted the preparedness of owners to accept at face value the qualifications of marine staff. There appeared to be no ongoing training and little effort to maintain professional standards. It is not the intention of the Board to suggest that a 'big ship' approach be lowered onto the industry, nor that an institutionalised approach require seamen to be tested monthly on the Collision Regulations and safety principles.

10.6.9 It seems that what is required is that the marine industry, together with government, needs to develop a safety culture and practice that sets standards and enhances practices of seamen in this sector. The task of achieving this culture is not impossible. The majority of the resources already exist. What is required is a central body to pool these resources and then provide guidance to the industry on how best to access and apply them.

10.6.10 The 1st edition of the Small Ship's Training and Operational Manual produced by MSQ is an example of the excellent resources available and contains guidance on the application of the Risk Assessment Advisory Standard, the Code of Safe Working Practices for Australian Seafarers and of the importance of safe working practices generally.[50]

10.6.11 It is acknowledged that in this Inquiry the Board only spoke with and examined the operations of two vessels in Queensland and heard evidence from one other operator, one trainer and the local shipping inspector. As such it cannot be said that the investigation has been thorough across the industry. Prudence demands though, that an assumption be made that the findings at least reflect a significant portion of commercial passenger operations in Queensland. There is anecdotal evidence to support this assumption.

10.6.12 It is also easy to be critical with the benefit of hindsight. All the Board has done is discharge the duties and obligations imposed by the Act and by its Terms of Reference. No doubt many of these concerns were expressed by the Marine Board and the CEO MSQ when the recommendation to convene the Board was made. The evidence, findings, conclusions and recommendations of the Inquiry vindicate the concerns obviously expressed to the Minister and validate the decision to convene a Board of Inquiry.

---

[49] One option available to MSQ is to sponsor, or at the very least encourage, the use of commercially available Collision Regulations software applications throughout the industry to maintain a working knowledge of the Collision Regulations.

[50] *Small Ships Training and Operational Manual* 1st edition Queensland Government MSQ 2002 p5ff

10.6.13 It is the view of the Board that TOMSA represented the world's best practice when it was enacted in 1994 and remains a very bold initiative. It is interesting to note that various academics, and in particular Professor Kuo, strongly advocate the performance based collaborative approach that underpins TOMSA. Remarkably the TOMSA approach predated significant academic works regarding this, Kuo's principle work was produced in 1998 while he later presented a paper on the topic to the marine industry in Australia.[51]

10.6.14 While the Board did not see its function as being to question the policy approach reflected in TOMSA, it was urged to do so by some of the parties represented before it. The Board's view is clear in that TOMSA is reflective of the world's best practice and is the best policy environment in which safety can be achieved in an industry as diverse as the marine industry in Queensland.

10.6.15 The move from a prescriptive to a performance-based system requires the development of a safety culture. The Board's investigations reveal that the developing safety culture is far from maturity and that significant immediate action needs to be undertaken to ensure development toward this ideal continues. It is in this context that the Board sees intense education and training programmes for operators including workshops and the completion of scenario-based tasks as being the key. [52]

10.6.16 It might have been a tactic of the advocates representing the interested parties to adopt the approach "please help us – we don't know what to do – MSQ should give us some more guidance." A cynic might view such a plea as one being made in self-interest at the precipice of disaster. There is, however, a valid observation to be made from such a plea. That is, that the performance-based approach that underscores TOMSA represented such a drastic change from the previous regime that it is not surprising for some to face difficulties in its adoption.

10.6.17 The Board members possess no specific experience in training and education. But it seems that there are various levels of cognition or functional perception regarding the education and training paradigm. At the base level there is ignorance of a scenario or process. From that state one is able to proceed to an awareness of issues and then the potential exists to develop an understanding and strategies as to how best they should be managed. From there the level of competence and the potential for excellence are possible.

10.6.18 The incident in question and the manner in which those responsible in the wheelhouses were operating their vessels and undertaking their lookout

---

[51] *Managing Ship Safety in the 21st Century* Opening Address to SEA AUSTRALIA 2000 on 1 February 2000 at the Sydney Convention Centre.

[52] Kuo, C. *Managing Ship Safety* op cit pp72-3

responsibilities clearly evince a lack of understanding or insight by the mariners concerned of the safe practice of seamen and of the application of the Collision Regulations for safety at sea.

10.6.19 There emerged from the Board of Inquiry an obvious need for clear and concise direction by the owners of these vessels and for ongoing vocational education and training of the mariners involved.

10.6.20 It should also be noted that the purview of the police and ship inspectors' investigations meant that all that was identified were operator related issues. The issue of the conduct of the shipping inspectors and police investigations should be the subject of audit and assessment so that MSQ can ensure appropriately trained people are reserved to discharge their functions as detailed in TOMSA.

10.7 RECOMMENDATIONS

The Board recommends the following action be undertaken.

1. Develop a Safety Culture

MSQ and the other stakeholders should now move to create a 'safety culture' within the Marine Industry in Queensland.

2. Appoint an Officer to Manage Outcomes of the BOI Report

MSQ should appoint an officer to be solely responsible for the review and implementation of the findings of this BOI with a view to the development of an MSQ-led safety culture.

3. Role of the Appointed Officer

The tasks of the appointed officer should include, but not be limited to, generating a report to the Marine Board, CEO MSQ and the Minister within three months of receipt of this report.

4. Content of the Report

The report should include, but not be limited to:

- A review of the BOI processes and the lessons learnt;

- The findings and recommendations of the BOI that are accepted and those that are not.

- A plan of attack addressing the findings and recommendations which should include:

- A timetable for action;

- The resources to be applied;

- Benchmarks for completion;

- The reasons for not accepting any findings and/or recommendations; and

- The approach to be taken by MSQ in the development of a safety culture.

5. Ongoing Reporting Requirements

The appointed officer should also provide a progress report to the Marine Board, CEO MSQ and the Minister quarterly thereafter.

6. Annual Reporting Requirements

Progress undertaken during the financial year and outstanding action should be included in the Queensland Transport Annual Report to be tabled in parliament.

7. Marine Safety Strategy

CEO MSQ should develop a Marine Safety Strategy addressing as a minimum:

- The development of operations manuals and other documentation by owners/operators of commercial passenger vessels in the tourist sector of the industry.

- Safety management systems and risk assessment for use in commercial passenger vessels in the tourist sector of the industry in Queensland.

8. Continuous Maritime Education

A package of continuation training addressing, but not limited to, the following aspects which arose as major issues during the BOI:

- The International Regulations for Preventing Collision at Sea;

- Bridge management; and

- Emergency response actions.

9. Marine Safety Standard

MSQ should develop a Marine Safety Standard for this sector of the industry using the STCW Code and findings of this BOI as guidance. Upon publication of the Marine Safety Standard, MSQ should actively police it and, where appropriate, prosecute breaches.

10. Training Programmes

MSQ should ensure that training providers are aware of the findings and recommendations of this BOI and should direct training providers to address the issues raised herein in their training programmes.

11. Resourcing

MSQ should resource the establishment of the training and education parameters.

12. Industry Liaison

MSQ should establish a resource separate from Shipping Inspectors to:

- Liaise with industry with particular regard to the issues of ship safety and vessel management and operation;
- Assist industry to move to the performance based model;
- Raise awareness in:
    - Safety management systems;
    - Risk management;
    - Safety case approach;
- Development and maintenance of a culture of safety mindfulness.
- Conduct workshops with operators in:
    - Safety management systems, risk management, safety case approach;
    - Preparation of effective ship operations manuals; and

- Effective employee training.

13. Shipping Inspectors

MSQ should conduct a work study into the competency requirements of Shipping Inspectors, noting the need for their competence in the assessment of the adequacy of ship operations manuals and the conduct of effective investigations into marine incidents.

MSQ should update the skills of Shipping Inspectors to the extent necessary to complete tasks including:

- The investigation of Marine Incidents; and

- Recommendations regarding the prosecution of operators and masters for failure to comply with the Marine Safety Standard as issued.

Appendix A

GLOSSARY OF TERMS

Bare Boat Charter- The Charterer hires the vessel for a long period, appoints (sometimes himself) the master and crew, and pays all running expenses.

Beam- the width of a ship at her widest part.

Bear away- To steer the boat away from the direction of the wind.

Bilge- the curve of the lower underwater part of a boat, nearest the keel.

Bollard- A vertical post on ship or shore, for securing mooring lines.

Boom- A spar used for extending the foot of a sail.

Boom vang- A rope used to hold a boom downward.

Bridge- The bridge is the structure from where a vessel is navigated and directed.

Bulkhead- vertical partition dividing a cabin or hold [nautical term for a wall].

Cable- Anchor chain; or - as a measurement of distance, 1/10 of a nautical mile i.e. about 200 yards.

Cardinal mark- a marker, whether a buoy or a post, indicating navigable water on the named side of the mark.

Centre of buoyancy- centre of the immersed volume of a vessel.

Centre of gravity- The point at which a load will balance or is in equilibrium.

Centreboard- a board plate which can be lowered from a housing in the bottom of the hull, to increase lateral resistance, (i.e. reduce leeway - the vessel moving sideways).

Collision- Physical impact between two or more ships or vessels used for navigation.

Companion- Ladder or stairway.

Conning- A nautical term for has conduct or in control.

Coxswain- a Petty Officer in charge of a ship's boat & crew (a 'cock' was a small rowing boat).

Dead reckoning- calculating the position of a vessel from the course steered and the distance run.

Deck Log- Ship's log recording general details concerning the running of the ship, including accidents concerned with ship or cargo.

Deckhead- underside of a deck; nautical term for ceiling.

Dog- A cleat or device for securing water-tight openings.

Draft/Draught- The depth of a vessel beneath the water, to the lowest part of the hull.

Ebb- the falling tide.

Fender- Rope or plastic object, used to prevent damage to the ship's side when lying alongside another vessel or a jetty.

Fix- a locational position found from accurate bearings, or observations of heavenly bodies (height of stars etc. at a certain time of day).

Fixed object- Fixed objects are those which do not move, such as piers and wharves, including fastened buoys. Liability to objects is not covered by the collision clause in a hull policy.

Fore and aft- the vessel's major, or longitudinal axis i.e. lengthwise of a ship.

Go about-to tack i.e. to turn in going forward into the wind, and bring the wind on the other side of the sails.

GRP- Glass reinforced plastic.

Gybe- Altering from having the wind on one side of the sailing vessel to another, by putting the boat's stern through the wind (as distinct from tacking).

Halyards-ropes by which sails or flags are hoisted.

Hard-a-port, Hard-a-starboard- Helm order to use the maximum to steer in the required direction.

Headsail- A sail set forward of the mast.

Heel - the angle of tilt of a vessel, caused by external forces.

IMO- International Maritime Organisation. Not all countries are signatories to this organization, but most of the major maritime nations are. It is the vehicle through which dangerous goods and other regulations can become internationally acceptable.

ISO- International Standards Organisation.

Jib-Triangular sail, forward of the mast.

Knot- a nautical mile, 1852m, one nautical mile per hour.

Lay Days- Days allowed by charter for loading or discharging cargo. The term is applied, also, to the days a ship occupies a dry dock.

Lead line- Marked line of rope, weighted by a lead line, for measuring the depth of water. (Often the lead line had a ball of wax on the bottom side, so the crew on board the ship could tell the composition of the sea bottom).

Leeward- The side of the vessel further from the wind (opposite to windward).

Leeway- The sideways movement of a vessel, blown by the wind

List- Angle of heel of a vessel in the water, usually due to a vessel stability problem i.e. the angle away from the usual 90º upright floating position.

Marks- A term used in shipping practice to refer to the loadline marks on the ship's hull.

Normal Course of Transit- The orderly transit of merchandise from the point of origin to the final destination without interruptions or delays resulting from the action or inaction of any party at interest.

Occurrence-A chain of events which together form one happening. An example given by R.H. Brown's Marine Insurance Terms 4th Edition is: A ship collides with another, catches fire and sinks. The whole is one occurrence.
If there are no contributing factors a single event may be termed an occurrence.

Perils of the Sea- Hazards arising on navigable waters through natural forces such as abnormally heavy seas, high winds, etc.

Point- a measure of direction (one point = 111/4 degrees of arc).
Also: a headland, jutting into the sea.

Port- The left hand side of the vessel.

Risk- A risk is an occurrence which might happen but does not include an inevitability, which must happen.

Salvage- To preserve maritime property from peril at sea.

Seaworthiness- To be seaworthy, the ship must be reasonably fit in all respects to encounter the ordinary perils of the contemplated voyage, properly crewed, fuelled and provisioned, and with all her equipment in proper working order.

Shipwright – Wooden boat builder.

Starboard- The right hand side of the vessel.

Stay- Wire rope running fore and aft to the mast, as support for the mast