



For copies of the report on CD-Rom or enquiries

Marketing and Education Unit Maritime Safety Queensland

Level 26 Mineral House 41 George Street Brisbane Queensland 4000 GPO Box 2595 Brisbane Queensland 4001

Facsimile: 07 3120 7494

E-mail: maritime.safety@msq.qld.gov.au

Web: www.msq.qld.gov.au

Published June 2007

Maritime Safety Queensland. All rights reserved.

References to any part of this publication may be made for academic or research purposes provided the reference is not made out of context and is accurately acknowledged.

Permission to use the materials for commercial purposes must be sought from the Director(Maritime Safety), Maritime Safety Queensland, GPO Box 2595, Brisbane, Queensland 4001

> or by e-mail at maritime.safety@msq.qld.gov.au Published by Maritime Safety Queensland ISSN 1448-160X

Director General's Foreword

As Director-General of Queensland Transport, I am pleased to formally report on Queensland's marine safety performance in 2006, as measured by marine incident numbers and outcomes.

Unfortunately 2006 saw a significant increase in both reported marine incident numbers and the number of fatalities resulting from these incidents.

While it is hoped that the unusually high number of fatalities in 2006 represents an aberration only, this is not guaranteed. We therefore need to be even more attentive to opportunities to improve boating safety and reduce the numbers of fatalities and serious injuries resulting from marine incidents.



Maritime Safety Queensland has been working closely with industry and interstate marine safety colleagues in developing nationally consistent boating safety policies, standards and initiatives that will deliver safety improvements not just in 2007 but for decades to come.

Some of the more notable recent initiatives include the introduction of mandatory competency-based recreational boat licence training and assessment, the introduction of mandatory lifejacket wearing requirements, the commencement of the Torres Strait Marine Safety Program and the continuing implementation of a suite of nationally—uniform commercial vessel safety standards.

Throughout 2006 Maritime Safety Queensland has continued its work of encouraging and fostering safety as a core value and culture within the commercial, fishing and recreational sectors of the boating industry and community. As challenging as this is, it is certainly worth pursuing, particularly in the light of ever-increasing vessel numbers, associated on-water congestion, expanding marine and eco-tourism markets in Queensland and the expanding development of waterfront residential precincts.

It is pleasing to be able to publish such a comprehensive set of statistics on marine incidents in Queensland. The report, Marine Incidents in Queensland 2006, enables a better understanding of why and how incidents occur on our waterways and informs decisions about future maritime safety initiatives.

Maritime Safety Queensland is not alone in carrying the responsibility for driving and maintaining Queensland's marine safety performance. This is a joint effort between a range of maritime stakeholders and interested parties.

I would once again like to extend my thanks to Maritime Safety Queensland's partner agencies, the Queensland Water Police and the Queensland Boating and Fisheries Patrol for their assistance and support throughout 2006. These two agencies are in many respects our front line in ensuring the safety of boating on Queensland's myriad of waterways. I look forward in 2007 to continued cooperation between Maritime Safety Queensland, commercial, fishing, and recreational boating communities and our partner agencies to make boating on our waterways both safe and enjoyable.

Bruce Wilson
Director General

Queensland Transport

Defoleon

Year 1	n review	V11
1.	Introduction	1
1.1	Why report on marine incidents?	1
1.2	What are marine incidents?	1
1.3	Marine incident data management	1
1.4	What's in the report?	2
1.5	Marine boards of inquiry	3
2.	Marine incidents in Queensland	4
2.1	Reported marine incidents	4
2.2	Marine incidents by severity	4
2.3	Marine incidents by region	5
2.4	Marine incidents by incident type	7
2.5	Marine incidents by vessel type	7
2.6	Marine incidents by location	8
3.0	Queensland fatal marine incident trends	10
3.1	Marine incident fatality trends	10
3.2	Profile of persons fatally injured	11
3.3	Marine fatalities by vessel types	11
3.4	Marine fatalities by incident types	12
3.5	Marine fatality incidents by location	12
3.6	Out-of-scope marine fatalities	13
3.7	Marine fatality trends – Queensland in relation to Australia	14
4.0	Fatal and serious marine incidents in Queensland	16
4.1	Reported fatal and serious injury incidents	16
4.2	FSI incidents by region	16
4.3	FSI incidents by incident type	18
4.4	FSI incidents by vessel type and length	18
4.5	FSI incidents by location	20
4.6	FSI incidents—incident characteristics by extent of involvement	20
5.0	Regional marine incident summaries	24
5.1	Gold Coast region	24
5.2	Brisbane region	25
5.3	Gladstone region	27
5.4	Mackay region	29
5.5	Townsville region	31
5.6	Cairns region	32
6.0	Selected marine incident profiles	35
6.1	Incidents involving recreational vessels	35
6.2	Incidents involving commercial vessels	
6.3	Incidents involving jet skis	
6.4	Boating safety in the Torres Strait	41

Figures, maps and incident studies

Appendix		43
Figure 1:	Marine incidents by injury severity	4
Figure 2:	Marine incidents by severity of damage to vessel or property	5
Figure 3:	Marine incidents in 2006 – by region	5
Map 1:	Marine incidents by incident type, Queensland 2006 including	•
Figure 4.	registered vessel numbers by region	
Figure 4:		
Figure 5:	Vessels involved in marine incidents (Top 5 in 2006)	
Figure 6:	Marine incidents in 2006 – by location	9
Figure 7:	Fatalities per 100,000 registered vessels and fatalities per million of population by year	0
Figure 8:	Marine incidents, fatalities, population and vessel registration trends 1997-2006	0
Figure 9:	Persons fatally injured in 2006 - by age and gender1	1
Figure 10:	Recreational fatalities and recreational vessels on register by year 1	1
Figure 11:	Commercial fatalities and commercial vessels on register by year 1	2
Figure 12:	Fatal marine incidents in 2006 by incident type1	3
Figure 13:	Fatalities in the marine environment	3
Figure 14:	Marine fatalities per 1,000,000 persons by state and territory14	4
Figure 15:	Fatal and serious injury incidents in 2006 - by region1	6
Incident study 1:	Shooting the breeze!	7
Figure 16:	Fatal and serious marine incidents in 2006 by incident type (Top 5)18	8
Figure 17:	Vessels involved in fatal and serious injury incidents (Top 5)	9
Figure 18:	Fatal and serious injury incidents in 2006 – by location20	0
Figure 19:	Characteristics ranked by size of involvement in marine incidents resulting in fatalities and serious injuries	
	- Queensland - 2006 (Top 30)	
	Net gain or loss?	
	Never to be forgotten Christmas party!	
=	Weir did that come from?	
•	Life jackets are not life savers unless they are worn!	
•	Paddling for one's life!	
	Fiery fishing trip3	
ū	Watch out for water skiers!	3
Figure 20:	Recreational vessels involved in all incidents in 2006 by type	5
Figure 21:	Vessels lost in marine incidents by vessel type (Top 5)	
Figure 22:	Commercial vessels involved in all incidents in 2006 by type	
•	Surf rescue – over and out!	
=	Out of sight, but only for a moment!4	



Queensland's water transport fatality rate per million of population fell by nearly 45 per cent from 1.83 in 2000 to 2004 to 1.01 in 2005, according to the most recently available Australian Bureau of Statistics (ABS) data. The overall Australian water transport fatality rate for the same periods fell from 2.03 to 1.23 fatalities per million of population.

Despite Queensland's continuous improvement in marine safety outcomes in recent decades, the state recorded a significant increase in both the number of reported marine incidents and associated fatalities in 2006. It is not clear whether the increase in reported incident numbers is primarily the result of improved reporting of marine incidents or whether it represents a general increase in the number of incidents occurring.

While it is hoped that the unusually high number of marine incident fatalities in 2006 represents an aberration only, this is not guaranteed.

By way of a snapshot for the calendar year 2006:

- 701 marine incidents were reported in Queensland—an increase of nearly 8.7 per cent on the number of reported incidents in 2005 and the previous four-year average of 646.5.
- The most frequently reported types of marine incidents were collisions between ships (134) and unintentional groundings (116).
- 47 incidents were reported as resulting in fatalities or serious injuries—seven less than in 2005, but in line with the previous four-year average of 46.75 reported fatal and serious injury incidents.
- There were 17 recorded fatalities—four more than in 2005. This fatality outcome is significantly higher than the previous four-year average of 10.5 fatalities per annum.
- 16 of the 17 persons fatally injured ended up in the water as an outcome of the incidents they were involved in.
- 11 people died in incidents involving recreational vessels. These incidents included three double fatalities. A further six people died in incidents involving commercial vessels.
- 36 people suffered serious injuries requiring hospitalisation in 2006–12 fewer than in 2005 and significantly below the previous four-year average of 53.5 reported serious injuries per annum.
- There were an abnormally high number of fatalities and serious injuries recorded in the Cairns region in 2006. The region recorded 41 per cent of the state's fatalities and 25 per cent of the state's serious injuries for 2006.
- The most prevalent incidents involving fatal and serious injuries in 2006 were those where a person was hit by a vessel or the vessel's propeller. Nine such incidents resulted in one fatality and eight persons hospitalised.
- Looking at incidents resulting in fatalities the most prevalent incident type in 2006 was person overboard. Six people lost their lives in person overboard incidents.
- 20 of the 47 reported fatal and serious injury incidents occurred in offshore waters—up by more than 40 per cent on the four-year average involvement.
- Personal water craft (PWC) did not feature greatly in reported marine incidents in 2006. There
 were 29 incidents reported as involving PWCs and three recorded serious injuries from these
 incidents.
- Commercial fishing statistically is one of Australia's most dangerous occupations. Based on the 2006 marine incident data commercial fishing continues to present a significant marine safety challenge for Queensland. Maritime Safety Queensland is working closely with the commercial fishing industry to improve the safety of commercial fishers.



1.1 Why report on marine incidents?

According to a national study of marine fatalities commissioned by the National Marine Safety Committee, boating fatalities and serious injuries cost the Australian community in excess of \$350 million annually (O'Connor, 2004). This report provides an objective assessment of the condition of Queensland's maritime safety environment as reflected by the number and nature of reported marine incidents for the year 2006. The report is made in accordance with section 127 of the *Transport Operations (Marine Safety) Act 1994* (the Act).

The report and the data and investigative systems underpinning reported incidents together contribute to the following objectives outlined in section 3(2) of the Act:

- (a) To allow the Government to have a strategic overview of marine safety and related marine operational issues; and
- (b) To establish a system under which:
 - (i) Marine safety and related operational issues can be effectively planned and efficiently managed; and
 - (ii) Influence can be exercised over marine safety and related marine operational issues in a way that contributes to overall transport efficiency; and
 - (iii) Account is taken of the need to provide adequate levels of safety with an appropriate balance between safety and cost.

1.2 What are marine incidents?

Section 123(1) of the Act defines a marine incident as an event causing or involving -

- (a) The loss of a person from a ship; or
- (b) The death of, or grievous bodily harm to, a person caused by a ship's operations; or
- (c) The loss or presumed loss or abandonment of a ship; or
- (d) A collision with a ship; or
- (e) The stranding of a ship; or
- (f) Material damage to a ship; or
- (g) Material damage caused by a ship's operations; or
- (h) Danger to a person caused by a ship's operations; or
- (i) Danger of serious damage to a ship; or
- (j) Danger of serious damage to a structure caused by a ship's operations.

This report looks particularly closely at marine incidents involving fatalities and serious injuries. Serious injury incidents are marine incidents in which a person involved in the incident suffered any injury requiring actual admission to hospital.

1.3 Marine incident data management

Section 125 of the Act requires marine incidents to be reported to Maritime Safety Queensland. All reported incidents are examined to some degree—with more serious incidents undergoing more comprehensive investigation by trained investigators. Certain data from marine incident reports and subsequent investigation reports is recorded in Maritime Safety Queensland's marine incident data management system (Caseman). The data elements recorded are largely consistent with a national marine incident data set developed and endorsed by the National Marine Safety Committee. All Australian maritime jurisdictions are progressively moving toward full systems compliance with the national marine incident data set requirements.

The analyses included in this report draw on data from 'reported' marine incidents. While the level of reporting of marine incidents, particularly fatality incidents, is generally considered robust, there is an acknowledged level of underreporting of marine incidents in any given year. Anecdotal evidence suggests that under-reporting may be more prevalent in relation to incidents occurring in remote areas such as the Torres Strait and to incidents involving certain types of vessels such as jet skis. Maritime Safety Queensland continues to look for ways to improve the reporting of incidents by the boating public.

Some incidents occurring in the maritime environment fall outside the scope of the earlier definition of a marine incident. These include incidents such as workplace health and safety incidents that are not directly related to the operation of a vessel, collisions involving international trading vessels that are covered for reporting and investigation purposes under the *Navigation Act 1912 (Cwealth)* and incidents involving death from natural causes. To present a fuller picture of safety outcomes within the maritime environment in Queensland, Maritime Safety Queensland maintains information on any out-of-scope incidents involving a fatality that come to its attention. A brief review of out-of-scope fatal incidents is included later in this report.

1.4 What's in the report?

The focus of the report is on reported marine incidents as a measure of public safety in the maritime environment. The report identifies the most frequently occurring incident types and their characteristics. It also identifies those incident types and characteristics showing significant change in 2006. This information provides a sound basis for determining priorities and shaping future maritime safety strategies and initiatives.

The report includes a high-level comparative analysis of interstate water transport fatality rates and more detailed intrastate trend analyses. These analyses are made using both population and the size of the registered vessel fleet as surrogate measures of potential exposure. Specific exposure data is not readily available for many aspects of commercial and recreational boating activity.

An examination is included of comparative regional performance within Queensland and of fatality and serious injury (FSI) incidents. FSI incidents carry a significantly higher social cost for the people concerned and for the community.

Subsequent sections rank incident characteristics according to the extent of their involvement in incidents. This enables the identification of groupings of major incident characteristics and assessment of significant changes in the extent of their involvement in marine incidents over a five-year period.

The report also focuses on selected attributes of marine incidents for more detailed analysis. Interspersed among these selected profiles are a series of incident case studies. These studies outline recent marine incidents that occurred in Queensland, highlighting lessons to be learnt from each incident. The cases presented here are representative only, and have been selected for the learning points that may benefit mariners confronted with similar circumstances.

To enable readers to gain further insight into marine incident trends and characteristics, time-series data for many characteristics of reported marine incidents are included in the Appendix to the report.

Unless otherwise stated, all the data presented in the report is sourced from Maritime Safety Queensland's Caseman marine incident data management system.

The aim in this and future reports is to accurately present the major features of marine incidents in Queensland, to identify areas where strategies and initiatives have had an impact and safety performance has improved, and to pinpoint hotspots for subsequent management.

In reading this and previous years' reports, it should be noted that at any given time, data and/or case details relating to reported marine incidents might be outstanding or incomplete. Consequently, marine incident data for recent years is subject to updating in subsequent years' reports.



It should also be noted that when disaggregated, incident, fatality and serious injury numbers are frequently small and random variations can appear large particularly when expressed in percentage terms. For this reason, Maritime Safety Queensland generally assesses marine incident trends in terms of their rate of occurrence in the year under review compared with the average of the previous four years of data.

1.5 Marine boards of inquiry

Under section 131 of the *Transport Operations (Marine Safety) Act 1994*, the Minister may establish or re–establish a board of inquiry about a marine incident.

The board of inquiry must inquire into the circumstances and probable causes of the relevant marine incident. At the completion of the inquiry the board must give the Minister a written report outlining the board's findings. The Minister is required to table a copy of the report in Queensland's Legislative Assembly within 14 days of receiving the report.

There were no boards of inquiry convened into marine incidents in 2006.