



Marine Incidents in Queensland 2008

Director-General's foreword

As Director-General of the Department of Transport and Main Roads, I am pleased to formally report on Queensland's marine safety performance in 2008, as measured by marine incident numbers and outcomes.

The 2008 report has a great new look and feel, and aims at getting the marine safety message out to more boaties in a more easily understandable format.

Boat registrations continued to climb in 2008 with Queensland now leading the nation in the number of registered vessels using our waterways. Continuing boating growth and associated on-water traffic and congestion is inevitable. It brings with it new challenges for regulators and boaties alike.

2009 is emerging as a tough year, with many boat owners struggling to cope with the impacts of a worldwide economic downturn. While trying to maintain their boating routines, the temptation during these tough times is to skimp on safety equipment. Regrettably, some boaties consider safety gear a luxury item. Skimping on items such as personal flotation devices, EPIRBs, flares and even routine boat and engine maintenance can jeopardise safety and risk lives. If you can't afford to keep your vessel and your safety gear up-to-date and functional, I urge you not to go out on the water.

With more and more people using Queensland's waterways, it is vital that boating safety programs address emerging economic, exposure and safety performance trends to ensure boating continues to be a safe and enjoyable pastime.

The 2008 report contributes to understanding these emerging trends and the safety challenges they present.

Queensland recorded 9 fatalities in 2008, 40% fewer than the 15 recorded fatalities in 2007.

In the context of growth in boating exposure, this is a positive outcome. But any fatality is one too many and every opportunity must be grasped to improve boating safety. Marine incident fatalities are not inevitable!

Our focus is clearly on the future and the challenges it brings. Maritime Safety Queensland is continuing its work of encouraging and fostering safety as a core value and culture within the commercial and recreational sectors of the boating community.

But Maritime Safety Queensland cannot drive and maintain Queensland's marine safety performance on its own. A cooperative approach is required. Government, industry and the boating community alike must work together to ensure that boating is safe, enjoyable and continues to meet Queensland's maritime transport, commerce, tourism and recreational needs.



Dave Stewart
Director-General
Department of Transport and Main Roads



Introduction

The number and nature of marine incidents reported throughout the year is one of the measures used to assess Queensland's maritime safety performance.

Maritime Safety Queensland has prepared the following report on incidents reported for the year 2008, in accordance with Section 127 of the *Transport Operations (Marine Safety) Act 1994*.

The aim of the report is to concisely present the major features of marine incidents in Queensland in an accessible manner, to determine what lessons can be learnt from incidents and to further educate the boating community about potential risks and unsafe behaviour.

Section 125 of the Act requires the master or owner of a vessel involved in a marine incident to report that incident to a shipping inspector within 48 hours. For a legal definition of a marine incident visit our web site: www.msq.qld.gov.au.

The information gathered from marine incident reports and from any ensuing investigation is recorded in a marine incident data management system. Despite the mandatory requirement to report marine incidents, many are not reported, particularly those that are less serious and/or occur in remote locations.

Consequently, the data and analyses in this report are limited by a certain degree of under-reporting of marine incidents. Data used in this report is the best available at the time of production.

Maritime Safety Queensland continues to look for ways to improve incident reporting levels and the integrity of its analysis of incident data. The agency is working closely with the National Marine Safety Committee to identify recreational boating usage rates.

Similarly, at a state level, Maritime Safety Queensland is collating vessel usage information for different types of commercial vessel activity. This data when combined with incident data will enable more accurate future comparisons of the relative safety risk exposure of different types of vessels.

Marine incidents

Overview

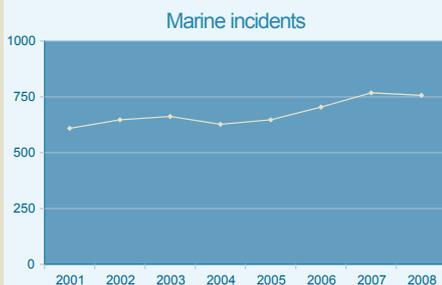
In 2008, there were 757 reported marine incidents that occurred on Queensland waters: on average, two incidents were reported to Maritime Safety Queensland each day.

Incidents ranged from a close call for a commercial passenger vessel near Prince of Wales Island (Cairns) on 1 January to a collision between a commercial fishing trawler and a recreational sailing boat on Deception Bay on 31 December.

Notwithstanding the 9 fatalities and 32 serious injuries reported in 2008, for the most part reported incidents were not major, with most having only a minor safety or environmental impact: 95% involved minor or nil injury, 31% caused no damage and just 2% led to any form of marine pollution.

Incident trends

While the number of reported marine incidents varies from year to year, the overall numbers of incidents reported have been steadily increasing over time. This trend will be due in part to efforts by Maritime Safety Queensland to improve incident reporting levels and more diligent reporting. Using 2001 as a baseline, 24% more marine incidents were reported in 2008 than in 2001. That said, there were 1% fewer marine incidents reported in 2008 than in 2007, ending a four-year upward trend.



The latter result is all the more impressive given that in recent years Queensland has seen solid growth in both registered vessels and population.

To better understand marine incident data, one must take into account that while reported incidents have been

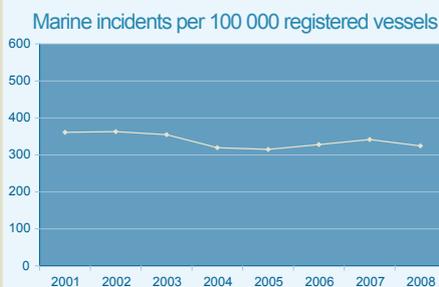
trending upward over the last decade, registered recreational vessel numbers and population, too, have grown steadily over this time.

Since 2001, vessel registrations have experienced an average annual growth rate of 4.8%, with the bulk of this growth in the recreational boating sector. In the same period, Queensland's estimated resident population (Source: Australian Bureau of Statistics) has experienced an average annual growth rate of 2.4%.

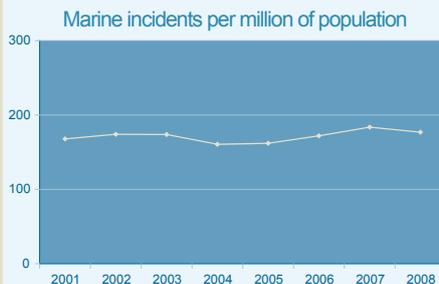
This evidence alone suggests that there are now more boats on the water, and therefore there is a greater likelihood that incidents will occur.

Rate of marine incidents

Analysis indicates that in 2008 there were 325 marine incidents per 100 000 registered vessels, representing a decline of 5% over 2007, but in line with the previous four-year average of 326. (Using the prior four-year average helps smooth the data, thereby making for a more useful benchmark comparison).



In 2008, the rate of reported marine incidents per million population was 177, a drop of 5% in the 12 month period, but 5% higher than the comparative rate in 2001.



Vessels involved

At the end of 2008, there were about 228 000 recreational and 5700 commercial registered vessels.

During the year, 927 vessels were involved in reported marine incidents, either primarily or secondarily. Just over half (52%) of the vessels involved were recreational vessels, 42% were commercial and 7% hire and drive.

Recreational vessel involvement in reported marine incidents has been increasing over the past decade. In 2001, recreational vessels were involved in just on a third of reported incidents. By 2008, they were involved in just over half.

The greater involvement of recreational vessels is due in no small part to their presence in increased numbers on the water. However, even while statistically taking into account the growth in recreational vessels, there has been a steady rise in the rate of involvement for recreational vessels since 2001.

Repeated incident involvement

There are several vessels that appear as involved vessels on more than one occasion in the marine incident database. There could be many reasons why these vessels appear on multiple occasions including an elevated exposure to risk, public visibility of involvement in incidents, insurance implications, a strong safety culture, as well as unsatisfactory vessel maintenance and operations.

Analysis indicates that 22% (166) of the incidents reported in 2008 involved vessels that have been in at least one other reported marine incident since 1999.

Further assessment of the incidents with "repeat involvement" vessels reveals some interesting findings:

- 47% were greater than 15 m in length
- 43% were commercial passenger carrying ships including many larger tourist vessels that operate 365 days a year, in most weather and sea conditions, carrying a large number of passengers
- 10% were commercial fishing vessels.

Marine incident characteristics

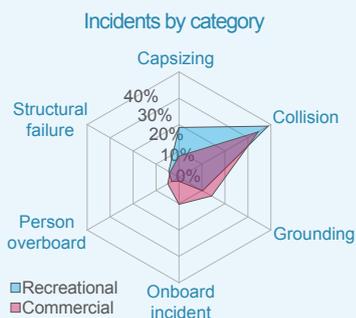
Background

Recent marine incident data suggests that most reported incidents occur in fairly innocuous circumstances. Investigation of reported incidents in 2008 indicates that 73% occurred on smooth or partially smooth waters and just under 66% occurred in clear weather and good visibility. This is consistent with an analysis of factors contributing to incidents in 2008 which identify environmental contributing factors in about 36% of reported incidents. By contrast, human contributing factors—mainly operational error and inattention—were identified in 60% of reported incidents.

Incidents by category

In 2008, the most commonly reported marine incident category was collision (34%), followed by capsizing (14%) and grounding (13%). On a proportional basis, these patterns have not varied significantly since 2001.

Analysis of reported incidents by category indicates that the patterns in the data vary according to the type of vessel involved. Based on 2008 data, recreational vessels are somewhat more likely to be involved in a collision and twice as likely to be involved in a capsizing incident, than commercial vessels.



Capsizing and person overboard incidents are significant incident categories, often resulting in serious or fatal injury.

Of the 140 capsizing and person overboard incidents reported in 2008, 6 resulted in fatality and another 4 required hospitalisation.

Inattention and operating error were identified as contributing factors in 25% of the capsizing and 10% of the person overboard incidents.

Commercial vessels are somewhat more likely to be involved in a grounding and far more likely to be involved in an onboard incident than recreational vessels.

Navigational error was identified as a contributing factor in 41% of grounding incidents.

Inattention (30%) was the leading contributing factor in onboard incidents.

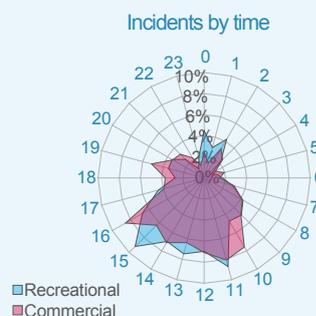
Time of incident

Breaking down reported incidents in 2008 by time of incident reveals that 28% occurred between 6 am and 12 noon, 41% between midday and 6 pm, 17% between 6 pm and midnight, and 14% between midnight and 6 am.

There is evidence that patterns regarding the time of incidents tend to vary by the type of vessel involved.

When compared with recreational vessels, commercial vessels have a somewhat higher likelihood of involvement in an incident early in the morning (presumably departing port), and early evening (presumably returning to port).

Recreational vessels have a somewhat greater likelihood of involvement in an incident in the mid-afternoon (presumably returning home and possibly travelling into the setting sun) and in the very early morning hours. Fatigue and alcohol may be factors in the very early morning hours.



Incidents by month

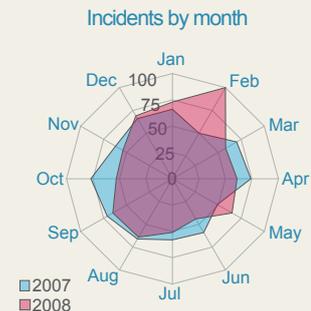
In accord with previous years, there was a good deal of monthly variation in the number of reported incidents in 2008, ranging from a low of 44 in June to a high of 100 in February.

The 100 incidents reported in February 2008 were the most incidents ever reported in any month in the marine incident database.

A low pressure system that moved through the Mackay region on 12 February, directly led to 30 of those incidents.

To put that in context, the 30 incidents from that day represent approximately a quarter of the marine incidents reported in the Mackay region for the entire year.

Fortunately there were no serious or fatal injuries, but the storm did leave a slew of seriously damaged vessels with many dragging anchor and breaking moorings.



It is worth noting that there were considerably fewer marine incidents in the fourth quarter of 2008 compared to the same period in 2007. One interpretation of the data is that as the economy started to contract, there was a corresponding slow-down in marine incidents, possibly because there were fewer vessels out on the water in response to economic downturn.

There were also some second quarter differences between 2007 and 2008 in the level of reported incidents. This may be the result of fuel prices affecting boating activity, especially as world oil prices peaked in July 2008.