

Queensland marine incidents

2. Queensland marine incidents

The marine incident data examined in this report is based on incidents reported to Maritime Safety Queensland. The figures presented and the changes observed from year to year are therefore exposed to the influence of both changes in the number of incidents occurring and changes in the level of reporting. Any increases, decreases or changes to observed trends can be due to changes in the number of incidents occurring and/or changes in the level of incident reporting.

Maritime Safety Queensland is actively seeking to improve the level of marine incident reporting through a range of initiatives (refer Section 1.2). While it is generally considered that the level of reporting is improving it is not possible to discern the extent of this influence on the analysed data. This potential dual source of variation needs to be considered when attempting to drawing conclusions from the data provided.

2.1 Marine incidents in context

This section examines Queensland's 2007 reported marine incidents in the context of past patterns, incident trends, population and vessel registration growth and in comparison to national data. The data in this section is based on all reported marine incidents. For an analysis of incidents involving fatalities or seriously injuries, or persons fatally or seriously injured go to Section 3.

2.1.1 Reported marine incidents time series

In 2007, 762 marine incidents were reported in Queensland. The total number of reported marine incidents is continuing to trend upwards, increasing 37.8 percent since 1999 and 7.9 percent from 2006.

10 marine incidents resulted in fatalities in 2007. One incident was a multiple fatality that claimed four lives. After a sharp increase in the number of fatal incidents in 2006 the total of 10 for 2007 is a return to the level of prior years (refer Table 4) and is in line with the long term average of 10.5 fatal incidents per year.

33 of the marine incidents reported to Maritime Safety Queensland in 2007 resulted in serious injury to 35 persons. A serious injury is defined as an injury that requires admission to hospital. The number of serious injury incidents reported in 2007 is below the previous nine-year average of 44.

Two incidents reported in 2007 resulted in both fatalities and serious injuries.



Table 4: Marine incidents by level of injury

Year	Number of incidents *			Total
	Fatal *	Serious injury *	Other #	
1999	10	58	486	553
2000	12	73	527	612
2001	12	37	565	610
2002	10	54	588	648
2003	7	23	629	659
2004	10	36	581	627
2005	10	44	592	645
2006	14	35	658	706
2007	10	33	721	762

* Incidents that involved both serious injuries and fatalities are recorded in both the serious injury data and the fatalities data. The sum of the incident types may therefore exceed the total number of incidents.

Other incidents count all incidents where no serious injuries or fatalities were recorded.

Figure 3 graphically depicts the data provided in Table 4. It shows the total number of reported marine incidents and a breakdown of these incidents by level of injury. The rate of growth underlying the overall upward trend in total incidents has varied over the past 10 years. During the period 1997 to 2000 the number of reported marine incidents rose sharply increasing 45 percent over the four year period. From 2000 to 2005 the number of reported incidents showed only a small variation oscillating between 588 and 629 per year. Since 2005 the number of reported incidents has risen 18.1 percent, increasing 9.5 percent in 2006 and 7.9 percent in 2007.

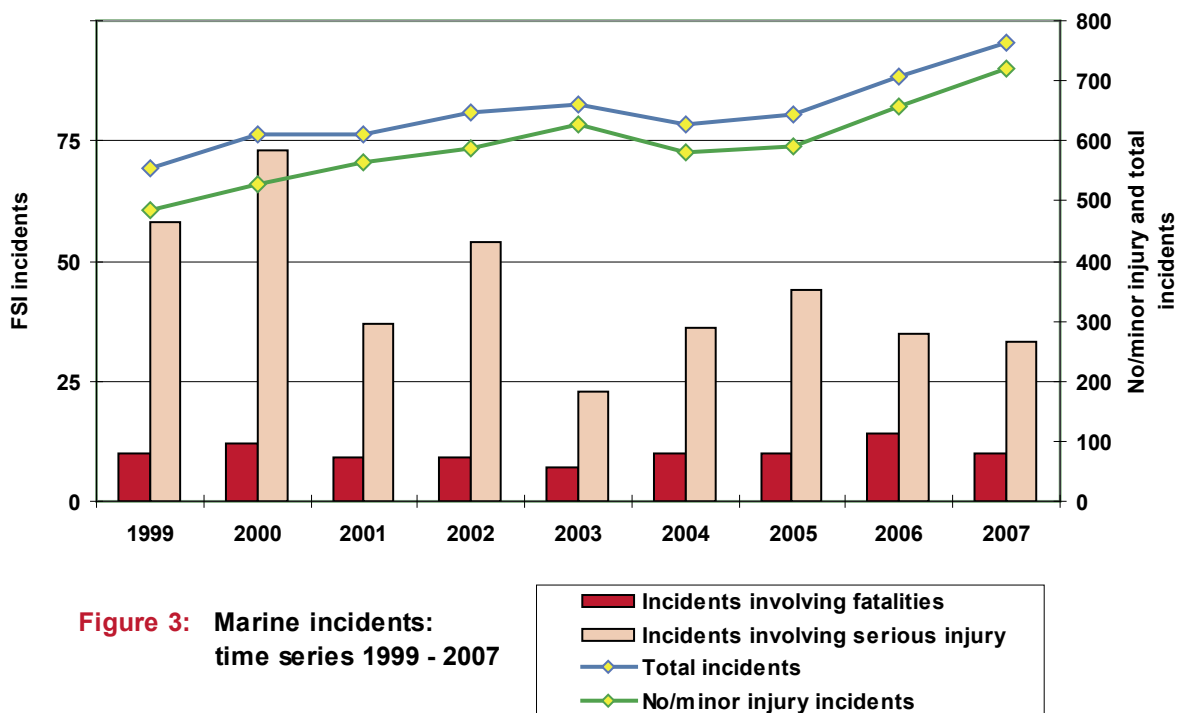


Figure 3: Marine incidents: time series 1999 - 2007

Overall, despite the upward trend in total incidents reported the number of fatal and serious injury incidents has remained relatively constant over the past four years. The noted increase in fatal injury incidents in 2006 appears, based on the 2007 results, to have been a spike rather than an emerging upward trend.

2.1.2 Marine incident trends

Comparing the trend in reported marine incidents with the trends in Queensland population growth and vessel registrations provides an alternative perspective on how marine incidents numbers are changing over time.

Population and vessel registrations are not ideal measures of marine incident risk exposure. There is no doubt that more vessels on the water increases the chances of an incident occurring however it is not the act of owning a vessel that places someone at risk of a marine incident. The level of risk is dependant on how often the vessel is used, where it is used, what time of day or night it is used, how many people are on the vessel, the prevailing conditions and so on. Similarly for population it is not the number of people residing in the state but the number of people participating in boating and the nature and frequency of that participation that is the true measure of risk. Population and vessel registrations are therefore used as surrogate measures of risk exposure in the absence of more definitive exposure data.

A national research project, conducted by the National Marine Safety Committee, is currently in progress to establish a comprehensive measure of marine incident risk exposure, particularly for recreational vessel operators. This project should be completed in 2009.

Figure 4 compares growth in reported marine incidents with growth in vessel registrations and the Queensland population relative to the index base year 1997. From the base period 1997 the numbers of reported marine incidents have generally increased at a greater rate than vessel registrations and

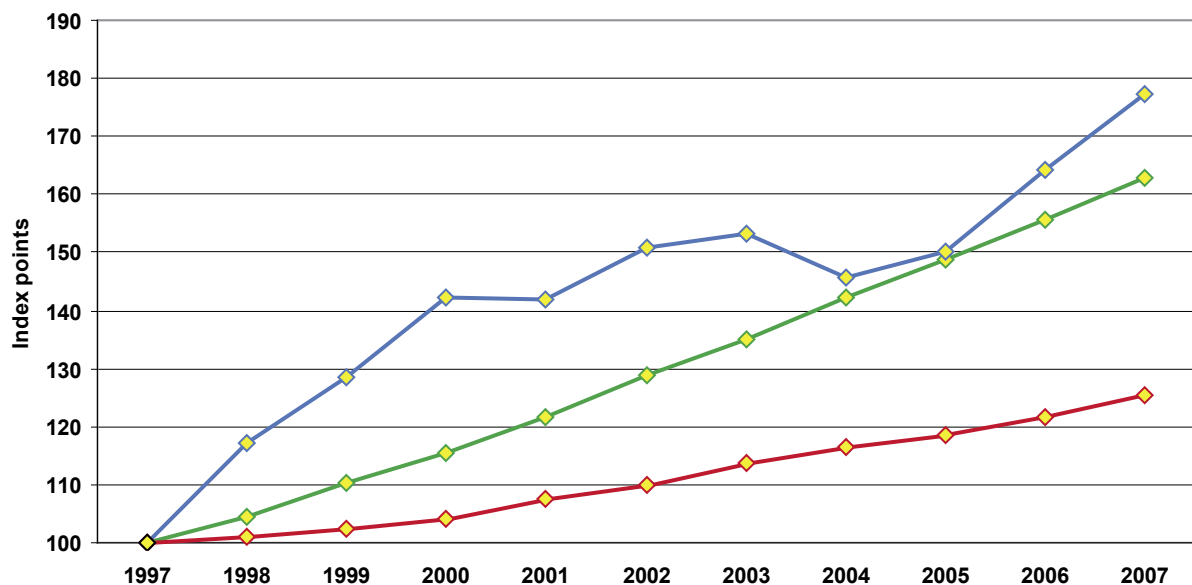


Figure 4: Marine incidents, population and vessel registrations: indexed trends 1997 - 2007

Index 1997 = 100





population. The number of reported marine incidents in 2007 was approx 77 percent higher than in 1997. By comparison in the same period vessel registrations had increased 63 percent and population 26 percent.

2.2 Vessels involved in marine incidents

The vessels involved in marine incidents have been classified as recreational, commercial and hire and drive for the following analysis. All vessels that were involved in an incident have been included. As many incidents involved more than one vessel the number of vessels exceeds the number of incidents.

The recreational category includes both recreationally registered boats and jet skis. The commercial category includes all registered commercial fishing, passenger and non-passenger vessels but excludes hire and drive vessels. The hire and drive category is provided as a separate category and includes all vessels registered as commercial hire and drive vessels including jet skis, speedboats, houseboats and sailboats.

In 1999 recreational vessels accounted for 35 percent of all vessels involved in reported marine incidents. Over time this figure has steadily increased reaching 45.8 percent or 470 vessels in 2007 (refer Table 5). Since 1999 the involvement of recreational vessels has increased 82 percent. 2007 is the first year the number of recreational vessels involved in marine incidents has exceeded the number of commercial vessels (excluding hire and drive). Improved marine incident reporting among recreational boaters will have contributed in part to the increase in recreational vessel involvement.

Table 5: Vessels involved in marine incidents, Queensland, 1999 - 2007

Year	Number of Vessels Involved in Marine Incidents				Total
	Recreational	Commercial*	Hire and Drive	Unknown	
1999	258	415	47	16	736
2000	293	381	64	13	751
2001	239	402	66	42	749
2002	300	450	62	11	823
2003	304	448	86	0	838
2004	311	387	75	2	775
2005	345	401	70	4	820
2006	401	446	63	8	918
2007	470	444	50	6	970

* Excludes hire and drive vessels.

The number of commercial vessels involved in marine incidents has remained relatively steady over time, ranging between 381 and 450 vessels per year for the past nine years. As the number of reported incidents has grown commercial vessel involvement has declined as a proportion of the total.

The involvement of hire and drive vessels in marine incidents, while always a small component, has declined from 10.3 percent of all vessels involved in reported marine incidents in 2003 to 5.2 percent in 2007. This can be attributed in part to revised safety and operational standards and requirements for hire and drive operators in Queensland.

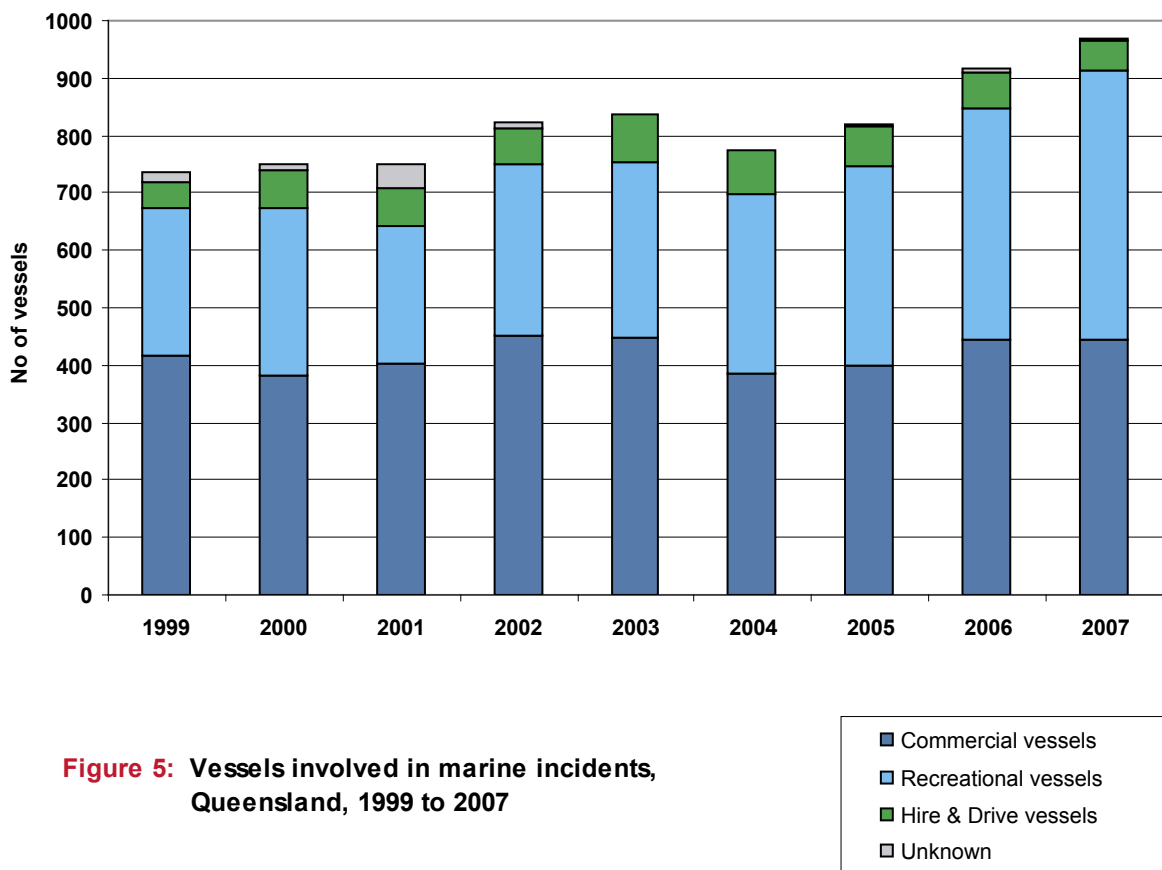


Figure 5: Vessels involved in marine incidents, Queensland, 1999 to 2007

Variations in the rate of involvement in reported marine incidents of the differing registered vessel types can be clearly seen in the following involvement ratios:

- 1 in 466 recreational vessels (comprising 1 in 474 boats and 1 in 349 jet skis);
- 1 in 10.7 commercial vessels (excluding hire and drive and unregistered fishing vessels);
- 1 in 17.5 commercial vessels (including estimated unregistered fishing vessels and excluding hire and drive); and
- 1 in 19.2 hire and drive vessels.

The higher rate of involvement of commercial vessels in reported marine incidents reflects their higher risk exposure (for example, a commercial vessel operating 12 hours per day seven days a week has a much higher risk exposure than a recreational vessel used twice a year). Incidents involving commercial vessels are also considered more likely to be reported than incidents involving just recreational vessels.

Figure 6 provides a breakdown of recreational vessels involved in marine incidents in 2007 by vessel type. The 2007 data is shown together with the average level of involvement over the preceding four years. A refined classification process in 2007 has increased the number of vessels being recorded as speedboat, as opposed to motorboat. This change in methodology will account for a substantial proportion of the increase seen in the recreational speedboat category in 2007 and for the corresponding reduction in motorboat involvement.