

Fatal and serious injury incidents

In 2008, 37 reported incidents resulted in 9 fatalities and 32 serious injuries.

Put differently, there were 5 fatal or serious injury incidents for every 100 reported marine incidents in Queensland in 2008. This ratio has declined steadily over the past decade—down by 34% since 2001—partially in response to safety initiatives and greater safety awareness, but also due to improvements in incident reporting levels, irrespective of their seriousness.

Fatal injury incidents

There were nine reported fatal incidents in 2008.

These principally involved three recreational motorboats and six commercial vessels. There was one fatal incident that involved a recreational and a commercial hire and drive vessel.

Five of these incidents took place on smooth or partially smooth waters, two took place on inland waters, and two in offshore waters.

Four of the fatal incidents involved a person overboard, two involved a capsizing, and one each involved a collision between ships, a fall within a ship and a person being struck by a vessel's propeller.

Fatalities

There were nine recorded fatal injuries in 2008, the lowest annual fatality toll since 1998.

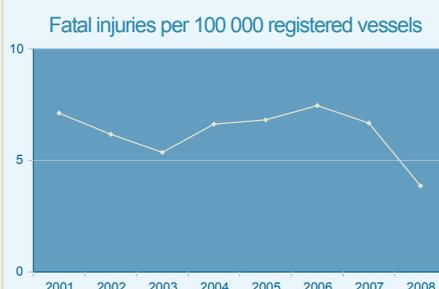
This number represents a significant reduction on both the 2007 toll of 15 (-40%) and the previous four-year average of 14.5 (-38%).



Fatality rate

In 2008, Queensland recorded four fatal injuries for every 100 000 registered vessels.

Using 2001 as a baseline, the fatality rate has declined, with an improvement in 2008 of 42% and 43% respectively over 2007 and the prior four-year average.



Serious injury

The number of marine incident-related serious injuries, defined here as those requiring hospital admission, has declined every year since 2005. In 2008, there were 32 serious injuries, a 25% drop when compared to the prior four-year average.

The majority of serious injury incidents reported in 2008 involved a collision (28%) or an onboard incident (24%).

Investigation of hospital admissions data for the period June 2000 to June 2008 (Source: Queensland Health), indicates that serious injuries as a result of marine incidents required hospital stays that averaged (median) two nights.

Approximately three-quarters of the injuries involved males (73%), while about two-thirds involved persons aged under 40 years (68%).

Seven per cent of the serious injuries involved children aged 14 or under, with boys in this age bracket almost twice as likely to be seriously injured than girls.

This data indicates that the most typical (serious but non-fatal) injuries that follow a marine incident include: fractures (47%), followed by open wounds (10%), dislocations (7%) and intra-cranial injury (6%).

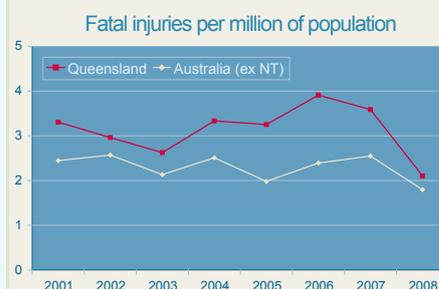
Queensland v. Australia

Fatal injuries

At the national level, there was also a significant drop in the number of marine incident fatalities in 2008. Australia—excluding Northern Territory as data is not available—recorded 38 fatalities (2008), approximately 24% fewer fatal injuries than in the previous year (Source: National Marine Safety Committee).



In 2008, Australia (excluding NT) recorded 1.8 fatalities per million population, a somewhat stronger performance than the Queensland rate of 2.1.



The fatality rate in Queensland, however, has declined more sharply than that for the remainder of the country.

Whereas Queensland has attained a 36% drop in fatality rate from 2001 to 2008, the remainder of the country (excluding NT) has experienced a 27% decrease in the corresponding period.

Note that the greater year-to-year variation in Queensland's fatality rate can be attributed to the smaller number of fatalities in the state than that for the rest of the country. A couple more or less fatalities in a year will dramatically alter the Queensland rate but have lesser impact nationally.

Regional profiles

Brisbane

In 2008, there was an increase of 3200 registered vessels (+3%), three-quarters of which were new recreational motor boat registrations.

Of the 224 reported incidents in 2008, about a third (34%) occurred in the Sunshine Coast area and just on (50%) involved a recreational vessel.

A little under a quarter of incidents occurred on the Brisbane River where traffic volume on the water appears to have played a contributing role: 71% of these incidents involved collision, typically a collision with another vessel.

Cairns

Relative to other regions, there has been little registration growth in Cairns in the last year. The region does however account for 20% of the commercially registered vessels in the state, including 30% of commercial vessels that exceed 25 m in length.

Almost two-thirds of the Cairns region's 99 reported marine incidents in 2008 involved a commercial vessel, by far the highest rate of commercial involvement for any region and significantly higher than the overall state average (48%).

Just under a third (30%) of the reported incidents in the region involved commercial passenger vessels, primarily tourist day fleet vessels operating 365 days a year, in most conditions, while carrying a large number of passengers. As expected, there was a large share (39%) of Cairns' incidents that occurred in offshore waters. This compares with 21% for the state as a whole.

Gladstone

Recreational motor boat numbers showed substantial growth in the Gladstone region in 2008, increasing by just over 1600 (+4%).

The region also had the highest level of recreational involvement in reported incidents in the state (66%).

Just on 40% of the region's reported incidents involved a recreational motor boat, including the region's two fatal incidents. One of the fatal recreational motor boat incidents involved a person overboard and the other a person struck by a vessel's propeller.

Gold Coast

There has been a moderate increase in recreational motor boats and PWC on the Gold Coast in 2008, with an additional 760 motor boat (+3%) and 450 PWC registrations (+13%).

In 2008, there were 57 reported incidents that involved recreational motor boats and 17 reported incidents that involved recreational PWC. In short, two out of three incidents in the region involved a recreational motor boat or recreational PWC (see the *PWC incidents* feature).

While motor boats make up 85% of the recreational fleet, they were involved in just 40% of the reported marine incidents in 2008.

Just over a third of incidents occurred on the increasingly congested Gold Coast Broadwater, and of those, 57% involved collisions.

Mackay

While growth rates for registered recreational vessels have slowed on rates experienced between 2001 and 2007, there were still solid gains in the Mackay region in 2008 (motor boats up by 4%, PWC up by 17%).

The February (2008) storm that hit the Mackay region grossly inflated the region's marine incident numbers (see the *Incidents by month* feature).

Mackay, and primarily Airlie Beach, has the largest commercial hire and drive vessel presence in Queensland. Many of these vessels were damaged during this storm. Three-quarters of the reported storm-related incidents occurred in the Airlie Beach area.

Townsville

In 2008, the region experienced solid growth in recreational vessel registrations, particularly in the recreational motor boat category which grew by approximately 700 vessels (+4%). There was no significant growth in commercial vessel numbers.

While motor boats represent 95% of registered recreational vessels, they made up 28% of the vessels involved in reported incidents.

One third of the reported incidents in 2008 occurred in offshore waters. Two thirds of the ships involved in these incidents were commercial vessels.

Regional statistics

While the Gladstone region had the largest percentage increase (+4.3%) in registered vessels in 2008, Brisbane had the biggest net gain in actual registered vessel numbers (+3200). Brisbane accounted for 38% of recreational registration growth in the state (2008).

Mackay was the only region to experience any significant change in registered commercial vessel numbers in 2008, with a 5% increase.

Of the 757 marine incidents reported in 2008, by region 30% occurred in Brisbane, 18% in Mackay, 16% in Gladstone, 15% on the Gold Coast, 13% in Cairns and 8% in Townsville.

For most regions, there was an improvement between 2007 and 2008, particularly Cairns which enjoyed a 15% decline in reported incidents. Other regions that realised a decrease in reported incidents included Gladstone (-9%), Brisbane (-3%) and Townsville (-2%). The exceptions were Mackay and the Gold Coast, which experienced 13% and 11% increases, respectively.

Marine incidents by region

	Marine incidents	Incident rate *	Serious injuries	Fatal injuries
BN	224	23	10	2
CN	99	47	3	2
GL	124	30	6	2
GC	114	36	8	1
MK	138	76	4	1
TV	58	27	1	1

* Reported marine incidents per 10 000 registered vessels in the region.

While Brisbane clearly had the most reported incidents in 2008, it is the best performing region in terms of the incident rate (per 10 000 vessels) when exposure to risk on the water is accounted for.

This measure indicates that there were 23 reported incidents per 10 000 registered vessels in the Brisbane region and is distinctly lower than Queensland's rate of 32.5. Cairns (-19%), Gladstone (-13%), Brisbane (-6%) and Townsville (-5%) all improved in terms of the incident rate over the last year.

In 2008, Mackay, Townsville and Gold Coast regions each recorded a single fatality. Brisbane, Cairns and Gladstone regions each recorded two fatalities.

PWC incidents—South-East Queensland

Background

Personal water craft (PWC) are one of the fastest growing segments of the boating market in Queensland, with an average annual growth rate in recreational registrations of 15.5% since 2001.

Coupled with a rising number of users and increased passenger and towing capacity, PWC now have greater engine capacity and speed. A number of PWC on the market today feature 200 hp engines, top speeds that exceed 100 km per hour, and acceleration from 0 to 50 km per hour in about 3 seconds.

Against this backdrop, and not surprisingly, there has been a sharp increase in the number of reported incidents involving PWC in South-East Queensland (SEQ).

Between 2001 and 2008, there were 187 reported incidents that involved PWC on SEQ waters.

PWC incidents—South-East Queensland



PWC registrations and licenses

As of December 2008, Department of Transport and Main Roads data indicates that there were at least 9727 registered PWC in SEQ.

In the past year there has been a sharp increase in registrations, with an additional 1072 recreational PWC registrations alone: that is, 13% growth from 2007 to 2008.

While other regions throughout the state (namely Cairns, Mackay and Gladstone) have shown stronger gains in PWC registration on a percentage basis, the Gold Coast and Brisbane regions are by far the largest growth areas in terms of raw numbers of PWC registrations.

As of December 2008, there were just over 59 800 PWC licence holders in Queensland, increasing by an average of 800 per month for the year.

About eight out of every ten PWC licence holders are male, and 60% of these are aged 40 and under.

Incidents

In 2008, there were 36 reported incidents involving PWC in SEQ, representing 11% of all reported incidents in SEQ and 5% of all reported incidents in the state. Put differently, about one in nine reported marine incidents in SEQ involved at least one PWC.

Last year's growth in PWC registrations was accompanied by a significant increase in the number of incidents involving PWC.

Across SEQ, there was a 38% increase in the number of reported PWC incidents. On the Gold Coast, the number of reported PWC incidents more than doubled.

Incident rates

In the last year in SEQ there were roughly 3.8 reported PWC incidents per 1000 registered PWC. That number is comparable to the overall marine incident rate (all types of vessels) for the state of 3.3 incidents per 1000 registered vessels.

While the rate for recreational PWC (2.9) is marginally under-represented, the involvement rate for commercial PWC (35.4) is clearly over-represented.

These rates should however be treated with caution given the small number of reported incidents and the even smaller number of commercially registered PWC. A couple more, or a couple less, incidents could quickly alter the overall rate of commercial PWC involvement in incidents.

Fatal and serious injuries

In 2008 in SEQ, there was one reported fatal injury and three reported serious injuries resulting from marine incidents involving PWC.

This represents a 43% decrease over 2007 in the combined number of fatal and serious injuries.

Two of these injuries occurred in two incidents on the Gold Coast, and one on the Sunshine Coast.

One of these injuries resulted from a commercial hire and drive PWC incident.

Types of incidents

Of the 36 reported incidents involving a PWC in SEQ in 2008, 18 (50%) involved a collision.

Just under 89% of these collision incidents involved a collision with another vessel.

A little over 60% involved a collision between two PWC.

While one can speculate that SEQ's crowded waterways might be a contributing factor in the high number of collisions involving PWC in 2008, the marine incident data indicates that the collision rate for PWC in SEQ (50%) was actually lower than that for the remainder of the state (60%).

It is also noted that the collision rate for PWC in SEQ is declining, down nine percentage points from 2007.

Of the six reported incidents involving commercial hire and drive PWC, three occurred while the hirer was participating in an organised hire PWC tour. The other three involved hire PWC being operated on a course restricted to a hire and drive PWC.

Of the two incidents involving non hire and drive commercial PWC, both involved Surf Life Saving Queensland personnel in a surf patrol setting.

Prevailing conditions

Only 11% of the reported PWC incidents in SEQ (2008) took place in offshore waters.

It is worth noting, however, that the percentage of reported 'off-shore' incidents was quite a bit higher in 2007 (31%).

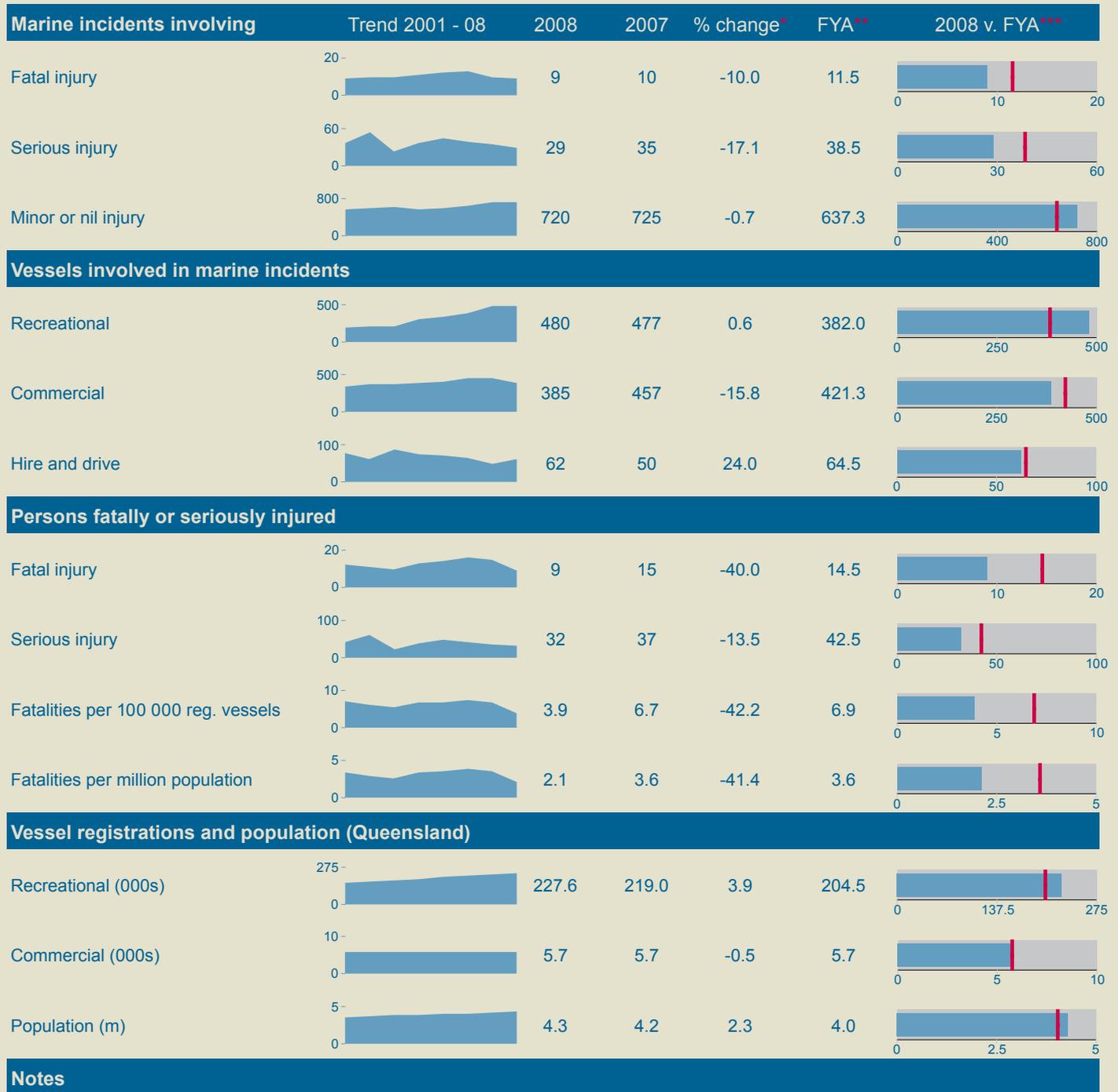
Human contributing factors were identified in roughly two-thirds (64%) of the 36 PWC incidents in 2008. Principal among these, was inattention, which was identified as a contributing factor in 10 (28%) of the reported PWC incidents in SEQ in 2008.

Tow-in surfing

Between 2004 and 2008, there were no reported marine incidents in SEQ where PWC were involved in tow-in surfing activities.

Tow-in surfing using PWC is increasing in popularity particularly when the swell is significantly increased due to storm or cyclonic influences.

Marine incidents barometer—2008



Notes

* % change represents the percentage difference between 2007 and 2008

** FYA represents the prior four-year average

*** 2008 data versus the prior four-year average, 2004 to 2007. For example, there were 480 recreational vessels involved in marine incidents in 2008 compared to the prior FYA of 382.

