# Marine incidents in Queensland

2014



#### **Foreword**

The annual Marine Incident Report is how we best assess the safety performance of our fleet. Comparison of statistics from previous years allows us to see where there have been improvements and what we need to focus on.

Following some of the state's responsibilities in relation to maritime safety with the commercial vessels shifting to the commonwealth, the Report's focus is now on marine incidents involving at least one Queensland regulated ship.

A number of marine incidents which we previously included became the responsibility of the national regulator, so to present an accurate picture we have revisited our records over the past decade and applied the new criteria. The result is a new set of consistent, comparable and informative figures.

What we see is extremely encouraging.

While loss of life is not acceptable, the five deaths on Queensland waters in 2014 were two fewer than in the previous year, continuing a strong downward trend. While they are low in number, the fatalities in 2014 nevertheless resulted in huge personal tragedy for many people.

In each case, it was the master of the vessel who lost their life.

The master of a vessel has a great deal of responsibility and needs to always keep in mind and be aware of the obvious and hidden dangers of operating on our waterways. Transport and Main Roads is continually updating the information provided to masters to help improve marine safety.

Human and environmental issues contributed to the number of marine incidents, with navigation error identified as the single biggest factor. The majority of reported incidents in the past year have been the result of a collision or a grounding while boating in ideal conditions.

The Report also shows maritime safety is continuing to improve, even as vessel numbers increase

There is room for ongoing improvement. Fundamental to improved maritime safety is the way in which experienced boaties practice a culture of safety and encourage newcomers to follow their example.

The government is, of course, committed to playing its part through compliance activity, including education, and ensuring appropriate maritime infrastructure is in place.

**Neil Scales** 

Director General

Department of Transport and Main Roads

# **Key Points**

- In June 2014 there were 250,231 recreational vessels registered in Queensland; 1 vessel for every 19 people or 1 vessel for every 3 recreational vessel licensees.
- Maritime Safety Queensland received reports of 621 marine incidents during 2014; 105 fewer than in 2013.
- These incidents resulted in 6 fatalities; 6 fewer than during 2013.
- With the commencement of the Marine Safety (Domestic Commercial Vessels) National Law Act 2012 (Cth) some of the state's responsibilities with respect to maritime safety have shifted to the national regulator.
- As a result the focus of this report has necessarily shifted to marine incidents that involve at least one *Queensland regulated ship*.
- *Queensland regulated ships* were involved in 332 of the 621 incidents reported and 5 of the 6 fatal incidents reported.
- The most commonly reported incidents were collisions between ships (25%), collisions with an object (11%), capsizing (10%) and groundings (14%).
- These 332 incidents involved 411 Queensland regulated ships and 47 domestic commercial vessels.
- They resulted in 108 people injured, including 29 who were admitted to hospital and 5 fatalities.
- Sixty per cent of those injured were not in charge of the vessel at the time the incident occurred.
- The 5 people who died were the masters of *Queensland regulated ships*.
- They were appropriately licensed and their vessels appropriately registered.
- Four drowned including one wearing a life jacket.
- The fatality rate fell from 2.9 to 2 fatalities per 100,000 recreational registrations, continuing a strong downward trend that began in 2009.

#### Introduction

This report presents an analysis of the marine incidents that occurred in Queensland waters during 2014. It has been prepared by Maritime Safety Queensland in accordance with section 127 of the *Transport Operations (Marine Safety) Act 1994*.

From 1 July 2013, the majority of marine incidents involving only domestic commercial vessels became reportable under the *Marine Safety (Domestic Commercial Vessels) National Law Act 2012 (Cth)* or the *Navigation Act 2012 (Cth)* rather than the *Transport Operation (Marine Safety) Act 1994*.

One consequence of this jurisdictional change is that marine incidents that involve only domestic commercial vessels no longer meet the criteria established by the *Transport Operation* (Marine Safety) Act 1994 for inclusion in this report. Therefore, for purposes of continuity and comparison with previous marine incident reports, those marine incidents involving only domestic commercial vessels have been enumerated separately at the end of this report.

These changes in the jurisdictional arrangements do not affect the requirement that the master and/or owner of any vessels involved in a marine incident must promptly report that incident to Maritime Safety Queensland, or the Queensland Water Police.

Maritime Safety Queensland's research and the anecdotal evidence of volunteer rescue organisations suggests that some marine incidents continue to go unreported, in particular those that do not result in either material damage or serious personal injury and those that occur in more remote locations.

Nevertheless, this report provides a summary of the marine incidents that were reported in 2014 and serves as a base line for the evaluation of safety programs associated with maritime activities.

# A review of reported incidents 2005 to 2014

To allow comparison with incidents reported in previous years, the numbers and particulars of marine incidents reported over the past 10 years have been revised in line with the current regulatory arrangements. This data is available in summary data tables (s01 to s12) at the end of this report.

Over the past decade (2005 to 2014) the average number of incidents reported each year was 392 (s.d. 52)¹. *Queensland regulated ships* (QRS) were exclusively involved in 85% (83%, 86%)² of these incidents while the remaining 15% (14%, 17%) of incidents also involved at least one *domestic commercial vessel* (DCV).

The incidents reported over this period can be usefully subdivided into categories including personal injury, material damage, incident type and location.

Over the past decade there has been an average of 7.1 fatal incidents (s.d. 2.0), 21.7 hospital admission<sup>3</sup> incidents (s.d. 3.4) and 54 other injury incidents (s.d. 11.5) per year. In figure 1 it can be seen that on average 78.9% (77.6%, 80.2%) of reported incidents do not result in personal injuries, 5.5% (4.9%, 6.3%) result in hospital admissions and 1.8% (1.4%, 2.3%) result in fatalities.

<sup>&</sup>lt;sup>1</sup> s.d. – standard deviation

<sup>&</sup>lt;sup>2</sup> The two percentages represent the lower and upper bounds of the 95% confidence interval

<sup>&</sup>lt;sup>3</sup> Persons reported to Maritime Safety Queensland as having been admitted to hospital as a result of a marine incident

100% 75% ■ Fatal Hospital admission 50% Other injury ■ No reported injury 25% 0% 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Figure 1 — Personal injury in marine incidents

Similarly over the last ten years there has been an average of 125 incidents reporting no material damage (s.d. 18), 125 reporting moderate damage (s.d. 31), 53 reporting major damage (s.d. 12) and 39 reporting the loss of a ship (s.d. 16) per year. In figure 2 it can be seen that on average 31.9% (30.5%, 33.4%) of incidents do not result in material damage, 31.6% (30.2%, 33.1%) result in moderate damage, 13.6% (12.6%, 14.7%) in major damage and 9.9% (9.0%, 10.9%) result in the complete loss of a ship.

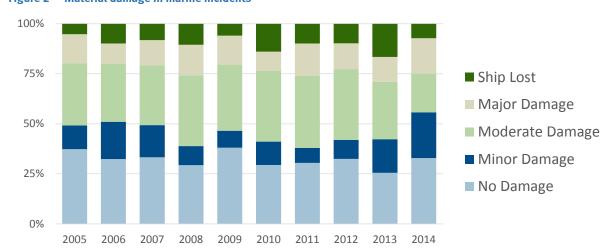


Figure 2 — Material damage in marine incidents

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Over the decade the average number of incidents occurring in smooth waters each year was 252 (s.d. 48), 61 (s.d. 9) in partially smooth waters and 80 (s.d. 16) in offshore waters. In figure 3 it can be seen that 64.2% (62.7%, 65.7%) of incidents occur in smooth waters, 15.5% (14.4%, 16.6%) occur in partially smooth waters and 20.3% (19.1%, 21.6%) occur in offshore waters.

100%
75%
50%
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Figure 3 — Location of marine incidents

Finally, in each year, half of all reported incidents have been collisions between ships, collisions with objects or groundings. Over the decade there has been an average 105 reports of collisions between ships (s.d. 14), 39 reports of collisions with objects (s.d. 6) and 58 reported groundings (s.d. 28.1) per year. In figure 4 it can be seen that, on average, 27% (25.6%, 28.4%) of incidents were collisions between ships, 9.8% (9.0%, 10.9%) were collisions with objects and 14.7% (13.7%, 15.9%) were groundings.

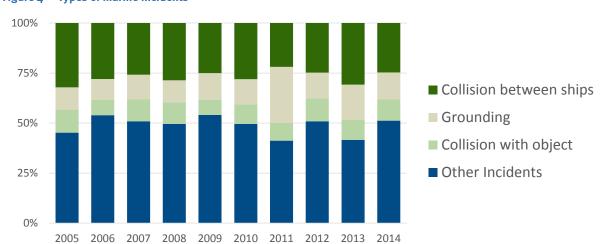


Figure 4 — Types of marine incidents

### Summary

Because of recent changes in regulatory arrangements this brief review of reported marine incidents has been prepared to set a base line against which the incidents reported in 2014 and those reported in the future years can be compared.

The average proportion of incidents falling into particular categories based on the incident type, the level of material damage sustained, the severity of personal injuries suffered or the location at which incidents occurred, have all been relatively stable over the past decade.

Similarly, the actual number of fatalities, hospitalisations and other injuries reported have all shown little year-to-year variation although the variation in the number of fatalities and other injuries reported is somewhat larger than the variation in the number of hospitalisations reported.

# **Incidents Reported in 2014**

Maritime Safety Queensland received reports of 621 marine incidents in 2014. Three-hundred and thirty-two of these incidents involved at least one *Queensland regulated ship—*a recreational vessel or another vessel expressly excluded from the operation of the Commonwealth Act—and so are the subject of this report. The data related to these incidents is available in the summary data tables (\$13 to \$28) at the end of this report.

#### **Incidents**

The 332 marine incidents reported during 2014 disproportionately occurred in October, November, December, January and April (53%), most commonly on a Saturday or Sunday (46%) and during daylight hours between 6 am and 6 pm (76%).

At the time of these incidents the vessels were most commonly operating in smooth waters (57%), in clear weather (71%) and with good visibility (72%) in winds below 16 knots (77%).

The most commonly reported type of incident was a "collision between ships" which accounts for 82 (25%) of the 332 incidents reported. These were followed by "groundings" (14%) and "collisions with objects" (11%) which together with "collisions between ships" account for half of all reported incidents.

Marine incident investigators categorise factors deemed to have contributed to an incident as human, material or environmental.

Between 1 and 7 different human factors were recorded in respect of 217 (65%) of the 332 incidents reported. The most common was "navigation error" (25%), followed by "inattention" (16%), "inexperience" (13%) and "operational error" (10%). It is noteworthy that "excessive speed" was only considered a contributing factor in 15 incidents while "alcohol or drugs" was recorded once.

Material factors were reported in 75 (22%) of the 332 incidents reported. The failure of "machinery" (18%) or "equipment" (18%) were the most commonly recorded material contributing factors. Factors involving the "design, construction or maintenance" of a vessel's hull or equipment were recorded in 11 incidents while "hull failure" was recorded in a further 9 incidents.

Environmental factors were recorded in respect of 127 (38%) of the 332 incidents reported. The most commonly recorded environmental factors were "sea state" (31%), "wind" (21%) and "bar conditions" (9%). "Hazardous waters" was recorded as a contributing factor in 11 incidents while "hazardous season", normally associated with cyclones, was recorded in a further 7 incidents.

#### Vessels

The 332 reported incidents involved 458 vessels, 411 *Queensland regulated ships* and 47 *domestic commercial vessels*.

The 411 *Queensland regulated ships* were predominantly motorboats (65%) and sailboats (20%) while personal watercraft (PWC) accounted for a further 10% of the vessels involved in these incidents.

Thirty-three per cent of the motorboats were no more than 5 metres in length, 63% were no more than 7.5 metres in length and 75% were no more than 10 metres in length. In contrast only 13% of sailing vessels were no more than 7.5 metres in length, 34% no more than 10 metres and 90% no more than 15 metres in length.

Two-hundred and fifty-two of the 411 *Queensland regulated ships* involved in these incidents were damaged in some way. Twenty-four vessels were lost, 62 had major damage, 71 moderate damage and 95 minor damage.

The 47 *domestic commercial vessels* involved in these incidents were mostly passenger vessels (19), non-passenger vessels (17) or commercial fishing vessels (8). The remaining 3 vessels were hire and drive vessels; one houseboat, one motorboat and one PWC. While none were lost, 18 were damaged including 4 with major damage and 5 moderately damaged.

Incidents resulting in moderate or minor damage were mostly the result of "collisions between ships" while major damage was as likely to be the consequence of "capsizing" or "fire or explosion" as "collision between ships". Incidents in which a vessel was lost were mostly the result of "flooding" or "grounding".

## People

The 332 reported incidents resulted in 108 people injured, including 29 hospital admissions and 5 deaths.

Of the 74 minor injuries, 7 were crew members, 30 were passengers, 2 were swimmers and 6 were water skiers. The most common causes of these injuries included "collisions between ships" (18), "on-board" incidents (10), and "water skiing" (10). In 60 of the 74 cases the vessel involved was a motorboat, in another 8 cases a PWC and in 3 cases a sailboat.

Among the 29 admitted to hospital, 5 were crew members, 9 were passengers and 5 were water skiers. The most common causes of these injuries included "on-board" incidents (8), "water skiing" (5) and "collisions with objects" (5). In 23 of the 29 cases the vessel involved was a motorboat, in another 3 cases a PWC while the remaining 3 involved sailboats.

The 5 people who died were all in charge of a *Queensland regulated ship* at the time the incident occurred. Two of these cases involved motorboats, 2 involved PWC and the fifth involved a paddled boat. In each case the vessel was appropriately registered and the master appropriately licensed. Two deaths were the result of "capsizing", 2 were the result of "person overboard" incidents and the fifth was the result of a "collision with an object". Four of the masters drowned, one while wearing a life jacket. The fifth master, who was also wearing a life jacket, died from injuries.

# Trends in Reported Incidents

Table 1

Indicator	Indicator 2014	Average 2005-2014	Statistical relationship	Statistical range
				$\wedge$
Total Incidents	332	393	Significantly Lower	300 400 500
				400 300
Total fatal incidents	5	7	Significantly Lower	0 6 12
				12
Total fatalities	5	9	Significantly Lower	0 6 12
Total hospitalisation incidents	28	23	Significantly Higher	0 15 30
				15
Total hospitalisations	29	25	Significantly Higher	0 15 30
Incident rate per 100k vessels	133	174	Significantly Lower	100 150 200
Fatality rate per 100k vessels	2	4	Significantly Lower	0 3 6
			N	
Hospitalisation rate per 100k vessels	12	11	Not significantly different	5 10 15
Source: CASEMAN, marine incident case management dat	abase, as at 03/0	03/2015 <b>K</b>	<b>Yey:</b> ▲ 2014 value 10yr average	95% confidence interv

The number of reported marine incidents decreased from 416 in 2013 to 332 in 2014 (84 fewer incidents) largely as a result of a decrease in the number of reported "collisions between ships" (46 fewer incidents) and "groundings" (28 fewer incidents).

The 332 incidents reported is significantly lower than the long-term (2005-2014) average number of reported incidents (393) (table 1).

Both the number of fatal incidents (5) and the number of fatalities (5) were 2 less than in 2013 and both are significantly lower than the long-term averages 7 and 9 respectively.

In contrast the number of reported incidents resulting in hospital admissions (28) was 3 more than reported in the previous year and the number admitted to hospital (29) was 2 more than reported in the previous year. Both of these reported figures are significantly higher than the long-term averages 23 and 25 respectively.

The reported incident rate (figure 5) fell from 170 to 133 reported incidents per 100,000 recreational registrations and is significantly lower than the long-term average of 174 reported incidents.

Figure 5 — Reported incidents per 100,000 recreational registrations

The fatality rate (figure 6) also fell from 2.9 to 2 fatalities per 100,000 recreational registrations and is significantly lower than the long-term average of 4 fatalities per 100,000 recreational registrations. It is of interest to note that the fatality rate — the number of fatalities divided by the number of recreational registrations — has been falling since 2009 by 16% per year. This is the result of fatalities falling by an average of 14.6% per year while registrations have been rising at an average rate of 1.8% per year.

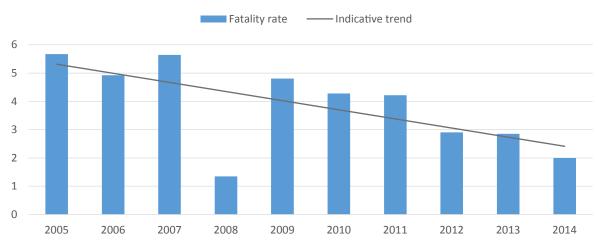


Figure 6 — Fatalities per 100,000 recreational registrations

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Finally the reported hospitalisation rate per 100,000 recreational registrations increased from 11 to 12 hospitalisations per 100,000 recreational registrations and was not significantly different from the long-term average rate of 11 reported incidents per 100,000 recreational registrations.

## **Summary**

In June 2014 there were 250,231 recreational vessels registered in Queensland; 1 vessel for every 19 people or 1 vessel for every 3 recreational vessel licensees.

During 2014, Maritime Safety Queensland received 332 marine incident reports involving 458 vessels—411 *Queensland regulated ships* and 47 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (82), collisions with an object (35), capsizing (32) and groundings (45).

In total 270 vessels were reported damaged including 24 vessels lost, 66 with major damage and 76 with moderate damage.

One-hundred and eight people were injured including 29 who were admitted to hospital and 5 who died. Sixty per cent of those injured (64) were not in charge of the vessel at the time.

The marine incidents reported to Maritime Safety Queensland in 2014 were, in respect of their number and type, similar to previous years.

Nevertheless when considered together with the analysis of the trends in incident rates it is reasonable to expect that Queensland's maritime safety performance will continue to improve.

# In the Regions

Maritime Safety Queensland has five maritime regions: Brisbane, Gladstone, Mackay, Townsville and Cairns.

Information on the demographics, geography and the principle maritime installations within each of these regions can be found in the report "Queensland's Maritime Regions".

Table 2

Maritime region	Marine incidents	Registered vessels	Incident rate	Hospitalisation incidents	Fatal incidents	Fatalities
Brisbane	181	137,937	13	21	2	2
Gladstone	60	47,186	13	3	2	2
Mackay	28	19,508	14	1	1	1
Townsville	33	23,451	14	1		
Cairns	30	21,388	14	2		
Total	332	250,231	13	28	5	5

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Incident rate is incidents per 10,000 recreational vessel registrations

Across the state there were 13 marine incidents reported for every 10,000 registered recreational vessel in Queensland. The Brisbane and Gladstone regions recorded incident rates equal to the state average while the Townsville, Mackay and Cairns regions recorded incident rates above the state average (see table 2). The data related to each of the maritime regions is available in the summary data tables (s29 to s32) at the end of this report.

#### Brisbane

In June 2014 there were 137,937 recreational vessels registered in the Brisbane maritime region; 1 vessel for every 25 people or 1 vessel for every 4 recreational vessel licensees.

The administration of the Brisbane maritime region is organised around three management areas: Pinkenba, Sunshine Coast and Gold Coast.

The Pinkenba management area received 78 marine incident reports involving 109 vessels—98 recreational vessels, 2 *Queensland commercial vessels*<sup>4</sup> and 9 *domestic commercial vessels*.

There were 30 people injured in these 78 incidents including 2 who died and 8 admitted to hospital.

The Gold Coast management area received 64 marine incident reports involving 92 vessels—79 recreational vessels, 5 *Queensland commercial vessels* and 8 *domestic commercial vessels*.

Thirty-two people were injured in these 64 incidents including 9 admitted to hospital.

The Sunshine Coast management area received 39 marine incidents reports involving 59 vessels–43 recreational vessels, 9 *Queensland commercial vessels* and 7 *domestic commercial vessels*.

Twelve people were injured in these 39 incidents including 5 admitted to hospital.

In 2014, the Brisbane maritime region received reports of 181 marine incidents involving 260 vessels—220 recreational vessels, 16 *Queensland commercial vessels* and 24 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (51), collisions with objects (22) and capsizing (18).

One-hundred and thirty-nine vessels reported damage including 4 vessels lost, 39 with major damage and another 39 vessels with moderate damage.

A total of 74 people were injured including 2 who died and 22 admitted to hospital.

#### Gladstone

In June 2014 there were 47,186 recreational vessels registered in the Gladstone region; 1 vessel for every 11 people or 1 vessel for every 3 recreational vessel licensees.

During 2014, this region received 60 marine incidents reports involving 77 vessels—67 recreational vessels, 2 *Queensland commercial vessels* and 8 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (8), swamping (8) and groundings (11).

Fifty-one vessels were damaged including 9 lost, 16 with major damage and 12 vessels with moderate damage.

Fifteen people were injured, including 2 who died and 3 admitted to hospital.

## Mackay

In June 2014 there were 19,508 recreational vessels registered in the Mackay region; 1 vessel for every 9 people or 1 vessel for every 3 recreational vessel licensees.

<sup>&</sup>lt;sup>4</sup> Queensland commecial vessel – Non-recreational, Queensland regulated ship

During 2014, this region received 28 marine incidents reports involving 34 vessels—29 recreational vessels, 2 *Queensland commercial vessels* and 3 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (4), collisions with objects (3) and groundings (6).

Twenty-seven vessels were damaged including 6 lost, 6 with major damage and 6 with moderate damage.

Seven people were injured, including 1 who died and 1 admitted to hospital.

#### Townsville

In June 2014 there were 23,451 recreational vessels registered in the Townsville region; 1 vessel for every 11 people or 1 vessel for every 2 recreational vessel licensees.

During 2014, this region received 33 marine incidents reports involving 44 vessels—39 recreational vessels and 5 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (7), collisions with objects (4) and groundings (6).

Twenty-five vessels were damaged-5 lost, 7 with moderate damage and 13 with minor damage.

Five people were injured, including 1 admitted to hospital.

#### Cairns

In June 2014 there were 21,388 recreational vessels registered in the Cairns region; 1 vessel for every 13 people or 1 vessel for every 3 recreational vessel licensees.

During 2014, this region received 30 marine incident reports involving 43 vessels—36 recreational vessels and 7 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (12), capsizing (3) and groundings (5).

Twenty-eight vessels were damaged including 5 with major damage, 12 with moderate damage and 11 with minor damage.

Seven people were injured including 2 admitted to hospital.

## **Summary**

Each of Queensland's maritime regions vary considerably in the size and composition of the vessel fleets, the population and the nature and extent of the waterways. As a result, any comparison of the safety performance of one region with another requires careful analysis to avoid misleading conclusions.

# **Australian Maritime Safety Authority**

On 1 July 2013 the Australian Maritime Safety Authority (AMSA) began administering a new national maritime law that has resulted in most registered commercial vessels operating within the Commonwealth of Australia being regulated under the *Marine Safety (Domestic Commercial Vessels) National Law Act 2012 (Cth)*.

Maritime Safety Queensland is the delegate of AMSA in Queensland and now enforces and administers the national law and its subordinate regulations, including those concerning the reporting of marine incidents.

Consequently marine incidents that involve *domestic commercial vessels* (DCV) are reported to Maritime Safety Queensland as the delegate of AMSA under the *Marine Safety (Domestic Commercial Vessels) National Law Act 2012 (Cth)*.

If these incidents do not also involve a vessel which is regulated under the *Transport Operations* (Marine Safety) Act 1994—a Queensland regulated ship—then these incidents are not reportable marine incidents under the *Transport Operations* (Marine Safety) Act 1994 and consequently have not been included in this report.

For continuity and comparison with previous marine incident reports the details of those reported marine incidents which did not involve a vessel regulated by the *Transport Operations (Marine Safety) Act 1994* are briefly described below.

During 2014 there were an additional 289 incidents reported involving 336 commercial vessels—45 commercial fishing vessels, 29 hire and drive vessels, 117 non-passenger vessels and 145 passenger vessels.

One-hundred and twenty-four of these 336 vessels were reported damaged including 11 lost, 13 with major damage and 51 with moderate damage.

The most commonly reported incidents were collisions between ships (20), collisions with objects (63) and groundings (46).

These incidents resulted in 68 people injured, including 1 who died and 15 admitted to hospital.

More on these incidents can be found in the accompanying summary data tables (s33 to s36).

# **Summary Tables**

 ${\bf Table\ so1-Number\ of\ incidents\ by\ jurisdiction}$ 

Jurisdiction	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
QRS	247	276	340	357	366	364	416	330	343	288
QRS/DCV	58	67	63	62	70	67	50	49	73	44
Total	305	343	403	419	436	431	466	379	416	332

Source: CASEMAN, marine incident case management database, as at 03/03/2015

QRS: Queensland regulated ships

DCV: Domestic commercial vessels

## Table so2 — Number of incidents by incident type

Incident Type	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Collision between ships	98	96	104	120	109	121	102	94	128	82
Grounding	34	36	50	46	58	54	131	49	73	45
Collision with object	35	26	44	45	33	42	41	43	42	35
Swamping	31	33	35	33	58	42	25	34	21	19
Capsizing	22	28	21	17	23	29	52	51	35	32
Flooding	3	28	21	27	27	29	23	13	19	17
Person overboard	16	15	11	14	20	23	17	18	12	14
Fire or Explosion	7	12	19	18	15	13	13	13	20	12
Onboard incident	10	9	15	9	18	18	10	19	10	17
Water ski incident	5	2	10	6	9	8	7	8	9	13
Collision with a person	2	3	4	6	9	4	2	4	1	5
Loss of ship			1	1	1	4	4	3	6	4
Other incidents	42	55	68	77	56	44	39	30	40	37
Total	305	343	403	419	436	431	466	379	416	332

Source: CASEMAN, marine incident case management database, as at 03/03/2015

## Table so3 — Number of incidents by injury type

Severity	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fatal	9	7	7	3	8	10	8	7	7	5
Hospital admission	22	18	24	17	19	21	20	23	25	28
Other injury	37	38	56	60	69	56	52	71	45	57
No reported injury	237	280	316	339	340	344	386	278	339	242
Total	305	343	403	419	436	431	466	379	416	332

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table so4 — Number of incidents by material damage

Material Damage	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Ship Lost	16	34	33	44	26	60	46	37	69	24
Major Damage	44	35	51	64	63	42	75	49	52	59
Moderate Damage	95	99	120	148	144	152	168	134	119	64
Minor Damage	36	64	65	40	37	50	35	36	70	76
No Damage	114	111	134	123	166	127	142	123	106	109
Total	305	343	403	419	436	431	466	379	416	332

Table so5 — Number of incidents by location

Location	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Offshore	51	77	76	86	100	87	76	107	69	70
Partially smooth waters	54	69	65	55	61	56	52	50	74	72
Smooth waters	200	197	262	278	275	288	338	222	273	190
Total	305	343	403	419	436	431	466	379	416	332

Table so6 — Number of incidents by day of week

Day of week	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Monday	31	39	44	59	46	52	54	43	51	34
Tuesday	28	39	42	56	30	36	54	40	37	27
Wednesday	42	36	44	41	46	45	121	39	42	41
Thursday	29	47	38	36	45	58	35	33	47	27
Friday	34	45	50	42	52	52	40	43	38	51
Saturday	71	60	85	87	101	85	80	89	79	83
Sunday	70	77	100	98	116	103	82	92	122	69
Total	305	343	403	419	436	431	466	379	416	332

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table so7 — Number of incidents by month of year

Month of year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
January	21	53	36	37	43	49	64	38	116	43
Febuary	25	25	27	55	26	40	112	28	21	20
March	28	20	31	34	49	40	33	34	29	18
April	15	28	38	25	45	42	31	59	42	38
May	25	21	23	38	35	37	24	29	25	22
June	21	23	33	25	35	29	25	33	32	19
July	24	29	30	23	35	27	37	15	21	20
August	24	35	33	40	28	35	25	21	25	28
September	30	22	43	42	37	30	33	32	26	28
October	24	29	43	26	34	26	30	25	26	31
November	25	24	32	30	35	31	26	29	27	31
December	43	34	34	44	34	45	26	36	26	34
Total	305	343	403	419	436	431	466	379	416	332

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table so8 — Number of incidents by time of day

Time	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
6 am to 9 am	27	45	40	38	42	45	45	37	49	38
9 am to 12 pm	55	77	79	85	110	102	82	86	79	71
12 pm to 3 pm	75	63	87	94	102	78	91	87	88	68
3 pm to 6 pm	56	65	77	77	74	73	84	65	79	58
6 pm to 9 pm	32	30	40	39	35	42	26	33	36	25
9 pm to 12 am	16	19	20	25	24	26	16	21	19	15
12 am to 3 am	8	5	13	36	20	27	94	21	13	12
3 am to 6 am	10	12	21	18	20	36	14	17	32	23
Not Reported	26	27	26	7	9	2	14	12	21	22
Total	305	343	403	419	436	431	466	379	416	332

Table so9 — Number of incidents by maritime region

Region	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Brisbane	182	181	213	209	243	231	197	227	212	181
Pinkenba	84	80	80	86	96	85	81	78	106	78
Gold Coast	63	51	83	80	93	88	61	76	71	64
Sunshine Coast	35	50	50	43	54	58	55	73	35	39
Gladstone	53	70	68	87	69	81	57	75	107	60
Mackay	25	34	42	53	37	46	40	24	51	28
Townsville	18	20	33	33	45	40	126	23	11	33
Cairns	27	38	47	37	42	33	46	30	35	30
Total	305	343	403	419	436	431	466	379	416	332

Table s10 — Number of registered recreational vessels

Vessels	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Brisbane	110,052	114,857	119,292	124,484	127,880	129,839	131,223	132,764	134,524	137,937
Pinkenba	68,855	71,553	73,924	76,802	79,111	71,382	72,267	73,646	74,631	76,091
Gold Coast	26,077	27,516	28,660	30,181	30,802	40,095	40,606	40,680	41,203	42,632
Sunshine Coast	15,120	15,788	16,708	17,501	17,967	18,362	18,350	18,438	18,690	19,214
Gladstone	33,783	35,742	38,178	40,078	41,490	43,127	44,006	45,132	46,284	47,186
Mackay	14,458	15,408	16,347	17,065	17,593	17,743	18,168	18,873	19,316	19,508
Townsville	17,926	18,699	19,640	20,581	21,585	22,111	22,641	23,086	23,473	23,451
Cairns	17,186	17,647	18,444	19,450	19,602	19,994	20,286	20,608	21,046	21,388
Ex QLD	559	605	644	723	719	740	742	753	747	761
Total	193,964	202,958	212,545	222,381	228,869	233,554	237,066	241,216	245,390	250,231

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table s11 — Number of registered recreational personal watercraft (PWC)

			-							
PWC	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Brisbane	6770	7317	7903	8922	10,611	11,695	12,450	13,357	14,370	15,784
Pinkenba	3500	3772	3960	4388	5114	5324	5707	6317	6839	7450
Gold Coast	2639	2896	3139	3640	4541	5241	5559	5757	6120	6770
Sunshine Coast	631	649	804	894	956	1130	1184	1283	1411	1564
Gladstone	601	730	822	958	1192	1373	1456	1651	1860	1968
Mackay	304	355	415	483	565	613	682	743	802	823
Townsville	377	421	484	572	695	783	826	865	889	889
Cairns	254	282	325	431	514	567	628	716	785	851
Ex QLD	17	25	28	42	55	64	67	66	68	77
Total	8323	9130	9977	11,408	13,632	15,095	16,109	17,398	18,774	20,392

Table s12 — Estimated residential population by maritime region (millions of people)

Population	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Brisbane	2.85	2.91	2.99	3.07	3.16	3.22	3.27	3.34	3.41	3.45
Pinkenba	1.82	1.85	1.90	1.95	2.01	2.04	2.08	2.12	2.16	2.19
Gold Coast	0.76	0.78	0.80	0.82	0.84	0.86	0.87	0.89	0.91	0.93
Sunshine Coast	0.28	0.28	0.29	0.30	0.31	0.31	0.32	0.32	0.33	0.34
Gladstone	0.45	0.46	0.47	0.48	0.50	0.50	0.51	0.52	0.53	0.53
Mackay	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18
Townsville	0.23	0.23	0.23	0.24	0.25	0.25	0.25	0.26	0.26	0.27
Cairns	0.24	0.24	0.25	0.26	0.26	0.27	0.27	0.27	0.28	0.28
Total	3.92	4.01	4.11	4.22	4.33	4.40	4.48	4.57	4.66	4.72

Table s13 — Number of incidents by month

Month of year	Incidents	Fatalities	Hospital admissions	Other injuries
January	43	1	6	7
Febuary	20	2	1	6
March	18		2	2
April	38		4	14
May	22	1	1	3
June	19		2	3
July	20			3
August	28		3	10
September	28		2	4
October	31		2	5
November	31	1	5	4
December	34		1	13
Total	332	5	29	74

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table s14 — Number of incidents by day

Day of week	Incidents	Fatalities	Hospital admissions	Other injuries
Monday	34		2	7
Tuesday	27		2	5
Wednesday	41	1	2	4
Thursday	27			1
Friday	51	1	4	11
Saturday	83	2	14	20
Sunday	69	1	5	26
Total	332	5	29	74

Table s15 — Number of incidents by time

Time of day	Incidents	Fatalities	Hospital admissions	Other injuries
6 am to 9 am	38		1	6
9 am to 12 pm	71		6	22
12 pm to 3 pm	68	2	8	16
3 pm to 6 pm	58	2	4	18
6 pm to 9 pm	25	1	1	4
9 pm to 12 am	15		2	2
12 am to 3 am	12		1	1
3 am to 6 am	23		2	2
Not Reported	22		4	3
Total	332	5	29	74

Table s16 - Number of incidents by weather conditions

Weather	Incidents	Fatalities	Hospital admissions	Other injuries
Clear	236	4	21	48
Cloudy	44		3	8
Flood	2			1
Hazy	6	1	1	2
Other	3			0
Rain	21		1	13
Not Reported	20		3	2
Total	332	5	29	74

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table s17 — Number of incidents by visibility

Visability	Incidents	Fatalities	Hospital admissions	Other injuries
Good	240	4	17	47
Fair	36		5	10
Poor	30		3	15
Not Reported	26	1	4	2
Total	332	5	29	74

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table s18 — Number of incidents by location

Location	Incidents	Fatalities	Hospital admissions	Other injuries
Smooth waters	190	4	14	46
Partially smooth waters	72	1	6	13
Offshore	70		9	15
Total	332	5	29	74

Table s19 — Number of incidents by prevailing winds

Winds	Incidents	Fatalities	Hospital admissions	Other injuries
Gale (force 8 and above / more than 33 knots)	17			3
Strong (force 5-7 / 17-33 knots)	58		4	8
Moderate (force 3-4 / 8-16 knots)	101	4	9	22
Light (up to force 2 / 1-7 knots)	113	1	12	36
None	25		1	2
Not Reported	18		3	3
Total	332	5	29	74

Table s20 — Number of incidents by incident type

Incident Type	Incidents	Fatalities	Hospital admissions	Other injuries
Collision between ships	82		3	18
Grounding	45			6
Other incident	37		3	8
Collision with object	35	1	5	5
Capsizing	32	2	1	4
Swamping	19			1
Flooding	17			0
Onboard incident	17		8	10
Person overboard	14	2	3	7
Water ski incident	13		5	10
Fire or Explosion	12			2
Collision with a person	5		1	3
Loss of ship	4			0
Total	332	5	29	74

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table s21 - Number of vessel by vessel type & material damage

Vessel Type	Ship Lost	Major Damage	Moderate Damage	Minor Damage	No Reported Damage	Total
Domestic commercial vessels						
Commercial fishing				3	5	8
Hire & Drive (House)					1	1
Hire & Drive (Motor)					1	1
Hire & Drive (PWC)			1		0	1
Non-passenger		3	1	3	10	17
Passenger		1	3	3	12	19
Total		4	5	9	29	47
Queensland regulated ships						
Houseboat		1	1		3	5
Motorboat	17	43	42	60	105	267
Paddle boat		5	2	1	8	16
PWC		9	9	6	16	40
Sailboat	7	4	17	28	27	83
Total	24	62	71	95	159	411
Grand Total	24	66	76	104	188	458

Table s22 — Number of vessel by incident type & material damage

Incident type	Ship Lost	Major Damage	Moderate Damage	Minor Damage	No Reported Damage	Total
Domestic commercial vessels						
Collision between ships			4	7	13	24
Person overboard		1				1
Collision with object					2	2
Fire or Explosion		3		1		4
Other incident				1	12	13
Grounding					2	2
On-board incident			1			1
Total		4	5	9	29	47
Queensland regulated ships						
Capsizing	3	10	6	8	6	33
Collision between ships		11	33	56	46	146
Flooding	5	3	3	4	2	17
Loss of ship	4					4
Person overboard		1		1	13	15
Swamping	2	6	3	4	5	20
Water ski incident					16	16
Collision with object	2	9	11	9	4	35
Fire or Explosion	1	10	1	2	1	15
Other incident	1	4	5	4	29	43
Grounding	6	7	7	6	19	45
On-board incident		1	2	1	13	17
Collision with a person					5	5
Total	24	62	71	95	159	411
Grand Total	24	66	76	104	188	458

Table s23 — Number of vessel by vessel type & length

Vessel Type	L∢5 m	5 m =< L < 7.5 m	7.5 m =< L < 10 m	10 m =< L < 15 m	15 m =< L	Unreported	Total	
Domestic commercial vessels								
Commercial fishing		3	2	1	2		8	
Hire & Drive (House)				1			1	
Hire & Drive (Motor)		1					1	
Hire & Drive (PWC)	1						1	
Non-passenger		3	3	4	5	2	17	
Passenger		1	3	3	12		19	
Total	1	8	8	9	19	2	47	
Queensland regulated ships								
Houseboat			1	2	2		5	
Motorboat	80	72	27	42	19	27	267	
Paddle boat		1	4			11	16	
PWC	36					4	40	
Sailboat	3	7	17	44	8	4	83	
Total	119	80	49	88	29	46	411	
Grand Total	120	88	57	97	48	48	458	

Table s24 — Number of domestic commercial vessels by vessel type & incident type

Incident type	Commercial fishing	Non- passenger	Passenger	Hire & Drive (House)	Hire & Drive (Motor)	Hire & Drive (PWC)	Total
Domestic commercial vessels							
Collision between ships	7	6	8	1	1	1	24
Person overboard		1					1
Collision with object			2				2
Fire or Explosion		2	2				4
Other incident	1	6	6				13
Grounding		1	1				2
On-board incident		1					1
Total	8	17	19	1	1	1	47

Table s25 — Number of Queensland regulated ships by vessel type & incident type

Incident type	Motorboat	PWC	Sailboat	Paddle boat	Houseboat	Total
Queensland regulated ships						
Capsizing	23	3	5	2		33
Collision between ships	75	16	41	10	4	146
Flooding	15	1	1			17
Loss of ship	3		1			4
Person overboard	8	6	1			15
Swamping	18		2			20
Water ski incident	15	1				16
Collision with object	25	3	4	3		35
Fire or Explosion	13	1			1	15
Other incident	30	5	8			43
Grounding	24	3	17	1		45
On-board incident	14		3			17
Collision with a person	4	1				5
Total	267	40	83	16	5	411

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table s26 — Number of people by incident type & personal injury

Incident type	Fatalities	Hospital admissions	Other Injuries	Total
Capsizing	2	1	4	7
Collision between ships		3	18	21
Collision with a person		1	3	4
Collision with object	1	5	5	11
Fire or Explosion			2	2
Grounding			6	6
Onboard incident		8	10	18
Other incident		3	8	11
Person overboard	2	3	7	12
Swamping			1	1
Water ski incident		5	10	15
Total	5	29	74	108

Table s27 — Number of people by role & personal injury

Role	Fatalities	Hospital admissions	Other Injuries	Total
Master	5	10	29	44
Crew		5	7	12
Passenger		9	30	39
Swimmer			2	2
Water skier		5	6	11
Total	5	29	74	108

Table s28 — Number of people by vessel type & personal injury

Vessel Type	Fatalities	Hospital admissions	Other Injuries	Total
Motorboat	2	23	60	85
PWC	2	3	8	13
Sailboat		3	3	6
Paddle boat	1		2	3
Houseboat			1	1
Total	5	29	74	108

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table s29 — Number of people by maritime region & personal injury

Personal Injury	Pinkenba	Gold Coast	Sunshine Coast	Gladstone	Mackay	Townsville	Cairns	Total
Fatality	2			2	1			5
Serious injury	8	9	5	3	1	1	2	29
Minor injury	20	23	7	10	5	4	5	74
Total	30	32	12	15	7	5	7	108

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table s30 — Number of vessels by maritime region & vessel jurisdiction

Jurisdiction	Pinkenba	Gold Coast	Sunshine Coast	Gladstone	Mackay	Townsville	Cairns	Total
DCV	9	8	7	8	3	5	7	47
QCom	2	5	9	2	2			20
QRec	98	79	43	67	29	39	36	391
Total	109	92	59	77	34	44	43	458

Source: CASEMAN, marine incident case management database, as at 03/03/2015

QCom: Non-recreational, Queensland regulated ships

QRec: Recreational, Queensland regulated ships

Table s31 — Number of vessels by maritime region & material damage

Ship Damage	Pinkenba	Gold Coast	Sunshine Coast	Gladstone	Mackay	Townsville	Cairns	Total
Ship Lost	2	1	1	9	6	5		24
Major Damage	15	21	3	16	6		5	66
Moderate Damage	20	14	5	12	6	7	12	76
Minor Damage	23	19	15	14	9	13	11	104
No Damage	49	37	35	26	7	19	15	188
Total	109	92	59	77	34	44	43	458

Table s32 — Number of incidents by maritime region & incident type

Incident type	Pinkenba	Gold Coast	Sunshine Coast	Gladstone	Mackay	Townsville	Cairns	Total
Collision between ships	21	18	12	8	4	7	12	82
Collision with object	15	5	2	5	3	4	1	35
Grounding	9	6	2	11	6	6	5	45
Capsizing	6	5	7	6	3	2	3	32
Swamping	2	2	1	8		4	2	19
Other incidents	25	28	15	22	12	10	7	119
Total	78	64	39	60	28	33	30	332

Table s33 — Number of incidents by incident type & personal injury (DCV only incidents)

Incident Types	Incidents	Fatalities	Hospital admissions	Other injuries
Collision with object	63			1
Grounding	46			11
Onboard incident	30		12	21
Collision between ships	20		1	3
Person overboard	14	1		4
Capsizing	11			3
Fire or Explosion	11			1
Flooding	5			
Swamping	3			
Loss of ship	1			
Collision with a person	1			
Other incident	84		2	8
Total	289	1	15	52

Source: CASEMAN, marine incident case management database, as at 03/03/2015

Table s<sub>34</sub> — Number of incidents by vessel type & personal injury (DCV only incidents)

Vessel Type	Incidents	Fatalities	Hospital admissions	Other injuries
COM Fishing	40	1	2	
COM Hire & Drive (House)	3			
COM Hire & Drive (Motor)	4			
COM Hire & Drive (Other)	1			
COM Hire & Drive (PWC)	5		2	4
COM Hire & Drive (Sail)	14			2
COM Non-pax (Houseboat)	1			
COM Non-pax (Non-specific)	81		3	12
COM Non-pax (Paddle/row)	1			
COM Non-pax (PWC)	3		1	2
COM Pax	136		7	32
Total	289	1	15	52

Table s<sub>35</sub> — Number of vessels by vessel type & material damage (DCV only incidents)

Vessel Type	Ship Lost	Major Damage	Moderate Damage	Minor Damage	No Damage	Total
COM Fishing	9	2	6	9	19	45
COM Hire & Drive (House)		1	1		1	3
COM Hire & Drive (Motor)			1	1	2	4
COM Hire & Drive (Other)					1	1
COM Hire & Drive (PWC)		2	2	1	3	8
COM Hire & Drive (Sail)			4	2	7	13
COM Non-pax (Houseboat)		1				1
COM Non-pax (Non-specific)	1	3	20	14	75	113
COM Non-pax (Paddle/row)					1	1
COM Non-pax (PWC)					3	3
COM Pax	1	4	15	24	100	144
Total	11	13	49	51	212	336

Table s<sub>3</sub>6 — Number of people by role & personal injury (DCV only incidents)

Role	Fatalities	Hospital admissions	Other Injuries	Total
Master	1	4	5	10
Helm			2	2
Crew		5	9	14
Passenger		4	32	36
Para flier			2	2
Jet skier		1		1
Swimmer		1		1
Other			2	2
Total	1	15	52	68

## Disclaimer

The data sources used in the compilation of this report are subject to an ongoing process of data validation and consequently the numbers and calculations presented are subject to revision.

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