

Marine incidents in Queensland

2016

Foreword

There are 258,640 registered recreational vessels operating in Queensland or one vessel for every 19 people in the state.

Clearly ensuring the highest safety standards for our vessels and the people who operate them is paramount.

The annual Marine Incident Report is an important way for Maritime Safety Queensland to assess the safety performance of Queensland's fleet.

Last year Maritime Safety Queensland received reports of 409 marine incidents which involved 496 recreational vessels.

Tragically this included 13 deaths - six more than in 2015.

It is disturbing that nine of these people were masters of boats, the people responsible for the safety of their vessels, their passengers and others.

Even more concerning is that only one of the people who drowned, or is thought to have drowned, is known to have been wearing a lifejacket.

Clearly continuing education, regulation, and enforcement have an important part to play in safe boating.

We continue to enjoy the support of our compliance and education partners, Queensland Water Police, the Queensland Boating and Fisheries Patrol, Volunteer Coast Guard and Marine Rescue Queensland as well as industry stakeholders.

There is only so much our regulations can achieve and the best way to reduce or avoid deaths and injuries is to engender innate values in the boating community which place an uncompromising emphasis on safety.

While last year's rise in deaths and injuries compared to the previous year is deeply disappointing, the longer term picture of the state's safety performance continues to head in the right direction.

However, any death on our waters is a tragedy for family, friends and co-workers and we remain committed to creating safer vessels, safer waterways and a safer boating community.

Neil Scales OBE

Director-General

Department of Transport and Main Roads

Key Points

- This report provides an analysis of reported marine incidents which involved vessels regulated under the *Queensland Transport Operations (Marine Safety) Act 1994*.
- This Act provides for the regulation of *Queensland regulated ships* – recreational vessels or other vessels expressly excluded from the operation of the *Marine Safety (Domestic Commercial Vessels) National Law Act 2012 (Cth)* or the *Navigation Act 2012 (Cth)*.
- In June 2016 there were 256,151 registered *Queensland regulated ships*; 1 vessel for every 19 people or 1 vessel for every 3 recreational vessel licensees.
- *Queensland regulated ships* were involved in 409 reported incidents.
- These 409 incidents involved 496 *Queensland regulated ships* and 73 *domestic commercial vessels*.
- The most commonly reported incidents were collisions between ships (25%), collisions with an object (9%), capsizing (10%) and groundings (15%).
- These incidents resulted in 115 people being injured, including 40 who were admitted to hospital and 13 fatalities.
- Fifty-eight per cent of those injured were not in charge of the vessel at the time the incident occurred.
- Nine of the 13 people who died were the masters of *Queensland regulated ships*.
- Only one of the people who drowned or is presumed to have drowned is known to have been wearing a life jacket.
- Two of the vessels involved in fatal incidents were not appropriately registered and four of the masters were unlicensed.

Introduction

This report is an analysis of the marine incidents in Queensland waters during 2016. 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 DCVs became reportable under the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012 (Cth)* or the *Navigation Act 2012 (Cth)* rather than the *Transport Operations (Marine Safety) Act 1994*.

One consequence of this jurisdictional change is that marine incidents that involve only DCVs no longer meet the criteria established by the *Transport Operations (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 DCVs have been provided 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 suggest 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 reported in 2016 and serves as a base line for the evaluation of safety programs associated with maritime activities.

Incidents Reported in 2016

Maritime Safety Queensland received reports of 708 marine incidents during 2016. Four-hundred and nine of these incidents involved at least one Queensland regulated ship (QRS)—a recreational or another vessel expressly excluded from the operation of the Commonwealth Acts—and so are the subject of this report. The data related to these incidents is available in the summary tables (S01 to S40) at the end of this report.

Incidents

QRSs were the only vessels involved in 349 of the 409 QRS-related marine incidents reported during 2016. The other 61 incidents involved both QRSs and DCVs.

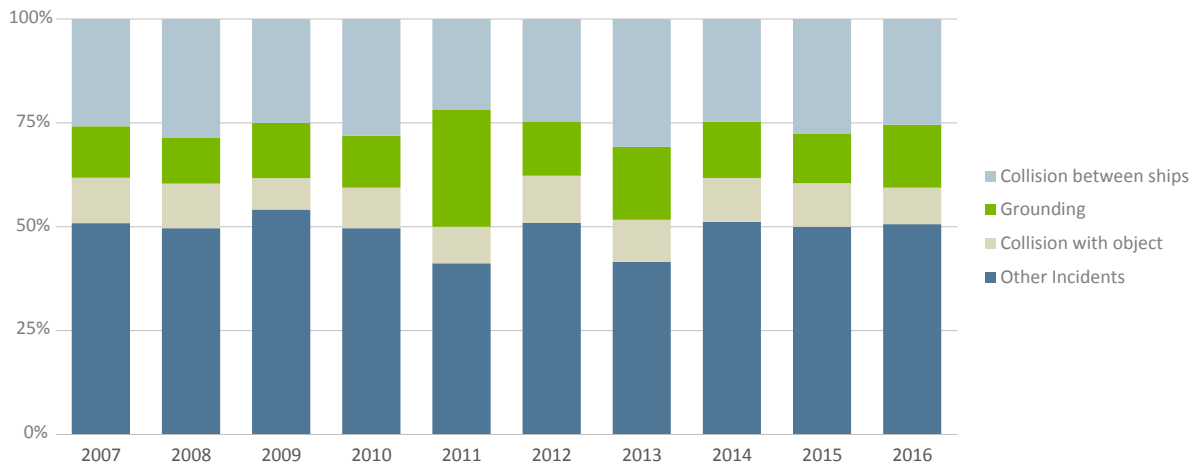
These incidents disproportionately occurred in January (13%) and November (10%), most commonly on a Saturday and Sunday (48%), and in most cases between 6 am and 6 pm (74%).

At the time of these incidents the vessels were most commonly operating in smooth waters (62%), in clear weather (70%), with good visibility (70%), and winds below 16 knots (72%). All of these ideal boating conditions were reported in respect of 136 (33%) of the 409 incidents.

As in previous years the most commonly reported incident was a collision between ships, which accounts for 104 (25%) of the 409 incidents. There were 62 groundings and 36 collisions with objects which together with the collisions between ships account for 50% of the 409 incidents.

Marine incident investigators categorise factors contributing to an incident as human, material or environmental.

Figure 1 – Incidents by type



Source: CASEMAN, marine incident case management database, as at 06/03/2017

Between 1 and 7 different human factors were recorded with respect to 260 (63%) of the 409 incidents reported. The most common were inattention (15%), inexperience (12%), navigation errors (20%), and operational error (13%). It is noteworthy that alcohol or drugs was recorded as a contributing factor in 5 incidents and 21 incidents were attributed to excessive speed.

Material factors were reported in 91 (22%) of the 409 incidents reported. The failure of machinery and equipment (36%) were the most commonly recorded materially contributing factors. Factors involving the design, construction or maintenance of a vessel's hull or equipment were recorded in 12 incidents while the failure of the hull was recorded in a further 12 incidents.

Environmental factors were recorded with respect to 153 (37%) of the 409 incidents reported. The most commonly recorded environmental factors were sea state (21%), wind (25%) and bar conditions (6%). Hazardous waters was recorded as a contributing factor in 17 incidents while hazardous season, normally associated with cyclones, was recorded in respect of one incident.

Vessels

The 409 reported incidents involved 569 vessels, of which 496 were QRSs and 73 were DCVs.

The 496 QRSs were predominantly motorboats (60%) and sailboats (23%), while personal watercraft (PWC) accounted for a further 9% of the vessels involved in these incidents.

Thirty per cent of the motorboats were less than 5 metres in length, 54% were less than 7.5 metres in length and 67% were less than 10 metres in length. In contrast, only 8% of sailing vessels were less than 7.5 metres in length, 27% less than 10 metres and 95% were less than 15 metres in length.

Two-hundred and ninety-six of the 496 QRSs involved in these incidents were damaged. Forty-four vessels were lost, 49 had major damage, 83 moderate damage and 120 minor damage.

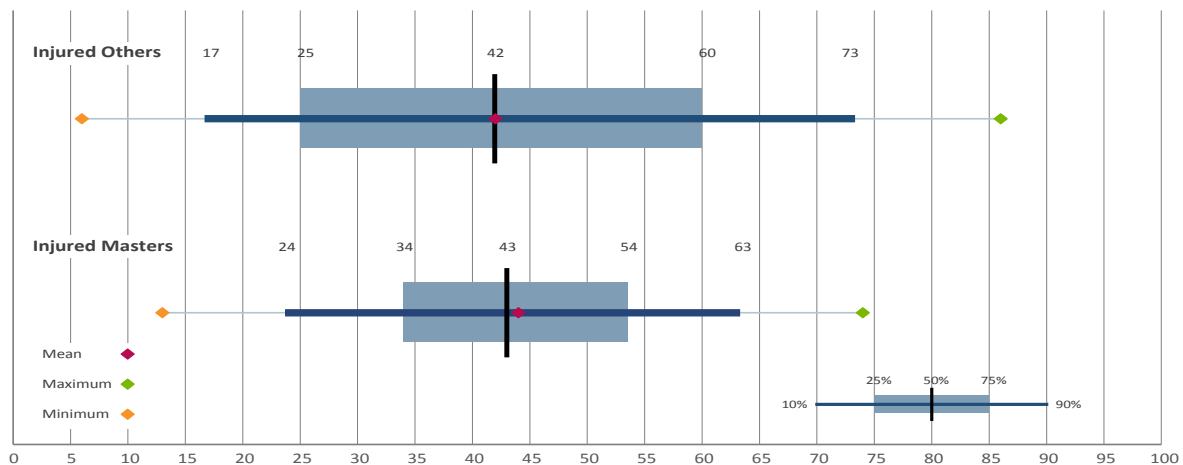
Incidents resulting in moderate or minor damage were commonly the result of collisions between ships or collisions with objects. Major damage was commonly the result of groundings or collision between ships. Incidents in which a vessel was lost were commonly the result of flooding, grounding, or a fire/explosion.

The 73 DCVs involved in these incidents included 31 passenger vessels, 24 non-passenger vessels, 5 commercial fishing vessels and 9 hire and drive vessels (one motorboat, 4 sailboats, 2 PWC, and 2 houseboats).

While none of these 73 vessels were lost, 3 reported major damage, 12 reported moderate damage, and 11 reported minor damage. Seventeen of the 26 vessels reporting material damage were involved in a collision between ships.

People

Figure 2 – Ages of people involved in marine incidents



Source: CASEMAN, marine incident case management database, as at 06/03/2017

The 409 reported incidents resulted in 115 people being reported injured, including 40 hospital admissions and 13 deaths.

The 62 people who reported minor injuries included 27 masters, 12 crew members, 15 passengers, 4 water skiers, and 4 swimmers. The majority (58%) of these injuries were the result of groundings (10), on-board incidents (19), and capsizing (7). In 41 of the 62 cases the vessel involved was a motorboat, in 15 cases it was a PWC, in 5 cases a sailboat, and in one case a paddle boat.

Among the 40 people admitted to hospital were 12 masters, 4 crew members, 21 passengers, a water skier, and 2 swimmers. The majority (60%) of these injuries were the result of on-board incidents (5), fire/explosion (5), groundings (9), and 5 collisions between ships. In 29 of the 40 cases the vessel involved was a motorboat, in another 8 cases it was a PWC. The remaining cases involved a paddle boat (1), and sailboats (2).

The 46 masters injured, 44 men and 2 women, were aged between 13 and 74 years of age. Their median age was 43 years. The other 69 people injured, 29 women and 40 men, were aged between 6 and 86 years and their median age was 42 years. (figure 2) The median age of both of these groups were well below the median age (51) of masters reporting marine incidents in which no one was injured.

The 13 fatal incidents which resulted in 13 fatalities involved 14 recreational vessels: 7 motorboats, 4 paddle boats, 2 PWC, and a houseboat.

Five of the incidents were person overboard incidents, 3 were capsize incidents, and 2 were grounding incidents. There was also a collision between ships, a collision with a person, and another uncategory incident which involved a paddle boat.

In some cases the investigations into these deaths are still before the coroner while in others there are criminal prosecutions pending.

What can be said is that 2 of the vessels were not appropriately registered and that 4 of the masters involved were unlicensed. It is also known that in 4 of the 13 incidents alcohol or drugs was likely to have been a contributing factor.

The deceased, 11 males and 2 females, were all between 9 and 86 years of age.

Seven people are known to have drowned; another remains missing and is presumed to have drowned while another person died from complications resulting from a near fatal drowning. Only one of these people is known to have been wearing a life jacket.

Two other people died as a result of traumatic injuries while another person is likely to have died as the result of a pre-existing medical condition being exacerbated by the incident.

Trends in Reported Incidents

Table 1

Indicator	Indicator 2016	Average 2007-2016	Statistical relationship	Statistical range
Total Incidents	409	402.5	Not significantly different	
Total fatal incidents	13	7.5	Significantly higher	
Total fatalities	13	8.5	Significantly higher	
Total hospitalisation incidents	22	21.8	Not significantly different	
Total hospitalisations	40	25.9	Significantly higher	
Incident rate per 100k vessels	159.7	169.1	Significantly lower	
Fatality rate per 100k vessels	5.1	3.6	Significantly higher	
Hospitalisation rate per 100k vessels	15.6	10.9	Significantly higher	

Source: CASEMAN, marine incident case management database, as at 06/03/2017 and TRAILS, registration and licence database, as at 30 June 2016

Key: ▲ 2016 value | 10yr average ▲ 95% confidence interval

The number of reported marine incidents involving a QRS increased from 334 in 2015 to 409 in 2016 (figure 3) and is not significantly different to the long-term (2007-2016) average number of reported incidents (402.5) (table 1).

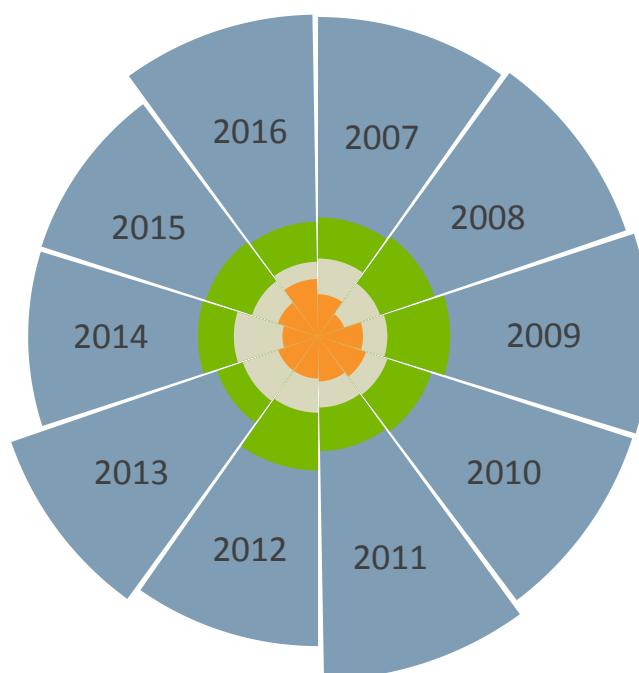
Incidents have been categorised by the severity of the most serious injury sustained in the incident.

The number of reported other injury incidents (injury incidents which did not result in a hospital admission or a fatality) decreased from 55 in 2015 to 52 in 2016 and is not significantly different to the long-term average number of incidents (57.2).

Figure 3 – Reported marine incidents 2007 to 2016¹

Reported Incidents
Other injury Incidents
Hospital admission Incidents
Fatal Incidents

Year	RI	OII	HAI	FI
2007	403	56	24	7
2008	419	60	17	3
2009	436	69	19	8
2010	431	56	21	10
2011	466	52	20	8
2012	379	71	23	7
2013	416	45	25	7
2014	332	57	28	5
2015	334	55	19	7
2016	409	52	22	13

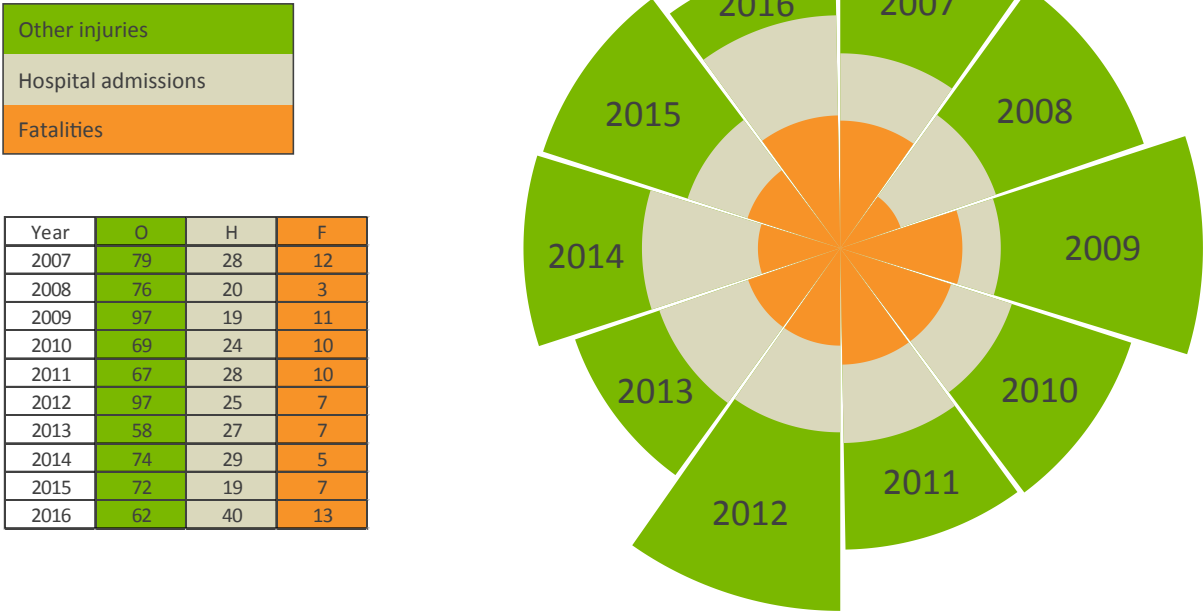


Source: CASEMAN, marine incident case management database, as at 06/03/2017

The number of reported hospital admission incidents increased from 19 in 2015 to 22 in 2016 and is not significantly different to the long-term average number of incidents (21.8).

The number of reported fatal incidents increased from 7 in 2015 to 13 in 2016 and is significantly higher than the long-term average number of reported incidents (7.5). While this is the largest number of fatal incidents reported during any of the past ten years the data does not provide any evidence ($\chi^2_{(1)} = 1.35, p = 0.25$)² of an increasing trend in the number of fatal incidents reported.

Figure 4 – Personal injuries resulting from marine incidents 2007 to 2016



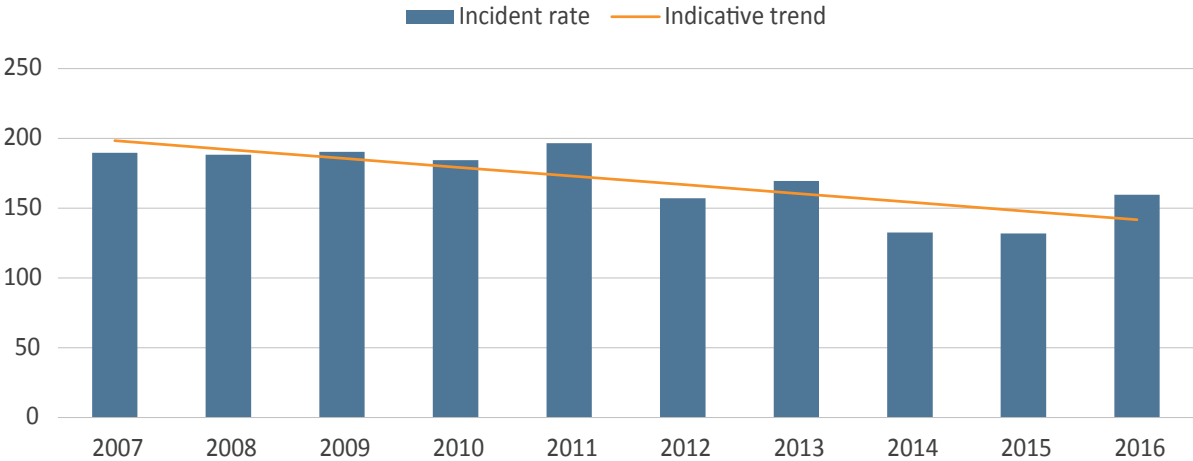
Source: CASEMAN, marine incident case management database, as at 06/03/2017

The number of people who reported injuries which did not result in admission to hospital decreased from 72 in 2015 to 62 in 2016 (figure 4) and is significantly lower than the long-term average number of these injuries reported (75.1). This is not the smallest number of these injuries reported during any of the past ten years and the data does provide strong evidence ($\chi^2_{(1)} = 4.54, p = 0.033$) of a decreasing trend in the number of these injuries reported.

The number of people who reported injuries that resulted in their admission to hospital increased from 19 in 2015 to 40 in 2016 and is significantly higher than the long-term average number of these injuries reported (25.9). While this is the largest number of these injuries reported during any of the past ten years that data does not provide strong evidence ($\chi^2_{(1)} = 3.1, p = 0.08$) of an increasing trend in the number of these injuries reported.

The number of fatalities reported increased from 7 in 2015 to 13 in 2016 and is significantly higher than the long-term average number of fatalities reported (8.5). While this is the largest number of fatalities reported during any of the past ten years the data does not provide any evidence ($\chi^2_{(1)} = 0.009, p = 0.92$) of a trend in the number of fatalities reported.

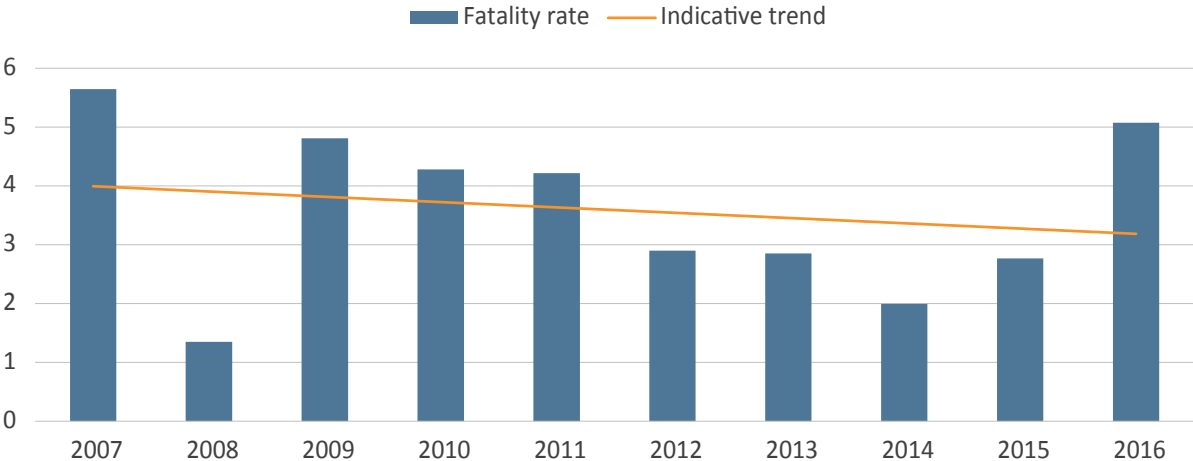
Figure 5 – Reported incidents per 100,000 registered Queensland regulated ships



Source: CASEMAN, marine incident case management database, as at 06/03/2017 and TRAILS, registration and licence database, as at 30 June 2016

The reported incident rate (figure 5) increased from 131.9 to 159.7 reported incidents per 100,000 QRS registrations and remains significantly lower than the long-term average of 169.1 reported incidents per 100,000 QRS registrations. The data does provide strong evidence ($\chi^2_0 = 46.4, p = 0.0$) of a continuing downward trend in the number of reported incidents per 100,000 QRS registrations.

Figure 6 – Fatalities per 100,000 registered Queensland regulated ships



Source: CASEMAN, marine incident case management database, as at 06/03/2017 and TRAILS, registration and licence database, as at 30 June 2016

The fatality rate (figure 6) increased from 2.8 to 5.1 fatalities per 100,000 recreational registrations and is significantly higher than the long-term average of 3.6 fatalities per 100,000 QRS registrations. The data does not provide any evidence ($\chi^2_0 = 0.37, p = 0.55$) of a trend in the number of reported fatalities per 100,000 QRS registrations.

Finally the reported hospitalisation rate per 100,000 QRS registrations increased from 7.5 to 15.6 hospitalisations per 100,000 QRS registrations and was significantly higher than the long-term average rate of 10.9 reported incidents per 100,000 QRS registrations. The data does not provide any evidence ($\chi^2_0 = 0.67, p = 0.41$) of a trend in the number of reported hospitalisations per 100,000 QRS registrations.

Summary

In June 2016 there were 256,151 recreational vessels registered in Queensland; 1 vessel for every 19 people or 1 vessel for every 3 recreational vessel licensees.

During 2016, Maritime Safety Queensland received 409 marine incident reports involving 569 vessels—496 QRSs and 73 DCVs.

The most commonly reported incidents were collisions between ships (104), collisions with an object (36), capsizing (42) and groundings (62).

In total, 322 vessels were reported damaged including 44 vessels lost, 52 with major damage and 95 with moderate damage.

One hundred and fifteen people were injured including 40 who were admitted to hospital and 13 who died. Fifty-eight per cent of those injured (67) were not in charge of the vessel at the time.

The marine incidents reported to Maritime Safety Queensland in 2016 were similar in type and severity to previous years.

While the number of fatalities and injuries resulting in hospital admissions was higher than in previous years the data does not suggest a change has occurred in the long-term downward trend.

It is reasonable to expect Queensland's maritime safety performance to continue to improve even with an increase in vessels on our waterways.

However this is not a cause for complacency and our objective remains to seek ever higher standards of maritime safety.

Personal Water Craft incidents: 2007 to 2016.

Recent public interest in the regulation of the recreational use of personal water craft (PWC) invites a focused consideration of the reported marine incidents in which they have been involved.

This review is focused on the reported marine incidents which involved PWC that were registered for private recreational use during the period 2007 to 2016.

Over this period there were 401 PWC involved in 306 reported marine incidents which resulted in 9 fatalities and 135 other people being injured. Details of the incidents in which these 144 people were killed or injured can be found in the summary tables (S44 to S46) at the end of this report.

Over the same period the number of registered PWC rose by an average of 10 per cent a year from 9,977 in 2007 to 23,435 in 2016 while the number of current PWC licenses (PWCL) rose by an average of 14.5 per cent a year from 45,829 in 2007 to 155,828 in 2016.

Referring to the data in Table 2; the number of incidents, the number of PWC involved, the number of people involved and the total number people injured, do not provide evidence of any trend over the period.

Table 2

Reported Incidents	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Incidents	21	40	34	34	20	34	22	30	34	37	306
Injury Incidents	8	17	12	18	11	8	11	12	13	19	129
Vessels	31	56	49	41	22	47	29	37	44	45	401
People Involved	36	82	53	58	33	53	45	55	62	65	542
People Injured	10	20	12	19	11	8	13	12	15	24	144
Fatality	1			1		1	1	2	1	2	9
Hospital admission	4	4	2	8	6	5	6	2	5	8	50
Other injury	5	16	10	10	5	2	6	8	9	14	85
Per 10k Registrations											
Incidents	21.05	35.06	24.94	22.52	12.42	19.54	11.72	14.71	15.60	15.79	18.21
Vessels	31.07	49.09	35.94	27.16	13.66	27.01	15.45	18.14	20.19	19.20	23.87
People Involved	36.08	71.88	38.88	38.42	20.49	30.46	23.97	26.97	28.45	27.74	32.26
Injured People	10.02	17.53	8.80	12.59	6.83	4.60	6.92	5.88	6.88	10.24	8.57
Fatality	1.00	0.00	0.00	0.66	0.00	0.57	0.53	0.98	0.46	0.85	0.54
Hospital admission	4.01	3.51	1.47	5.30	3.72	2.87	3.20	0.98	2.29	3.41	2.98
Other injury	5.01	14.03	7.34	6.62	3.10	1.15	3.20	3.92	4.13	5.97	5.06
Registrations	9,977	11,408	13,632	15,095	16,109	17,398	18,774	20,392	21,795	23,435	n.a.
Licenses (PWCL)	45,829	54,824	65,118	77,319	88,226	101,706	114,627	128,132	141,147	155,828	n.a.

Source: CASEMAN, marine incident case management database, as at 06/03/2017 and TRAILS, registration and licence database, as at 30 June 2016

Consequently, given the consistent increase in the number of registered PWC over the period, it is not surprising the number of reported incidents per 10,000 registrations did exhibit a significant ($\chi^2_{(1)} = 15.1, p = 0.0$) downward trend over the period.

Likewise the number of people per 10,000 registrations reporting injuries that did not result in a hospital admission exhibit a significant ($\chi^2_{(1)} = 4.9, p = 0.025$) downward trends over the period.

In contrast, neither the number of fatalities ($\chi^2_{(1)} = 0.72, p = 0.39$), nor the number of injuries resulting in a hospital admission ($\chi^2_{(1)} = 0.81, p = 0.36$), per 10,000 registrations, exhibited a significant trend.

Across the state the majority of incidents in which someone was injured occurred in Brisbane Maritime Region (83%) and within that region 50 per cent of these incident occurred within the Gold Coast management area. Within the Gold Coast management area 52 per cent of the reported incidents occurred within 5 km of "The Spit, Gold Coast" (-27.94, 153.44).

The 144 people injured included 9 fatalities, 50 hospital admissions and 85 other injuries. Six of the deceased were masters, 2 were swimmers and another was a water-skier. Those admitted to hospital were 30 masters, 16 passengers, 1 swimmer and 3 water-skiers. Those reporting other injuries were 50 masters, 22 passengers, 8 water-skiers, 3 swimmers and 2 bystanders.

These incident predominately occurred during December (13%), January (26%), and April (13%), on a Saturday or Sunday (62%), in smooth waters (57%), in clear weather (74%), with good visibility (84%), when the winds were less than 16 knots (84%).

These incidents were the result of collisions (25%), on-board incidents (11%), people falling overboard (14%), and water-skiing (13%).

Material factors were only cited as a contributing factor on 16 occasions, and environmental factors were cited on 88 occasions which predominantly involved the sea state, heavy traffic, and the wash of passing vessel. Human factors were cited 217 times in respect of the 129 incidents that resulted in death or an injury. These were predominantly attributed to inexperience, inattention, a lack of knowledge, operational error, and excessive speed.

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”.

Across the state there were 16 marine incidents reported for every 10,000 registered Queensland Regulated Ships. The Gladstone and Townsville maritime regions all recorded incident rates below the state average. The Mackay and Cairns maritime region recorded rates above the state average as did the Brisbane maritime region which consists of the Pinkenba, Gold Coast, and Sunshine Coast management areas. The data relating to each of the maritime regions and management areas is available in the summary data tables at the end of this report.

Table 3

Maritime region	Registered vessels	Marine incidents	Hospitalisation incidents	Hospital admissions	Fatal incidents	Fatalities
Brisbane	142,954	238	15	22	6	6
Gladstone	47,842	64	3	8	3	3
Mackay	19,325	38	2	4	1	1
Townsville	23,126	28	1	3	2	2
Cairns	22,031	41	1	3	1	1
Total	256,151	409	22	40	13	13

Source: CASEMAN, marine incident case management database, as at 06/03/2017 and TRAILS, registration and licence database, as at 30 June 2016

Brisbane

In June 2016 there were 142,954 recreational vessels registered in the Brisbane maritime region; 1 vessel for every 25 people or 1 vessel for every 4 recreational vessel licensees.

During 2016, the Brisbane maritime region received reports of 238 marine incidents involving 341 vessels—301 *Queensland regulated ships* and 40 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (62), collisions with objects (25) and capsizing (33) and grounding (23).

One-hundred and thirty-three vessels reported damage including 13 vessels lost, 30 with major damage and another 57 vessels with moderate damage.

A total of 77 people were injured including 6 who died and 22 who were admitted to hospital.

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

The Pinkenba management area received 99 marine incident reports involving 149 vessels—124 *Queensland regulated ships* and 25 *domestic commercial vessels*.

There were 20 people injured in these 99 incidents including 2 who died and 14 who were admitted to hospital.

The Gold Coast management area received 103 marine incident reports involving 150 vessels—137 *Queensland regulated ships* and 13 *domestic commercial vessels*.

Forty-three people were injured in these 103 incidents including 2 who died and 8 who were admitted to hospital.

The Sunshine Coast management area received 36 marine incidents reports involving 42 vessels—40 *Queensland regulated ships* and 2 *domestic commercial vessels*.

Fourteen people were injured in these 36 incidents including 2 who died and 1 who was admitted to hospital.

Gladstone

In June 2016 there were 47,842 recreational vessels registered in the Gladstone region; 1 vessel for every 11 people or 1 vessel for every 3 recreational vessel licensees.

During 2016, this region received 64 marine incident reports involving 85 vessels—76 *Queensland regulated ships* and 9 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (16), collisions with objects (5), swamping (5) and groundings (14).

Sixty-four vessels were damaged including 11 lost, 11 with major damage and 17 vessels with moderate damage.

Eighteen people were injured, including 3 who died and 8 admitted to hospital.

Mackay

In June 2016 there were 19,325 recreational vessels registered in the Mackay region; 1 vessel for every 10 people or 1 vessel for every 2 recreational vessel licensees.

During 2016, this region received 38 marine incident reports involving 50 vessels—38 *Queensland regulated ships* and 12 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (10) and groundings (13).

Thirty-three vessels were damaged including 7 lost, 7 with major damage and 9 with moderate damage.

Seven people were injured including 1 who died and 4 who were admitted to a hospital.

Townsville

In June 2016 there were 23,126 recreational vessels registered in the Townsville region; 1 vessel for every 12 people or 1 vessel for every 3 recreational vessel licensees.

During 2016, this region received 28 marine incident reports involving 33 vessels—31 *Queensland regulated ships* and 2 *domestic commercial vessels*.

The most commonly reported incidents were collision with a ship (4) and flooding (7).

Twenty-one vessels were damaged—4 lost, 1 with major damage, 6 with moderate damage.

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

Cairns

In June 2016 there were 22,031 recreational vessels registered in the Cairns region; 1 vessel for every 13 people or 1 vessel for every 3 recreational vessel licensees.

During 2016, this region received 41 marine incident reports involving 60 vessels—50 *Queensland regulated ships* and 10 *domestic commercial vessels*.

The most commonly reported incidents were collisions between ships (12), collisions between objects (6) and groundings (7).

Thirty-five vessels were damaged including 9 lost, 3 with major damage and 6 with moderate damage.

Seven people were injured including 1 who died and 3 who were 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 care 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 the body of 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 2016 there were an additional 299 incidents reported involving 330 *domestic commercial vessels*—51 commercial fishing vessels, 50 hire and drive vessels, 102 non-passenger vessels and 127 passenger vessels.

One-hundred and thirty-two of these 330 vessels were reported damaged including 4 lost, 12 with major damage and 64 with moderate damage.

The most commonly reported incidents were collisions between ships (17), collisions with objects (43), on-board incidents (41) and groundings (65).

These incidents resulted in 100 people being injured, including 21 fatalities and 22 hospital admissions.

The 21 people who died included 5 ships masters, 3 crew members, 3 passengers, 3 swimmers, 1 PWC master, and 6 divers.

More information on these incidents can be found in the accompanying summary data tables (s41 to s43).

1. This diagram was introduced by the nurse and statistician Florence Nightingale in 1858. It has become known as *Nightingale's Rose Diagram*. The area of each circle sector \propto is equal to the value indicated.
2. Armitage, P, (1955), "Tests for Linear Trends in Proportions and Frequencies", *Biometrics*, Vol. 11, No. 3. pp. 375-386.

Summary Tables

Table So1: Number of people by severity of injury

People (Personal Injury)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Fatalities	12	3	11	10	10	7	7	5	7	13
Hospital admissions	28	20	19	24	28	25	27	29	19	40
Other injuries	79	76	97	69	67	97	58	74	72	62
No reported injury	567	623	658	654	598	515	643	528	509	641
Total	686	722	785	757	703	644	735	636	607	756

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table So2: Number of vessels by severity of injury

Vessels (Personal Injury)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Fatal	8	4	10	12	8	12	8	5	9	13
Hospital admission	28	19	21	23	23	31	32	34	21	22
Other injury	77	78	84	61	58	88	51	74	68	55
No reported injury	444	475	485	484	500	376	486	345	359	479
Total	557	576	600	580	589	507	577	458	457	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table So3: Number of vessels by severity of damage

Vessels (Damage)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Ship Lost	33	44	26	59	46	37	70	24	35	44
Major damage	51	65	64	45	76	53	53	66	48	52
Moderate damage	144	176	170	178	192	156	140	76	90	95
Minor Damage	91	57	72	75	52	48	97	104	99	131
No reported damage	238	234	268	223	223	211	217	188	185	247
Total	557	576	600	580	589	505	577	458	457	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table So4: Number of vessels by type and jurisdiction

Vessels (Type)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Domestic Commercial Vessels										
Commercial Fishing	8	6	5	5	9	5	14	8	2	5
Hire & Drive	10	9	6	17	2	6	10	3	5	9
Other	48	54	65	48	41	39	49	36	28	59
Total	66	69	76	70	52	50	73	47	35	73
Queensland Regulated Ships										
Houseboat	7	7	12	14	7	8	17	5	3	20
Motorboat	309	301	337	286	328	278	277	271	218	296
Paddle (row) boat	7	9	14	23	10	10	26	15	33	22
PWC	30	56	44	42	22	46	29	38	49	46
Sailboat	138	134	117	145	170	115	155	82	119	112
Total	491	507	524	510	537	457	504	411	422	496
Grand Total	557	576	600	580	589	507	577	458	457	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table So5: Number of vessels by vessel length

Vessels (length)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
L < 5 m	128	143	168	139	117	153	114	120	115	127
5 m =< L < 7.5 m	103	98	94	84	85	76	96	88	74	85
7.5 m =< L < 10 m	61	67	70	75	71	52	62	56	44	67
10 m =< L < 15 m	158	151	151	155	200	140	185	97	102	174
15 m =< L < 20 m	44	45	26	42	52	24	34	28	32	27
20 m =< L < 25 m	12	14	18	12	11	4	16	12	6	16
25 m =< L	15	13	17	8	10	11	8	8	8	9
Not Recorded	36	45	56	65	43	47	62	49	76	64
Total	557	576	600	580	589	507	577	458	457	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table So6: Number of incidents by severity of injury

Incidents (Personal Injury)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Fatal	7	3	8	10	8	7	7	5	7	13
Hospital admission	24	17	19	21	20	23	25	28	19	22
Other injury	56	60	69	56	52	71	45	57	55	52
No reported injury	316	339	340	344	386	278	339	242	253	322
Total	403	419	436	431	466	379	416	332	334	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table So7: Number of incidents by vessel jurisdiction

Incidents (Vessel Jurisdiction)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
QRS	341	357	367	364	416	330	343	288	299	348
QRS & DCV	62	62	69	67	50	49	73	44	35	61
Total	403	419	436	431	466	379	416	332	334	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table So8: Number of incidents by incident type

Incidents (Type)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Collision between ships	104	120	109	121	102	94	128	82	92	104
Grounding	50	46	58	54	131	49	73	45	40	62
Collision with object	44	45	33	42	41	43	42	35	35	36
Capsizing	21	17	23	29	52	51	35	32	36	42
Swamping	35	33	58	42	25	34	21	19	20	21
Flooding	21	27	27	29	23	13	19	17	17	25
Other - Close Call	26	16	25	14	14	10	13	17	12	25
Person overboard	11	14	20	23	17	18	12	14	17	16
Fire or Explosion	19	18	15	13	13	13	20	12	18	12
Onboard incident	15	9	18	18	10	19	10	17	16	22
Water ski incident	10	6	9	8	7	8	9	13	7	5
Collision with a person	4	6	9	4	2	4	1	5	4	6
Loss of ship	1	1	1	4	4	3	6	4		5
Other incident	42	61	31	30	25	20	27	20	18	28
Total	403	419	436	431	466	379	416	332	334	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S09: Number of incidents by incident type: joint jurisdiction

Incidents (Type) (DVC & QRS)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Collision between ships	31	40	39	50	36	32	54	24	19	27
Other - Close Call	14	11	21	10	11	7	10	12	8	15
Collision with object	7	2	3	6		4	2	2	1	4
Other incident	4	3	1		3	2	2	1	2	8
Swamping	3	3	2			2	2			
Person overboard		1	1	1		1	1	1	2	1
Onboard incident	1	1	1					1		4
Grounding		1						2	1	1
Capsizing	2					1	1			1
Water ski incident			1				1		1	
Flooding									1	
Fire or Explosion								1		
Total	62	62	69	67	50	49	73	44	35	61

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S10: Number of incidents by location

Incidents (Location)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Offshore	76	86	100	87	76	107	69	70	70	75
Partially smooth waters	65	55	61	56	52	50	74	72	67	80
Smooth waters	262	278	275	288	338	222	273	190	197	254
Total	403	419	436	431	466	379	416	332	334	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S11: Number of incidents by month of year

Incidents (Month of Year)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
January	36	37	43	49	64	38	116	43	39	52
February	27	55	26	40	112	28	21	20	25	34
March	31	34	49	40	33	34	29	18	22	35
April	38	25	45	42	31	59	42	38	36	33
May	23	38	35	37	24	29	25	22	27	30
June	33	25	35	29	25	33	32	19	23	33
July	30	23	35	27	37	15	21	20	19	33
August	33	40	28	35	25	21	25	28	32	35
September	43	42	37	30	33	32	26	28	27	27
October	43	26	34	26	30	25	26	31	26	24
November	32	30	35	31	26	29	27	31	29	43
December	34	44	34	45	26	36	26	34	29	30
Total	403	419	436	431	466	379	416	332	334	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S12: Number of incidents by day of week

Incidents (Day of Week)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Monday	44	59	46	52	54	43	51	34	46	38
Tuesday	42	56	30	36	54	40	37	27	29	43
Wednesday	44	41	46	45	121	39	42	41	41	44
Thursday	38	36	45	58	35	33	47	27	40	39
Friday	50	42	52	52	40	43	38	51	42	49
Saturday	85	87	101	85	80	89	79	83	67	94
Sunday	100	98	116	103	82	92	122	69	69	102
Total	403	419	436	431	466	379	416	332	334	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S13: Number of incidents by time of day

Incidents (Time of Day)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
6 am to 9 am	40	38	42	45	45	37	49	38	42	37
9 am to 12 pm	79	85	110	102	82	86	79	71	81	91
12 pm to 3 pm	87	94	102	78	91	87	88	68	62	109
3 pm to 6 pm	77	77	74	73	84	65	79	58	57	68
6 pm to 9 pm	40	39	35	42	26	33	36	25	28	38
9 pm to 12 am	20	25	24	26	16	21	19	15	12	17
12 am to 3 am	13	36	20	27	94	21	13	12	23	13
3 am to 6 am	21	18	20	36	14	17	32	23	29	19
Not Reported	26	7	9	2	14	12	21	22		17
Total	403	419	436	431	466	379	416	332	334	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S14: Number of incidents by maritime region

Incidents (Region)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Brisbane	213	209	243	231	197	227	212	181	201	238
Pinkenba	80	86	96	85	81	78	106	78	108	99
Gold Coast	83	80	93	88	61	76	71	64	54	103
Sunshine Coast	50	43	54	58	55	73	35	39	39	36
Gladstone	68	87	69	81	57	75	107	60	57	64
Mackay	42	53	37	46	40	24	51	28	24	38
Townsville	33	33	45	40	126	23	11	33	24	28
Cairns	47	37	42	33	46	30	35	30	28	41
Total	403	419	436	431	466	379	416	332	334	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S15: Number of QRS by maritime region

Vessels (Region)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Brisbane	119,292	124,484	127,880	129,839	131,223	132,764	134,524	137,937	140,225	142,954
Pinkenba	73,924	76,802	79,111	71,382	72,267	73,646	74,631	76,091	76,892	78,000
Gold Coast	28,660	30,181	30,802	40,095	40,606	40,680	41,203	42,632	43,664	44,737
Sunshine Coast	16,708	17,501	17,967	18,362	18,350	18,438	18,690	19,214	19,669	20,217
Gladstone	38,178	40,078	41,490	43,127	44,006	45,132	46,284	47,186	47,544	47,842
Mackay	16,347	17,065	17,593	17,743	18,168	18,873	19,316	19,508	19,428	19,325
Townsville	19,640	20,581	21,585	22,111	22,641	23,086	23,473	23,451	23,381	23,126
Cairns	18,444	19,450	19,602	19,994	20,286	20,608	21,046	21,388	21,737	22,031
Ex QLD	644	723	719	740	742	753	747	761	829	873
Total	212,545	222,381	228,869	233,554	237,066	241,216	245,390	250,231	253,144	256,151

Source: TRAILS, registration and licence database, as at 30 June 2016

Table S16: Number of PWC by maritime region

PWC (Region)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Brisbane	7903	8922	10,611	11,695	12,450	13,357	14,370	15,784	17,016	18,458
Pinkenba	3960	4388	5114	5324	5707	6317	6839	7450	7941	8635
Gold Coast	3139	3640	4541	5241	5559	5757	6120	6770	7383	7998
Sunshine Coast	804	894	956	1130	1184	1283	1411	1564	1692	1825
Gladstone	822	958	1192	1373	1456	1651	1860	1968	2008	2134
Mackay	415	483	565	613	682	743	802	823	849	850
Townsville	484	572	695	783	826	865	889	889	886	882
Cairns	325	431	514	567	628	716	785	851	931	988
Ex QLD	28	42	55	64	67	66	68	77	105	123
Total	9977	11,408	13,632	15,095	16,109	17,398	18,774	20,392	21,795	23,435

Source: TRAILS, registration and licence database, as at 30 June 2016

Table S17: Queensland population (millions of persons) by maritime region

Population (Region) m	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Brisbane	2.99	3.07	3.16	3.22	3.27	3.34	3.41	3.46	3.50	3.56
Pinkenba	1.90	1.95	2.01	2.04	2.08	2.12	2.16	2.25	2.28	2.31
Gold Coast	0.80	0.82	0.84	0.86	0.87	0.89	0.91	0.93	0.94	0.95
Sunshine Coast	0.29	0.30	0.31	0.31	0.32	0.32	0.33	0.28	0.29	0.29
Gladstone	0.47	0.48	0.50	0.50	0.51	0.52	0.53	0.53	0.54	0.54
Mackay	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18	0.19	0.19
Townsville	0.23	0.24	0.25	0.25	0.25	0.26	0.26	0.27	0.27	0.27
Cairns	0.25	0.26	0.26	0.27	0.27	0.27	0.28	0.28	0.28	0.29
Total	4.11	4.22	4.33	4.40	4.48	4.57	4.66	4.72	4.78	4.84

Source: Australian Bureau of Statistics, 3235.0 Population by age and sex, Regions of Australia (compilation of selected years)

Table S18: Maritime region: Number of people by severity of injury

People (Personal Injury)	Pinkenba	Gold Coast	Sunshine Coast	Gladstone	Mackay	Townsville	Cairns	Total
Fatal	2	2	2	3	1	2	1	13
Hospital admission	4	17	1	8	4	3	3	40
Other injury	14	24	11	7	2	1	3	62
No reported injury	179	177	38	102	50	30	65	641
Total	199	220	52	120	57	36	72	756

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S19: Maritime region: Number of vessels by severity of injury

Ships (Personal Injury)	Pinkenba	Gold Coast	Sunshine Coast	Gladstone	Mackay	Townsville	Cairns	Total
Fatal	2	2	2	3	1	2	1	13
Hospital admission	2	12	1	3	2	1	1	22
Other injury	11	22	11	5	2	1	3	55
No reported injury	134	114	28	74	45	29	55	479
Total	149	150	42	85	50	33	60	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S20: Maritime region: Number of vessels by severity of damage to vessel

Ships (Damage)	Pinkenba	Gold Coast	Sunshine Coast	Gladstone	Mackay	Townsville	Cairns	Total
Ship Lost	7	1	5	11	7	4	9	44
Major Damage	6	22	2	11	7	1	3	52
Moderate Damage	32	21	4	17	9	6	6	95
Minor Damage	30	29	10	25	10	10	17	131
No Damage	74	77	21	21	17	12	25	247
Total	149	150	42	85	50	33	60	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S21: Maritime region: Number of vessels by incident type

Ships (Incident type)	Pinkenba	Gold Coast	Sunshine Coast	Gladstone	Mackay	Townsville	Cairns	Total
Capsizing	11	17	7	3	2	1	4	45
Collision between ships	54	64	8	32	20	8	24	210
Collision with a person	1	1	5			1		7
Collision with object	13	15	2	6			6	42
Fire or Explosion		2		4	1	2	3	12
Flooding	6	1	2	4	3	7	2	25
Grounding	9	9	5	14	14	5	7	63
Loss of ship				3	1	1		5
On-board incident	9	12	4	1	2			28
Other - Close Call	23	8		7	2	2	6	48
Other incident	12	13	1	4	2	2	6	41
Person overboard	1	5	5	2	2	1	1	17
Swamping	8	2	2	5	1	2	1	21
Water ski incident	2	1	1			1		5
Total	149	150	42	85	50	33	60	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S22: Personal injury: Number incidents by month

Incidents (Month)	Fatal	Hospital admission	Other injury	No reported injury	Total
January	1	3	13	35	52
February	3		4	27	34
March	1	2	4	28	35
April		2	3	28	33
May	1	6	3	20	30
June		1	1	31	33
July	1		8	24	33
August		3	4	28	35
September	2	2	4	19	27
October		1	2	21	24
November	2	1	3	37	43
December	2	1	3	24	30
Total	13	22	52	322	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S23: Personal injury: Number incidents by day of week

Incidents (Day of Week)	Fatal	Hospital admission	Other injury	No reported injury	Total
Monday		2	3	33	38
Tuesday	4		1	38	43
Wednesday	2	2	4	36	44
Thursday		2	3	34	39
Friday	1	4	7	37	49
Saturday	3	4	18	69	94
Sunday	3	8	16	75	102
Total	13	22	52	322	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S24: Personal injury: Number incidents by time of day

Incidents (Time of Day)	Fatal	Hospital admission	Other injury	No reported injury	Total
6 am to 9 am	1	1	4	31	37
9 am to 12 pm	1	8	16	66	91
12 pm to 3 pm	2	7	17	83	109
3 pm to 6 pm	2	4	6	56	68
6 pm to 9 pm	3		5	30	38
9 pm to 12 am		1		16	17
12 am to 3 am	1		1	11	13
3 am to 6 am			2	17	19
Not Recorded	3	1	1	12	17
Total	13	22	52	322	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S25: Personal injury: Number incidents by weather conditions

Incidents (Weather)	Fatal	Hospital admission	Other injury	No reported injury	Total
Clear	4	19	36	224	283
Cloudy	2		8	49	59
Hazy			1	5	6
Other	7	1	4	24	36
Rain		2	3	20	25
Total	13	22	52	322	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S26: Personal injury: Number incidents by visibility

Incidents (Visibility)	Fatal	Hospital admission	Other injury	No reported injury	Total
Not Reported	6	1	4	26	37
Fair		1	3	39	43
Good	6	19	38	227	290
Poor	1	1	7	30	39
Total	13	22	52	322	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S27: Personal injury: Number incidents by location

Incidents (Location)	Fatal	Hospital admission	Other injury	No reported injury	Total
Offshore	3	5	17	50	75
Partially smooth waters	2	2	7	69	80
Smooth waters	8	15	28	203	254
Total	13	22	52	322	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S28: Personal injury: Number incidents by wind conditions

Incidents (Winds)	Fatal	Hospital admission	Other injury	No reported injury	Total
Gale (force 8 and above / more than 33 knots)			6	14	20
Strong (force 5-7 / 17-33 knots)	2	1	9	52	64
Moderate (force 3-4 / 8-16 knots)		7	17	125	149
Light (up to force 2 / 1-7 knots)	4	12	15	88	119
None	1		3	23	27
Not Reported	6	2	2	20	30
Total	13	22	52	322	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S29: Personal injury: Number incidents by incident type

Incidents (Incident type)	Fatal	Hospital admission	Other injury	No reported injury	Total
Collision between ships	1	3	3	97	104
Grounding	2	4	7	49	62
Capsizing	3		6	33	42
Collision with object		2	5	29	36
Other incident	1	1	3	22	28
Flooding			1	24	25
Other - Close Call			1	24	25
On-board incident		5	16	1	22
Swamping			1	20	21
Person overboard	5	3	2	6	16
Fire or Explosion		1		11	12
Collision with a person	1	2	3	1	6
Loss of ship				5	5
Water ski incident		1	4		5
Total	13	22	52	322	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S30: Personal injury: Number incidents by jurisdiction

Incidents (Jurisdiction)	Fatal	Hospital admission	Other injury	No reported injury	Total
QRS & DVC	1	1	3	56	61
QRS	12	21	49	266	348
Total	13	22	52	322	409

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S31: Material damage: Number of ships by type and jurisdiction

Ships (Type)	Ship Lost	Major Damage	Moderate Damage	Minor Damage	No Damage	Total
Domestic Commercial Vessels						
Fishing					5	5
Hire & Drive (House)				1	1	2
Hire & Drive (Motorboat)			1			1
Hire & Drive (PWC)		1			1	2
Hire & Drive (Sail)				2	2	4
Non-Passenger		1	4	5	14	24
Passenger		1	6	3	21	31
Unknown			1		3	4
Total		3	12	11	47	73
Queensland Regulated Ships						
Houseboat	2	1	2	5	10	20
Motorboat	30	36	48	61	121	296
Paddle boat			2	4	16	22
PWC	2	3	8	11	22	46
Sailboat	10	9	23	39	31	112
Total	44	49	83	120	200	496
Grand Total	44	52	95	131	247	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S32: Material damage: Number of ships by incident type and jurisdiction

Ships (Incident Type)	Ship Lost	Major Damage	Moderate Damage	Minor Damage	No Damage	Total
Domestic Commercial Vessels						
Capsizing					2	2
Collision between ships		1	8	8	12	29
Collision with a person					1	1
Collision with object			1		6	7
Grounding		1		2		3
On-board incident					4	4
Other - Close Call			1	1	15	17
Other incident		1	2		6	9
Person overboard					1	1
Total		3	12	11	47	73
Queensland Regulated Ships						
Capsizing	9	8	3	9	14	43
Collision between ships		14	32	79	56	181
Collision with a person					7	6
Collision with object	1	6	14	9	5	35
Fire or Explosion	8	2	2			12
Flooding	9	4	6	3	3	25
Grounding	6	11	14	11	18	60
Loss of ship	4				1	5
On-board incident					24	24
Other - Close Call				1	30	31
Other incident		2	8	4	17	32
Person overboard			1	2	13	16
Swamping	7	2	3	2	7	21
Water ski incident					5	5
Total	44	49	83	120	200	496
Grand Total	44	52	95	131	247	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S33: Personal injury: Number of ships by severity of damage

Ships (Damage)	Fatal	Hospital admission	Other injury	No report injury	Total
Ship Lost	2		2	40	44
Major Damage	2	6	3	41	52
Moderate Damage	1	2	3	89	95
Minor Damage	1	1	8	121	131
No Damage	7	13	39	188	247
Total	13	22	55	479	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S34: Personal injury: Number of ships by type and jurisdiction

Ships (Type)	Fatal	Hospital admission	Other injury	No report injury	Total
Domestic Commercial Vessels					
Fishing				5	5
Hire & Drive (House)				2	2
Hire & Drive (Motorboat)				1	1
Hire & Drive (PWC)				2	2
Hire & Drive (Sail)				4	4
Non-Passenger			2	22	24
Passenger			1	30	31
Unknown				4	4
Total			3	70	73
Queensland Regulated Ships					
Houseboat	1			19	20
Motorboat	6	15	32	243	296
Paddle boat	4		1	17	22
PWC	2	5	14	25	46
Sailboat		2	5	105	112
Total	13	22	52	409	496
Grand Total	13	22	55	479	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S35: Personal injury: Number of ships by incident type and jurisdiction

Ships (Incident Type)	Fatal	Hospital admission	Other injury	No report injury	Total
Domestic Commercial Vessels					
Capsizing				2	2
Collision between ships				29	29
Collision with a person				1	1
Collision with object				7	7
Grounding				3	3
On-board incident			3	1	4
Other - Close Call				17	17
Other incident				9	9
Person overboard				1	1
Total			3	70	73
Queensland Regulated Ships					
Capsizing	3		6	34	43
Collision between ships	1	3	4	173	181
Collision with a person	1	2	3	1	6
Collision with object		2	5	28	35
Fire or Explosion		1		11	12
Flooding			1	24	25
Grounding	2	4	7	47	60
Loss of ship				5	5
On-board incident		5	15	4	24
Other - Close Call			1	30	31
Other incident	1	1	3	26	32
Person overboard	5	3	2	6	16
Swamping			1	20	21
Water ski incident		1	4		5
Total	13	22	52	409	496
Grand Total	13	22	55	479	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S36: Vessel Type: Number of domestic commercial vessels by incident type

Domestic Commercial Vessels	Fishing	Passenger	Non-Passenger	Hire & Drive (Motorboat)	Hire & Drive (PWC)	Unknown	Total
Capsizing		1	1				2
Collision between ships	2	7	11	6	1	2	29
Collision with a person			1				1
Collision with object		4	3				7
Grounding		2		1			3
On-board incident		2	2				4
Other - Close Call	2	10	3			2	17
Other incident	1	5	2		1		9
Person overboard			1				1
Total	5	31	24	7	2	4	73

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S37: Vessel Type: Number of Queensland regulated ships by incident type

Queensland Regulated Ships	Houseboat	Motorboat	Paddle boat	PWC	Sailboat	Total
Capsizing		33	1	5	4	43
Collision between ships	12	89	8	20	52	181
Collision with a person		3	2	2		6
Collision with object	2	23	1		9	35
Fire or Explosion		10			2	12
Flooding	3	15		1	6	25
Grounding	2	35		2	21	60
Loss of ship		3	1		1	5
On-board incident		15		6	3	24
Other - Close Call		17	6	2	6	31
Other incident		21	1	4	5	32
Person overboard	1	12	2	1		16
Swamping		18			3	21
Water ski incident		2		3		5
Total	20	296	22	46	112	496

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S38: Ship length: Number of ships by type and jurisdiction

Ship (Type and Length)	L < 5 m	5 m =< L < 7.5 m	7.5 m =< L < 10 m	10 m =< L < 15 m	L > 15	Not Recorded	Total
Domestic Commercial Vessels							
Fishing			1	2	2		5
Hire & Drive (House)				2			2
Hire & Drive (Motorboat)			1				1
Hire & Drive (PWC)	2						2
Hire & Drive (Sail)				4			4
Non-Passenger	1	7	4	7	4	1	24
Passenger		3	2	4	21	1	31
Unknown	1				0	3	4
Total	4	10	8	19	27	5	73
Queensland Regulated Ships							
Houseboat			3	10	5	2	20
Motorboat	83	66	35	75	15	22	296
Paddle boat	3	3		2		14	22
PWC	35		1			10	46
Sailboat	2	6	20	68	5	11	112
Total	123	75	59	155	25	59	496
Grand Total	127	85	67	174	52	64	569

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S39: Personal injury: Number of people by role

People (Role)	Fatal	Hospital admission	Other injury	Total
Master	9	12	27	48
Crew		4	12	16
Passenger	3	21	15	39
Water skier		1	4	5
Swimmer	1	2	4	7
Total	13	40	62	115

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S40: Personal injury: Number of people by incident type

People (Incident Type)	Fatal	Hospital admission	Other injury	Total
Capsizing	3	3	7	13
Collision between ships	1	5	4	10
Collision with a person	1	2	3	6
Collision with object		3	6	9
Fire or Explosion		5	1	6
Flooding			1	1
Grounding	2	9	10	21
Loss of ship				0
On-board incident		5	19	24
Other - Close Call			1	1
Other incident	1	4	3	8
Person overboard	5	3	2	10
Swamping			1	1
Water ski incident		1	4	5
Total	13	40	62	115

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S41: Material damage: Number of vessels by vessel type (DCV only)

Vessels (Type)	Ship Lost	Major Damage	Moderate Damage	Minor Damage	No Damage	Total
Fishing	5	3	15	6	22	51
Hire & Drive (Houseboat)	1			1	4	6
Hire & Drive (Motorboat)	3		1	1	2	7
Hire & Drive (Paddle Boat)	1	1	1			3
Hire & Drive (PWC)		2	1	1	11	15
Hire & Drive (Sail)			5	5	9	19
Non-Passenger	0	2	17	18	65	102
Passenger	1	4	24	13	85	127
Total	11	12	64	45	198	330

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S42: Personal injury: Number of incidents by incident type (DCV only)

Incidents (incident type)	Fatal	Hospital admission	Other injury	No reported injury	Total
Capsizing	2		1	7	10
Collision between ships	2	1	2	12	17
Collision with a person			1		1
Collision with object			4	39	43
Fire or Explosion		1	2	7	10
Flooding				9	9
Grounding			1	64	65
Loss of ship	1			1	2
On-board incident		10	30	1	41
Other - Close Call				5	5
Other incident	11	5	5	55	76
Person overboard	1	4	6	6	17
Swamping				3	3
Total	17	21	52	209	299

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S43: Personal injury: Number of people by role (DCV only)

People (Role)	Fatality	Hospital admission	Other injury	No reported injury	Total
Master/Helm	5	1	12	293	311
Pilot				1	1
Crew	3	10	19	10	42
Passenger	3	6	21	5	35
Jet skier	1				1
Diver	6	1	1		8
Swimmer	3	1	3		7
Owner		1		139	140
Other		2	1	6	9
Total	21	22	57	454	554

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S44: PWC: Personal injury: Number of people by role

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Fatality	1			1		1	1	2	1	2	9
Master				1		1	1	2		1	6
Swimmer									1	1	2
Water skier	1										1
Hospital admission	4	4	2	8	6	5	6	2	5	8	50
Master	3	3	2	3	2	5	3	2	3	4	30
Passenger	1			5	3		2		2	3	16
Water skier		1			1		1				3
Swimmer										1	1
Other injury	5	16	10	10	5	2	6	8	9	14	85
Master	5	8	6	7	3	2	3	5	2	9	50
Passenger		5	4	3	1		2	2	3	2	22
Water skier		2					1		2	3	8
Swimmer		1			1			1			3
Bystanders									2		2
Total	10	20	12	19	11	8	13	12	15	24	144

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S45: PWC: Personal injury: Number of people injured by incident type

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Fatality	1			1		1	1	2	1	2	9
Collision between ships				1		1	1				3
Person overboard								1		1	2
Water ski incident	1										1
Collision with a person									1	1	2
Collision with object								1			1
Hospital admission	4	4	2	8	6	5	6	2	5	8	50
Collision between ships	1	1		1		3	1		2	1	10
Water ski incident	1	1		2	2	1	1		1		9
Other incident		1	1		3		1			2	8
Onboard incident				2	1		2		1	2	8
Person overboard				2			1	1			4
Collision with object				1				1			2
Capsizing						1			1		2
Swamping	1										1
Collision with a person			1							3	4
Fire or Explosion		1									1
Grounding	1										1
Other injury	5	16	10	10	5	2	6	8	9	14	85
Collision between ships	5	7	3		1			3	2	2	23
Person overboard		2	1	3	2		1	3	2		14
Other incident		3	2	2					2		9
Collision with a person		2	2	1				1		1	7
Water ski incident		1			1		2		2	3	9
Collision with object				1		1			1		3
Onboard incident			2			1				5	8
Capsizing		1			1					3	5
Grounding							1	1			2
Fire or Explosion							2				2
Flooding				2							2
Swamping				1							1
Total	10	20	12	19	11	8	13	12	15	24	144

Source: CASEMAN, marine incident case management database, as at 06/03/2017

Table S46: PWC: Personal injury: Number of people injured by Maritime Management Area

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Fatality	1			1		1	1	2	1	2	9
Pinkenba	1			1				1			3
Gold Coast						1	1				2
Sunshine Coast										1	1
Gladstone								1	1		2
Townsville										1	1
Hospital admission	4	4	2	8	6	5	6	2	5	8	50
Pinkenba	1			4		2	2	1	1	2	13
Gold Coast	2	1		2	2	2	4		3	3	19
Sunshine Coast	1	1		1	1	1		1	1	1	8
Gladstone		1									1
Townsville				1	1					2	4
Cairns		1	2		2						5
Other injury	5	16	10	10	5	2	6	8	9	14	85
Pinkenba	2	4	3	3			1	2	3	3	21
Gold Coast	2	4	6	3	3	1	4	4	6	7	40
Sunshine Coast	1	3		3	1	1		1		3	13
Gladstone		3	1	1						1	6
Mackay								1			1
Townsville		2			1		1				4
Total	10	20	12	19	11	8	13	12	15	24	144

Source: CASEMAN, marine incident case management database, as at 06/03/2017

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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