

4. Boating incidents

4.1 Introduction

Boating incidents are those incidents which involve calls for assistance from volunteer rescue authorities for problems such as mechanical breakdowns, running out of fuel and fouled propellers. Boating incident data is provided to MSQ by regional volunteer marine rescue organisations.

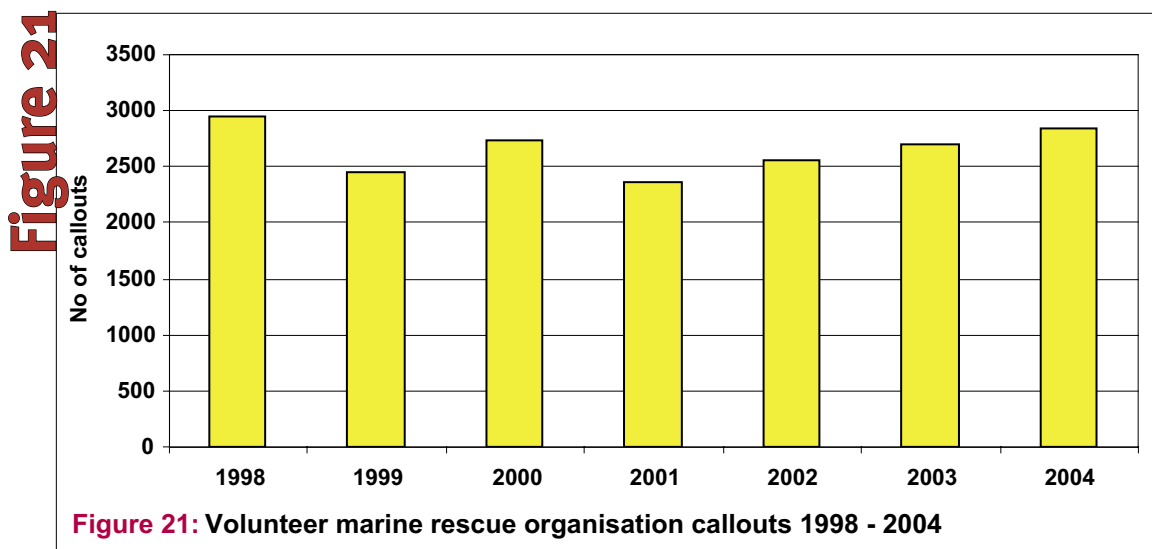
While boating incidents are not counted as marine incidents (unless their severity qualifies them as such), boating incident data has been included to supplement the analysis of marine incidents contained in this report. Boating incident reports also provide a useful tool for validation of the level of marine incident reporting by highlighting incidents that might have escaped the normal marine incident reporting process.

In 2004, regional volunteer marine rescue organisations including the Australian Volunteer Coastguard Association and the Queensland Volunteer Marine Rescue Organisation combined to provide a strong safety net for the professional and recreational maritime community in Queensland. As well as attending callouts for assistance, they continue to perform an important extension role for Maritime Safety Queensland in its administration of maritime safety programs.

4.2 Callouts for assistance

Volunteer marine rescue and coastguard flotillas reported responding to 2843 callouts for assistance state-wide in 2004 – 146 more callouts than in 2003 and up markedly on the previous four-year average of 2596 callouts.

Figure 21 shows comparative boating incident callout numbers for the past seven years.

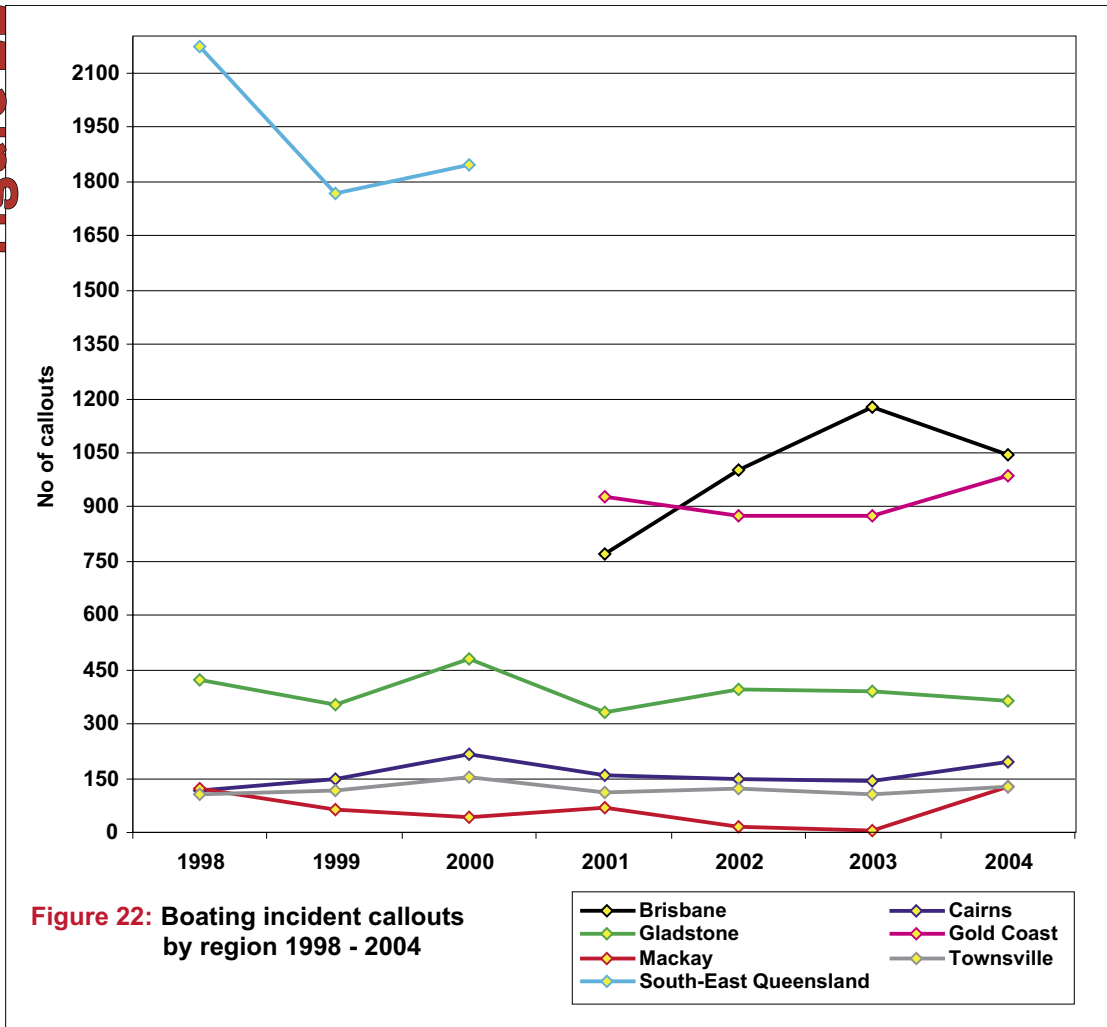


South-East Queensland (Brisbane and Gold Coast regions) with more than 56 per cent of the state's registered vessel fleet, reported 2053 (71.5 per cent) of the state's callouts in 2004. This is significantly higher than this region's corresponding proportion of marine incidents (44.17 per cent), and well above the combined region's four-year average number of callouts of 1875 callouts. After the combined South-East Queensland region, the next most significant number of callouts occurred in the Gladstone region with 363 callouts (12.8 per cent), down on the 388 callouts in 2003 and the region's previous four-year average number of callouts of 399.5.

Figure 22 provides a comparative regional breakdown of boating incident callout numbers over the last seven years. Disaggregated data for Gold Coast and Brisbane region boating incident callouts was not available to Maritime Safety Queensland until 2001.

It is noted that following two years of increases in boating incident callout numbers in the Brisbane region, callout numbers have fallen in 2004.

Figure 22



It is also noted that reported boating incidents in the Mackay region have jumped significantly after a number of years of low reported boating incident numbers. It has now been confirmed that in recent years MSQ has not been receiving the full complement of boating incident reports from volunteer marine rescue organisations in the Mackay region.

Recreational runabout capsized on coastal bar

The vessel: 4.3 metre fibreglass recreational speedboat

The incident

A fibreglass runabout powered by a 40hp outboard engine, attempted to cross the Noosa River bar just prior to high water. The owner was recently licensed as was one of his two passengers. The owner who was at the helm was attempting his first bar crossing as skipper.

He waited in line for his turn to cross the bar, observing the track and progress of preceding vessels. When his turn came the master accelerated and began the crossing.

The first wave was negotiated without difficulty but the master was surprised by the size of the second wave, which pushed the vessel slightly sideways. Despite the seemingly innocuous impact of this wave, the vessel capsized, dumping all three men into the water.

They clung to the boat as it drifted back into the river mouth. A volunteer Coastguard vessel attended the incident and towed the capsized vessel and its occupants back to the boat ramp.

The owner reported this incident to Maritime Safety Queensland as he was required to do.

The owner had purchased the vessel only one month earlier, and had held his boat licence for approximately two weeks. While he had crossed the bar before as a passenger, he had never skippered a vessel across the bar. On this occasion he relied on observations of other vessels to guide his crossing of the bar.

Safety insights

- Crossing of coastal bars can be extremely hazardous, particularly for the inexperienced.
- Careful pre-planning and consideration of prevailing bar wave patterns is essential before making bar crossings.
- All persons onboard should wear a lifejacket when crossing coastal bars.
- Before proceeding to cross a coastal bar, masters should ensure that all appropriate safety gear is aboard and ensure it is ready for use in an emergency.
- Holding a boat licence does not make a person competent to safely undertake hazardous bar crossings – special bar crossing training courses are available in most centres, and are recommended.



4.3 Reasons for callouts

During 2004 the predominant reasons for the assistance provided by volunteer organisations included:

- Breakdowns—1610 callouts (56.6 per cent)
- Grounding of the vessel—230 (8.1 per cent), and
- Vessel sinking (taking on water)—169 (5.95 per cent)
- Fuel problems—149 (5.25 per cent)

Fuel problems mentioned above included contaminated fuel, leaking fuel lines and running out of fuel.

Figure 23 shows the top ten reasons for callout. These reasons for callout reinforce the ongoing need for marine safety education and awareness programs to address basic operational boating issues. Maritime Safety Queensland uses this data to inform initiatives like the Boat Smart campaign and other boating safety educational campaigns.

Tables 29 and 30 in Appendix 1 of this report provide further data relating to boating incidents.

Figure 23

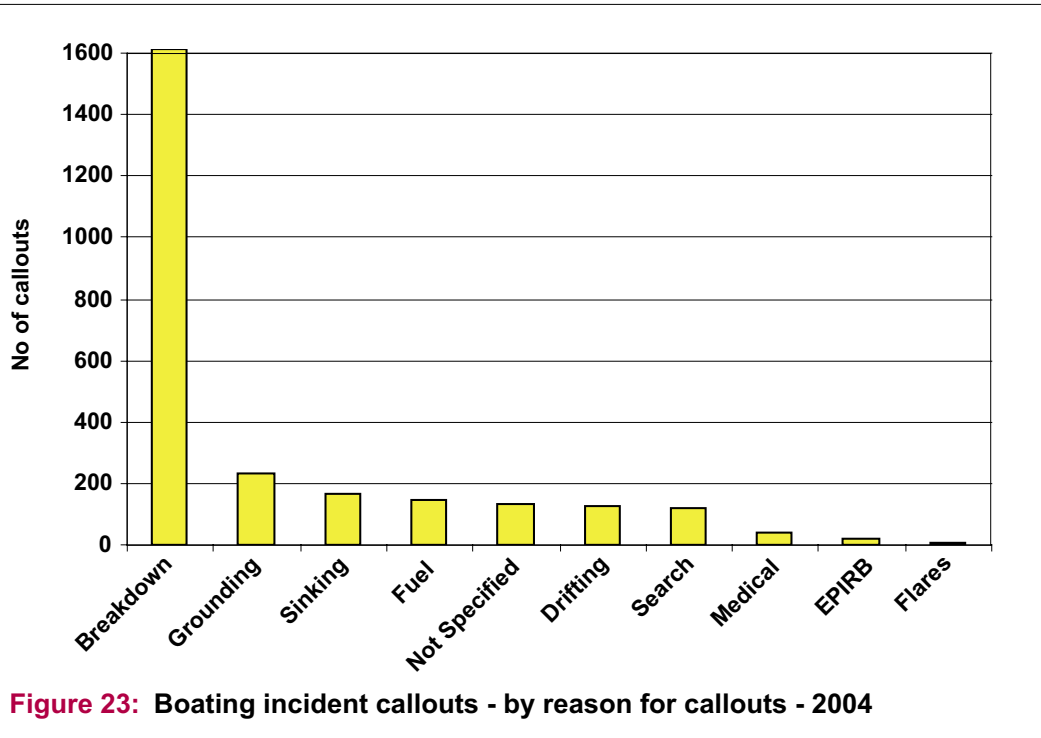


Figure 23: Boating incident callouts - by reason for callouts - 2004

Appendix 1

Marine incident related tables

In this appendix, the major characteristics of reported marine incidents are presented in a time-series format. The sources for the majority of data are Maritime Safety Queensland's marine incident database, the commercial vessel registration database and Queensland Transport's recreational vessel registration database. Australian Bureau of Statistics data is also used.

For ease of reference, the following codes are used for the six Maritime Safety Queensland regional operations areas:

- Gold Coast = GC
- Brisbane = BN
- Gladstone = GL
- Mackay = MK
- Townsville = TV
- Cairns = CN

It should be noted that the Gold Coast region was only established for reporting purposes in 2000.

The acronym PWC is used throughout these tables and refers to personal watercraft, or "jet skis" as they are better known.

Wind forces used in these tables are based on the Beaufort scale.

A list of the tables included in this appendix is provided on the next page.

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Table 1 Marine fatalities per 1,000,000 persons 1976 to 2003 by state and territory

State / territory	76-79	80-84	85-89	90-94	95-99	2000-03
New South Wales	8.45	5.10	4.27	3.29	2.65	2.05
Victoria	9.03	5.16	4.37	4.10	2.04	2.05
Queensland	12.31	5.23	4.02	5.14	2.59	1.78
South Australia	13.18	7.35	4.59	3.99	2.43	0.68
West Australia	10.09	8.70	4.94	4.71	4.12	2.45
Tasmania	34.82	26.03	14.70	15.59	15.96	5.63
Northern Territory	25.81	16.94	11.52	22.53	5.38	8.47
Australian Capital Territory	11.63	0.86	2.27	2.05	0.65	2.07

Source: Australian Bureau of Statistics

Table 2 Incidents involving fatalities and serious injuries 1999 - 2004 and year 2004 by region

Incidents	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
No of incidents involving fatalities	9	12	9	9	7	10	2	2	3	0	0	3
No of incidents involving serious injuries	58	73	37	53	21	33	7	11	3	2	1	9
Fatality/serious injury incidents	67	85	46	62	28	43	9	13	6	2	1	12

Table 3 Fatalities and serious injuries 1999 - 2004 and year 2004 by region

Fatalities and serious injuries	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
No of fatalities	10	12	12	10	7	12	2	2	3	0	0	5
No of serious injuries	66	84	43	61	22	37	9	12	3	3	1	9
Total fatalities and serious injuries	76	96	55	71	29	49	11	14	6	3	1	14

Table 4 Environmental factors contributing to fatal and serious injury incidents 1999 - 2004 and year 2004 by region

Environmental factors	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Bar conditions	3	3	0	1	1	1	0	1	0	0	0	0
Floating or submerged object	1	1	1	1	0	0	0	0	0	0	0	0
Hazardous season (cyclones etc)	1	1	0	0	0	0	0	0	0	0	0	0
Hazardous waters - coral reefs	0	0	1	0	0	0	0	0	0	0	0	0
Hazardous waters - shifting channels	0	0	1	1	0	0	0	0	0	0	0	0
Hazardous waters - uncharted hazards	0	0	1	1	0	0	0	0	0	0	0	0
Heavy traffic area	0	0	0	1	1	0	0	0	0	0	0	0
Other	0	4	2	0	1	2	0	2	0	0	0	0
Poor visibility	0	1	1	5	0	2	0	0	0	1	1	0
Sea state	6	16	7	19	5	7	0	2	0	0	0	5
Wash of passing vessel	3	1	1	3	1	2	1	1	0	0	0	0
Wind	1	1	3	20	1	1	0	0	0	0	0	1
Total environmental factors attribution	15	28	18	52	10	15	1	6	0	1	1	6

Table 5 Human factors contributing to fatal and serious injury incidents 1999 - 2004 and year 2004 by region

Human factors	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Alcohol or drugs	2	1	1	0	1	2	1	0	1	0	0	0
Commercial pressure	1	1	1	0	0	1	0	0	0	0	0	1
Excessive speed	6	3	4	3	3	2	1	1	0	0	0	0
Fatigue	2	0	2	0	1	1	0	0	0	0	0	1
Inadequate training of crew	1	4	2	4	2	2	0	0	1	0	0	1
Inappropriate instructions to crew - other	0	0	0	2	1	0	0	0	0	0	0	0
Poor communication of instructions to crew	0	0	0	3	0	0	0	0	0	0	0	0
Inattention	5	20	9	18	5	17	4	4	4	1	0	4
Insufficient maintenance	1	0	0	0	0	1	0	1	0	0	0	0
Insufficient planning	0	2	1	4	0	1	0	0	0	0	0	1
Navigation error-failure to keep proper lookout	2	2	1	7	1	4	1	1	0	0	1	1
Navigation error-lack of knowledge/experience	1	3	1	5	0	0	0	0	0	0	0	0
Navigation error-other	4	1	1	3	2	0	0	0	0	0	0	0
Navigation error-violation of Collision regs	1	1	2	3	2	2	1	1	0	0	0	0
Operational error-other	6	11	14	27	11	8	5	1	0	1	0	1
Poor communications	1	0	1	3	0	0	0	0	0	0	0	0
Violation of standard procedures	1	0	1	10	1	1	0	1	0	0	0	0
Violation of statutory rules or standards	0	2	0	9	1	0	0	0	0	0	0	0
Total human factors attribution	34	51	41	101	31	42	13	10	6	2	1	10

Table 6 Material factors contributing to fatal and serious injury incidents 1999 - 2004 and year 2004 by region

Material factors	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Bridge or navigation failure	0	2	0	0	0	0	0	0	0	0	0	0
Electrical failure	0	1	1	0	0	0	0	0	0	0	0	0
Equipment failure - other	5	0	1	1	0	0	0	0	0	0	0	0
Fuel or gas leak	0	1	1	0	0	1	0	1	0	0	0	0
Hull failure	1	0	1	1	0	0	0	0	0	0	0	0
Inadequate stability - other	0	1	1	0	0	0	0	0	0	0	0	0
Inappropriate hull or equipment-design fault	0	3	1	1	0	1	0	1	0	0	0	0
Insufficient maintenance of hull/equipment	2	0	0	3	0	0	0	0	0	0	0	0
Insufficient safety equipment	0	0	0	0	0	0	0	0	0	0	0	0
Machinery failure	1	0	0	5	1	2	0	0	1	0	0	1
Other	2	9	1	1	1	1	0	1	0	0	0	0
Shore structure badly designed/maintained	0	1	0	0	0	0	0	0	0	0	0	0
Total material factors attribution	11	18	7	12	2	5	0	3	1	0	0	1

Table 7 Fatal and serious injury incident type 1999 - 2004 and year 2004 by region

Incident type classifications	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Capsizing	1	1	1	2	0	1	0	0	1	0	0	0
Capsizing flooding	1	1	0	0	0	0	0	0	0	0	0	0
Capsizing sinking	0	3	0	1	0	3	0	1	0	0	0	2
Capsizing swamping	4	2	2	3	0	4	2	1	0	0	0	1
Collision between ships	11	8	2	10	3	6	4	1	0	0	0	1
Collision with a fixed object	2	4	3	2	0	4	1	1	0	1	0	1
Collision with an animal	0	0	0	0	0	0	0	0	0	0	0	0
Collision with floating object	0	0	1	0	0	1	0	1	0	0	0	0
Collision with overhead obstruction	0	1	0	0	0	0	0	0	0	0	0	0
Collision with submerged object	0	2	0	1	0	0	0	0	0	0	0	0
Collision with a wharf	0	0	0	0	0	0	0	0	0	0	0	0
Explosion	2	1	2	1	0	0	0	0	0	0	0	0
Fire	2	0	0	1	1	1	0	1	0	0	0	0
Grounding intentional	1	1	0	0	0	0	0	0	0	0	0	0
Grounding unintentional	2	5	1	0	1	1	0	0	0	0	1	0
Loss of ship	0	0	0	2	1	0	0	0	0	0	0	0
Loss of stability	0	0	0	0	0	0	0	0	0	0	0	0
Onboard incident crushing or pinching	5	4	0	3	1	4	0	1	1	1	0	1
Onboard incident falls within ship	10	7	6	4	3	4	1	1	1	0	0	1
Onboard incident other onboard injury	5	16	5	5	2	0	0	0	0	0	0	0
Other	0	0	2	0	0	0	0	0	0	0	0	0
Other - Close Call	0	0	0	0	0	0	0	0	0	0	0	0
Other - Crime Issue	0	0	0	0	0	0	0	0	0	0	0	0
Other - Ship Adrift	0	0	0	0	0	0	0	0	0	0	0	0
Other personal injury caused by operation of ship	2	7	1	8	4	4	0	2	1	0	0	1
Other personal injury diving incident	1	1	0	1	0	0	0	0	0	0	0	0
Other personal injury hit by propellor or ship	1	2	3	3	4	2	0	0	0	0	0	2
Other personal injury parasailing incident	1	0	1	0	0	0	0	0	0	0	0	0
Other personal injury water ski incident	3	5	5	4	2	2	1	1	0	0	0	0
Person overboard	11	11	8	9	6	6	0	2	2	0	0	2
Structural failure	0	1	1	0	0	0	0	0	0	0	0	0
Incident type distribution	65	83	44	60	28	43	9	13	6	2	1	12

Table 8 Location of fatal and serious injury incidents 1999 - 2004 and year 2004 by region

Location classifications	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	1	1	1	0	0	0	0	0	0	0	0	0
Inland waters	17	18	12	13	2	3	2	1	0	0	0	0
Offshore	10	20	10	19	5	16	2	6	3	1	0	4
Partially smooth waters	27	19	10	10	6	6	1	0	0	1	0	4
Smooth waters	10	25	12	18	15	18	4	6	3	0	1	4
Distribution by location classifications	65	83	45	60	28	43	9	13	6	2	1	12

Table 9 Fatal and serious injury incidents by month 1999 - 2004 and year 2004 by region

Months	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
January	7	14	3	11	2	4	1	2	1	0	0	0
February	5	4	0	4	2	7	4	2	0	0	0	1
March	5	14	5	2	1	2	1	0	1	0	0	0
April	11	10	4	5	1	6	1	3	0	0	0	2
May	7	7	3	5	2	3	0	0	1	1	0	1
June	4	6	2	5	2	2	0	0	0	1	1	0
July	2	7	6	8	2	3	0	1	0	0	0	2
August	5	8	6	3	2	2	0	1	1	0	0	0
September	6	4	1	8	3	2	0	1	0	0	0	1
October	2	4	6	2	4	5	1	1	1	0	0	2
November	5	2	5	1	2	2	0	2	0	0	0	0
December	6	3	4	6	5	5	1	0	1	0	0	3
Fatality/serious injury incidents	65	83	45	60	28	43	9	13	6	2	1	12

Table 10 Fatal and serious injury incidents 1999 - 2004 by region

Region	1999	2000	2001	2002	2003	2004
Gold Coast	0	10	10	14	7	9
Brisbane	27	29	13	20	7	13
Gladstone	17	16	5	4	5	6
Mackay	11	15	7	8	6	2
Townsville	7	7	1	2	3	1
Cairns	3	6	9	12	0	12
Not specified	0	0	0	0	0	0
Fatality/serious injury incidents	65	83	45	60	28	43

Table 11 Fatal and serious injury incidents by time of day 1999 - 2004

Time of day	1999	2000	2001	2002	2003	2004
Not specified	1	5	4	2	1	3
Dawn	3	3	1	1	2	3
Day time	52	62	33	44	19	25
Dusk	3	3	1	5	2	3
Night time	6	10	6	8	4	9
Fatality/serious injury incidents	65	83	45	60	28	43

Table 12 No. of ships involved in fatal and serious injury incidents 1999 - 2004 by ship type

Ship type	1999	2000	2001	2002	2003	2004
Not specified	0	0	0	0	0	0
COM Fishing	6	10	6	10	3	8
COM Hire & Drive	0	0	0	0	0	0
COM Hire & Drive (House)	0	0	0	0	0	0
COM Hire & Drive (Motor)	0	0	2	2	0	0
COM Hire & Drive (PWC)	3	3	0	3	1	0
COM Hire & Drive (Sail)	0	3	0	0	0	1
COM Hire & Drive (Speed)	1	0	0	0	0	1
COM Houseboat	0	1	0	0	0	0
COM Hovercraft	0	0	0	0	0	0
COM Motorboat	0	0	1	0	0	2
COM Non-passenger	2	11	1	5	1	2
COM Other	7	3	1	5	3	1
COM Passenger	11	16	11	8	9	5
COM PWC (jetski)	1	1	1	0	0	0
COM Sailboat	7	0	0	0	1	0
COM Speedboat	5	7	5	6	0	0
REC Houseboat	2	1	0	1	0	1
REC Motorboat	5	4	6	5	2	4
REC Other	0	0	2	1	0	0
REC Paddle (row) boat	0	0	1	1	0	1
REC PWC (jetski)	8	10	4	4	1	13
REC Sailboat	3	4	2	4	5	3
REC Speedboat	16	18	6	17	11	8
Total number of ships	77	92	49	72	37	50

Table 13 Visibility in fatal and serious injury incidents 1999 - 2004 and year 2004 by region

Visibility	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	9	13	5	14	5	11	0	7	4	0	0	0
Poor	1	3	3	2	1	2	0	1	0	1	0	0
Fair	8	12	3	2	2	9	2	1	0	0	1	5
Good	47	55	34	42	20	21	7	4	2	1	0	7
Fatality/serious injury incidents	65	83	45	60	28	43	9	13	6	2	1	12

Table 14 Weather in fatal and serious injury incidents 1999 - 2004 and year 2004 by region

Weather	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	7	14	5	10	4	12	0	7	4	0	0	1
Clear	46	46	32	40	20	24	9	4	2	2	1	6
Cloudy	5	16	6	4	3	2	0	0	0	0	0	2
Flood	0	0	0	0	0	0	0	0	0	0	0	0
Hazy	1	2	1	1	0	4	0	1	0	0	0	3
Other	0	1	0	2	1	0	0	0	0	0	0	0
Rain	6	4	1	3	0	1	0	1	0	0	0	0
Fatality/serious injury incidents	65	83	45	60	28	43	9	13	6	2	1	12

Table 15 Wind in fatal and serious injury incidents 1999 - 2004 and year 2004 by region

Wind	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	7	15	4	12	5	11	0	7	4	0	0	0
No wind	6	9	5	9	1	3	0	1	1	0	0	1
Light (up to force 2 / 1-7 knots)	25	22	22	16	7	14	6	2	0	1	1	4
Moderate (force 3-4 / 8-16 knots)	16	20	7	14	13	10	3	1	1	1	0	4
Strong (force 5-7 / 17-33 knots)	11	15	7	9	2	2	0	1	0	0	0	1
Gale (force 8 and above / more than 33 knots)	0	2	0	0	0	3	0	1	0	0	0	2
Fatality/serious injury incidents	65	83	45	60	28	43	9	13	6	2	1	12

Table 16 Environmental factors contributing to marine incidents 1999 - 2004 and year 2004 by region

Environmental factors	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Abnormal tidal conditions	17	7	15	5	4	8	0	2	0	3	1	2
Bar conditions	9	3	2	12	18	16	0	14	1	0	0	1
Floating or submerged object	24	25	17	11	7	18	3	6	4	3	0	2
Hazardous season (cyclones etc)	15	5	1	0	3	6	0	4	1	0	0	1
Hazardous waters - coral reefs	2	24	30	23	22	25	0	0	2	19	0	4
Hazardous waters - lack navigation aids	1	2	1	1	1	1	0	1	0	0	0	0
Hazardous waters - shifting channel	1	3	9	5	6	9	0	4	1	2	1	1
Hazardous waters - uncharted hazards	0	2	7	4	2	11	0	4	0	5	1	1
Heavy traffic area	5	5	2	7	3	6	1	3	0	0	0	2
Other environmental contributing factor	5	27	35	23	17	36	0	29	3	4	0	0
Poor visibility	18	16	16	16	10	15	0	6	1	4	2	2
Sea state	61	68	78	75	70	84	2	35	10	20	3	14
Wash of passing vessel	19	7	13	14	9	21	4	13	1	0	2	1
Wind	24	21	60	42	66	71	3	31	8	12	6	11
Total environmental factors attribution	201	215	286	238	238	327	13	152	32	72	16	42

Table 17 Human factors contributing to marine incidents 1999 - 2004 and year 2004 by region

Human factors	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Alcohol or drugs	4	6	6	6	7	9	2	2	2	2	0	1
Commercial pressure	4	11	9	6	3	12	0	4	0	0	0	8
Excessive speed	21	15	17	16	10	21	3	12	2	0	1	3
Fatigue	8	4	9	2	6	5	0	0	1	1	0	3
Inadequate training of crew	6	14	20	13	13	13	1	2	5	0	0	5
Inappropriate Harbour/Port Authority advice	0	2	2	0	0	0	0	0	0	0	0	0
Inappropriate advice to ship - Pilot	4	0	0	2	0	2	0	0	0	0	2	0
Inappropriate Vessel Traffic System advice	0	0	1	1	0	0	0	0	0	0	0	0
Inappropriate instructions to crew - other	1	1	3	4	6	1	0	1	0	0	0	0
Poor communication of instructions to crew	0	3	4	4	1	3	0	0	1	0	0	2
Inattention	30	64	73	64	55	108	8	60	13	10	4	13
Insecure mooring	10	33	28	19	25	28	0	8	6	5	2	7
Insufficient crew numbers	1	0	1	0	1	5	1	3	0	0	0	1
Insufficient fuel	2	2	1	3	0	0	0	0	0	0	0	0
Insufficient maintenance	6	6	10	5	8	16	0	4	3	2	4	3
Insufficient planning	9	11	12	9	17	18	0	8	0	5	1	4
Navigation error-failure to keep proper lookout	33	17	37	25	45	65	3	21	3	30	4	4
Navigation error-lack of knowledge/experience	58	33	36	14	37	38	0	14	7	12	2	3
Navigation error-other	33	29	37	24	20	41	3	7	2	17	5	7
Navigation error-violation of Collision regs	15	5	22	13	20	44	4	28	4	4	1	3
Operational error-other	45	66	122	118	133	122	19	32	14	34	9	14
Overloading	0	2	4	0	1	0	0	0	0	0	0	0
Poor communications	3	3	6	7	1	10	0	3	2	1	2	2
Poor ship to shore communications	0	0	2	2	3	2	0	2	0	0	0	0
Violation of standard procedures	3	1	26	16	22	19	0	4	2	8	0	5
Violation of statutory rules or standards	7	9	21	22	16	31	6	12	1	8	0	4
Total human factors attribution	303	337	509	395	450	613	50	227	68	139	37	92

Table 18 Material factors contributing to marine incidents 1999 - 2004 and year 2004 by region

Material factors	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Bridge or navigation failure	4	5	2	1	3	3	0	0	0	0	0	3
Electrical failure	3	9	19	13	9	12	1	5	2	2	0	2
Equipment failure - other	33	33	25	22	29	32	1	8	1	9	6	7
Fuel or gas leak	3	1	10	2	4	4	0	2	1	0	0	1
Hull failure	8	12	16	16	12	11	1	0	3	3	1	3
Inadequate stability - other	1	3	6	0	1	2	0	1	0	0	0	1
Inadequate stability - overloading	0	2	1	0	1	1	0	0	1	0	0	0
Inadequate stability - shifting cargo	0	0	1	1	2	1	0	0	1	0	0	0
Inappropriate hull or equipment-construction fault	0	2	5	6	1	2	0	0	0	0	0	2
Inappropriate hull or equipment-design fault	2	7	9	3	7	16	0	5	1	7	1	2
Insufficient maintenance of hull or equipment	12	10	6	5	3	7	0	2	3	1	0	1
Insufficient safety equipment	0	0	0	5	2	2	0	0	1	0	0	1
Machinery failure	25	25	41	47	49	53	4	17	14	6	3	9
Other material contributing factor	14	36	32	28	22	39	1	30	3	4	0	1
Shore structure badly designed/maintained	5	4	4	5	4	4	0	0	0	0	3	1
Total material factors attribution	110	149	177	154	149	189	8	70	31	32	14	34

Table 19 Incident type 1999 - 2004 and year 2004 by region

Incident type	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Capsizing	11	19	16	14	13	13	0	5	5	3	0	0
Capsizing flooding	5	5	12	7	8	7	0	1	2	2	1	1
Capsizing sinking	23	19	23	29	21	28	5	6	4	3	2	8
Capsizing swamping	27	17	22	31	40	37	8	16	7	4	0	2
Collision between ships	138	121	119	119	125	127	32	45	10	26	5	9
Collision with a fixed object	38	37	36	42	35	42	2	21	3	3	1	12
Collision with an animal	0	0	1	2	2	2	0	0	1	0	0	1
Collision with floating object	6	12	7	11	8	11	2	1	2	2	2	2
Collision with overhead obstruction	0	3	0	2	0	1	0	1	0	0	0	0
Collision with submerged object	18	24	15	18	18	21	4	5	4	5	1	2
Collision with wharf	16	13	20	18	22	21	0	7	2	2	8	2
Explosion	2	2	5	1	1	2	0	1	1	0	0	0
Fire	22	18	28	17	31	25	3	7	6	3	1	5
Grounding intentional	3	10	2	2	2	2	0	2	0	0	0	0
Grounding unintentional	93	127	115	94	125	120	2	16	14	58	12	18
Loss of ship	10	23	1	7	13	1	0	0	0	1	0	0
Loss of stability	1	0	3	0	2	2	0	2	0	0	0	0
Onboard incident crushing or pinching	8	5	1	5	5	6	0	2	1	1	0	2
Onboard incident falls within ship	17	9	19	18	19	13	4	3	1	2	2	1
Onboard incident other onboard injury	12	20	15	10	10	8	0	2	2	4	0	0
Other	51	29	11	63	43	27	6	8	6	2	4	1
Other - Close Call	5	29	40	50	29	43	3	19	3	4	3	11
Other - Crime Issue	1	1	10	2	1	1	0	0	0	0	0	1
Other - Ship Adrift	0	6	20	10	12	6	0	4	1	0	0	1
Other personal injury caused by operation of ship	5	10	7	18	10	12	0	6	2	1	1	2
Other personal injury diving incident	1	3	1	2	2	1	0	1	0	0	0	0
Other personal injury hit by propellor or ship	1	3	5	6	10	5	1	1	0	1	0	2
Other personal injury parasailing incident	1	0	1	2	0	0	0	0	0	0	0	0
Other personal injury water ski incident	8	10	8	5	4	4	1	3	0	0	0	0
Person overboard	22	21	25	24	19	18	1	7	4	4	0	2
Structural failure	8	16	22	21	15	12	3	4	0	2	1	2
All incidents	553	612	610	650	645	618	77	196	81	133	44	87

Table 20 Location of incidents 1999 - 2004 and year 2004 by region

Location	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	8	7	1	1	4	0	0	0	0	0	0	0
Inland waters	130	108	102	101	78	71	17	40	6	2	2	4
Offshore	72	114	115	138	129	123	12	40	20	15	11	25
Partially smooth waters	234	160	151	153	190	153	4	21	21	80	9	18
Smooth waters	109	223	241	257	244	271	44	95	34	36	22	40
All incidents	553	612	610	650	645	618	77	196	81	133	44	87

Table 21 Incidents by month 1999 - 2004 and year 2004 by region

Month	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
January	48	66	59	60	54	60	6	25	9	13	1	6
February	43	49	40	55	40	53	10	19	7	7	3	7
March	46	52	58	57	57	52	8	19	3	16	2	4
April	52	64	54	58	47	57	9	26	8	6	2	6
May	47	49	38	46	47	50	3	14	11	10	5	7
June	47	40	50	63	60	51	6	12	5	17	6	5
July	44	61	48	37	54	44	5	14	3	8	7	7
August	45	60	66	48	61	48	2	16	8	4	6	12
September	43	47	42	61	43	48	5	11	2	15	5	10
October	47	52	51	58	66	59	7	15	9	16	4	8
November	42	34	58	52	61	49	6	12	10	14	1	6
December	49	38	46	55	55	47	10	13	6	7	2	9
All incidents	553	612	610	650	645	618	77	196	81	133	44	87

Table 22 Incidents 1999 - 2004 by region

Region	1999	2000	2001	2002	2003	2004
Gold Coast	1	73	75	79	77	77
Brisbane	221	179	198	198	192	196
Gladstone	89	94	76	87	97	81
Mackay	131	119	128	123	135	133
Townsville	45	46	51	59	49	44
Cairns	66	101	82	104	95	87
Region not advised	0	0	0	0	0	0
All incidents	553	612	610	650	645	618

Table 23 Damage category 1999 - 2004 and year 2004 by region

Damage	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	1	0	1	2	4	0	0	0	0	0	0	0
Damage to Property Only	66	53	51	68	68	70	12	18	8	12	10	10
No Damage	176	217	226	272	245	204	18	75	21	44	16	30
Ship Damaged	222	291	285	268	295	310	43	96	41	71	18	41
Ship Lost	32	51	47	40	33	34	4	7	11	6	0	6
All incidents	497	612	610	650	645	618	77	196	81	133	44	87

Table 24 Incidents by time of day 1999 - 2004 and year 2004 by region

Time of day	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	18	51	22	41	35	41	1	13	14	5	2	6
Dawn	35	19	22	26	26	23	3	13	0	1	2	4
Day	354	382	386	410	417	385	59	123	40	91	23	49
Dusk	31	34	58	59	55	43	6	14	7	7	2	7
Night	115	126	122	114	112	126	8	32	20	29	16	21
All incidents	553	612	610	650	645	618	77	195	81	133	45	87

Table 25 No. of ships in incidents 1999 - 2004 by ship type

Ship type	1999	2000	2001	2002	2003	2004
COM Fishing	94	101	92	88	88	91
COM Hire & Drive	2	0	0	0	0	0
COM Hire & Drive (House)	3	4	4	1	0	1
COM Hire & Drive (Motor)	7	8	10	10	11	3
COM Hire & Drive (Other)	0	0	2	0	1	3
COM Hire & Drive (PWC)	7	7	5	2	2	1
COM Hire & Drive (Sail)	27	43	46	30	48	49
COM Hire & Drive (Speed)	1	2	0	0	1	3
COM Houseboat	8	7	11	11	8	15
COM Hovercraft	0	0	0	0	0	0
COM Motorboat	5	11	8	6	6	5
COM Non-passenger	14	67	29	69	93	52
COM Other	113	46	66	89	48	54
COM Paddle (row) boat	0	1	0	3	0	1
COM Passenger	112	126	161	137	162	126
COM PWC (jetski)	6	6	9	10	11	7
COM Sailboat	47	8	15	14	20	26
COM Speedboat	16	8	12	22	14	12
REC Houseboat	8	7	9	5	8	7
REC Motorboat	41	60	66	71	85	85
REC Other	15	16	30	34	16	17
REC Paddle (row) boat	0	5	2	3	4	6
REC PWC (jetski)	26	27	17	21	11	23
REC Sailboat	86	94	59	86	101	74
REC Speedboat	82	84	56	69	75	71
Not specified	6	10	32	51	5	41
Unknown ship type	10	3	10	10	0	3
Total number of ships	736	751	751	842	818	776

Table 26 Visibility in incidents 1999 - 2004 and year 2004 by region

Visibility	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	67	89	33	92	89	92	3	50	19	4	5	11
Poor	53	64	61	50	52	45	1	17	6	10	2	9
Fair	73	96	112	67	70	72	8	15	10	18	7	14
Good	360	363	404	441	434	409	65	114	46	101	30	53
All incidents	553	612	610	650	645	618	77	196	81	133	44	87

Table 27 Weather in incidents 1999 - 2004 and year 2004 by region

Weather	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	56	67	31	72	71	60	3	35	14	1	2	5
Clear	347	364	427	447	414	422	66	122	50	91	34	59
Cloudy	55	83	72	63	90	67	6	14	11	25	2	9
Flood	0	3	1	0	1	2	0	0	0	1	0	1
Hazy	7	15	16	27	19	17	1	2	1	4	3	6
Other weather	10	12	8	7	4	8	0	3	1	4	0	0
Rain	78	68	55	34	46	42	1	20	4	7	3	7
All incidents	553	612	610	650	645	618	77	196	81	133	44	87

Table 28 Wind in incidents 1999 - 2004 and year 2004 by region

Wind	1999	2000	2001	2002	2003	2004	GC	BN	GL	MK	TV	CN
Not specified	65	62	37	69	63	61	3	40	10	1	2	5
No wind	32	57	47	57	49	42	8	19	5	7	0	3
Light (up to force 2 / 1-7 knots)	140	168	217	196	176	199	38	50	25	38	12	36
Moderate (force 3-4 / 8-16 knots)	185	172	186	209	228	168	20	45	18	47	16	22
Strong (force 5-7 / 17-33 knots)	116	130	104	107	122	124	7	33	21	35	14	14
Gale (force 8 and above / more than 33 knots)	15	23	19	12	7	24	1	9	2	5	0	7
All incidents	553	612	610	650	645	618	77	196	81	133	44	87

Table 29 Boating incidents 1999 - 2004 by region

Region	1999	2000	2001	2002	2003	2004
South East Queensland	1769	1845	n/a	n/a	n/a	n/a
Gold Coast	n/a	n/a	927	874	878	988
Brisbane	n/a	n/a	768	1005	1175	1045
Gladstone	356	480	335	395	388	363
Mackay	65	40	68	17	7	124
Townsville	114	151	111	122	104	129
Cairns	147	216	160	146	145	194
Annual totals	2451	2732	2369	2559	2697	2843

Table 30 Boating incidents by callout reason 2004 by region

Region	Breakdown	Grounding	Sinking	Fuel	Not Specified	Drifting	Search	Medical	EPIRB	Flares
Brisbane	531	76	62	49	68	52	71	18	9	4
Cairns	115	9	14	10	8	18	10	0	7	1
Gladstone	206	27	17	28	22	13	15	8	2	3
Gold Coast	635	102	70	39	31	37	13	9	0	0
Mackay	42	6	2	7	4	3	2	3	0	0
Townsville	81	10	4	16	0	3	7	1	0	1
Callout reason totals	1610	230	169	149	133	126	118	39	18	9

Table 31 Commercial and recreational registrations 1999-2004 by region

Recreational registrations						
Region	1999	2000	2001	2002	2003	2004
Gold Coast	17544	18695	20130	22052	23813	25641
Brisbane	66986	70310	74018	75514	78798	82634
Gladstone	23430	24391	25826	29270	31018	32980
Mackay	10055	10417	11046	12632	13270	14077
Townsville	13610	14154	14989	16618	17141	17627
Cairns	14693	15570	16143	15829	16264	16874
Totals	146318	153537	162152	171915	180304	189833

Commercial registrations						
Region	1999	2000	2001	2002	2003	2004
Gold Coast	728	727	727	763	825	891
Brisbane	1585	1569	1596	1580	1636	1654
Gladstone	768	744	752	778	777	790
Mackay	700	711	751	765	776	760
Townsville	480	473	466	485	468	467
Cairns	1074	1105	1123	1178	1165	1186
Totals	5335	5329	5415	5549	5647	5748

Total registrations						
Region	1999	2000	2001	2002	2003	2004
Gold Coast	18272	19422	20857	22815	24638	26532
Brisbane	68571	71879	75614	77094	80434	84288
Gladstone	24198	25135	26578	30048	31795	33770
Mackay	10755	11128	11797	13397	14046	14837
Townsville	14090	14627	15455	17103	17609	18094
Cairns	15767	16675	17266	17007	17429	18060
Totals	151653	158866	167567	177464	185951	195581