

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 management 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:

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

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.



Tables

Table 1:	Marine fatalities per 1,000,000 persons 1976 to 2001 by state and territory.....	33
Table 2:	Incidents involving fatalities and serious injuries 1997 - 2002 and year 2002 by region.....	33
Table 3:	Fatalities and serious injuries 1997 - 2002 and year 2002 by region.....	33
Table 4:	Environmental factors contributing to fatal and serious injury incidents 1997 - 2002 and year 2002 by region.....	33
Table 5:	Human factors contributing to fatal and serious injury incidents 1997 - 2002 and year 2002 by region.....	34
Table 6:	Material factors contributing to fatal and serious injury incidents 1997 - 2002 and year 2002 by region.....	34
Table 7:	Fatal and serious injury incident type 1997 - 2002 and year 2002 by region.....	35
Table 8:	Location of fatal and serious injury incidents 1997 - 2002 and year 2002 by region.....	35
Table 9:	Fatal and serious injury incidents by month 1997 - 2002 and year 2002 by region.....	36
Table 10:	Fatal and serious injury incidents 1997 - 2002 by region.....	36
Table 11:	Fatal and serious injury incidents by time of day 1997 - 2002.....	36
Table 12:	No. of ships involved in fatal and serious injury incidents 1997 - 2002 by ship type.....	37
Table 13:	Visibility in fatal and serious injury incidents 1997 - 2002 and year 2002 by region.....	37
Table 14:	Weather in fatal and serious injury incidents 1997 - 2002 and year 2002 by region.....	37
Table 15:	Wind in fatal and serious injury incidents 1997 - 2002 and year 2002 by region.....	38
Table 16:	All incidents by category 1997 - 2002 and year 2002 by region.....	38
Table 17:	Environmental conditions 1997 - 2002 and year 2002 by region.....	38
Table 18:	Human factors 1997 - 2002 and year 2002 by region.....	39
Table 19:	Material factors 1997 - 2002 and year 2002 by region.....	39
Table 20:	Incident type 1997 - 2002 and year 2002 by region.....	40
Table 21:	Locations of incidents 1997 - 2002 and year 2002 by region.....	40
Table 22:	Incidents by month 1997 - 2002 and year by region.....	41
Table 23:	Incidents 1997 - 2002 by region.....	41
Table 24:	Damage category 1997 - 2002 and year 2002 by region.....	41
Table 25:	Incidents by time of day 1997 - 2002 and year 2002 by region.....	41
Table 26:	No. of ships in incidents 1997 - 2002 by ship type.....	42
Table 27:	Visibility in incidents 1997 - 2002 and year 2002 by region.....	42
Table 28:	Weather in incidents 1997 - 2002 and year 2002 by region.....	42
Table 29:	Wind in incidents 1997 - 2002 and year 2002 by region.....	43
Table 30:	Boating incidents 1997 - 2002 by region.....	43
Table 31:	Boating incidents by callout reason 2002 by region.....	43
Table 32:	Commercial and recreational registrations 1997-2002 by region.....	44

Marine Safety Incidents Annual Report 2002

Table 1 Marine fatalities per 1,000,000 persons 1976 to 2001 by state and territory

State / territory	76-79	80-84	85-89	90-94	95-99	2000-01
New South Wales	8.45	5.1	4.27	3.29	2.65	1.85
Victoria	9.03	5.16	4.37	4.1	2.04	2.6
Queensland	12.31	5.23	4.02	5.14	2.59	1.8
South Australia	13.18	7.35	4.59	3.99	2.43	0.35
West Australia	10.09	8.7	4.94	4.71	4.12	2.85
Tasmania	34.82	26.03	14.7	15.59	15.96	5.3
Northern Territory	25.81	16.94	11.52	22.53	5.38	5.1
Australian Capital Territory	11.63	0.86	2.27	2.05	0.65	3.1

Table 2 Incidents involving fatalities and serious injuries 1997 - 2002 and year 2002 by region

Incidents	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
No of incidents involving fatalities	9	8	9	12	9	9	2	1	1	1	0	4
No of incidents involving serious injuries	34	51	59	71	30	49	12	17	4	7	2	7
Fatality/serious injury incidents	43	59	68	83	39	58	14	18	5	8	2	11

Table 3 Fatalities and serious injuries 1997 - 2002 and year 2002 by region

Fatalities and serious injuries	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
No of fatalities	12	8	10	12	12	10	2	1	1	1	0	5
No of serious injuries	56	64	67	83	36	59	19	18	6	7	2	7
Total fatalities and serious injuries	68	72	77	95	48	69	21	19	7	8	2	12

Table 4 Environmental factors contributing to fatal and serious injury incidents 1997 - 2002 and year 2002 by region

Environmental factors	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Bar conditions	2	0	3	3	0	1	0	0	1	0	0	0
Floating or submerged object	0	2	1	1	1	1	0	1	0	0	0	0
Hazardous season (cyclones etc)	0	0	1	0	0	0	0	0	0	0	0	0
Hazardous waters - coral reefs	0	0	0	0	1	0	0	0	0	0	0	0
Hazardous waters - shifting channels	0	0	0	0	1	1	0	1	0	0	0	0
Hazardous waters - uncharted hazards	0	0	0	0	1	1	0	0	0	1	0	0
Heavy traffic area	0	1	0	0	0	1	0	0	0	0	0	1
Other	3	0	0	3	2	0	0	0	0	0	0	0
Poor visibility	2	1	0	1	1	5	1	0	2	2	0	0
Sea state	3	4	6	12	7	18	4	7	3	2	0	2
Wash of passing vessel	0	4	3	1	1	3	2	0	0	1	0	0
Wind	3	2	1	0	3	20	2	8	3	3	0	4
Total environmental factors attribution	13	14	15	21	18	51	9	17	9	9	0	7



Marine Safety Incidents Annual Report 2002

Table 5 Human factors contributing to fatal and serious injury incidents 1997 - 2002 and year 2002 by region

Human factors	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Alcohol or drugs	3	3	2	1	1	0	0	0	0	0	0	0
Commercial pressure	1	0	1	1	1	0	0	0	0	0	0	0
Excessive speed	0	3	5	2	2	2	1	0	0	1	0	0
Fatigue	1	0	2	0	2	0	0	0	0	0	0	0
Inadequate training of crew	3	2	1	4	2	4	0	0	0	1	0	3
Inappropriate instructions to crew - other	1	1	0	0	0	2	0	0	0	1	0	1
Poor communication of instructions to crew	1	0	0	1	0	2	0	1	0	0	1	0
Inattention	4	6	5	17	7	16	2	4	2	4	0	4
Insufficient maintenance	0	0	1	0	0	0	0	0	0	0	0	0
Insufficient planning	0	0	0	1	1	4	0	3	0	0	0	1
Navigation error-failure to keep proper lookout	0	5	2	1	1	7	0	4	1	1	0	1
Navigation error-lack of knowledge/experience	5	5	1	3	1	5	0	2	0	2	0	1
Navigation error-other	1	0	4	1	1	3	0	1	0	1	1	0
Navigation error-violation of Collision regs	1	3	1	0	2	3	0	1	1	0	0	1
Operational error-other	5	2	6	10	12	24	5	8	3	4	0	4
Poor communications	0	0	1	0	1	3	0	3	0	0	0	0
Violation of standard procedures	0	4	1	0	0	9	0	3	0	1	0	5
Violation of statutory rules or standards	0	1	0	1	1	10	0	4	0	1	0	5
Total human factors attribution	26	35	33	43	35	94	8	34	7	17	2	26

Table 6 Material factors contributing to fatal and serious injury incidents 1997 - 2002 and year 2002 by region

Material factors	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Bridge or navigation failure	0	0	0	2	0	0	0	0	0	0	0	0
Electrical failure	1	0	0	1	1	0	0	0	0	0	0	0
Equipment failure - other	7	2	6	0	1	1	0	0	0	0	0	1
Fuel or gas leak	0	0	0	1	1	0	0	0	0	0	0	0
Hull failure	0	0	1	0	1	1	0	0	0	0	0	1
Inadequate stability - other	0	0	0	1	1	0	0	0	0	0	0	0
Inappropriate hull or equipment-design fault	0	0	0	2	1	1	0	1	0	0	0	0
Insufficient maintenance of hull/equipment	0	0	2	0	0	3	0	0	0	0	0	3
Insufficient safety equipment	2	0	0	0	0	0	0	0	0	0	0	0
Machinery failure	2	3	1	0	0	4	0	1	1	0	0	2
Other	2	1	2	8	1	1	0	0	1	0	0	0
Shore structure badly designed/maintained	0	0	0	0	0	0	0	0	0	0	0	0
Total material factors attribution	14	6	12	15	7	11	0	2	2	0	0	7

Marine Safety Incidents Annual Report 2002

Table 7 Fatal and serious injury incident type 1997 - 2002 and year 2002 by region

Incident type classifications	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Capsizing	2	0	1	1	1	2	0	0	0	1	0	1
Capsizing flooding	0	0	1	1	0	0	0	0	0	0	0	0
Capsizing sinking	4	2	0	3	0	1	0	0	0	0	0	1
Capsizing swamping	0	2	4	2	2	3	2	1	0	0	0	0
Collision between ships	1	12	11	8	2	9	4	2	0	1	1	1
Collision with a fixed object	1	2	2	4	1	2	1	1	0	0	0	0
Collision with an animal	0	0	0	0	0	0	0	0	0	0	0	0
Collision with floating object	0	3	0	0	1	0	0	0	0	0	0	0
Collision with overhead obstruction	0	0	0	1	0	0	0	0	0	0	0	0
Collision with submerged object	0	0	0	2	0	1	0	1	0	0	0	0
Collision with a wharf	0	0	0	0	0	0	0	0	0	0	0	0
Explosion	0	1	2	1	2	1	0	0	1	0	0	0
Fire	2	0	2	0	0	1	0	0	0	0	0	1
Grounding intentional	0	1	1	1	0	0	0	0	0	0	0	0
Grounding unintentional	0	1	2	5	1	0	0	0	0	0	0	0
Loss of ship	0	1	0	0	0	2	0	1	1	0	0	0
Loss of stability	0	0	0	0	0	0	0	0	0	0	0	0
Onboard incident crushing or pinching	2	3	5	4	0	3	2	0	0	0	0	1
Onboard incident falls within ship	3	1	10	7	6	3	1	1	1	0	0	0
Onboard incident other onboard injury	10	8	5	16	6	6	1	0	1	2	0	2
Other	0	1	0	0	1	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	3	7	2	7	1	8	3	1	1	2	1	0
Other personal injury diving incident	1	1	1	1	0	1	0	0	0	0	0	1
Other personal injury hit by propellor or ship	2	3	1	2	3	3	0	3	0	0	0	0
Other personal injury parasailing incident	1	2	1	0	1	0	0	0	0	0	0	0
Other personal injury water ski incident	3	3	3	5	2	4	0	2	0	1	0	1
Person overboard	7	5	11	11	8	8	0	5	0	1	0	2
Structural failure	0	0	1	1	1	0	0	0	0	0	0	0
Incident types distribution	42	59	66	83	39	58	14	18	5	8	2	11

Table 8 Location of fatal and serious injury incidents 1997 - 2002 and year 2002 by region

Location classifications	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	10	3	1	1	1	0	0	0	0	0	0	0
Inland waters	11	19	17	18	11	13	4	6	1	1	0	1
Offshore	4	11	10	20	9	18	3	5	1	1	1	7
Partially smooth waters	12	10	28	19	10	10	3	1	1	5	0	0
Smooth waters	5	15	10	25	8	17	4	6	2	1	1	3
Distribution by location classifications	42	58	66	83	39	58	14	18	5	8	2	11



Marine Safety Incidents Annual Report 2002

Table 9 Fatal and serious injury incidents by month 1997 - 2002 and year 2002 by region

Months	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
January	1	10	7	14	3	11	4	6	1	0	0	0
February	2	7	5	4	0	4	3	0	0	1	0	0
March	4	1	5	14	4	2	1	0	0	1	0	0
April	3	2	11	10	3	5	0	3	0	1	0	1
May	5	9	7	7	3	5	0	1	0	1	1	2
June	3	10	4	6	2	5	2	1	0	1	0	1
July	9	3	2	7	6	9	1	2	3	1	0	2
August	2	0	5	8	6	3	2	0	0	0	0	1
September	5	5	6	4	1	7	0	2	1	0	1	3
October	2	4	2	4	5	1	1	0	0	0	0	0
November	2	2	5	2	5	1	0	1	0	0	0	0
December	4	5	7	3	1	5	0	2	0	2	0	1
Fatality/serious injury incidents	42	58	66	83	39	58	14	18	5	8	2	11

Table 10 Fatal and serious injury incidents 1997 - 2002 by region

Region	1997	1998	1999	2000	2001	2002
Gold Coast	-	-	-	10	10	14
Brisbane	14	30	27	29	13	18
Gladstone	5	9	17	16	5	5
Mackay	12	7	11	15	7	8
Townsville	6	5	7	7	1	2
Cairns	5	7	3	6	9	11
Not specified	0	0	0	0	0	0
Fatality/serious injury incidents by regions	42	58	66	83	45	58

Table 11 Fatal and serious injury incidents by time of day 1997 - 2002

Time of day	1997	1998	1999	2000	2001	2002
Not specified	2	3	1	5	4	3
Dawn	1	0	3	3	1	0
Day time	33	41	54	62	28	43
Dusk	1	3	2	3	1	4
Night time	5	11	6	10	5	8
Fatality/serious injury incidents by TOD	42	58	66	83	39	58

Marine Safety Incidents Annual Report 2002

Table 12 No. of ships involved in fatal and serious injury incidents 1997 - 2002 by ship type

Ship type	1997	1998	1999	2000	2001	2002
Not specified	1	0	0	0	0	0
COM Fishing	7	10	6	10	6	11
COM Hire & Drive	0	0	0	0	0	0
COM Hire & Drive (House)	0	3	0	0	0	0
COM Hire & Drive (Motor)	1	0	0	0	2	1
COM Hire & Drive (PWC)	0	4	3	3	0	3
COM Hire & Drive (Sail)	2	1	0	3	0	0
COM Hire & Drive (Speed)	3	2	1	0	0	0
COM Houseboat	0	0	0	1	0	0
COM Hovercraft	0	1	0	0	0	0
COM Motorboat	2	1	0	0	1	0
COM Non-passenger	1	0	2	11	1	5
COM Other	0	0	7	3	1	5
COM Passenger	3	13	11	16	11	7
COM PWC (jetski)	0	1	1	1	1	0
COM Sailboat	2	0	7	0	0	0
COM Speedboat	2	4	5	7	5	7
REC Houseboat	1	3	2	1	0	1
REC Motorboat	1	7	5	4	6	5
REC Other	2	0	0	0	2	1
REC Paddle (row) boat	1	1	0	0	1	1
REC PWC (jetski)	4	4	8	10	4	4
REC Sailboat	5	0	3	4	2	4
REC Speedboat	8	15	16	18	6	17
No of ships by ship types	46	71	76	92	49	72

Table 13 Visibility in fatal and serious injury incidents 1997 - 2002 and year 2002 by region

Visibility	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	11	9	10	14	5	16	2	7	1	0	1	5
Poor	2	4	1	3	3	2	0	0	0	1	0	1
Fair	4	12	8	11	2	2	0	1	1	0	0	0
Good	25	33	47	55	29	38	12	10	3	7	1	5
Fatality/serious injury incidents	42	58	66	83	39	58	14	18	5	8	2	11

Table 14 Weather in fatal and serious injury incidents 1997 - 2002 and year 2002 by region

Weather	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	11	13	7	14	4	12	1	5	1	0	0	5
Clear	23	37	47	46	28	36	10	11	4	5	1	5
Cloudy	1	3	5	16	6	4	1	0	0	2	1	0
Flood	0	0	0	0	0	0	0	0	0	0	0	0
Hazy	0	2	1	2	0	1	0	0	0	0	0	1
Other	0	1	0	1	0	2	0	1	0	1	0	0
Rain	7	2	6	4	1	3	2	1	0	0	0	0
Fatality/serious injury incidents	42	58	66	83	39	58	14	18	5	8	2	11



Marine Safety Incidents Annual Report 2002

Table 15 Wind in fatal and serious injury incidents 1997 - 2002 and year 2002 by region

Wind	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	12	20	7	15	4	14	2	6	1	0	0	5
No wind	2	8	6	9	4	8	3	3	0	0	1	1
Light (up to force 2 / 1-7 knots)	8	12	25	22	17	15	3	7	1	3	0	1
Moderate (force 3-4 / 8-16 knots)	14	11	17	20	7	13	3	1	3	2	1	3
Strong (force 5-7 / 17-33 knots)	5	6	11	15	7	8	3	1	0	3	0	1
Gale (force 8 and above / more than 33 knots)	1	1	0	2	0	0	0	0	0	0	0	0
Fatality/serious injury incidents	41	57	66	83	39	58	14	18	5	8	2	11

Table 16 All incidents by category 1997 - 2002 and year 2002 by region

Incident category	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not assigned	11	11	0	0	1	1	0	0	0	0	0	1
Category 1	57	86	78	122	96	117	7	36	10	19	13	32
Category 2	362	408	477	118	86	49	10	13	10	5	2	9
Category 3	-	-	-	210	250	265	45	80	32	36	28	44
Category 4	-	-	-	164	171	197	15	61	31	61	15	14
Total incidents all categories	430	505	555	614	604	629	77	190	83	121	58	100

Note: Category 3 and Category 4 were not used in marine incident classification prior to 2000. Definitions of the four marine incident categories are included at Annex B.

Table 17 Environmental conditions 1997 - 2002 and year 2002 by region

Environmental conditions	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Abnormal tidal conditions	12	24	17	6	14	5	0	1	2	1	0	1
Bar conditions	4	5	9	4	2	12	5	4	2	0	0	1
Floating or submerged object	7	17	24	23	17	11	0	6	2	1	1	1
Hazardous season (cyclones etc)	5	6	15	5	1	0	0	0	0	0	0	0
Hazardous waters - coral reefs	9	6	1	21	29	22	0	0	2	19	0	1
Hazardous waters - lack navigation aids	2	0	1	2	1	1	0	0	0	0	0	1
Hazardous waters - shifting channel	5	1	1	2	9	4	0	2	1	1	0	0
Hazardous waters - uncharted hazards	6	3	0	2	7	4	2	0	1	1	0	0
Heavy traffic area	3	5	5	5	2	7	0	3	0	2	0	2
Other environmental contributing factor	12	3	5	23	34	23	0	2	15	5	0	1
Poor visibility	9	14	18	15	16	16	2	4	5	4	0	1
Sea state	28	31	61	65	74	67	8	25	10	13	1	10
Wash of passing vessel	18	22	19	6	12	13	6	2	2	1	0	2
Wind	25	43	25	21	55	42	3	17	6	7	0	9
Total environmental factors attribution	145	180	201	200	273	227	26	66	48	55	2	30

Marine Safety Incidents Annual Report 2002

Table 18 Human factors 1997 - 2002 and year 2002 by region

Human factors	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Alcohol or drugs	9	6	4	6	6	6	0	2	0	0	0	4
Commercial pressure	4	1	4	7	8	5	1	3	0	0	0	1
Excessive speed	11	10	20	11	15	12	4	3	0	2	0	3
Fatigue	6	4	8	3	8	2	0	1	1	0	0	0
Inadequate training of crew	21	8	6	15	20	11	2	3	0	1	0	5
Inappropriate Harbour/Port Authority advice	1	0	0	2	2	0	0	0	0	0	0	0
Inappropriate advice to ship - Pilot	1	0	4	0	0	2	0	0	0	0	1	1
Inappropriate Vessel Traffic System advice	0	1	0	0	1	1	0	0	0	0	0	1
Inappropriate instructions to crew - other	2	2	1	1	3	4	0	0	0	1	0	3
Poor communication of instructions to crew	4	3	0	3	4	3	0	1	0	1	1	0
Inattention	26	22	30	61	72	58	9	21	8	13	1	6
Insecure mooring	4	14	10	29	29	18	0	6	3	4	1	4
Insufficient crew numbers	0	0	1	0	1	0	0	0	0	0	0	0
Insufficient fuel	1	3	2	2	1	3	0	0	0	1	0	2
Insufficient maintenance	8	3	6	6	10	5	0	1	0	3	1	0
Insufficient planning	3	5	9	11	12	8	0	4	2	0	0	2
Navigation error-failure to keep proper lookout	24	24	33	17	39	23	1	9	5	4	1	3
Navigation error-lack of knowledge/experience	44	66	58	30	37	14	0	5	2	4	0	3
Navigation error-other	15	19	33	25	38	22	0	5	2	11	1	3
Navigation error-violation of Collision regs	11	28	15	2	20	12	0	4	1	4	0	3
Operational error-other	26	40	44	61	120	108	16	22	20	42	2	6
Overloading	0	0	0	2	4	0	0	0	0	0	0	0
Poor communications	3	6	3	3	6	6	0	3	1	0	1	1
Poor ship to shore communications	1	0	0	0	2	2	0	0	0	0	0	2
Violation of standard procedures	3	27	3	1	26	16	1	6	0	2	0	7
Violation of statutory rules or standards	1	4	7	6	20	20	2	7	0	2	0	9
Total human factors attribution	229	296	301	304	504	361	36	106	45	95	10	69

Table 19 Material factors 1997 - 2002 and year 2002 by region

Material factors	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Bridge or navigation failure	1	0	4	3	2	2	0	1	0	1	0	0
Electrical failure	7	3	3	8	20	12	1	4	2	2	1	2
Equipment failure - other	50	28	32	30	25	21	0	2	2	10	0	7
Fuel or gas leak	1	6	3	3	10	2	1	0	0	0	0	1
Hull failure	7	12	8	10	14	16	0	4	2	3	1	6
Inadequate stability - other	0	2	1	3	6	0	0	0	0	0	0	0
Inadequate stability - overloading	0	0	0	2	1	0	0	0	0	0	0	0
Inadequate stability - shifting cargo	0	1	0	0	0	1	0	0	0	1	0	0
Inappropriate hull or equipment-construction fault	1	2	0	2	5	6	2	1	0	1	0	2
Inappropriate hull or equipment-design fault	2	2	2	6	9	2	0	1	0	0	0	1
Insufficient maintenance of hull or equipment	3	5	12	9	6	5	0	0	0	1	1	3
Insufficient safety equipment	4	1	0	0	0	5	0	3	0	1	0	1
Machinery failure	15	21	25	22	40	43	3	8	13	10	2	7
Other material contributing factor	6	2	14	39	31	26	1	12	6	6	1	0
Shore structure badly designed/maintained	6	4	5	4	4	5	0	1	0	2	0	2
Total material factors attribution	103	89	109	141	173	146	8	37	25	38	6	32



Marine Safety Incidents Annual Report 2002

Table 20 Incident type 1997 - 2002 and year 2002 by region

Incident type	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Capsizing	9	10	12	19	16	15	2	8	0	3	1	1
Capsizing flooding	5	4	5	5	13	7	1	0	1	0	2	3
Capsizing sinking	52	41	27	19	22	28	2	13	1	0	5	7
Capsizing swamping	3	13	27	17	22	30	8	11	5	1	3	2
Collision between ships	86	124	139	119	122	113	21	41	9	18	11	13
Collision with a fixed object	37	39	37	37	35	40	3	17	5	2	2	11
Collision with an animal	0	0	0	0	1	2	0	1	0	1	0	0
Collision with floating object	5	17	6	12	7	10	0	3	4	0	1	2
Collision with overhead obstruction	0	1	0	3	0	2	1	1	0	0	0	0
Collision with submerged object	11	8	18	24	15	19	2	7	4	2	3	1
Collision with wharf	8	10	16	13	20	18	1	4	2	5	4	2
Explosion	6	9	2	2	5	1	0	0	1	0	0	0
Fire	12	9	21	19	26	17	2	5	3	1	1	5
Grounding intentional	1	4	3	10	2	3	0	2	1	0	0	0
Grounding unintentional	76	86	92	127	113	93	1	20	15	36	10	11
Loss of ship	0	5	6	25	0	6	1	1	3	1	0	0
Loss of stability	0	0	1	0	3	0	0	0	0	0	0	0
Onboard incident crushing or pinching	4	4	8	5	1	5	2	0	1	0	0	2
Onboard incident falls within ship	8	5	16	9	19	13	3	4	4	2	0	0
Onboard incident other onboard injury	25	26	12	20	15	11	3	1	1	4	0	2
Other	22	19	55	31	11	62	7	10	12	17	5	11
Other - Close Call	12	29	4	29	39	47	2	15	3	12	2	13
Other - Crime Issue	1	0	1	1	10	3	0	1	0	0	0	2
Other - Ship Adrift	4	2	0	6	20	9	0	4	0	2	0	3
Other personal injury caused by operation of ship	5	9	5	10	7	18	7	3	3	4	1	0
Other personal injury diving incident	4	1	1	3	1	2	0	0	0	1	0	1
Other personal injury hit by propellor or ship	4	3	1	2	4	6	1	4	0	0	1	0
Other personal injury parasailing incident	1	2	1	0	1	2	1	0	1	0	0	0
Other personal injury water ski incident	5	8	8	10	7	5	0	2	0	2	0	1
Person overboard	17	10	22	21	25	22	5	10	3	1	0	3
Structural failure	7	7	9	16	22	20	1	2	1	6	6	4
All incidents	430	505	555	614	604	629	77	190	83	121	58	100

Table 21 Locations of incidents 1997 - 2002 and year 2002 by region

Location	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	104	67	9	8	2	2	0	1	0	0	1	0
Inland waters	106	138	131	107	99	96	20	34	17	3	17	5
Offshore	65	80	71	115	115	130	14	39	16	9	13	39
Partially smooth waters	79	89	236	160	149	148	9	26	12	76	8	17
Smooth waters	76	131	108	224	239	253	34	90	38	33	19	39
All incidents	430	505	555	614	604	629	77	190	83	121	58	100



Marine Safety Incidents Annual Report 2002

Table 22 Incidents by month 1997 - 2002 and year by region

Month	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
January	31	66	48	66	59	60	10	21	6	14	3	6
February	23	39	43	49	40	54	11	18	1	6	4	14
March	40	29	47	53	56	57	5	22	8	15	2	5
April	29	37	52	64	56	57	9	21	1	11	8	7
May	36	47	47	49	38	46	2	12	11	9	5	7
June	35	40	47	40	50	63	8	11	8	11	8	17
July	40	30	44	61	48	38	5	9	7	6	5	6
August	35	40	45	60	66	48	5	17	11	8	1	6
September	35	45	44	47	42	60	6	15	7	14	10	8
October	38	52	46	52	52	56	7	14	9	15	4	7
November	47	38	43	35	54	46	6	15	9	5	4	7
December	41	42	49	38	43	44	3	15	5	7	4	10
All incidents	430	505	555	614	604	629	77	190	83	121	58	100

Table 23 Incidents 1997 - 2002 by region

Region	1997	1998	1999	2000	2001	2002
Gold Coast	-	-	-	73	75	77
Brisbane	183	226	226	178	193	190
Gladstone	61	64	89	95	76	83
Mackay	82	104	131	119	127	121
Townsville	57	46	45	47	51	58
Cairns	41	62	64	102	82	100
Region not advised	6	3	0	0	0	0
All incidents	430	505	555	614	604	629

Table 24 Damage category 1997 - 2002 and year 2002 by region

Damage	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	63	55	3	0	2	6	0	3	1	0	1	1
Damage to Property Only	12	43	68	54	48	65	13	21	8	3	7	13
No Damage	114	105	175	217	220	258	25	82	43	56	17	35
Ship Damaged	162	210	222	290	289	261	35	70	26	60	30	40
Ship Lost	21	33	31	53	45	39	4	14	5	2	3	11
All incidents	372	446	499	614	604	629	77	190	83	121	58	100

Table 25 Incidents by time of day 1997 - 2002 and year 2002 by region

Time of day	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	43	14	16	51	23	43	3	7	7	4	2	20
Dawn	19	22	33	20	21	26	3	6	4	3	7	3
Day	280	318	359	387	383	391	65	121	54	83	28	41
Dusk	20	48	30	32	57	57	1	20	7	8	9	12
Night	68	103	117	124	120	112	5	36	11	23	12	24
All incidents	430	505	555	614	604	629	77	190	83	121	58	100



Marine Safety Incidents Annual Report 2002

Table 26 No. of ships in incidents 1997 - 2002 by ship type

Ship type	1997	1998	1999	2000	2001	2002
COM Fishing	80	78	92	102	88	86
COM Hire & Drive	0	0	2	0	0	0
COM Hire & Drive (House)	6	9	3	4	4	1
COM Hire & Drive (Motor)	3	6	6	8	10	10
COM Hire & Drive (Other)	6	11	0	0	2	0
COM Hire & Drive (PWC)	4	6	7	7	5	2
COM Hire & Drive (Sail)	16	17	27	43	46	30
COM Hire & Drive (Speed)	4	2	1	2	0	0
COM Houseboat	1	4	8	7	10	10
COM Hovercraft	0	1	0	0	0	0
COM Motorboat	8	15	5	11	9	7
COM Non-passenger	23	24	14	67	28	66
COM Other	75	79	115	46	66	88
COM Paddle (row) boat	0	1	0	1	0	3
COM Passenger	76	92	112	126	163	133
COM PWC (jetski)	5	12	6	6	8	8
COM Sailboat	11	15	47	7	15	14
COM Speedboat	9	15	15	8	13	22
REC Houseboat	6	8	8	7	9	6
REC Motorboat	31	50	42	60	65	68
REC Other	16	13	15	16	29	32
REC Paddle (row) boat	3	3	0	5	1	3
REC PWC (jetski)	10	14	25	26	17	20
REC Sailboat	55	82	88	95	59	85
REC Speedboat	50	72	82	83	55	69
Not specified	8	13	7	10	34	53
Unknown ship type	13	9	10	3	12	9
No of ships by ship type	519	651	737	750	748	825

Table 27 Visibility in incidents 1997 - 2002 and year 2002 by region

Visibility	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	48	61	72	91	40	94	8	46	11	4	13	12
Poor	50	56	52	64	60	50	3	10	9	7	7	14
Fair	59	74	74	95	111	65	2	17	10	16	7	13
Good	273	314	357	364	393	420	64	117	53	94	31	61
All incidents	430	505	555	1862	1258	629	77	190	83	121	58	100

Table 28 Weather in incidents 1997 - 2002 and year 2002 by region

Weather	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	74	78	58	67	33	74	6	33	14	1	5	15
Clear	273	311	348	365	422	427	64	122	52	89	41	59
Cloudy	31	35	55	84	72	63	3	16	9	17	6	12
Flood	0	0	0	3	1	0	0	0	0	0	0	0
Hazy	6	12	6	15	14	26	1	6	3	6	4	6
Other weather	4	7	10	12	8	7	1	3	1	2	0	0
Rain	42	62	78	68	54	32	2	10	4	6	2	8
All incidents	430	505	555	614	604	629	77	190	83	121	58	100

Marine Safety Incidents Annual Report 2002

Table 29 Wind in incidents 1997 - 2002 and year 2002 by region

Wind	1997	1998	1999	2000	2001	2002	GC	BN	GL	MK	TV	CN
Not specified	99	131	67	61	39	70	9	35	10	0	2	14
No wind	59	78	115	57	45	56	12	21	6	5	5	7
Light (up to force 2 / 1-7 knots)	112	128	142	169	213	191	28	50	22	36	22	33
Moderate (force 3-4 / 8-16 knots)	134	122	184	173	184	199	23	59	31	41	21	24
Strong (force 5-7 / 17-33 knots)	9	18	15	131	105	101	5	22	12	38	5	19
Gale (force 8 and above / more than 33 knots)	17	28	32	23	18	12	0	3	2	1	3	3
All incidents	430	505	555	614	604	629	77	190	83	121	58	100

Table 30 Boating incidents 1997 - 2002 by region

Region	1997	1998	1999	2000	2001	2002
South East Queensland	2029	2174	1769	1845	n/a	n/a
Gold Coast	n/a	n/a	n/a	n/a	927	874
Brisbane	n/a	n/a	n/a	n/a	768	1005
Gladstone	421	424	356	480	335	395
Mackay	76	121	65	40	68	17
Townsville	61	106	114	151	111	122
Cairns	216	118	147	216	160	146
Annual totals	2803	2943	2451	2732	2369	2559

Table 31 Boating incidents by callout reason 2002 by region

Region	Breakdown	Grounding	Medical	Fuel	Sinking	Drifting	Not specified	Search	Flares	EPIRB
Gold Coast	701	96	8	42	49	49	38	22	0	0
Brisbane	534	77	20	52	44	36	59	42	8	2
Gladstone	233	40	7	26	24	16	23	20	4	2
Mackay	6	3	0	2	2	1	2	0	0	1
Townsville	87	8	0	4	6	4	3	6	4	0
Cairns	83	4	0	8	11	14	8	13	2	3
Callout reason totals	1644	228	35	134	136	120	133	103	18	8

Table 32 Commercial and recreational registrations 1997-2002 by region

Recreational registrations						
Region	1997	1998	1999	2000	2001	2002
Gold Coast	15007	16392	17544	18695	20130	22052
Brisbane	59927	63662	66986	70310	74018	75514
Gladstone	21378	22469	23430	24391	25826	29270
Mackay	9054	9692	10055	10417	11046	12632
Townsville	12418	13065	13610	14154	14989	16618
Cairns	12974	13816	14693	15570	16143	15829
Totals	130758	139096	146318	153537	162152	171915

Commercial registrations						
Region	1997	1998	1999	2000	2001	2002
Gold Coast	656	693	728	727	727	763
Brisbane	1394	1434	1585	1569	1596	1580
Gladstone	667	716	768	744	752	778
Mackay	609	641	700	711	751	765
Townsville	378	413	480	473	466	485
Cairns	900	983	1074	1105	1123	1178
Totals	4604	4880	5335	5329	5415	5549

Total registrations						
Region	1997	1998	1999	2000	2001	2002
Gold Coast	15663	17085	18272	19422	20857	22815
Brisbane	61321	65096	68571	71879	75614	77094
Gladstone	22045	23185	24198	25135	26578	30048
Mackay	9663	10333	10755	11128	11797	13397
Townsville	12796	13478	14090	14627	15455	17103
Cairns	13874	14799	15767	16675	17266	17007
Totals	135362	143976	151653	158866	167567	177464