Transport for NSW

Maritime Management Centre

Boating incidents in New South Wales

Statistical Statement 2013–14

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Contents

1	Introduction	2
2	Key points in 2013–14	3
3	Key numbers in 2013–14	4
4	Latest incident trends	7
5	Recreational incident patterns	10
6	Lifejacket wear	15
7	Commercial vessels	17
8	Discussion and conclusions	18

1 Introduction

This statement summarises boating incidents recorded within the State of New South Wales for the Financial Year ended 30 June 2014, with an emphasis on recreational boating incidents.

It provides an update on boating safety statistics since the publication of the Transport for NSW reports *Boating Incidents in NSW – Statistical report for the 10-year period ended 30 June 2012* and *Boating incidents in NSW – Statistical Statement 2012-13*.

For this statement, data from 2013–14 is compared with that from the previous 10-year period (2003-04 to 2012-13).

2 Key points in 2013–14

- The total number of recreational and commercial boating fatalities (8) was much lower than last year (27), and was the lowest number recorded in the last 20 years. Seven of these fatalities were on recreational vessels.
- The total number of incidents was significantly below the long-term average, suggesting a continuing gradual improvement in overall boating safety.
- Total incident rates, both for recreational vessels and commercial vessels, continue to fall.
- However, serious injury rates were relatively high for both recreational and commercial vessels.
- Three out of the four people who drowned in recreational boating incidents during 2013–14 were not wearing a lifejacket at the time of the incident. The long-term rate of non-lifejacket wear amongst drowning victims remains at approximately nine out of 10.
- Of the seven recreational boating fatalities recorded, two could have possibly been prevented had all the persons presumed to have drowned been wearing a lifejacket in accordance with current requirements.
- The circumstances surrounding recreational boating fatalities were generally similar to those surrounding such fatalities in recent years – particularly in terms of 'men in small boats'. All seven fatalities involved a vessel of six metres or less in length, and five of the seven victims (71.4%) were male.
- An unusually high proportion of the recreational boating fatal incidents occurred in the early to mid morning (midnight to 9:59am) – this period accounted for four out of seven (i.e. 57.1%) of the incidents. The corresponding long-term average is less than half that (22.6%).
- There was a relatively low prevalence of recreational boating incidents overall related to a lack of judgement, the cooler months (April – September), larger sailing vessels (yachts) and the early to mid morning period.
- There was a relatively high prevalence of recreational vessel serious injury incidents involving either open runabouts or vessels capsizing.
- Similarly, there was a high prevalence of recreational boating incidents overall involving towing injuries, collisions with submerged objects, open runabouts, PWC, the middle of the day (10:00am – 1:59pm) and the warmer months (October – March) as well as vessels underway, at anchor/berthed/moored or involved in towing.

3 Key numbers in 2013–14

There were eight fatalities, 92 serious injuries and 322 incidents related to boating recorded in the 12-month period to 30 June 2014 (Table 1). Fatalities were down by more than 70% compared with the previous year and total incidents were down by more than 10%. However, serious injuries were up by nearly 28%.

The number of fatalities in 2013–14 was the lowest recorded since detailed records commenced in 1992.

Table 1: Fatalities, serious injuries and related incident numbers for the 2013–14 financial year.

Vessel category	Incident category				TOTAL INCIDENTS
	Fatalities	Fatal incidents	Serious injuries	Serious injury incidents	
Recreational	7	7	71	53	**208**
Commercial	1	1	18	16	**83**
Commercial/recreational	0	0	3	2	**31**
TOTAL	**8**	**8**	**92**	**71**	**322**
Change on last year*	**– 70.4%**	**– 65.2%**	**+ 27.8%**	**+ 10.9%**	**– 10.3%**

*The % changes do not exactly correspond to the incident data presented in the 2012-13 Statistical Statement, due to a small number of non-fatal incidents from 2012/13 being added to RMS records subsequent to that earlier statement being prepared.

In 2013–14, there were eight incidents involving one or more fatalities (2.5% of total) – a similar proportion to the long term figure (2003-04 to 2012-13) of 3.9%. There were 71 incidents involving serious injury but no fatalities (22.0% of total) – a proportion that is significantly higher than the corresponding long-term figure of 13.6%.

Most of the incidents (208 or 64.6%) involved only recreational vessels. This proportion is slightly less than the long-term figure of 70.1%.

In relation to the seven recreational vessel fatality incidents during the year:

- All but one of the vessels involved was less than six metres in length (i.e. 85.7% of total). The remaining vessel was six metres long;
- Three of the incidents (42.9%) involved vessels less than 4.8 metres long;
- Four of the seven victims (57.1%) were not wearing a lifejacket;
- Five of the victims (71.4%) were male;

- Open runabouts accounted for three of the incidents (42.9%). A small cabin runabout, a row boat, a canoe and a high-performance racing/skiing boat accounted for one each;
- Six of the incidents (85.7%) involved circumstances where the victim is likely to have been suddenly forced into the water – i.e. a person falling overboard or partially overboard, or a vessel capsize;
- Four of the incidents (57.1%) occurred in the early morning (between midnight and 10am);
- There was one fatal bar crossing incident;
- Of the seven people who died in total, four are presumed to have drowned – three of whom should have been wearing a lifejacket under current laws. Crucially, only one of the three was wearing a lifejacket – meaning a further two lives could have possibly been saved if they had all been wearing a lifejacket;
- In the case of the person who was presumed to have drowned despite wearing a lifejacket, the victim's lifejacket was reportedly torn free in large waves (during a bar crossing incident);
- Of the three persons presumed not to have drowned, one suffered an impact injury, one was hit by a propeller and the third appeared to be affected by a pre-existing medical condition; and
- The overall lifejacket wear rate amongst drowning victims since 2003-04 is now 10.4%. This means that, on average, approximately 9 out of 10 people who drowned over this 11 year period weren't wearing a lifejacket.

In relation to the 53 recreational vessel serious injury incidents recorded during 2013–14:

- 22.6% were recorded as injury – towing incident, which is statistically similar to the corresponding long-term figure of 16.3%. A further 17.0% involved a vessel capsize, which is significantly higher than the corresponding long-term figure of 4.8%;
- 13.2% were attributed to a lack of judgement, a similar percentage to the long-term figure of 18.3%;
- 50.9% involved a vessel underway, which is similar to the long-term figure of 54.9%;
- Open runabouts accounted for 58.5% of these incidents, which is slightly higher than the long-term figure of 46.9%;
- Vessels less than six metres in length accounted for 73.7% of the incidents for which the vessel length was recorded, which is a statistically similar result to the long-term percentage of 65.8%. The corresponding proportion for vessels less than 4.8m (52.6%) was slightly higher than the long-term figure (36.3%);
- The distribution of serious injury incidents through the day broadly reflected past patterns, with most of the incidents occurring in the late morning to late afternoon period;
- Three-quarters of the incidents occurred in the warmer half of the year (October to March), a similar result to that of past years; and
- Enclosed waters accounted for 88.7% of the incidents, which is very similar to the long-term figure of 83.2%.

Personal Watercraft (PWC) Update for 2013–14:

Detailed long-term statistics on recreational PWC incidents are provided in the report *Personal Watercraft Incidents, Compliance and Feedback in New South Wales – Statistical report for the 10-year period ended 30 June 2012*.

In 2013–14 there were (involving a PWC):

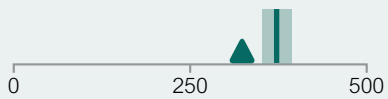
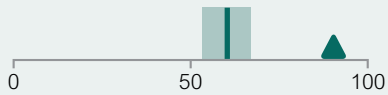
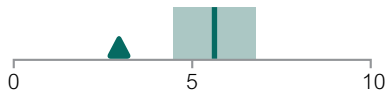
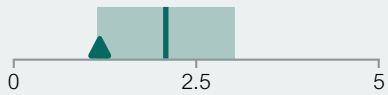
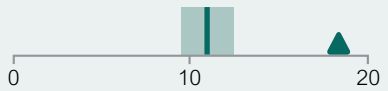
- 21 incidents in total;
- 7 serious injury incidents; and
- 0 fatality incidents.

In addition:

- The overall incident rate for recreational PWC (200.0 per 100,000) was very similar to the long term average of 218.7 per 100,000; and
- The serious injury incident rate for recreational PWC (66.7 per 100,000) was also very similar to the long-term average of 69.6 per 100,000.

3 Key numbers in 2013–14

Table 2: Incident Barometer – comparison of 2013–14 against previous 10 years (2003–04 to 2012–13) and summary of long-term trends.

Indicator	2013–14	Average previous 10 years (10 yr av.)	2013–14 statistical relationship to 10yr av.	Graph* showing 2013–14 vs. 10yr av.	Long-term trend
Total incidents	322	372.9	Lower		**Initial increase; now decreasing**
Total fatalities	8	17.1	Lower		**Fluctuating**
Total serious injuries	92	60.5	Higher		**Increasing in line with vessel numbers****
Fatal incidents (recreational) per 100,000 vessels	3.0	5.7	Lower		**Decreasing**
Fatal incidents (commercial) per 10,000 vessels	1.1	2.1	At boundary of statistical significance for being lower		**Underlying decline**
Serious injury incidents (recreational) per 100,000 vessels	22.9	18.4	Higher		**Fluctuating****
Serious injury incidents (commercial) per 10,000 vessels	18.3	10.9	Higher		**Increasing, partly in line with vessel numbers**

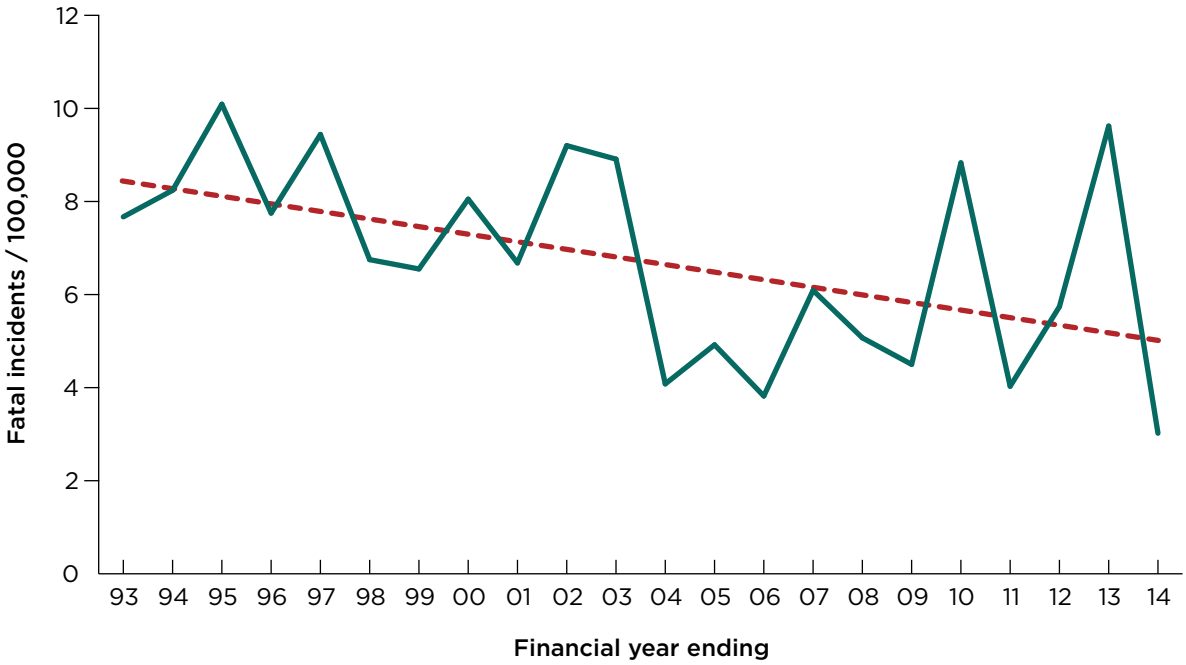
*Key: ▲ 2013–14 value | 10 year average ▒ statistical range of 10 year average

** Trends may have been affected by changes in reporting protocols and/or data capture over time.

4 Latest incident trends

The relatively low recreational vessel fatality incident rate in 2013–14 (3.0 incidents per 100,000 vessels) has restored a previously established long-term downward trend (Figure 1).

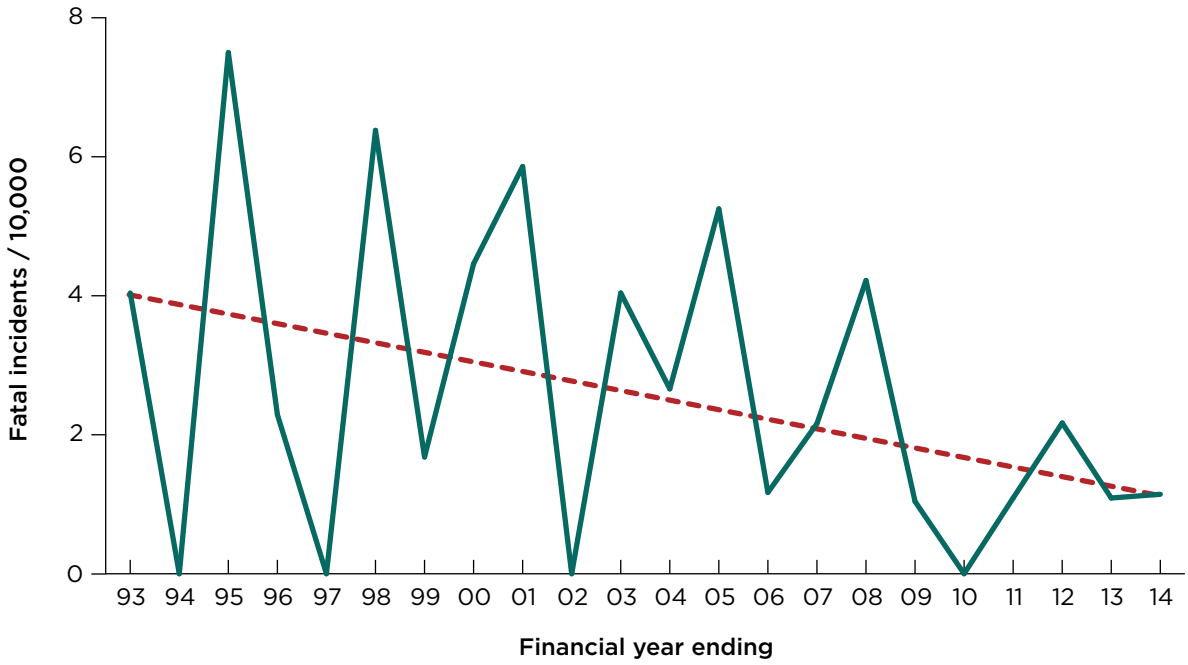
Figure 1: Fatal incidents per 100,000 registered recreational vessels.



In addition, the commercial vessel fatality incident rate remains relatively low (1.1 incidents per 10,000 vessels in 2013–14) and is continuing to display an underlying downward trend (Figure 2).

4 Latest incident trends

Figure 2: Fatal incidents per 10,000 commercial vessels*.



* Trend line fitted to non-overlapping 3-year averages of the data (i.e. '93-'95, '96-'98, etc.).

Overall incident rates for both recreational vessels (Figure 3) and commercial vessels (Figure 4) have maintained long-term downward trends. However, in the case of commercial vessels, the incident rate in 2013–14 was higher than it has been for several years (Figure 4).

Figure 3: Total incidents per 100,000 registered recreational vessels.

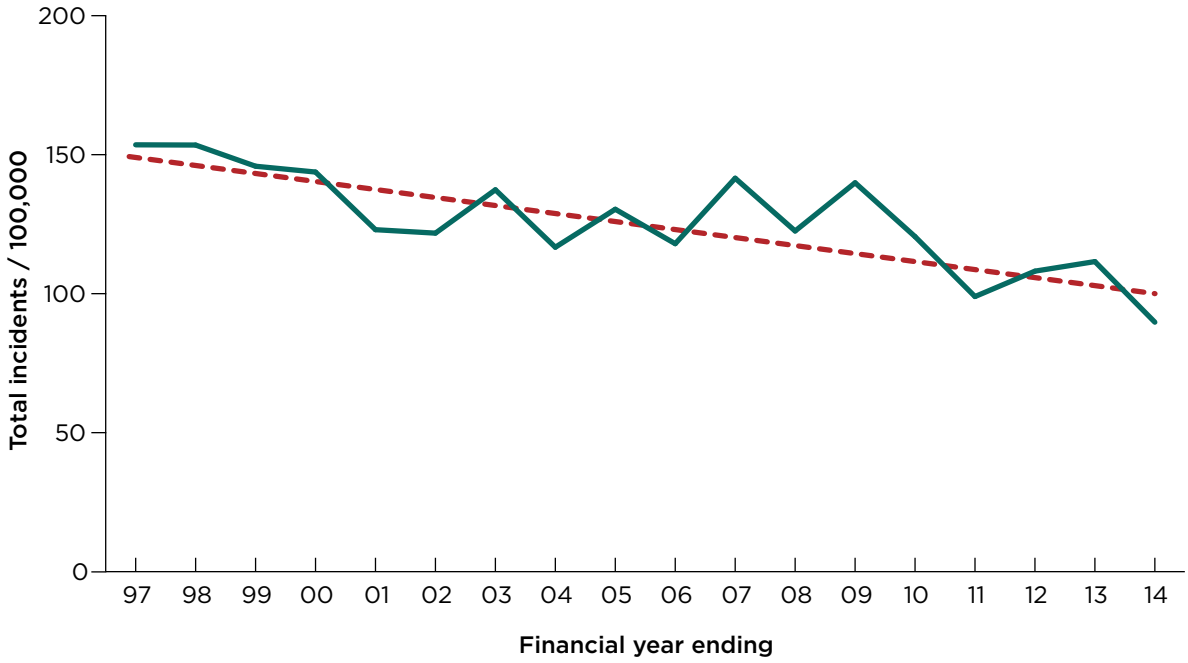
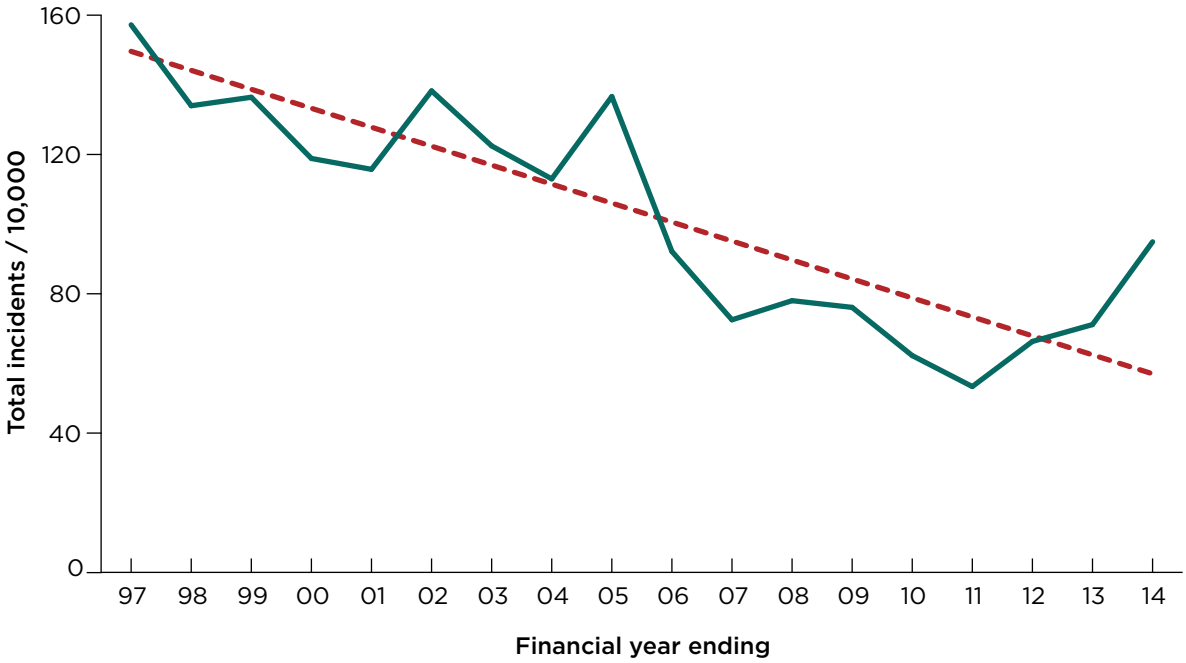


Figure 4: Total incidents per 10,000 commercial vessels.



5 Recreational incident patterns

There were seven recreational vessel fatalities in 2013–14, arising from seven incidents. Table 3 below summarises the circumstances surrounding each of these incidents. Five of the incidents occurred in the warmer months (November to March), while two occurred in the cooler months of April to September. The incidents occurred at a variety of times, but particularly in the morning. Four of the incidents (57.1%) occurred in the period midnight to 9:59am, which is more than double the corresponding long-term percentage (22.6%).[1] They also occurred on a variety of waterway types, including in both coastal and inland areas. Six of the fatal incidents involved a vessel less than six meters in length (the remaining incident involved a vessel of six metres).

Three incidents involved vessels less than 4.8 metres. Six of the seven incidents, including a bar crossing incident, involved a person falling overboard or partially overboard, or a vessel capsize. No single cause stood out, although at least four incidents (caused by excess alcohol, weather, lack of judgement and bar conditions respectively), may have been preventable by better planning and/or greater care. In four of the seven fatality incidents, the victim was not wearing a lifejacket, and in one of these cases, the victim was alone. Further information related to lifejacket wear is provided in Section 6 below.

> **“In four of the seven fatality incidents, the victim was not wearing a lifejacket...”**

[1] The statistical confidence that there is a real difference between these proportions (i.e. one not due to chance alone) is approximately 93%.

Table 3: Summary of circumstances surrounding the seven recreational vessel fatality incidents recorded in 2013–14.

Month	Time band	Waterway type	Vessel type	Vessel length	Incident type	Cause	Person alone?	Lifejacket worn?
Jul	6–10am	lake	row boat	<4.8 m	fall in vessel*	unknown	Yes	No
Nov	Midnight – 6am	harbour	cabin runabout	4.8 to <6 m	fall overboard*	excess alcohol	No	No
Nov	6–10am	river	hi performance race/ ski	6 to <7.5 m	towing accident	high speed	No	Yes
Dec	6pm – midnight	lake	canoe	<4.8 m	capsizing*	weather	No	No
Feb	2–6pm	coastal	open runabout	<4.8 m	capsizing	Other – medical	No	Yes
Mar	10am – 2pm	river	open runabout	4.8 to <6 m	fall overboard/ prop strike	lack of judgement	No	No
Apr	6–10am	coastal bar	open runabout	4.8 to <6 m	bar crossing*	bar conditions	No	Yes

*victim presumed to have drowned

While it is not possible to make many firm statistical conclusions in relation to the seven recreational boating fatality incidents that occurred in 2013–14, it appears that the mix of circumstances surrounding these incidents was generally similar to that surrounding fatality incidents over the previous 10 years. Based on an analysis of seven variables[2] (incident type, incident cause, vessel operation, vessel type, vessel length, time of day and month), only vessel length and time of day show any evidence of an unusual pattern in 2013–14 – in the case of vessel length, partly because all of the fatality incidents involved relatively small vessels, with none larger than six metres in length, and in the case of time of day, basically because three out of the seven fatality incidents occurring in the 6:00am to 9:59am period.

The fatalities in 2013–14 were spread across a wide range of ages – from 20–29 years through to 80-plus years. Five of the seven victims (71.4%) were male, a statistically similar proportion to the long-term (2003–04 to 2012–13) value of 88.0%.

Table 4 lists the key incident profile descriptors that applied to recreational boating serious injury incidents for the year. While most of the incident descriptors listed had a similar prevalence compared with the previous 10 years, two descriptors (Open runabout and, especially, Capsizing) stood out in terms of relatively high percentages in 2013–14.

“...all of the fatality incidents involved relatively small vessels, with none larger than six metres in length...”

[2] Each variable was analysed separately by Multidimensional Scaling (MDS), with the point for 2013-14 plotted along with points for each of the preceding 10 years in each case. Variables for which 2013-14 was an outlier (i.e. reflected an unusual pattern) were identified by use of 2.5th and 97.5th percentiles, of the final axes scores, superimposed on each of the MDS plots.

5 Recreational incident patterns

Table 4: Recreational boating serious injury incident numbers and percentages by key incident profile descriptors for 2013–14, with long-term percentages provided on the right for comparison. Instances where the percentage in 2013–14 is relatively high or low are denoted by upward or downward-pointing triangle symbols respectively. Grey symbols are used where the corresponding statistical confidence (2-tailed test of two proportions) is 80% or more; black symbols are used where the confidence is at least 95%.

Key incident profile descriptors*	2013–14 Number	2013–14 % of total (N=53)	2004-13 % of total (N=399)
Incident type			
Injury – towing incident	12	22.6	16.3
Capsizing	9	17.0 ▲	4.8
Collision with fixed object	6	11.3	9.5
Propeller injury	5	9.4	5.5
Collision with vessel	4	7.5	9.3
Fire or explosion (fuel)	3	5.7	5.3
Incident cause			
Lack of judgement	7	13.2	18.3
No proper lookout	5	9.4	10.0
Weather conditions	4	7.5	6.5
Vessel operation			
Underway	27	50.9	54.9
Towing	14	26.4	19.3
At anchor, berthed or moored	6	11.3	6.5
Crossing a bar	3	5.7	1.5
Vessel type			
Open runabout	31	58.5 ▲	46.9
PWC	7	13.2	13.0
Cabin runabout	4	7.5	8.0
Sailing vessel (yacht)	3	5.7	7.0
Motor cruiser	3	5.7	5.0
Vessel length (where known; N=19 & 281)			
<6 metres	14	73.7	65.8
6 metres or more	5	26.3	34.2
Time of day			
10:00am – 1:59pm	20	37.7	33.1
2:00pm – 5:59pm	17	32.1	39.3
6:00pm – 11:59pm	8	15.1	12.5
12:00am – 5:59am	4	7.5	3.8
6:00am – 9:59am	4	7.5	11.3
Month			
October – March	40	75.5	71.2
April – September	13	24.5	28.8
Waterway type			
Enclosed waters (including alpine)	47	88.7	83.2
Open (ocean) waters	6	11.3	16.8

*Not all descriptors recorded are shown, only those which accounted for at least three incidents in 2013–14. Descriptors are listed in the order they are discussed in the long-term incident report, *Boating Incidents in NSW – Statistical report for the 10-year period ended 30 June 2012.*

Injuries related to towing incidents, capsizing and collisions with a fixed object together accounted for 27 recreational vessel serious injury incidents in 2013–14, representing 50.9% of all such incidents (Table 4). This is a significantly greater proportion than the long-term figure of 30.6%. Towing injury incidents alone accounted for 12 recreational vessel serious injury incidents, representing nearly one quarter of all such incidents during the year.

In addition to the information shown in Table 4, there were two recreational vessel serious injury incidents caused by excess alcohol and two due to excess speed.

Table 5 lists the key incident profile descriptors that applied to recreational boating incidents overall for the year. While many of the incident descriptors listed had a similar prevalence compared with the previous 10 years, nine descriptors (injury – towing incident, collision with submerged object, underway, at anchor/berthed/moored, open runabout, PWC, 10:00am – 1:59pm, October – March, and, especially, the vessel operation towing) stood out in terms of relatively high percentages.

Conversely, incidents attributed to the skipper's lack of judgement were proportionately less prevalent than previously (Table 5). A similar finding applied to the April – September period and, especially, to sailing vessels (yachts) and the early morning periods 12:00am – 5:59am and 6:00am – 9:59am (Table 5).

Collision with a vessel, capsizing and grounding together accounted for 112 recreational vessel incidents in 2013–14, representing 53.8% of all such incidents (Table 5). This is a statistically similar proportion to the long-term figure of 52.1%. On its own, collision with a vessel accounted for 65 recreational vessel incidents, representing nearly a third of all such incidents during the year.

In addition to the information shown in Table 5, there were three recreational vessel incidents in total caused by excess speed and three due to excess alcohol. In the case of excess speed, there is some evidence (statistical confidence > 90%) of a reduction in the proportion of such incidents in 2013–14 compared with the previous 10 years.

Table 5: Recreational boating total incident numbers and percentages by key incident profile descriptors for 2013–14, with long-term percentages provided for on the right for comparison. Symbols used as per Table 4.

Key incident profile descriptors*	2013–14 Number	2013–14 % of total (N=208)	2004-13 % of total (N=2614)
Incident type			
Collision with vessel	65	31.3	31.4
Capsizing	31	14.9	13.8
Grounding	16	7.7	6.8
Injury – towing incident	14	6.7 ▲	3.4
Collision with fixed object	13	6.3	6.7
Sinking	11	5.3	4.1
Collision with submerged object	10	4.8 ▲	2.5
Incident cause			
Lack of judgement	31	14.9 ▼	19.1
Weather conditions	25	12.0	12.5
No proper lookout	25	12.0	11.0
Vessel operation			
Underway	118	56.7 ▲	50.0
At anchor, berthed or moored	48	23.1 ▲	19.1
Towing	23	11.1 ▲	6.0
Vessel type			
Open runabout	80	38.5 ▲	32.2
Sailing vessel (yacht)	31	14.9 ▼	20.4
Motor cruiser	28	13.5	10.9
PWC	19	9.1 ▲	5.4
Cabin runabout	18	8.7	9.4
Vessel length (where known; N=76 & 1981)			
<6 metres	37	48.7	48.1
6 metres or more	39	51.3	51.9
Time of day			
10:00am – 1:59pm	78	37.5 ▲	31.2
2:00pm – 5:59pm	74	35.6	31.9
6:00pm – 11:59pm	25	12.0	13.8
6:00am – 9:59am	19	9.1 ▼	13.6
12:00am – 5:59am	12	5.8 ▼	9.5
Month			
October – March	148	71.2 ▲	66.3
April – September	60	28.8 ▼	33.7
Waterway type			
Enclosed waters (including alpine)	173	83.2	81.5
Open (ocean) waters	35	16.8	18.5

*Not all descriptors recorded are shown, only those which accounted for at least 10 incidents in 2013–14. Descriptors are listed in the order they are discussed in the long-term incident report, *Boating Incidents in NSW – Statistical report for the 10-year period ended 30 June 2012.*

6 Lifejacket wear

While a variety of factors (Section 5) are involved in the development and unfolding of a vessel incident, lifejacket wear is an over-arching factor in determining the outcome of a vessel incident, especially where persons end up in the water.

Of the seven recreational boating fatalities recorded in 2013–14, six were related to person(s) being forced into the water – essentially either as a result of vessel capsize or falling overboard. Four of these six victims (57.1% of the total – Table 6) are presumed to have drowned, a statistically similar proportion to that for the previous 10 years (71.8%). One of the other two victims forced into the water was killed by injuries from a propeller, while the other appears to have been affected by a sudden medical condition.

In the case of the person who was presumed to have drowned despite wearing a lifejacket, the victim's lifejacket was reportedly torn free in large waves (during a bar crossing incident).

Table 6: Summary of recreational drowning and lifejacket wear statistics for 2013–14, with long-term statistics provided for comparison.

Period	Total recreational boating fatalities	Fatalities presumed due to drowning		Drowning victims who were wearing a lifejacket	
		Number	%	Number	%
2013–14	7	4	57.1	1	25.0*
Previous 10 years (2003–04 to 2012–13)	142	102	71.8	10	9.8

*It is not possible to make any statistical conclusion about the 2013–14 wear rate in comparison to that of previous years. The overall lifejacket wear rate amongst drowning victims since 2003-04 is 10.4%.

6 Lifejacket wear

Based on the recreational boating fatalities recorded in 2013–14, the current lifejacket laws appear to provide a high level of risk mitigation: of the four people who are believed to have drowned, three (75%) were boating in circumstances where a lifejacket should have been worn under current laws. However, only one of these people was actually wearing a lifejacket. Even though the number of recreational boating fatalities for the year (seven) was relatively low, *two lives could have possibly been saved had all the persons presumed to have drowned been wearing a lifejacket in accordance with current requirements*.

There was one bar crossing fatality, continuing the trend towards reduced bar crossing fatalities since the compulsory wearing of lifejackets (when crossing ocean bars) was introduced in October 2003. Since that time (until 30 June 2014), the annual number of bar crossing fatal incidents among both recreational and commercial vessels has declined significantly – falling by 60% – from an average of approximately one per year to less than 0.5 per year. At the same time, the overall number of bar crossing incidents has remained about the same (17.4 per year before compulsory wear and 17.5 per year since – an increase of just 0.4%).

> **“of the four people who are believed to have drowned, three (75%) were boating in circumstances where a lifejacket should have been worn under current laws.”**

7 Commercial vessels

There were a total of 114 incidents recorded in 2013–14 involving a commercial vessel (Table 1). The vast majority of these incidents were relatively minor; 95 of the incidents (83.3%) resulted in either no injuries or just minor injuries. This proportion of minor incidents involving a commercial vessel is significantly greater than the corresponding proportion for incidents involving only recreational vessels (71.2%).

There were no fatalities aboard passenger vessels. Eighteen of the incidents (15.8%) resulted in serious injury, while a single incident (0.9%) resulted in a fatality, which was on a hire and drive vessel. The proportion of incidents resulting in a serious injury or a fatality was significantly less for incidents involving a commercial vessel (16.7%) than for those involving only recreational vessels (28.8%).

The larger passenger and charter vessels (i.e. 'Class 1' vessels, surveyed to carry more than 12 passengers) accounted for seven out of the 16 commercial vessel serious injury incidents recorded in 2013–14 (i.e. 43.8%). This is similar to the corresponding proportion for 2003–04 to 2012–13 (45.8%).

There were a further six commercial vessel serious injury incidents involving Class 2 vessels. In five of these incidents, the primary vessel was in a 'work boat' role, and in one incident, the primary vessel was in a charter or passenger-carrying role. These workboats accounted for 31.3% of the commercial vessel serious injury incidents recorded in 2013–14. While this was considerably greater than the corresponding proportion for the preceding 10 years (12.5%), the difference was only marginally significant in a statistical sense.

There were also two incidents involving surveyed Hire and Drive (Class 4) vessels and one incident involving a commercial fishing (Class 3) vessel. One of the Hire and Drive vessels was being operated by a representative of the hire company at the time of the incident, rather than by the hirer.

8 Discussion and conclusions

The relatively low number of fatalities for the 12 months ended 30 June 2014 is noteworthy. This result has set recreational fatality incident rates back on a long-term downward trend.

In addition, total incident rates for both recreational vessels and for commercial vessels continue a long-term downward trend, and there is evidence of a long-term decline in commercial vessel fatal incident rates. More specifically, the proportion of recreational incidents attributed to a lack of judgement was relatively low in comparison to previous years. There were also relatively few recreational incidents relating to yachts, the cooler months of the year (when low water temperatures often exacerbate incident outcomes) or the early to mid morning period – although in this latter case, the finding for recreational incidents overall was negated to some extent by a relatively high number of recreational vessel fatality incidents within this time period.

The low number of recreational fatality incidents for the year appears to reflect, at least in part, the major lifejacket awareness and compliance campaigns that were undertaken across NSW during the 2012-13 and 2013–14 boating seasons.

The overall lifejacket wear rate amongst recreational boaters has improved to approximately 34%[3], up from just 7% less than 10 years ago[4]. However, more work clearly needs to be done in driving home the lifejacket wear message: of the four people presumed to have drowned while boating in 2013–14, only one was wearing a lifejacket.

Furthermore, inspection of the long-term recreational boating fatal incident data (Figure 1) clearly shows a high degree of short term variability – the incident rate nearly doubled before decreasing by an even greater amount – all in the last three years. Given the nature of this data, it will most likely take several years before the full benefit of the recent and current lifejacket campaigns can be demonstrated statistically.

The recent lifejacket wear campaigns may have helped to reduce fatalities but more work needs to be done with respect to non-fatal incidents, which accounted for nearly 97% of all recreational boating incidents in 2013–14.

[3] Maritime Management Centre – lifejacket wear rate observational study, 2012-13.

[4] former National Marine Safety Committee – Personal Floatation Devices Wear Rate Study 2007.

The number of recreational boating serious injury incidents was the highest for many years and the proportions of such incidents attributable to vessel capsize and to open runabouts were both relatively high in 2013–14. These results point to an area of concern: incidents involving capsize and/or smaller vessels such as open runabouts can easily have serious outcomes – due to persons being forced into the water and/or a lack of physical protection to vessel occupants.

The recent lifejacket awareness and compliance campaigns have had an important role in reducing the potential consequences of incidents involving capsize and/or open runabouts. Ongoing campaigns by the Maritime Management Centre, along with the Maritime Division of Roads and Maritime Services, aimed at general boating behaviour around safe speeds, keeping a proper lookout and maintaining appropriate distances-off also aim to reduce the numbers and consequences of incidents involving smaller boats.

In terms of incidents overall, the data highlights a number of circumstances of possible concern, including towing-related incidents, collisions with submerged objects, incidents while a vessel is 'secured' (at anchor, berthed or moored), use of open runabouts and PWC and boating during the late morning to midday period or during the more popular warmer months.

PWC have been an ongoing concern, and the incident statistics for these vessels are examined in detail in a separate report, *Personal Watercraft Incidents, Compliance and Feedback in New South Wales – Statistical report for the 10-year period ended 30 June 2012*. The latest incident data for PWC highlight the need for a continued focus on education and compliance work in relation to these vessels.

The increasing popularity of towing activities, particularly wakeboarding, may partly explain the relatively high number of towing incidents in 2013–14 – however, this result also emphasises the need for a continued educational and compliance focus on tow sport safety.

The relatively high proportion of incidents associated with 'secured' vessels in 2013–14 suggests a need to better guard against boater complacency. A surprisingly large number of incidents occurred in situations where safety risks might not be immediately obvious – such as when a boat was tied up to a wharf or securely at anchor – and some of these incidents resulted in serious outcomes. A similar theme might apply to the increased proportions of incidents occurring during the late morning to midday period or to the incidents occurring in the warmer months – circumstances that would normally be regarded as relatively benign. This highlights the need for boaters to remain alert, navigate with care and carry the correct safety equipment at all times.

The relatively large numbers of incidents involving collisions with submerged objects and/or the use of open runabouts highlight the need to maintain safe speeds and a proper lookout – two fundamentals of safe navigation.

The long-term decline in total incidents for both recreational and commercial vessels suggests a continuing gradual improvement in overall boating safety. While boating fatalities declined sharply in 2013–14 compared with the previous year (down by 70.4%), their numbers are inherently volatile and are likely to be a poorer statistical indicator of overall safety risk than the far more numerous non-fatal incidents that occur on the state's waterways.

Even though fatality numbers were well down in 2013–14, the data still highlights the need to improve lifejacket wear rates on recreational vessels. Only one of the four drowning victims in 2013–14 was wearing a lifejacket. This figure, in conjunction with the high proportion of those killed who are presumed to have drowned, means it is possible that nearly half (3 out of 7) of the lives lost in recreational boating accidents in 2013–14 could have been saved if all of the people involved were wearing a lifejacket. Over the preceding 10 years, nearly two-thirds (92 out of 142) of the corresponding lives lost could have been saved if all had been wearing a lifejacket.

Commercial vessels are heavily used and often carry large numbers of people. They are typically affected by a high proportion of relatively minor incidents, such as low-speed collisions and injuries such as trips and falls among passengers. Taking these considerations into account, the larger commercial vessels in particular (such as passenger ferries) are relatively safe. In addition, the requirement for Safety Management Systems on commercial vessels helps to reduce the risk of incidents, and the seriousness of incidents that do occur.

While a variety of issues remain a concern in terms of boating safety, evidence suggests that improved lifejacket wear rates remain the key to further reducing fatality rates.

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