

## Marine Information Bulletin

### Calculation of the Marine Incident Mortality Rate

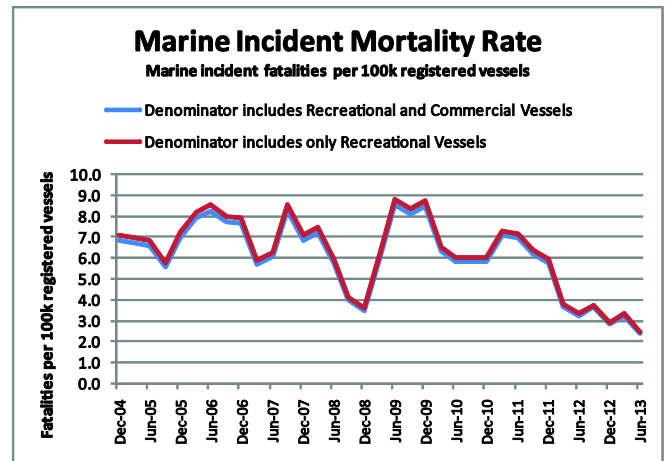
The Marine Incident Mortality Rate (MIMR) has been reported in Department of Transport and Main Roads publications including Marine Incidents in Queensland and the TMR Annual Report over many years. This statistic has historically been calculated as the number of marine incident fatalities that occurred during the period in question divided by the number of commercial and recreational vessels registered in Queensland at the mid point of that period.

In July 2013 the Australian Maritime Safety Authority began implementing a new national law which will result in all the domestic commercial vessels operating within the Commonwealth of Australia coming under the superintendence of a single national jurisdiction. Consequently with rare exceptions all the commercial vessels both registered and unregistered presently operating in Queensland will, over the next three years be progressively transitioned into this new system.

This change to a national jurisdiction will necessarily result in an apparent reduction in the number of registered commercial vessels operating in Queensland as the registrations of these vessels are removed from the Queensland registry as they are transferred into the new national system. This transition would result in an increase in the MIMR over the transition period which would in no way be indicative of any change in safety on Queensland's waterways.

Consequently commercial vessels, which over the past decade have accounted for no more than 3% of the registered fleet in Queensland, will no longer be included in the calculation of the denominator of the MIMR.

It can be seen in the following graph and the table which accompanies this bulletin that the differences between the rates calculated with and without the inclusion of commercial vessels in the denominator of the MIMR has not been substantial at any time during the past decade.



The largest difference occurred in June 2006 when the inclusion of commercial vessels in the denominator of the MIMR resulted in the statistic being 0.24 lower than it would otherwise have been. The smallest difference occurred in June 2013 when the inclusion of commercial vessels in the denominator of the MIMR resulted in the statistic being 0.05 lower than it would otherwise have been. The magnitude of these differences suggests that removing commercial vessels from the denominator will have no important impact of the MIMR as a means of monitoring, quarter to quarter or year to year changes in safety of Queensland's waterways.

It should be noted that any fatalities involving commercial vessels, which historically have been a substantial proportion of the total number marine fatalities, will continue to be included in the numerator of the MIMR. The MIMR is a rate rather than a proportion and as such the numerator need not be a subset of the denominator which in this case serves as a proxy for the general level of exposure.

It is envisaged that the method of calculating the MIMR will, at the close of the period of transition in 2017, be reconsidered with a view to the reincorporation of some appropriate proxy for the level of commercial boating exposure in Queensland.

## Addendum

Since the publication of this report the calculation of the Marine Incident Mortality rate (MIMR) has been reviewed in response to the commencement of Marine Safety (Domestic Commercial Vessels) National Law Act 2012 (Cth).

The MIMR is now calculated as the number of fatalities resulting from reported marine incidences which involved at least one vessel regulated under the Transport Operation (Marine Safety) Act 1994. Further information concerning the need for this change and its implications are provided in the report Marine Incidents in Queensland 2014.

## Information

For further information about this Marine Information Bulletin, email [msqmail@msq.qld.gov.au](mailto:msqmail@msq.qld.gov.au).

Other Marine Information Bulletins covering various topics relating to the safe operation of vessels can be obtained from Maritime Safety Queensland's website [www.msq.qld.gov.au](http://www.msq.qld.gov.au) and from the following Maritime Safety Queensland regional offices:

Airlie Beach	(07) 4946 2200
Bundaberg	(07) 4131 8500
Cairns	(07) 4052 7400
Gladstone	(07) 4973 1200
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## Disclaimer

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

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**Table 1: Marine Incident Mortality Rate in Queensland Dec 2004 to June 2013**

Marine incident fatalities per 100k registered vessels								
Denominator Includes				Denominator Includes				
Date	Recreational Vessels	Recreational and Commercial Vessels	Difference		Date	Recreational Vessels	Recreational and Commercial Vessels	Difference
	a	b	a-b			a	b	a-b
Dec-04	7.05	6.84	0.21		Mar-09	6.23	6.08	0.15
Mar-05	6.96	6.75	0.21		Jun-09	8.79	8.57	0.21
Jun-05	6.83	6.63	0.20		Sep-09	8.33	8.13	0.20
Sep-05	5.73	5.56	0.16		Dec-09	8.74	8.53	0.21
Dec-05	7.22	7.01	0.21		Mar-10	6.51	6.36	0.15
Mar-06	8.15	7.91	0.23		Jun-10	6.00	5.86	0.14
Jun-06	8.51	8.27	0.24		Sep-10	6.00	5.86	0.14
Sep-06	7.95	7.73	0.22		Dec-10	5.99	5.86	0.14
Dec-06	7.88	7.67	0.21		Mar-11	7.25	7.08	0.17
Mar-07	5.85	5.69	0.16		Jun-11	7.16	7.00	0.16
Jun-07	6.22	6.06	0.16		Sep-11	6.35	6.20	0.15
Sep-07	8.56	8.33	0.22		Dec-11	5.91	5.77	0.13
Dec-07	7.06	6.87	0.18		Mar-12	3.78	3.69	0.09
Mar-08	7.44	7.24	0.19		Jun-12	3.33	3.25	0.07
Jun-08	5.94	5.78	0.15		Sep-12	3.75	3.66	0.08
Sep-08	4.08	3.98	0.10		Dec-12	2.90	2.84	0.06
Dec-08	3.60	3.51	0.09		Mar-13	3.30	3.23	0.07
					Jun-13	2.45	2.39	0.05