

Global benchmarking: How much regulation do other countries have?

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1. BACKGROUND AND SCOPE

This document is a submission to the DoT WA Recreational Vessel Safety Equipment Review of Regulatory Requirements ERG Draft 1 of 18 July 2016. It has been prepared without consultation with anyone else. It is illustrative rather than comprehensive, owing to shortage of time and money. There are more comprehensive and consistent data that are only accessible by payment e.g. the ICOMIA Recreational Boating Statistics Yearbooks.

2. DEGREE OF REGULATION

USA

Regulations vary from state to state but the overarching US Federal regulations are set by the US Coastguard (USCG, undated). As an example, the regulations for boat lengths between 5m and 8m require:

- lifejacket for everyone on board, plus a throwable type IV
- One fire extinguisher on all motorised boats (unless an open boat with an outboard motor)
- 6 visual distress signal (except on inland waters)
- flashlight
- bell, horn or whistle
- Ventilation for compartments containing petrol engine and tanks
- Navigation lights

Canada

The laws are very comprehensive and technically detailed (Govt of Canada, 2010Transport Canada, 2013, Transport Canada, 2014). A summary of requirements for a pleasure boat 6m-9m length is:

- Lifejacket for everyone on board
- Boarding ladder
- Heaving line
- Lifebuoy
- Flashlight
- 6 red flares
- sound signal
- navigation lights
- fire extinguisher
- bailer
- compass
- radar reflector
- anchor and cable

New Zealand

It is not immediately evident what safety equipment is required by law, because their emphasis is on education and awareness rather than legislation, so their on-line publications do not distinguish between good practice and legal requirement. It would appear that, for most small recreational vessels, the only legal requirement is for lifejackets, and presumably SOLAS gear (nav lights, radar reflector, table of signals and sound signal).

European Union

Safety equipment regulations vary from country to country. Almost all recreational vessels have to comply with the EU Recreational Craft Directive (RCD) which focusses mainly on construction and installation standards. In terms of equipment it does require navigation lights and fire-fighting equipment. However, the Directive only applies at point of sale, not during ownership. A useful summary may be found at

http://www.marinesurveysltd.co.uk/recreational_craft_directive_summary.htm

United Kingdom

For pleasure vessels of less than 13.7 metres in length, there are no statutory requirements for safety equipment other than those required under SOLAS V (RYA, 2016). SOLAS V only requires a radar reflector and an illustrated table of distress signals (RYA, 2015), plus nav lights and sound signal under the Col Regs.

Norway

There appears to be no legal requirement to have safety equipment on small recreational vessels, presumably other than SOLAS requirements.

Sweden

Sweden requires the carrying of:

- Anchor
- Lifejackets
- Fire extinguisher
- Paddle

and presumably the SOLAS equipment (ECSIP, 2015).

Western Australia

In terms of regulations, Western Australia requires six items for boats operating 2-5 miles offshore (DoT WA, 2015):

- Flares
- Lifejackets
- Fire extinguisher
- Anchor and cable
- Bilge pump
- EPIRB

For consistency with data from other countries, the SOLAS requirements should also be added, though these do not all appear to be enforced.

3. DEATH RATES

USA

There were 5.3 deaths per 100,000 registered recreational vessels in 2015, 5.2 in 2014 (USCG, 2016). It has varied between 4.8 and 6.2 over the last decade..

Canada

The average number of boating related deaths for 2008-2012 was 127 pa. (DPRC, 2016). 9.4M Canadians participate in boating and own 4.3M boats (NMMA, 2012). This suggests a death rate of 2.95 per 100,000 boats.

New Zealand

There were 960,000 recreational boats in New Zealand in 2014, with an average 18 deaths per year in the period 2010-2014 (MNZ, 2011). This yields a death rate of 1.9 per 100,000 vessels. However, 320,000 vessels were classed as kayaks or canoes, which are not counted by many countries. Excluding those craft increases the rate to about 2.7 (the number of kayak fatalities is not known, but has been assumed at 1 per year).

UK

The Marine Accident Investigation Branch reported 20 fatalities in 2015 (MAIB, 2016). Data from RYA, 2014 show that there were 2.4M adults involved in recreational boating in 2012, in 541,000 power and sailing boats of length between 2.4m and 24m. If all recreational craft are considered (rowing boats, windsurfers, PWCs, canoes, kayaks etc.) are included, the number doubles to 1.1M. Data from BWS, 2014 claims between 2.5M and 3.8M boaters participated in about 600,000 boats. The fatality rate therefore lies somewhere between 1.8 and 3.7 per 100,000 vessels, so a mean estimate is 2.75. An admittedly old New Zealand source quotes a figure of 1.5 (MSANZ, 1999), suggesting this mean figure of 2.75 is pessimistic.

Norway

In 2014 there were 29 deaths involving leisure boats in Norway (<https://www.ssb.no/en/transport-og-reiseliv/statistikk/sjoulykker/aar/2015-06-17>)

And in 2008 there were about 800,000 boats (Sanabra & Gavilan, c2010), yielding a death rate of 3.6.

Sweden

There were 881,000 pleasure boats in Sweden in 2011, and 41 deaths, yielding a death rate of 4.65. (SMIF, c2012)

Australia

The Australian death rate is about 5 per 100,000 boats, which is disturbingly high, possibly due to our disproportionately long and hostile coastline. Of further interest is the sharp variations between states. The highest rate is 5.8 (NSW) and the lowest is 3.7 (Vic). It is about 4 in WA.

4. MAKING SENSE OF IT ALL.

The data gathered shows a wide range of death rates and levels of statutory requirements. An unknown portion of these variations is almost certainly due to differences in data sources, definitions and collection techniques. With those considerations in mind, the data was plotted in a very simple way in order to see if there were any gross trends. The death rates for each country were plotted

against the number of items of safety equipment required under law. An “item” here is defined as a description e.g. lifejackets”, rather than the number of them required e.g. “6 lifejacket”. The 4 safety items required under SOLAS (nav lights, signals table, sound signal and fire-fighting equipment) have been included for all countries even if not explicitly stipulated; therefore a country with no specific boating safety equipment legislation will still have 4 items of equipment required. The results are shown in Figure 1. There is no significant correlation between the number of safety equipment items required and the death rate. Indeed, the trend in this very limited data set is for death rates to increase marginally with increasing legislation. The data point for Western Australia lies to the right of the graph, suggesting that we are currently more regulated than the global norm.

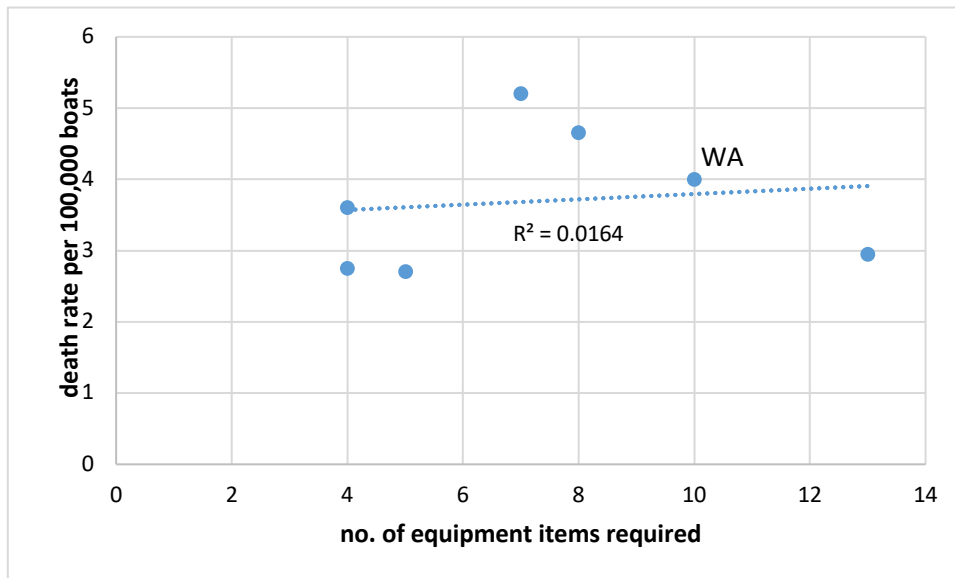


Figure 1 correlation between safety equipment legislation and death rates

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