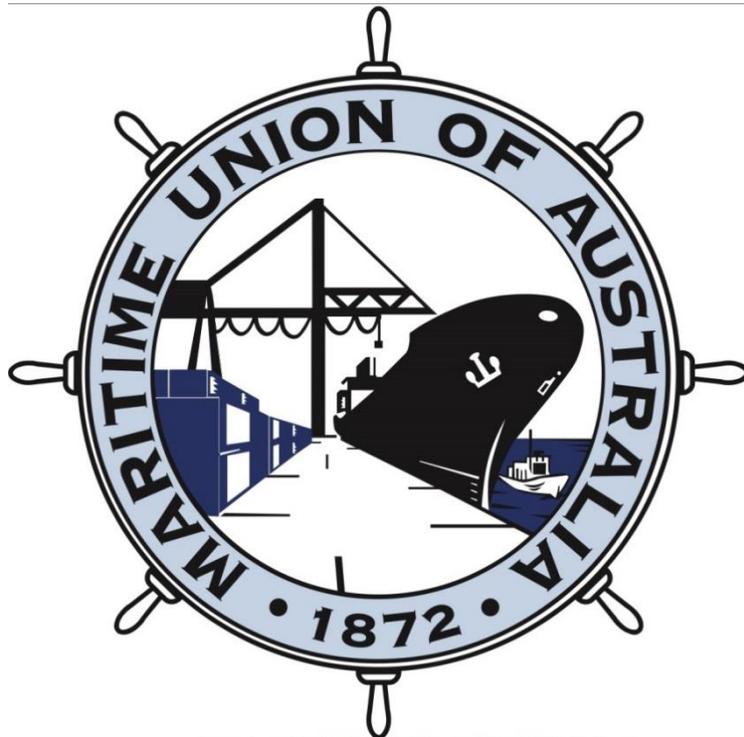


# MUA Submission: National Transport Regulatory Reform



**12 July 2019**

*Productivity Commission*

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## 1. Introduction

This submission has been prepared by Maritime Union of Australia (MUA). The MUA is a Division of the 120,000-member Construction, Forestry, Maritime, Mining and Energy Union. The MUA represents approximately 14,000 workers in the shipping, offshore oil and gas, stevedoring, port services and commercial diving sectors of the Australian maritime industry. Approximately half the MUA membership are seafarers.

Seafarer members of the MUA work in a range of seafaring occupations across all facets of the maritime sector including on coastal cargo vessels (dry bulk cargo, project cargo, general cargo) as well as passenger vessels, towage vessels, salvage vessels, dredges, ferries, landing barges, community supply vessels, construction vessels, cruise ships, and recreational dive tourism vessels. In the offshore oil and gas industry, MUA members work in a variety of occupations on vessels which support offshore oil and gas exploration e.g. on drilling rigs, seismic vessels; in offshore oil and gas construction projects including construction barges, pipe-layers, cable-layers, rock-dumpers, dredges, accommodation vessels, support vessels; and during offshore oil and gas production, on Floating Production Storage and Offtake Tankers (FPSOs), FSOs and support vessels. MUA members work on LNG tankers engaged in international LNG transportation. Many former ship based seafarers work in onshore roles.

The MUA is an affiliate of the 20-million-member International Transport Workers' Federation (ITF), and as an ITF affiliate has played a role in the development of international maritime conventions at the ILO and the IMO. The MUA work closely with the ITF Australian Inspectorate, who are members of the Australian Seafarers' Welfare Council.

## 2. Summary

The national maritime regulatory reform agenda was put forward by COAG to simplify and remove barriers to trade, and to increase safety in the industry. For a number of reasons, these aims have not been achieved. The maritime industry continues to be subjected to regulation by several pieces of parallel and overlapping legislation, as well as a convoluted number of subordinate regulations and exemptions.

The unsatisfactory outcomes of maritime safety reform goes beyond regulatory confusion, and include the following problems:

- Safety is poor, has not improved, and in many cases has diminished. Safety information and analysis is not available. There have been no strategies being developed to improve safety that we are aware of.
- The former robust maritime safety regulatory system for inter-state trade under the Navigation Act has been replaced with much lower standards under the National Law.
- Nationally consistent regulation has not been achieved due to excessive use of exemptions and grandfathering, and the confusing overlap of jurisdiction between the Navigation Act and National Law.
- Regulatory burden on seafarers have increased due to the introduction of two parallel streams of qualifications with no mechanisms in place for moving between them. Domestic qualifications under the National Law contain no international (STCW) compliant aspects or pathways, yet it is STCW-qualified seafarers that are forecast to be in shortage to maintain the capacity to run Australia's ports.
- The regulator appears to be significantly under resourced.
- Very few investigations are being carried out through the ATSB, due to its limited jurisdiction.

In relation to transport efficiency, this has been significantly fragmented due to privatisation and lack of planning, particularly:

- Port privatisation has resulted in very different standards, structures, and a lack of ability to make policy in the public interest.
- Shipping does not operate on a level playing field due to enormous subsidies for road and to a lesser extent rail transport. This has significantly constrained the development of shipping.

A significant future development in transport that has not been given much attention in the Issues Paper is the need for Australia to move to zero net emissions by 2050 in order to prevent global heating from exceeding 1.5°C. This requires halving emissions each decade. Emissions from transport make up 19% of Australian emissions, but while energy emissions are decreasing, transport emissions are increasing.

The MUA has provided a suite of recommendations which aim to:

- Improve maritime safety
- Better integrate maritime safety with safety in other industries
- Improve understanding and analysis of maritime safety
- Develop better investigation of maritime incidents
- Achieve competitive neutrality for shipping with road and rail
- Reduce transport emissions

### 3. Recommendations

**Recommendation 1:** That the Commission recommend to the Australian Government that it acknowledge that the National Law Act does not provide a sound basis for the safe regulation of Australian shipping, and undertake the task of developing a new application framework for the National Law Act and the Navigation Act that applies the Navigation Act and IMO Convention standards to commercial vessels as the default standard, to include a provision for statutorily defined ships to be regulated under different standards. It is the view of the MUA that a new application provision require that all commercial vessels must be regulated by the *Navigation Act 2012*, except those which:

- Voyage only within 12nm of the coast and a safe haven.
- Are 24m or under in length.
- Carry less than 50 passengers.
- Are fishing vessels under 35m in length.
- Do not carry dangerous or polluting cargoes, including oil and gas.
- Do not proceed on voyages of more than 36 hours in length.
- Do not carry out 'high risk' operations.

**Note 1:** Vessels greater than 24m and less than 80m and not engaged in high risk operations can apply to be regulated under the National Law providing the vessel remains in smooth waters or partially smooth waters.

**Note 2:** Vessels carrying more than 50 passengers and under 24m in length may apply to be regulated under the National Law providing the vessel remains in smooth waters or partially smooth waters.

**Note 3:** 'High risk' operations include tugs, ro-ros, dredgers, tankers, passenger vessels carrying more than 50 passengers and high-speed craft 12m and over in length. The national regulator may add (but not remove) vessels and classes of vessels to the schedule of 'high risk' vessels at any time.

**Note 4:** Vessels other than tankers regulated under the Navigation Act but less than 80m long, with less than 3000kw engine power, and of less than 3000GRT and operating only in smooth waters or partially smooth waters may apply to use the General Purpose Hand qualification as part of their Minimum Safe Manning, subject to an assessment of required STCW short courses according to vessel operational functions and equipment.

**Recommendation 2:** That the Commission recommend to the Australian Government that AMSA must publish on its website of a list of vessels that are RAVs and DCVs. The Navigation Act and National Law must be amended to make this a requirement.

**Recommendation 3:** That the Commission recommends that minimum crewing (DCVs) and manning (RAVs) levels are assessed and documented for every commercial vessel, whether RAV or DCV. A new, transparent procedure that provides for stakeholder participation in determining minimum manning and crewing and the operational and crew qualifications must be developed.

**Recommendation 4:** Consideration needs to be given to a greater level of separation between prescriptive standards for qualification and crewing for the fishing industry, as compared to passenger and trading vessels.

**Recommendation 5:** The *Navigation Act 2012* regulation making powers that governs Marine Orders (s.339) should be amended to restore the provision to make regulations about the 'safe navigation and operation' of ships, which was included in the *Navigation Act 1912* (s.425 (1)db).

**Recommendation 6:** AMSA must significantly improve how it reports fatality data, and ensure it is done consistently and is comparable with Safe Work Australia's reporting. Much better estimates of the number of vessel crew need to be developed to facilitate the reporting of fatality and incident rates. AMSA must also find ways to compile injury data, perhaps from state Workers' Compensation jurisdictions.

**Recommendation 7:** That the Commission recommend to the Australian Government that AMSA carry out publication and analysis of statistics on safety and prosecutions in line with the standards set by Safe Work Australia.

**Recommendation 8:** That the impact of the implementation (over a transition period from 2013 to 30 June 2018) and operation (under AMSA's management) of the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* (National Law) and associated Marine Orders, exemptions, and directives be investigated by the Commission, with a focus on how this has rapidly degraded standards of ship safety, cargo integrity, passenger safety, occupational health and safety, crew certification and associated VET qualifications, particularly relative to the much higher and internationally recognised standards given effect by the *Navigation Act 2012* (which implements Australia's obligations to conform with IMO Conventions (like the Standards of Training, Certification and Watchkeeping for Seafarers (STCW) Convention).

**Recommendation 9:** To amend the National Law so that seafarers working under the National Law are entitled to the same rights and protections afforded to those working under the Navigation Act, including access to suitable food, water, medical care, and repatriation.

**Recommendation 10:** That the Commission recommend to the Australian Government that a Safety Code of Practice for the Domestic Commercial Vessel industry be developed, in line

with the current *Code of Practice: Health and Safety in Shipboard Work, including Offshore Support Vessels*, which has been developed for larger vessels more likely to be RAVs. Such a Code can give practical and flexible guidance to seafarers in the industry, with specific chapters to address the diverse sectors of the industry.

**Recommendation 11:** That the Commission recommend to the Australian Government that AMSA should become a member of Safe Work Australia and the Heads of Australian Workplace Safety Authorities. At a minimum, it must develop an MOU with Safe Work Australia, and make every effort to align its safety reporting and analysis with Safe Work Australia standards.

**Recommendation 12:** That the Commission recommend to the Australian Government that the Domestic Commercial Vessel industry be declared a 'national priority industry' for preventative action, and that AMSA should work with Safe Work Australia and maritime unions to develop a strategy to reduce fatalities and injuries in the Domestic Commercial Vessel industry.

**Recommendation 13:** That the Commission recommend to the Australian Government that any exemptions issued by AMSA should only be issued after an appropriate risk assessment and vessel inspection, subject to the approval of two or more managers, and published on AMSA's website.

**Recommendation 14:** That the Commission recommend to the Australian Government that grandfathering provisions be phased out, with the understanding that the current arrangements are a threat to crew and public safety.

**Recommendation 15:** The International Maritime Dangerous Goods Code (IMDG Code) must apply to vessels regulated under the National Law.

**Recommendation 16:** That the Commission recommend to the Australian Government that a full and transparent review of the seafarer qualification framework and associated VET certificates and units of competency be carried out. Domestic and international seafarer qualifications must be streamlined in order to have STCW standards of competence integrated at all levels in order to have a qualification system that allows all seafarers to develop their career and training in a straightforward process. Incorporating the higher standards of STCW, at an appropriate level, into the units of competency of the VET certificates will increase the overall standards of Australian seafarers, reduce the complexity of the system and reduce overall training costs. It is also recommended that all personnel working on any type of vessel must have health and safety training specific to work on vessels, as well as STCW-compliant survival and fire prevention training.

**Recommendation 17:** That the Commission recommend to the Australian Government that a review be made of resources available to AMSA, the allocation of those funds within AMSA, and whether further resources need to be allocated to enable AMSA to achieve their stated outcomes to the standard expected of an Australian Safety Authority.

**Recommendation 18:** That the Commission recommend that AMSA carry out more transparent reporting of the agency's enforcement actions.

**Recommendation 19:** Sections of the National Law involving General Safety Duties and Safety Management Systems should be reviewed and amended to ensure that they are clear, robust and practical. Safety Management Systems that are not subject to consultation or review should not be elevated to the status of law, instead, a safety code of practice should be developed to cover minimum standards. The National Law should be amended to required due diligence of vessel owners.

**Recommendation 20:** That the Commission recommend that the ATSB's role and resources be expanded to encompass all maritime incidents, in Australia, including Domestic Commercial Vessels. The ATSB must also be directed to identify organisational failures leading to incidents, including vessel regulation, seafarer qualifications and training, the application of safety management systems, and seafarer fatigue.

**Recommendation 21:** Amend State and NT port administration legislation to require all port entities to only procure marine service providers who are licenced and meet minimum tests (fit and proper person provisions, and declarations around labour and WHS obligations) similar to those provided in Part 3 Divisions 2 and 3 of the Victorian *Labour Hire Licensing Act 2018*, noting that there would need to be a declaration around ship safety in marine service provider licencing arrangements that would require agreement with stakeholders, including maritime unions.

**Recommendation 22:** The Productivity Commission should investigate opportunities to improve productivity in freight shipping through an investigation into the obstacles to achieving competitive neutrality for shipping. It could examine measures to address this including: a mass-distance-location charging mechanism for heavy vehicles along major interstate routes, differential port pricing for Australian domestic shipping, and investment into infrastructure to facilitate domestic shipping.

**Recommendation 23:** The Commission include updated figures on greenhouse gas emissions and emissions intensity of various transport sectors, and the necessity of reducing emissions from transport in its final report. The Commission recommend to the Australian government to develop a comprehensive plan to systematically reduce greenhouse gas emissions from transport. This can be achieved, in part, by shifting freight on to ships, and by in the long term, by shifting to zero-emissions shipping. Both require government coordination, regulation, and investment.

**Recommendation 24:** Training in the use of electronic charts should be incorporated into all relevant qualifications under the National Law.

#### 4. A new national system replaces the previous national system

Prior to the national system reform, Australia already had a national system of vessel regulation: vessels travelling inter-state were regulated under *Navigation Act 1912* and the Australian Maritime Safety Authority (AMSA), and generally conformed with standards developed by the International Maritime Organisation (IMO) for vessels undertaking international voyages. The passage of the *Navigation Act 2012* significantly reduced the scope of the *Navigation Act 1912*. Coverage of inter-state vessels was removed from the new 2012 Navigation Act, which only requires vessels to be regulated by the Navigation Act if they are travelling beyond the EEZ, or hold certificates which allow them to do so.

Instead of building on the existing Navigation Act national system, the passage of the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* (National Law) created another parallel national system, but with reduced standards, and no compatibility with IMO requirements.

Before the introduction of the National Law, commercial vessels which operated exclusively within one state were regulated by the Maritime Safety Agency of the state in which they operated. The state agencies had developed the National Standards for Commercial Vessels (NSCV) for smaller inshore vessels, so operators and seafarers were subject to consistent standards across the country but were administered by the states. The way state agencies regulated and administered and regulated these vessels varied widely. The penalties for not complying with the NSCV or other requirements also varied considerably from state to state.

When creating the National Law, one of the aims was to NOT to increase the standards required of vessels, operators and seafarers beyond that of the agreed upon NSCV. The National Law therefore sets a framework for regulation, administration, and enforcement, with the subordinate regulations and marine orders based on the NSCV defining the specific qualifications, physical and operational standards. The problems with this reform package are:

1. The NSCV were the standards that COAG and the National Council for Marine Safety could agree on. Many states had additional regulations for some or all vessels, or interpreted and enforced the standards in a more robust way. This meant that the introduction of the National Law removed this additional regulation, and reduced states with higher standards to the lowest common denominator. For states with lower standards, generous grandfathering arrangements were included in the new system. We are not aware of any increased safety standard from the basic level of

the NSCV, with the exception of a much drawn out process to require vessels to carry EPIRBS as of January 2021.<sup>1</sup>

2. The NSCV were developed for regulating smaller coastal vessels. For example, the NSCV Part D only permits Certificates of Competency to be issued for Masters of vessels up to 80m.
3. The National Law became the default for all domestic vessels no matter their size, type or area of operation.
4. Vessels that do not travel outside the EEZ (200nm from shore) may also choose to opt-in to regulation under the higher standards of the Navigation Act, but there is no incentive for them to do so. The consequences of this will be discussed in Section 5.
5. The National Law effectively replaced one effective and robust national system for regulating interstate vessels (under the Navigation Act) with one that is not robust, not effective, and does not comply with international vessel safety, manning, or qualification standards.

Although AMSA does not make available any list of either DCVs (National Law) or RAVs (Navigation Act), we have attempted to assess the number of vessels in the major Australian Trading Fleet which fall into either category. Of the 17 vessels in this fleet, 41% are DCVs. This is very worrying, as it is our view that the National Law and the NSCV that have been incorporated into its standards it not capable of safely regulating vessels of this scale. As far as we are aware, the only vessel on this list that regularly travels more than 200nm from shore is the *Aurora Australis*. There is nothing in legislation or regulation preventing the remaining 16 vessels from becoming DCVs (Table 1).

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<sup>1</sup> AMSA's media release on the new requirements to carry an EPIRB (Emergency Position Indicating Radio Beacon) <https://www.amsa.gov.au/news-community/news-and-media-releases/float-free-epirbs-mandatory-january-2021>

**Table 1:** Status of vessels in the Major Australian Trading Fleet, using the definition of the Bureau of Infrastructure, Transport and Regional Economics (BITRE) as cargo ships owned or operated by Australian companies, over 2,000 DWT, and for which 80% or more of their voyages called at an Australian port. Excludes ships that only carry passengers (see BITRE, *Australian Sea Freight 2015-16*, Chapter 5).

Ship name	DWT	RAV or DCV?	Status
<b>Spirit of Tasmania I</b>	5,651	RAV	Bass Strait Cargo and Passenger trade
<b>Spirit of Tasmania II</b>	5,651	RAV	Bass Strait Cargo and Passenger trade
<b>Searoad Tamar</b>	9,958	RAV	Bass Strait Cargo and Passenger trade
<b>Searoad Mersey II</b>	7,980	RAV	Bass Strait Cargo and Passenger trade
<b>Tasmanian Achiever II</b>	12,000	RAV	Bass Strait Cargo and Passenger trade
<b>Victorian Reliance II</b>	12,000	RAV	Bass Strait Cargo and Passenger trade
<b>Newcastle Bay</b>	2,750	DCV	Community cargo - QLD
<b>Trinity Bay</b>	3,158	DCV	Community cargo - QLD
<b>Accolade II</b>	8,140	RAV	Dry bulk - Cement
<b>Goliath</b>	15,539	RAV	Dry bulk- Cement
<b>Aurora Australis</b>	3,911	RAV	Scientific vessel
<b>Aburri</b>	3,300	DCV	Transshipment of zinc concentrate in Bing Bong, NT.
<b>Wunma</b>	5,140	DCV	Returned to transshipping zinc concentrate in Karumba, Qld after being laid up in PNG March 2016- October 2018.
<b>Donnacona</b>	28,115	RAV	Iron ore transshipment in Cape Preston WA
<b>Larcom</b>	3,963	DCV	Gladstone bunker barge. Flagged in Australia Aug 2013.
<b>Toll Osprey</b>	2,045	DCV	Regional construction projects.
<b>Spencer Gulf</b>	4,766	DCV	Whyalla iron ore transshipment

**Source:** BITRE, *Australian Sea Freight 2015-16*, MUA industry knowledge, IHS Maritime commercial ship database. The database shows the certificates that vessels are required to hold under IMO standards, which under the Navigation Act would require them to be a RAV. Vessels which do not hold these certificates are by default a DCV under the National Law (Appendix 1).

Some aims of the transport reform have been met. It is no longer required for large scale commercial vessel operators to navigate different state systems if they operate in different states. It is also easier for small vessel owner/ operators to move between states without navigating a system that was generally designed for larger vessels and having to gain numerous exemptions. Seafarers can also now easily move between states without having to navigate a new qualifications system.

However, due to the significant reduction in the scope of the Navigation Act and the limitations placed on the National Regulator by COAG, the transition to a national system had fundamental safety flaws, and has resulted in two parallel systems of vessel regulation and seafarer qualification that are confusing and broadly not compatible with each other.

**Recommendation 1:** That the Commission recommend to the Australian Government that it acknowledge that the National Law Act does not provide a sound basis for the safe regulation of Australian shipping, and undertake the task of developing a new application framework for the National Law Act and the Navigation Act that applies the Navigation Act and IMO Convention standards to commercial vessels as the default standard, to include a provision for statutorily defined ships to be regulated under different standards. It is the view of the MUA that a new application provision require that all commercial vessels must be regulated by the *Navigation Act 2012*, except those which:

- Voyage only within 12nm of the coast and a safe haven.
- Are 24m or under in length.
- Carry less than 50 passengers.
- Are fishing vessels under 35m in length.
- Do not carry dangerous or polluting cargoes, including oil and gas.
- Do not proceed on voyages of more than 36 hours in length.
- Do not carry out 'high risk' operations.

**Note 1:** Vessels greater than 24m and less than 80m and not engaged in high risk operations can apply to be regulated under the National Law providing the vessel remains in smooth waters or partially smooth waters.

**Note 2:** Vessels carrying more than 50 passengers and under 24m in length may apply to be regulated under the National Law providing the vessel remains in smooth waters or partially smooth waters.

**Note 3:** 'High risk' operations include tugs, ro-ros, dredgers, tankers, passenger vessels carrying more than 50 passengers and high-speed craft 12m and over in length. The national regulator may add (but not remove) vessels and classes of vessels to the schedule of 'high risk' vessels at any time.

**Note 4:** Vessels other than tankers regulated under the Navigation Act but less than 80m long, with less than 3000kw engine power, and of less than 3000GRT and operating only in smooth waters or partially smooth waters may apply to use the General Purpose Hand qualification as part of their Minimum Safe Manning, subject to an assessment of required STCW short courses according to vessel operational functions and equipment.

**Recommendation 2:** That the Commission recommend to the Australian Government that AMSA must publish on its website of a list of vessels that are RAVs and DCVs. The Navigation Act and National Law must be amended to make this a requirement.

## 5. Regulatory Frameworks and transport reforms

*Productivity Commission (PC): Differences in the regulatory frameworks are also apparent in the degree to which the national laws are prescriptive or more risk-management based. What are the practical effects of prescriptive versus risk-management based approaches?*

### **Why do we need prescriptive regulation in shipping?**

The benefit of prescriptive regulation is that it sets a level commercial playing field for all involved. Shippers, vessel operators and crew all benefit from knowing that the vessel, safety, training and operational requirements are consistent for the same type of vessels and operations.

The *Navigation Act* and the associated regulations are the appropriate regulatory standard for large and seagoing vessels. Although the standards are prescriptive, the reasons for these regulations are the result of world wide cooperation and agreement that vessels are a unique environment and face unique risks. These regulations have been developed from years of experience and marine incidents worldwide. It is naive to think that such tragic incidents such as occurred with the *Estonia*, *Herald of Free Enterprise*, *Costa Concordia*, and *El Faro*<sup>2</sup> could not happen to Australian vessels, passengers and crew.

The Navigation Act also enshrines protections for seafarers including repatriation at the end of a voyage, and even exemption from jury duty while serving at sea.

Australia and AMSA have a global reputation for holding both domestic and international vessels to among the highest standards in the world for shipping. When passengers walk on to an Australian vessel, they expect the highest standards of safety and training. When shippers send their cargo on an Australian vessel, they expect the same. Officers, engineers and crew that work on any vessel in Australia also expect to find Australian work place safety standards as well as living quarters that are of an appropriate quality. Visitors and Australians participating in on water activities in Australia expect the standard of safety to be amongst the highest in in world. Accidents such as the sinking of the duck boat on the

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<sup>2</sup> The *Estonia*, a ro-ro passenger ferry sank in the Baltic Sea on the 28<sup>th</sup> of September 1994, with 852 fatalities. The *Herald of Free Enterprise*, a ro-ro passenger ferry, sank near Zeebrugge, Belgium on the 6<sup>th</sup> March 1987, with 193 fatalities. The *Costa Concordia*, a large cruise ship, ran aground on the 13<sup>th</sup> January 2012, with 32 fatalities. The *El Faro*, a US flagged container ship, was lost at sea with all 33 crew in a hurricane on October 1, 2015.

19<sup>th</sup> of July 2018 in the United States where 17 people died are not expected to happen here.<sup>3</sup>

However, Australian maritime regulation is now structured so that international minimum standards of the Maritime Labour Convention (MLC) and the Standards for the Training and Certification of Watchkeepers (STCW), along with virtually all other minimum standards for shipping do not apply domestically - only if vessels have opted-in to be a RAV under the Navigation Act. This is the reason that the Navigation Act jurisdiction must urgently be expanded. The minimum standards of the Maritime Labour Convention and the STCW convention must also apply to DCVs (with sensible limits on vessel size). This includes the watchkeeping standards included in STCW, which require vessels to have a dedicated lookout at all times, particularly in the hours of darkness. MLC also includes the provision for regulated work and rest hours, appropriate food and accommodation standards and procedures for making complaints regarding safety concerns.

AMSA appears to have whole-heartedly taken on a 'Deregulation Agenda' in relation to maritime safety.<sup>4</sup> However, we are not aware of any assessments that were made about how such an agenda would affect maritime safety, which has historically involved a high level of prescription. This approach was rapidly adopted in AMSA's document 'Our regulatory approach 2014', which cited a 'performance-based, not prescriptive' approach to regulation.<sup>5</sup> In the 2018 consultation on Marine Order 504, this was updated to an "outcomes-based" approach to regulation of operational safety under the National Law'.<sup>6</sup> AMSA released a 'Statement of Regulatory Approach' later in 2018, which then described the approach as to 'be non-prescriptive where possible, leaving choice to those who bear responsibility for the outcome'.<sup>7</sup>

Our view is that a deregulation agenda for maritime safety has been pursued in order to satisfy the political priorities of government, and not based on any evidence that it would improve maritime safety. Since that time, there has been a significant lack of collection of evidence about maritime safety, and a series of significant steps were taken which in our view have caused maritime safety to deteriorate.

Even within the Navigation Act, the provision to make regulations about the 'safe navigation and operation' of ships, which was included in the *Navigation Act 1912* (s.425 (1)db) has been removed, and does not appear in the *Navigation Act 2012* in the relevant section

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<sup>3</sup>Preliminary report into the sinking of *Stretch Duck 7*

<https://www.nts.gov.au/investigations/AccidentReports/Pages/DCA18MM028-prelim.aspx>.

<sup>4</sup>Deregulation Agenda, Department of Jobs and Small Business: <https://www.jobs.gov.au/deregulation-agenda>.

<sup>5</sup> AMSA. 'Our regulatory approach 2014'.

<sup>6</sup> AMSA, Operational Safety Review: Consultation on proposed new Marine Order 504 (Certificates of operation and operation requirements – national law) p.1.

<sup>7</sup> AMSA, 'Statement of Regulatory Approach', October 2018, p.2.

(s.339). This should be a core function of AMSA and role of Marine Orders and must be restored.

It may be that classes of vessels and the stakeholders representing them may not be willing to accept higher levels of prescriptive regulation, and they may have distinctive safety needs. Consideration may need to be given to a greater level of separation between standards of qualification and crewing for the fishing industry and other types of passenger and trading vessels. Where industries are willing to accept a higher level of regulation in order to maintain a level playing field and safety in their industries, they should not be prevented from doing so. If a greater degree of separation is allowed between standards for industries, it should also be maintained so that fishing industry vessels should not be allowed to work in the offshore industry or to carry passengers, unless they meet the standards of those industries.

### ***Comparing vessels***

The differences between prescriptive regulation and a risk-management approach can be illustrated by comparing two hypothetical vessels, owned, operated, and crewed by the same company, and doing exactly the same work in exactly the same place. However, the operator has decided to opt one vessel in to regulation under the Navigation Act— known as a Regulated Australian Vessel (RAV). This could be for a number of reasons – perhaps there is the potential for some work in the Pacific, or the vessel is due for a visit to dry dock in Singapore or PNG. The other vessel remains a Domestic Commercial Vessel (DCV) regulated under the National Law.

The RAV is required to comply with an entirely different set of regulations than the DCV. The key differences in these regulations are outlined in Appendix 1. The practical differences in how the vessels are operated is significant. The RAV is required to have a dedicated lookout— particularly in the hours of darkness. The ratings must be comprehensively trained for the duties they perform on board, have a significant amount of practical experience before they are able to work unsupervised, and have training in survival, first aid and firefighting, including the use of breathing apparatus (BA) and emergency escape breathing devices (EEBDs). The watchkeepers (deck and engine) and the master are trained to a high standard, including in a simulator. They are trained in ECDIS (electronic charts), advanced firefighting, rescue and lifeboats, bridge team management and bridge resource management as well as cargo operations and vessel stability. The vessel will be run in accordance with an approved Safety Management System (SMS) with a Document of Compliance issued by AMSA following an audit, will be physically inspected annually by an AMSA surveyor, have a Minimum Safe Manning Document (MSMD) issued by AMSA stating the minimum number of crew required and the qualifications they must hold to take the vessel to sea, a document of compliance with the Maritime Labour Convention (DMLC) etc.

All these documents are reinforced by a strict set of regulations and procedures that are accepted and enforced worldwide as best practice, or at least minimum practice.

The Domestic Commercial Vessel (DCV) regulated under the National Law must comply with none of the above requirements, and instead is permitted to operate with only a Certificate of Survey<sup>8</sup>, and a Certificate of Operation<sup>9</sup> which can be obtained simply by declaring that the vessel has a SMS on board that complies with the requirements. AMSA issues guidance for preparing a SMS, but does not review the SMSs which removes them from responsibility for the content. This leads to very different risk assessments, standards of crewing and qualifications, and costs between similar vessels carrying out similar operations.

Differences in operational standards are apparent not only between similar vessels where one is operating under the National Law and one under the Navigation Act, but also vessels operating under the same National System. One operator, potentially with no training or experience, could design a perfect Safety Management System on paper, complete with risk assessments and controls, and create an appropriate crewing assessment in line with Marine Order 504 and yet only have a single person acting as both the master and engineer, and a couple of uncertified casually employed backpackers acting as deckhands.<sup>10</sup> This arrangement is allowed under the Marine Order 504 minimum crewing requirements on vessels up to 35m in length and travelling up to 200nm offshore.<sup>11</sup> This operator will only find out that their Safety Management System was not robust enough in an emergency but will probably not face any penalty as they have complied with the National Law. MO 504 does require vessel operators to do a risk assessment to determine the 'appropriate crew', which may be more than the minimum crew, but there is no requirement for AMSA to check this. There are, however, substantial commercial incentives for operators to reduce crew numbers.

Another operator, with more training, experience, and a greater understanding of the risks, might realise that it is appropriate to employ a separate Master and Engineer, in case of engine trouble, as well as an additional Master, chief mate or watchkeeper to handle the vessel and request assistance in case of a passenger or crew emergency, and additional trained and experienced ratings to moor the vessel, manage the passengers, and handle emergency situations. This operator might also employ their crew for an extra few hours a week to do drills and training, conduct safety meetings and seek the crew's expert and practical advice in reviewing and updating the risk assessments. They may also employ all the crew on a permanent basis, rather than as casuals, knowing that permanent employees

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<sup>8</sup> Marine Order 503 – Certificates of Survey

<sup>9</sup> Marine Order 504 – Certificates of Operation

<sup>10</sup> Coroner's report FINLAYSON available at:

[https://www.courts.qld.gov.au/\\_\\_data/assets/pdf\\_file/0007/543949/cif-finlayson-ed-20171127.pdf](https://www.courts.qld.gov.au/__data/assets/pdf_file/0007/543949/cif-finlayson-ed-20171127.pdf)

<sup>11</sup> AMSA's crewing guidance: <https://www.amsa.gov.au/vessels-operators/domestic-commercial-vessels/crewing-guidance-domestic-commercial-vessels>

are better able to participate confidently and knowledgeably in these safety systems.<sup>12</sup> This operator will have much higher crewing costs but knows that it will pay off in case of an emergency situation. Reasons for carrying out such actions are vividly illustrated in the Coroners' reports listed in Section 11.

Both operators are superficially in compliance with the National Law, and their general safety duties, and have the same certification from AMSA. AMSA will argue that MO504 requires the operator to consider all the risks and address them appropriately.

Unfortunately, this relies on an objective perception of risk by the vessel operator, and for the operator not to be influenced by commercial pressures. An AMSA employee, working in maritime search and rescue, and working with the consequences of maritime incidents everyday, may, for example, never proceed to sea without wearing a lifejacket, personal locator beacon, attaching a float free EPIRB to the vessel, having a medical check, comprehensive first aid training and carrying a full first aid kit including a defibrillator. A 20 year old untrained British backpacker finding their first job on a prawn trawler would not be aware of such measures or the reasons for taking them.

Perception and understanding of risk are subjective, and heavily influenced by experience and training. It is important for the AMSA, as the national regulator, must increase prescriptive regulation for DCVs and oversight of individual operators to enable a safe and competitive commercial environment. In particular, minimum crewing and qualifications must be prescribed, and qualifications must be significantly improved and linked to STCW standards. A safety code of practice for DCVs must also be developed as a matter of urgency, to help develop a common understanding of best practice in the domestic commercial vessel fleet.

**Recommendation 3:** That the Commission recommends that minimum crewing (DCVs) and manning (RAVs) levels are assessed and documented for every commercial vessel, whether RAV or DCV. A new, transparent procedure that provides for stakeholder participation in determining minimum manning and crewing and the operational and crew qualifications must be developed.

**Recommendation 4:** Consideration needs to be given to a greater level of separation between prescriptive standards for qualification and crewing for the fishing industry, as compared to passenger and trading vessels.

**Recommendation 5:** The *Navigation Act 2012* regulation making powers that governs Marine Orders (s.339) should be amended to restore the provision to make regulations about the 'safe navigation and operation' of ships, which was included in the *Navigation Act 1912* (s.425 (1)db).

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<sup>12</sup> Contingent Workers and Occupational Health: a review on the health effects of non-traditional work arrangements. Available at: <http://harvardpublichealthreview.org/wp-content/uploads/2018/12/Garry-L.-Mullins-Jr.pdf>

## 6. Have Safety Outcomes improved?

*PC: What impact have the national reforms had on safety outcomes?*

*What impact have other contributors to safety outcomes had since the reforms were introduced?*

*What are the best measures of safety in rail, road and maritime? Where can the Commission source such data?*

The fleet of smaller Domestic Commercial Vessels in Australia have a long history of considerable safety issues and a high rate of fatalities. Unfortunately, we have not seen any evidence that safety has improved since the introduction of the National Law, and more worryingly, there does not seem to be a clear plan in place to address these problems.

Analysis of safety and fatalities under the National Law should be contextualised with an understanding of the fatality rate in the more prescriptive Navigation Act and Occupational Health and Safety (Maritime Industry) Act jurisdictions, where there have been approximately 6 fatalities in the past 26 years, in the broadest possible interpretation of the coverage of these Acts.<sup>13</sup> This includes vessels working in hazardous industries such as offshore oil and gas, carriage of bulk cargo, tankers, roll on and roll off general cargo vessels. These vessels are much more likely to have a strong union presence and trained Health and Safety Representatives. It is our experience that there is much better management of safety on these vessels.

One important function of the National Regulator is “to collect, analyse and disseminate data relating to marine safety” (National Law Act s. 10). It appears that there was not a co-ordinated effort by AMSA to undertake this function for the Domestic Commercial Vessels when it took responsibility for when the National Law on the 1<sup>st</sup> of July 2013. Collecting and analysing data related to marine safety leads to an understanding of the regulated community and the general industry environment. However, the last survey of domestic seafarer safety available on the AMSA website is dated 1997 and focuses on the larger blue water and offshore fleet.<sup>14</sup> Instead, AMSA has written and implemented Marine Orders on

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<sup>13</sup> Compiled by the MUA from Seacare Authority Annual Reports. In June 2019 we requested that the Seacare Authority calculate a fatality figure for this jurisdiction, according to accepted practices across Australian safety regulators. Six fatalities since 1993 includes the 1993 fatality on the Maersk Runner, and at least two fatalities which were technically out of OHS(MI) Act jurisdiction and either under the OPGGS Act or not under any Australian jurisdiction (Trevor Moore and Andrew Kelly), but which we have included because the vessels were fully Australian crewed and effectively part of the Australian fleet.

<sup>14</sup> A.W.Parker PhD, L.M.Hubinger, S. Green, L. Sargent, and R. Boyd. 1997. A survey of the health, stress and fatigue of Australian Seafarers.

safety under the National Law apparently without any systematic data collection, analysis or dissemination of results.

AMSA's first report of national DCV fatalities was in 2016-17, with 13 reported in the Annual Report section on Key Performance Indicators (Appendix 2). The following year (2017-18), 9 fatalities are reported, but oddly it says the number is 'not reported' for 2016-17 or 2015-16 (Appendix 3). The 2017-18 Annual Report says the 'measure for 2017-18 was updated to include a proportionate component'. The proportionate component is given as a percentage, which is not the convention used by other Australian safety agencies: to report fatalities per 100,000 workers.<sup>15</sup> The Report also explains that percentages are calculated 'on the assumption of 27,000 vessels and 66,500 seafarers'.

In September 2018, however, the MUA received a communication from a senior AMSA manager explaining that although 24,716 is the total count of domestic commercial vessels in the AMSA DCV system, there are actually only 19,452 active vessels due to vessels being registered in more than one class or area of operation. If fatalities are reported proportionately, it is critical to get the denominator, or relevant population of seafarers, correct. 27,000 vessels with 66,500 seafarers assumes approximately 2.5 seafarers per vessel. But if the number of real vessels is actually 19,452, at 2.5 crew per vessel, this would be 48,630 seafarers.

Table 2 shows that whatever estimate is used, the DCV fatality rate is between 6 and 18 times the average fatality rate for Australian workers. It is comparable or higher than the most dangerous industries as reported by Safe Work Australia in 2016 (Table 3), and than the seven industries identified by Safe Work Australia as 'national priorities for prevention activities' due to their high rate of fatalities and injuries.<sup>16</sup>

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<sup>15</sup> See for example Safe Work Australia, *Work-related Traumatic Injury Fatalities*, Australia 2017.

<sup>16</sup> <https://www.safeworkaustralia.gov.au/book/australian-strategy-priority-industries-and-conditions> and Safe Work Australia, *Work-related traumatic injury fatalities in Australia*, Table 2 - number and incidence rate of work-related fatalities by industry (2012 to 2016), <https://www.safeworkaustralia.gov.au/system/files/documents/1805/number-and-incidence-rate-of-injury-related-fatalities-by-industry-2012-2016.pdf>

**Table 2:** Domestic Commercial Vessel fatalities reported by AMSA in 2016-17 and 2017-18.

	DCV fatalities	Fatality rate per 100,000 at 66,500 seafarers	Fatality rate per 100,000 at 48,630 seafarers	Fatalities per 100,000 workers in Australia (2017)
<b>2016-17</b>	13	19.5	26.7	1.5
<b>2017-18</b>	9	13.5	18.5	

**Source:** AMSA Annual Report 2016-17 and 2017-18, Safe Work Australia, *Work-related Traumatic Injury Fatalities*, Australia 2017. Fatality rate calculated as  $(13 / 66,500) \times 100,000 = 19.5$  DCV deaths per 100,000 workers in 2016-17.

**Table 3:** Sample fatality rates of dangerous Australian industries.

Most dangerous SWA-reported industries in 2016	Fatality rate per 100,000
Road freight transport	18.1
Agriculture, forestry & fishing	14
Transport, postal & warehousing	9
Electricity, gas, water & waste services	5.8
Construction	3.3
Mining	2.7

**Source:** Safe Work Australia, Fatality statistics by industry, Table 2: Worker fatalities: fatality rate (fatalities per 100,000 workers) by industry of employer, 2003 and 2012 to 2016 (sorted by 2016 rate).

There is an explanation below the 2016-17 fatality data that:

“AMSA is working closely with partner agencies and authoritative bodies to investigate these incidences. In the process it identifies and actions any required safety campaigns or areas for improvement in the relevant standards.”<sup>17</sup>

However, there are no other reports on these activities in the 129-page Report or on the AMSA website. The 2018 consultation documents for the review of Marine Order 505 on vessel safety systems did not contain any such data.

This level of fatalities should not be surprising to AMSA. Figure 1 provides fatality data over a longer time, including what was supplied to the MUA by personal correspondence from AMSA (Appendix 4), along with data published by Maritime Safety Queensland,<sup>18</sup> and data from the National Maritime Safety Committee.<sup>19</sup> Unfortunately none of this information is supplied per 100,000. There are significant gaps in the national data. Indications are that

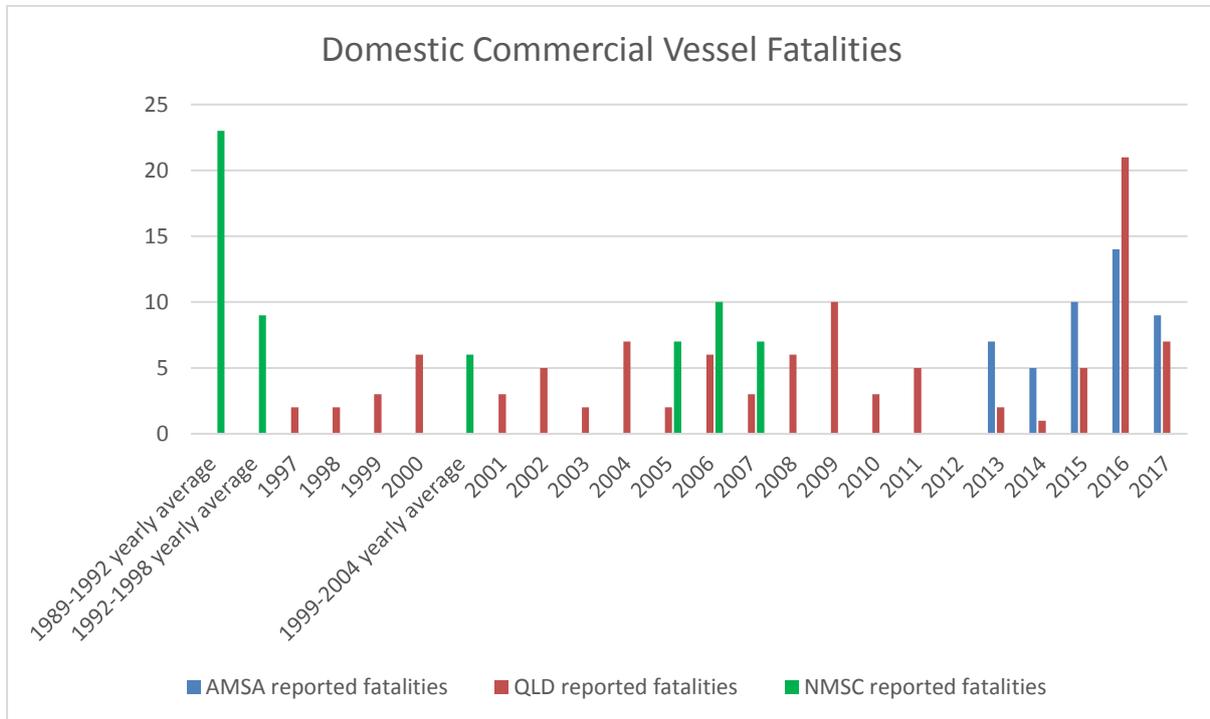
<sup>17</sup> AMSA 2016-17 Annual Report p.54

<sup>18</sup> Marine Incident Annual Reports, Maritime Safety Queensland: <https://www.msg.qld.gov.au/About-us/Marine-incident-annual-reports>

<sup>19</sup> National Approach to Maritime Safety Reform: Regulation Impact Statement, 2009 pg. 37

absolute numbers of DCV fatalities have been similar over time, with 2016 being an exceptionally bad year.

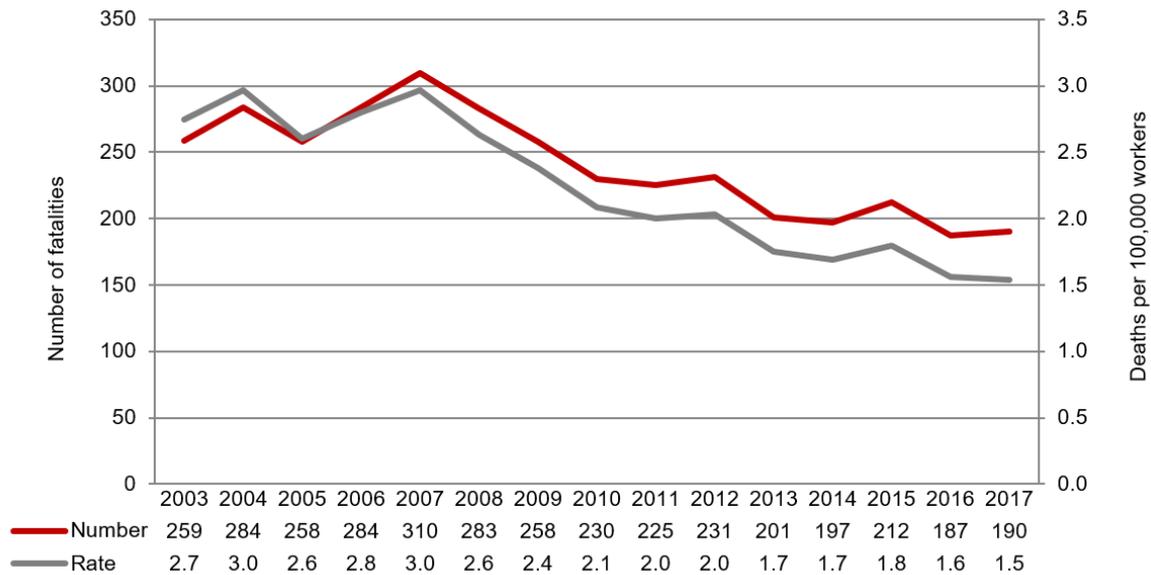
**Figure 1:** Domestic Commercial Vessel fatalities, 1989-2017.



**Source:** Compiled by the MUA from data from AMSA (Appendix 4), National Approach to Maritime Safety Reform: Regulation Impact Statement, 2009 pg. 37 and Maritime Safety Queensland Marine Incident Annual Reports 1997 – 2017.

While fatalities on Domestic vessels appear to have remained at about the same level since 1992, the fatality rate across Australian industries since 2003 has declined by almost half (Figure 2).

**Figure 2:** Total fatalities and rate of fatalities per 100,000 workers across all Australian industries, 2003-2017.



**Source:** Safe Work Australia, p.8 <https://www.safeworkaustralia.gov.au/system/files/documents/1812/work-related-traumatic-injury-fatalities-report-2017.pdf>

Queensland and Victoria supply marine safety data online.<sup>20</sup> Requests to the other states and territory for similar data were referred back to AMSA as the ‘owner’ of the data. The only other source of information on fatalities for DCVs we are aware of is combing through coroner’s and ATSB reports. It is unclear to us why Queensland reported more DCV fatalities than AMSA in 2016, but this should be investigated.

We have gone to some effort to compile information on commercial vessel fatalities since the National System came into effect on the 1st of July 2013 (Table 4). Considerable gaps remain and it would be very useful if the appropriate government agency could complete this table and publish it so that it is available on the public record. Appendix 5 lists the relevant Coroners and ATSB reports we are aware of.

<sup>20</sup> Very few fatalities were reported through Maritime Safety Victoria so we have not separately included these numbers.

**Table 4:** Australian Commercial Vessel Fatalities from 1 July 2013.

Name	Date	State/ Territory	Vessel	Sector
<b>Company purchaser*</b>	3-Jul-13	SA	Atlantic Princess/ Switcher	Trading
<b>Glen Anthony WILSON</b>	26-Jul-13	QLD	Norlaus	Fishing
<b>Thomas Francis LEVINGE</b>	7-Oct-13	WA	Sun Princess	Passenger Vessel (foreign)
<b>Ryan Harry DONOGHUE</b>	29-Nov-13	NT	Newfish 1	Fishing
<b>Ian Graham THOMPSON</b>	3-Dec-13	TAS	Efishent	Fishing
<b>Paul McVEIGH</b>	13-Dec-13	VIC	Moonraker	Passenger Vessel
	2013	TAS		Hire and Drive
	2013	NT		Hire and Drive
<b>Leila Michelle TROTT</b>	6-Apr-14	QLD	Ocean Free	Passenger Vessel
<b>Damien Mark MILLS</b>	31-Oct-14	WA	Ten Sixty Six	Passenger Vessel
	2014	VIC		Fishing
	2014	NSW		Hire and Drive
	2014	NSW		Hire and Drive
	2014	QLD		Fishing
<b>Murray Allan TURNER</b>	11-Jul-15	WA	Returner	Fishing
<b>Mason Laurence CARTER</b>	11-Jul-15	WA	Returner	Fishing
<b>Chad Alan FAIRLEY</b>	11-Jul-15	WA	Returner	Fishing
<b>Andrew KELLY**</b>	14-Jul-15	WA	Skandi Pacific	Offshore
<b>Allan Geoffrey (Joe) RUSSELL</b>	14-Apr-15	TAS		Fishing
<b>John ROGERS</b>	26-Mar-15	SA	Australis II	Fishing
	2015	QLD		Trading
	2015	NSW		Passenger Vessel
	2015	QLD		Passenger Vessel
	2015	QLD		Passenger Vessel
	2015	QLD		Passenger Vessel
<b>Matthew Neil ROBERTS</b>	4-Apr-16	QLD	Cassandra	Fishing
<b>David Barry CHIVERS</b>	4-Apr-16	QLD	Cassandra	Fishing
<b>Martin CUNNINGHAM</b>	25-May-16	QLD	Cygnets Lass	Fishing
	8-Nov-16	QLD	Seabring	Fishing
	12-Nov-16	QLD	Night Raider	Fishing
	12-Nov-16	QLD	Night Raider	Fishing
	12-Nov-16	QLD	Night Raider	Fishing
	2016	QLD		Passenger Vessel
	2016	QLD		Passenger Vessel
	2016	QLD		Passenger Vessel
	2016	QLD		Passenger Vessel
	2016	QLD		Passenger Vessel
<b>Luke Anthony MURRAY</b>	19-Jan-16	WA	Napoleon	Fishing

	2016	QLD		Hire and Drive
<b>Daniel Thomas BRADSHAW</b>	8-Jan-17	NT	Sammy Express	Trading (landing craft)
<b>Tim Macpherson</b>	1-Mar-17	NSW	Maeve Anne	Trading (construction barge)
<b>Benjamin Patrick LEAHY</b>	16-Oct-17	QLD	Dianne	Fishing
<b>Adam Jeffrey BIDNER</b>	16-Oct-17	QLD	Dianne	Fishing
<b>Adam Ross HOFFMAN</b>	16-Oct-17	QLD	Dianne	Fishing
<b>Zachary John FEENEY</b>	16-Oct-17	QLD	Dianne	Fishing
<b>Christopher David SAMMUT</b>	16-Oct-17	QLD	Dianne	Fishing
<b>Eli Davey TONKS</b>	16-Oct-17	QLD	Dianne	Fishing
	6-11-2017	NSW	Sydney Ferry	Passenger Vessel
<b>Harry EVANS</b>	4-10-2018	NT	Ocean Exporter	Fishing
	11-10-2018	NSW	Sydney Ferry	Passenger Vessel
<b>Shalina HUSSEIN</b>	2-Feb-19	NSW	Lady Rose	Passenger Vessel

\*Person's name not reported

\*\*Bahamas flag vessel, but fully Australian crewed

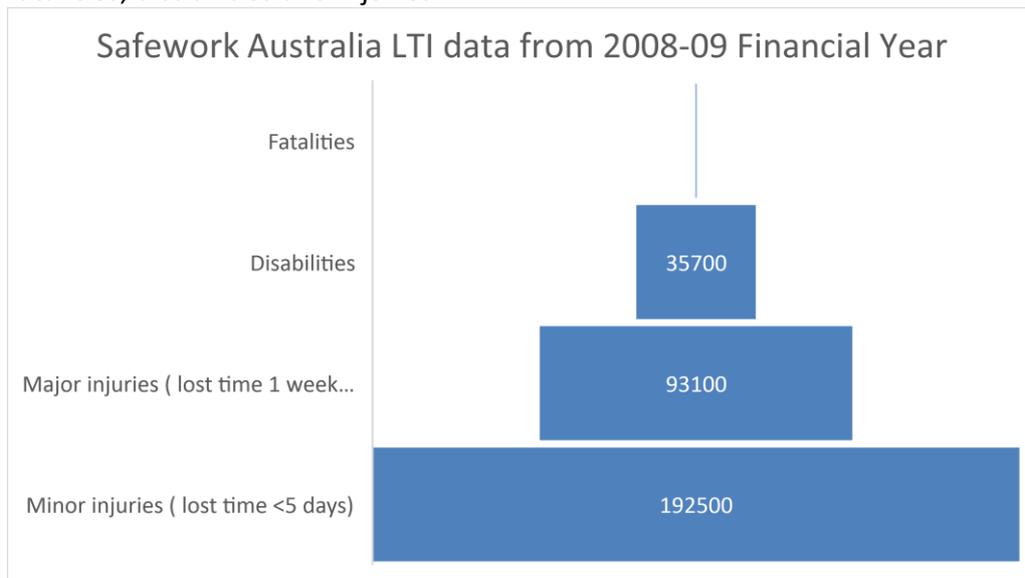
**Source:** Compiled by the MUA from relevant coroner's reports and data from AMSA (Appendix 4), media reports and Marine Safety Queensland Marine Incident Annual reports.

Safe Work Australia's data on compensated lost time incidents (LTIs) from 2009<sup>21</sup> shows that the frequency and severity of incidents generally follows the principle of the safety pyramid: that for every major incident, there is a larger number of minor incidents (Figure 3).

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<sup>21</sup> Issues in the measurement and reporting of work health and safety performance: a review. Pg 7-9  
<https://www.safeworkaustralia.gov.au/system/files/documents/1703/issues-measurement-reporting-whs-performance.pdf>

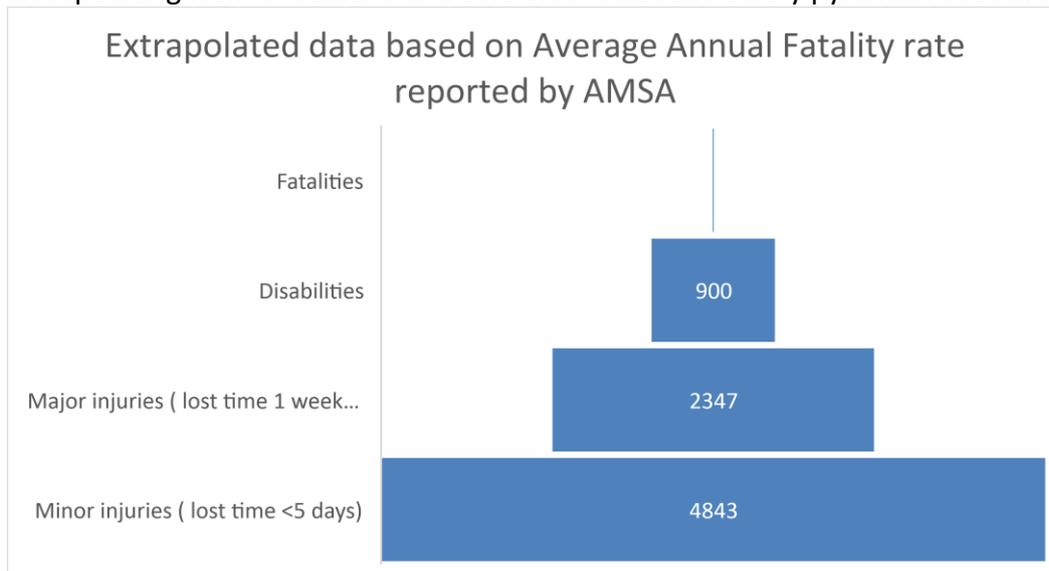
**Figure 3:** Safe Work Australia Lost Time Injuries (LTI) data showing the ratio between fatalities, disabilities and injuries.



**Source:** <https://www.safeworkaustralia.gov.au/doc/issues-measurement-and-reporting-work-health-and-safety-performance>

AMSA data on DCV fatalities provided in Appendix 4 give us an average of 9 fatalities per year from 2013-2017. Using the data from Safe Work Australia’s ratio of injuries, we can extrapolate an approximate number of disabilities and injuries in the Domestic Vessel industry, which should be reported to AMSA, and in turn form part of their safety reporting.

**Figure 4:** Expected level of disabilities and injuries in the Domestic vessel industry, extrapolating from 9 fatalities and Safe Work Australia safety pyramid ratios in Figure 3.



**Source:** AMSA provided information (Appendix 4), Safework Australia, *Measuring and reporting work health and safety performance*.

In the 2017-2018 financial year, AMSA reported 9 fatalities and 90 serious incidents. Extrapolating from Safe Work Australia data in Figure 3, there are potentially 8000 injury causing incidents and 900 people disabled in the Domestic vessel industry in Australia annually. While fatalities are only one measure of safety in an industry, it is expected for a modern Australian regulator to be actively gathering, analyzing and data not only on fatalities, but also on health effects, disease, retirement due to injuries, and suicide. Some of this data will be held by workers' compensation authorities, but it does not appear to be collected or analysed by AMSA. Regardless of how 'serious incidents' are defined by AMSA, there is clearly a large gap in reporting both to and from AMSA, and only the vaguest analysis or dissemination of this information to the relevant stakeholders.

**Recommendation 6:** AMSA must significantly improve how it reports fatality data, and ensure it is done consistently and is comparable with Safe Work Australia's reporting. Much better estimates of the number of vessel crew need to be developed to facilitate the reporting of fatality and incident rates. AMSA must also find ways to compile injury data, perhaps from state Workers' Compensation jurisdictions.

**Recommendation 7:** That the commission recommend to the Australian Government that AMSA carry out publication and analysis of statistics on safety and prosecutions in line with the standards set by Safe Work Australia.

**Recommendation 8:** That the impact of the implementation (over a transition period from 2013 to 30 June 2018) and operation (under AMSA's management) of the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* (National Law) and associated Marine Orders, exemptions, and directives be investigated by the commission, with a focus on how this has rapidly degraded standards of ship safety, cargo integrity, passenger safety, occupational health and safety, crew certification and associated VET qualifications, particularly relative to the much higher and internationally recognised standards given effect by the *Navigation Act 2012* (which implements Australia's obligations to conform with IMO Conventions (like the Standards of Training, Certification and Watchkeeping for Seafarers (STCW) Convention).

### ***Lack of analysis or evidence for safety approach***

*PC: What impacts do contracting practices and competitive pressures have on safety outcomes? How might these be addressed?*

The National Law has exacerbated the impact of contracting pressures on safety by removing the minimum standards of IMO conventions. The effects of this are illustrated in the examples discussed in Section 5 and in coroner's reports discussed below, but unfortunately, no public analysis of these documents has been made, or has been included in AMSA consultation on changes to safety regulations (Marine Orders).

*Have any compromises involved in the creation of the national law impacted safety outcomes? Do the national laws reflect best practice safety regulation?*

*What have been the costs, or unintended consequences, of moving towards uniform national standards?*

It has been established that the Domestic Commercial Vessel industry in Australia is a dangerous industry to be working in. It is therefore essential that in any serious incident be investigated thoroughly and lessons to be learned, disseminated and applied both in regulation and to other seafarers and vessel operators as soon as possible to prevent further similar incidents.

Despite AMSA having access to, and conducting investigations, there has been no published analysis of the Domestic Commercial Vessel industry, incidents, accidents, issues, or even details on the number of vessels or personnel it regulates since it became the National Regulator. No information of this kind has been circulated with recent consultations on revisions of Marine Orders related to DCV safety (for example Marine Order 504 and 505). Future revisions of Marine Orders and safety systems should be evidence-based.

Unfortunately, AMSA does not publish incident reports or analysis, and the ATSB has limited maritime jurisdiction (Section 13). Coroners' reports are unfortunately the main source of investigation and analysis of fatal maritime incidents occurring in Australia. Leaving investigation to Coroners is a fragmented and ineffective system for analysis and improvement of maritime law. The ATSB must take a larger role in investigating incidents on Domestic vessels (Section 13).

Coroners' findings detail serious gaps in the regulation and enforcement of the Domestic commercial maritime industry, and an artificial separation of Work Health and Safety and Maritime Safety. Many of the coroner's recommendations made have been ignored, or implemented so slowly or ineffectively so as to be ineffective in preventing repeat incidents.

In 2018 AMSA released a study on safety culture on international vessels visiting Australia. 6% of the vessels surveyed were Australian flagged.<sup>22</sup> The research was carried out by university researchers under an Australian Research Council Linkage Grant, which would have required substantial resources from AMSA. It is a useful study; however, it is unclear to us why AMSA prioritised this group of seafarers when so little appears to be known about the Domestic Vessel fleet that it was in the process of taking much more direct control over, and which has demonstrable safety issues. We are aware that AMSA and university

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<sup>22</sup> The study clearly targeted international seafarers and the Australia flagged vessels appear only to have been included incidentally, as survey questions such as "How long is your current contract for this ship?" assume international and not Australian working conditions. <https://www.amsa.gov.au/sites/default/files/assessing-the-determinants-consequences-of-safety-culture-in-maritime-ind.pdf>

researchers are investigating the possibility of a similar research project being undertaken to cover domestic vessels, and we urge that this be progressed as quickly as possible.

Publicly available coroner's reports include disturbing details of fatalities arising from insufficient crew on board, insufficient training of crew on board, deficient safety systems, lack of safety equipment, and lack of safe systems of work. Many of these problems arise from competitive and commercial pressures, and are allowed to flourish in the deregulated and non-prescriptive environment of the current National Law.

Problems with the number and training of crew on board are demonstrated in the following fatalities:

- The coroner's findings of the death of passenger and snorkeler Eric Davis FINLAYSON on the 9<sup>th</sup> of October 2012 describe how the Master of the vessel had to personally respond to an unconscious person on the beach, perform CPR, drive back to the anchored vessel as no other available crewmember could drive the tender, collect resuscitation equipment, drive back to the beach, continue with CPR, leave the patient in the hands of passengers as the crew were too distraught, drive back to the vessel to contact emergency services, and return to the beach to assist with CPR. All the while, he was responsible for a total of 33 passengers and 10 crew.<sup>23</sup>
- On the 14<sup>th</sup> of April 2012, Jarrod Arthur HAMPTON, a pearl diver in WA, got into distress during the last dive of the day. Even though there were other crew onboard – a cook, an engineer and a deckhand, it was the master who jumped in the water to try to recover Jarrod, who was unresponsive, commence and continue CPR, contact the company health and safety contact person, who contacted a doctor, who then rang the vessel back, emergency services and nearby vessels for assistance, all the while responsible for the vessel and divers still in the water decompressing.<sup>24</sup>
- Leila Michelle TROTT was in charge of a tourist sailing vessel on the 6<sup>th</sup> of April 2016 and swam to retrieve the vessel's tender which had come loose. The crewmember left on board was a dive instructor and had no maritime qualifications. When Ms Trott went missing, he radioed nearby vessels for assistance immediately, and only radioed a 'PAN PAN' when instructed by another vessel, approximately 40 min after she was noticed missing.<sup>25</sup>

Lack of training, safe systems of work, and safety equipment are demonstrated in the following fatalities:

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<sup>23</sup> Links to Coroner's report available in Appendix 5

<sup>24</sup> Links to Coroner's report available in Appendix 5

<sup>25</sup> Links to Coroner's report available in Appendix 5

- Ryan Harry DONOGHUE died on the 29<sup>th</sup> of November 2013 while using an electric angle grinder. The Skipper started CPR, then contacted Austal Fisheries, who called a doctor, who called the vessel back to give advice. CPR continued for 75 minutes, but there was no defibrillator on board to restart his heart. He was 19 years old, had 4 months of experience, and was the 'First Mate'. He was also working barefoot the day he was killed.<sup>26</sup>
- Daniel Thomas BRADSHAW died on the 8<sup>th</sup> of January 2017. He fell between the vessel and the quay wall. There was no safe means of access to the vessel.<sup>27</sup>
- Glenn Anthony WILSON drowned on the 26<sup>th</sup> of July 2013, having capsized the dory he was working in while trying to free the anchor. He was not wearing a lifejacket.

The coroner's report into the death of Mr Wilson called for the introduction of baseline safety standards:

"However, SMS's, like that on *Norlaus*, demonstrate that there is a very serious and large gap between regulators' expectations and what many owners and operators are capable of achieving. The nature and extent of that gap has not been measured. I acknowledge AMSA is aware of the issue and is working diligently with owners and operators to close the gap. However, the absence of reliable information about the nature and extent of the gap must make strategic planning to close the gap very difficult.

In my view, AMSA needs to undertake a benchmarking exercise. Presumably, AMSA has clear criteria for an effective SMS against which it can audit owners and operators. If a sample size of a marine sector (dory fishing operations) is selected and audited, strengths and weaknesses can be assessed; and an overall level of performance can be determined. This will fix a base line from which future efforts to improve safety can be based. AMSA can then plan over what period and with what resources it will achieve a specified target level of overall safety performance within that sector. I don't doubt that planning was involved in past efforts to improve safety. However, without standards and measurements, regulatory progress in safety performance is unable to be externally monitored."<sup>28</sup>

The gap that this Coroner points to could be addressed with a safety Code of Practice that sets down clear guidelines for safety systems.

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<sup>26</sup> Links to Coroner's report available in Appendix 5

<sup>27</sup> Links to Coroner's report available in Appendix 5

<sup>28</sup> See links to coroner's reports in Appendix 5

AMSA's new requirement for vessels to carry float free EPIRBs from January 2021 is a positive safety change.<sup>29</sup>

AMSA has not clarified its position on using unqualified personnel to stand a navigational watch, refuses to regulate the wearing of lifejackets and even first aid requirements for crew on passenger vessels. In many cases, the Master of the vessel is the only person qualified and trained to use the radio and communication equipment, one of two trained in first aid, and the only person qualified to stand a navigational watch.

The office of the chief investigator, Transport Safety, Victoria, published a report on a hire on a hire and drive vessel in Lakes Entrance.<sup>30</sup> The report mentions that AMSA had reduced the frequency required for regulatory surveys of vessels from every year to every five years, which reduced the opportunity for the regulator to identify safety – critical defects.

In light of the coroner's comments above, the 'regulatory approach' that allows vessel owners to determine for themselves what safety measures are required on board does not seem to reflect the steps that need to be taken to secure the safety of seafarers, passengers, and the marine environment.

### ***Seafarers Rights***

One consequence of removing the requirement for the Navigation Act to be applied to domestic vessels travelling interstate is that seafarers' access to laws that have been protecting them for 100 years has been significantly reduced. Multiple provisions in the Navigation Act 2012 protect the rights of seafarers. Seafarers are particularly vulnerable because they are often required to live in their workplaces, which travels far from their home. They are dependent on their employer for their means of survival on board, and for transport to and from the vessel, and for access to medical care during their employment.

In order to ensure that seafarers are adequately protected, some of the provisions of the Navigation Act 2012 should also apply to some DCVs. This could be achieved by extending the application of sections of the Navigation Act, or alternatively include these protections to the National Law for certain vessels. The relevant sections are listed below.

Section 62 (1) The owner of a vessel must provide or ensure the provision of free provisions [food] to the vessel's seafarers.

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<sup>29</sup>AMSA Media Release on the requirement to carry EPIRBs: <https://www.amsa.gov.au/news-community/news-and-media-releases/float-free-epirbs-mandatory-january-2021>

<sup>30</sup> Marine Safety Investigation Report No 2017/ 05, Engine Fire Hire and Drive Vessel MB22M Lakes Entrance 03 October 2017

Section 63(1) The master of a vessel must not take the vessel to sea, or cause or permit the vessel to be taken to sea, unless the vessel is carrying:  
(a) drinking water of suitable quality and quantity; and  
(b) food of suitable quality, quantity, nutritive value and variety;  
having regard to the nature and duration of the voyage and the number, and cultural and religious backgrounds, of the vessel's seafarers.

Section 64 (1) The owner of a vessel must not take the vessel to sea, or cause or permit the vessel to be taken to sea, unless the vessel has catering facilities that are arranged and equipped so as to enable proper meals to be served to the vessel's seafarers.

Sections 68, 69, 70 (the owner's liability for maintenance, care and medical care of a seafarer until they are at their home port)

Section 89 A seafarer of a regulated Australian vessel or a foreign vessel is exempt from serving as a juror under the law of the Commonwealth or of a State or Territory

Section 90 (1) A person must not:  
(a) force onshore and leave behind at a place (whether within Australia or outside Australia) a seafarer of a regulated Australian vessel or a foreign vessel; or  
(b) otherwise cause such a seafarer to be left behind at such a place, either onshore or at sea.

Additional regulations in Marine Orders made under the Navigation Act include the right to repatriation to a seafarer's home port, and the right to make complaints. These are not included in the National Law, or regulations made under the National Law.

**Recommendation 9:** To amend the National Law so that seafarers working under the National Law are entitled to the same rights and protections afforded to those working under the Navigation Act, including access to suitable food, water, medical care, and repatriation.

## 7. Gaps in Workplace Health and Safety

*PC: How does transport safety regulation interact with other regulatory schemes, for example, workplace health and safety regulation? Where is there a conflict, what issues arise as a result? How should this conflict be addressed?*

We have observed a significant lack of integration between AMSA and Australian WHS legislation and agencies. The state WHS Acts (which are now mostly harmonised) apply on

most vessels now regulated by AMSA.<sup>31</sup> It is a case of concurrent jurisdiction – for most Domestic vessels *both* the National Law and the WHS Act applies. This occurs because of the provision of the National Law Act that it applies to the exclusion of State or Territory Law *except* for laws that deal with workplace health and safety (s.6(2)(b)(xxi)).

This situation has been the case for many years. AMSA does have MOUs with state and Territory WHS agencies to coordinate activity. However, the MUA regularly finds a remarkable lack of knowledge by AMSA officials about the WHS Act and Australian WHS systems, and a similar lack of knowledge about the concurrent jurisdiction by state WHS agencies. More worryingly, there is no fact sheet or reference on the AMSA website that we could find to clarify to vessel operators that the WHS Act applies to them.

AMSA's safety documents that are designed for use by vessel operators in designing safety systems do not contain any reference to the WHS Act, and undermine key aspects of the WHS Act. For example, the document 'Risk management in the National System' (12 pages) advises operators to use the hierarchy of controls of risk to reduce risk to 'acceptable' levels (page 7). However, the safety duty in the model WHS Act is "A duty imposed on a person to ensure health and safety requires the person *to eliminate risks to health and safety so far as is reasonably practicable*, and if it is not reasonably practicable to do so, to minimise the risks so far as is reasonably practicable" (s.17).<sup>32</sup> This is a much stronger duty than to reduce risk to an 'acceptable' level.

The AMSA document 'Practical Guidance for the Development of Safety Management Systems' (2018, 64 pages) does not include the hierarchy of controls of risk at all. Neither document mentions the WHS Act. Neither document requires consultation with crew on safety management, which is a cornerstone of the WHS system.

Some phrases from WHS legislation have been adopted into MO 504, but in our view the Marine Order does not comply with key aspects of the WHS Act, particularly consultation. Much better knowledge of WHS systems and coordination with other WHS agencies is urgently required.

AMSA does seem to be aware of some of these problems but does not seem to be taking sufficient steps to address them. In a submission to the 2018 Independent review of the model WHS laws in April 2018, AMSA wrote:

AMSA has also become aware that many sectors of the domestic commercial

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<sup>31</sup> Vessels undertaking longer voyages, and which tend to be longer vessels, come under the OHS(MI) Act. While the OHS(MI) Act is older, it is broadly similar to the WHS Act, and it has been the intention of government to bring the OHS(MI) Act into the national WHS Act jurisdiction.

<sup>32</sup> See also Safe Work Australia, HOW TO DETERMINE WHAT IS REASONABLY PRACTICABLE TO MEET A HEALTH AND SAFETY DUTY, May 2013.

vessel industry are unaware of the application of WHS legislation to their vessels as workplaces.

AMSA considers that the WHS laws should be consistently applied to domestic commercial vessels that are workplaces.

[...]

In particular, the Codes of Practice are considered to form practical guidance for those smaller operations who may not have the wherewithal or resourcing to properly identify the actions they should take to ensure compliance. Given the number of small to medium business enterprises in the Australian economy, the codes are seen to represent a worthwhile bridging mechanism between legislation and practical 'on the ground' implementation.

The Australian DCV industry is very divergent in the nature and size of its operations. Many enterprises are small with few resources and limited management /administration capability. Further, it is apparent that many operators are largely unaware of the obligations they hold under WHS legislation, despite the model WHS legislation defining vessels as workplaces. The absence of any industry-specific WHS Codes may be contributing to this situation.

AMSA considers that development of WHS Codes for the maritime sector would provide explicit acknowledgement of applicability of WHS laws to the sector and the WHS risks that need to be managed in the sector.<sup>33</sup>

AMSA's acknowledgement of the issue is a promising development.

AMSA is not a Member of Safe Work Australia. AMSA has MOUs with many organisations including state and Territory WHS regulators, but we could not find one with Safe Work Australia. AMSA and Seacare were a signatory to the 2008 MoU Between Occupational Safety and Health Government Agencies, however, are not included in the updated 2012 MoU between the Heads of Workplace Safety Authorities.

The experience of the MUA's South Australian branch is illustrative of the problem. In 2013, the branch undertook to train all maritime industry HSRs in the provisions of the new WHS Act. The branch invited both AMSA and Safework SA to attend each of the series of workshops held to ensure all HSRs across the state were able to attend. Different officials from each organisation attended each workshop, and in virtually every case, these officials were neither aware of the issue of concurrent jurisdiction on vessels, or of the MOU between Safe Work SA and AMSA. This was early on during new legislation, so perhaps was not surprising, and the branch hoped that the situation would improve from there. However, when a similar workshop was held in September 2018 with a senior Safe Work SA

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<sup>33</sup> AMSA, Submission Safe Work Australia Review of Model WHS Legislation, 13 April 2018, p.2 and 3.

manager in the transport sector, again, the manager had no awareness of the MOU and delegates had to find it for him on the internet.

In early 2019, the MUA SA branch began discussions with Canada Steamship Lines to ensure that their South Australian transshipment operations had properly trained and elected HSR structures. The company management claimed that they were covered under the DCV Act, and not under the WHS Act. The company had been operating with these vessels in South Australia for approximately ten years. In 2012, there was a fatality on board the same barge (*Spencer Gulf*) when crew were employed by a subcontractor, Inco Ships, and in 2016 Inco Ships was fined \$200,000 under the WHS Act for failing to provide a safe system of work as well as failing to provide adequate information, instruction, supervision and training.<sup>34</sup> Again, the MUA had to find the MOU and provide it to the company in order to prove to the operator that they were indeed covered by the WHS Act.

Another example of the discrepancy between AMSA and Safe Work Australia is the difference between the guidelines provided by AMSA<sup>35</sup> and Safe Work Australia for managing fatigue.<sup>36</sup> To give but one example, AMSA say that 'Risk of fatigue increases' when people work more than 60 hours per week. Safe Work Australia advise to 'Avoid long working hours (more than 50 hours per week).'<sup>37</sup>

### ***Ryan Harry Donoghue, Fishing Vessel Newfish 1, 29 November 2013***

Ryan Donoghue was fatally electrocuted while using a non-surge protected angle-grinder on the open deck of the prawn trawler '*Newfish 1*'. Ryan was 20-years old at the time of his death and working as the 'first mate'. It was found that Ryan was not appropriately supervised and was not wearing any kind of personal protective equipment. The vessel is operated by Austral Fisheries Pty Ltd (**Austral**), a well-established maritime company with a \$100m annual turnover.

The death of Mr Donoghue was an entirely preventable tragedy. It is recommended that the coroner's report be read in full<sup>38</sup> as it details a host of issues including risk assessments, safety Management Systems, training, qualifications, crew experience, PPE, electrical safety,

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<sup>34</sup> Jordanna Schriever, Inco Ships Pty Ltd fined \$200,000 over the death of deck mechanic Aries Nemiada at Whyalla in 2012, *The Advertiser*, July 13, 2016, <https://www.adelaidenow.com.au/news/south-australia/inco-ships-pty-ltd-fined-200000-over-the-death-of-deck-mechanic-aries-nemiada-at-whyalla-in-2012/news-story/e83c9604d04b985df6905d32a17474eb>

<sup>35</sup> AMSA, Managing crew fatigue, <https://www.amsa.gov.au/vessels-operators/domestic-commercial-vessels/managing-crew-fatigue>

<sup>36</sup> Safe Work Australia, 2013, Guidelines for Managing the risk of fatigue at work, <https://www.safeworkaustralia.gov.au/doc/guide-managing-risk-fatigue-work>.

<sup>37</sup> Safe Work Australia, 2013, Guidelines for Managing the risk of fatigue at work, p.18.

<sup>38</sup> Appendix 5

first aid equipment, convoluted legislation and regulation spanning QLD and the NT, the response of the regulators, grandfathered vessel standards, and Worksafe.

The coroner, Judge Greg Cavanagh explicitly states that '(Domestic Commercial) Vessels are workplaces' and yet, legislative and regulatory deficiencies have allowed for 'artificial separation [to be] fostered between marine safety and workplace health and safety... a dangerous myth'.<sup>39</sup> In Ryan's case, the myth had fatal consequences. Cavanagh goes on to describe how this affected this case:

"In my view, the evidence at this inquest has highlighted the unacceptable and indeed the shameful state of workplace safety on large numbers of Australian domestic fishing vessels. The lack of regulation and enforcement by authorities is of great concern."

And

"you've got the two most junior blokes here doing a job for the very first time, they've never done before. It's a recipe for disaster, isn't it?"

"The artificial separation that has been fostered between marine safety and workplace health and safety is therefore likely to continue."

Judge Cavanaugh goes on to explain how the legislation, regulations and response of AMSA is unacceptable.

"Marine Order 503(8) continues the grandfathering of Standards and Codes...."

"The Australian Maritime Safety Authority also took no compliance or enforcement action as a consequence of the death of Ryan Donoghue...That no Commonwealth, State or Territory regulatory authority has pursued any action against the employer is most unsatisfactory. The lack of action beggars belief and is shameful. ...The failure of the regulatory authorities to respond to the death of Ryan Donoghue is unacceptable and must be remedied."

Judge Cavanagh goes on to say that:

"Workers are entitled to the benefit of the safety laws that control workplaces. They should not pay with their lives for failures by others to abide the law. Families should be entitled to have confidence that their children will not be killed in the workplace through the non-compliance of employers. The Community is entitled to think that when its laws are breached, resulting in the death of its members, there will be a response."

One of the recommendations made by the coroner in this case was that:

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<sup>39</sup> Judge Greg Cavanagh, *Inquest into the death of Ryan Harry Donoghue* [2016], p. 37-38.

“I recommend that the Australian Maritime Safety Authority take the lead in ensuring that the legal requirements and duties of the workplace are communicated through the mechanisms of marine safety and in particular the message that Domestic Commercial Vessels are workplaces....”

The litany of failures of the national regulator is compounded by the knowledge that that Bradley THOMAS died in a similar incident in 2000, and similar issues were raised by the WA coroner at the time.

***Daniel Thomas Bradshaw, Sammy Express, 8 January 2017***

Daniel Bradshaw fell to his death while climbing from the barge *Sammy Express* on to the quay wall in the early hours of the morning. The death of Mr Bradshaw was also an entirely preventable tragedy. The coroner’s findings are attached (Appendix 5) and again, it is recommended that the findings are read in full.

The coroner’s report describes how no gangway or safe means of access was fitted, and in fact no gangway was available at all:

“No one on the boat considered it necessary to put in place a gangway.”

“I was told by the Master of the vessel that there was another gangway in the yard, but it was too short and not a compliant gangway. He said, “Yes, I haven't seen a compliant gangway in the yard as long as I've worked there, that has – that follows that SMS requirement. I've never seen a boarding catch net under any gangway.””

The Coroner’s report highlighted that no measures were taken by either NT Worksafe or AMSA to ensure that company had complied with the NT Worksafe Improvement Notice (issued 9 January 2017)<sup>40</sup> or the AMSA Direction Notice (issued on 7 November 2017) to ensure safe access to the wharf. Instead, the company altered its Safety Management System paperwork without any physical mechanism for safe access being requested or provided. They instead forbade the crew from going ashore if there was no gangway rigged. AMSA explained

“it is the accepted practice where a lot of notices issued on behalf of AMSA or by AMSA are done in either through self-declaration or voluntarily giving us the information.”<sup>41</sup>

However, it is clear that no effective action was taken as the Coroner concluded that:

‘at the date of the inquest [11-12 December 2017, 11 months later] there was no evidence to suggest that any mode of access or egress to and from barges was compliant or safe.’<sup>42</sup>

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<sup>40</sup> Judge Greg Cavanagh, *Inquest into the death of Daniel Thomas Bradshaw* [2018] p. 12

<sup>41</sup> Judge Greg Cavanagh, *Inquest into the death of Daniel Thomas Bradshaw* [2018] p. 17

<sup>42</sup> Judge Greg Cavanagh, *Inquest into the death of Daniel Thomas Bradshaw* [2018] p. 23

Both NT Worksafe and AMSA must take steps to ensure compliance with the notices they issue to companies. If no steps are taken to ensure problems that lead to directly to fatalities are addressed, what hope do workers have of getting the support of regulators for raising preventative safety issues? The Coroner found that:

“regulatory authorities appear to be either slow or unwilling to denounce unsafe practices.”<sup>43</sup>

Despite the state delegate of the national regulator submitting a breach report to AMSA recommending prosecution, the coroner was told

“by Mr Brian Hemming, the National Operations Manager for Regions at AMSA, that it was the view of AMSA that there were “insufficient grounds to refer the matter to the Commonwealth Department of Public Prosecutions”.

AMSA’s attitude towards regulation was uncovered at the coroner’s inquest. The following conversation explains that AMSA does not feel any sense of responsibility or urgency to regulate and enforce safety measures.

**“Counsel Assisting:** What you're saying is that gangway safety is one of the lower or lesser priorities?

**Mr Hemming:** I wouldn't say it's a lesser - it is a lesser priority. What I am saying also there are other significant safety influences that take priority over that - for example the wearing of life jackets has significant priority. The application and development of relevant SMSs to address the behaviour and change of culture over time has a significant influence on our approach, as examples.

**Counsel Assisting:** Is what you are saying there are so many noncompliances in relation to the domestic commercial vessels that it's a very long list?

**Mr Hemming:** Without being controversial, yes it is. We have a significant generational, cultural change ahead of us and in some cases we need to take small steps, in other cases, you know, over time we need to use the full extent of the suite of tools available to us to influence that change.”

The coroner concludes with the following statements which the MUA supports completely:

“I was told that change in the industry will be “generational”. However, if that means that this generation of workers are exposed to risks that legally should not exist, it is not good enough..... Where there is a death resulting from unsafe practices the community is entitled to expect that the unsafe practices be denounced in the strongest possible terms. This is the second such inquest relating to a domestic commercial vessel, in the Northern Territory in the last 18 months, where the regulatory authorities appear to be either slow or unwilling to denounce

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<sup>43</sup> Judge Greg Cavanagh, *Inquest into the death of Daniel Thomas Bradshaw* [2018] p. 23

unsafe practices. In the first death (Inquest into the death of Ryan Harry Donoghue [2016] NTLC 009), no action at all had been taken two and a half years after the death by any regulatory authority.”

AMSA’s stated policy in its Regulatory Plan is to put responsibility on the regulated community, who bear the responsibility for the risk.<sup>44</sup> This is at odds with expectation of workers to have a safe environment to work in, passengers to have a safe experience when they go on a vessel, and masters who expect owners to manage safety effectively. Tragically, the actual risk is rarely borne by vessel owners, but by the crew they hire to operate the vessels, or the passengers on board. Even with the best intentions of small operations, lack of effective training and crewing exacerbates incidents. Small operators in particular cannot compete when no regulation training is the default situation, and effectively penalises vessels if they choose to adhere to a higher standard of regulation.

### ***Improving Work Health and Safety***

*PC: What changes, if any, to the current system would improve safety outcomes?*

A recent independent best practice review of workplace health and safety in the Northern Territory recommended that NT WorkSafe and AMSA should work together to ensure that a larger number of inspectors exercising functions under both the Marine Safety (Domestic Commercial Vessel) National Law Act and the Occupational Health and Safety (Maritime Industry) Act (OHSMI) are located in the Northern Territory.<sup>45</sup> This is a good start but a greater understanding of the concurrent jurisdiction of these maritime safety laws and the WHS act are needed.

**Recommendation 10:** That the Commission recommend to the Australian Government that a Safety Code of Practice for the Domestic Commercial Vessel industry be developed, in line with the current *Code of Practice: Health and Safety in Shipboard Work, including Offshore Support Vessels*, which has been developed for larger vessels more likely to be RAVs. Such a Code can give practical and flexible guidance to seafarers in the industry, with specific chapters to address the diverse sectors of the industry.

**Recommendation 11:** That the Commission recommend to the Australian Government that AMSA should become a member of Safe Work Australia and the Heads of Australian Workplace Safety Authorities. At a minimum, it must develop an MOU with Safe Work Australia, and make every effort to align its safety reporting and analysis with Safe Work Australia standards.

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<sup>44</sup> AMSA, ‘Statement of Regulatory Approach’, October 2018,

<sup>45</sup> Tim Lyons, Best Practice review of workplace health and safety in the Northern Territory, pg 6  
[https://justice.nt.gov.au/\\_\\_data/assets/pdf\\_file/0004/664213/Best-Practice-Review-of-WHS-in-the-NT-Final-Report-opt.pdf](https://justice.nt.gov.au/__data/assets/pdf_file/0004/664213/Best-Practice-Review-of-WHS-in-the-NT-Final-Report-opt.pdf)

**Recommendation 12:** That the Commission recommend to the Australian Government that the Domestic Commercial Vessel industry be declared a 'national priority industry' for preventative action, and that AMSA should work with Safe Work Australia and maritime unions to develop a strategy to reduce fatalities and injuries in the Domestic Commercial Vessel industry.

## 8. Has nationally consistent regulation been achieved?

*What have been the practical effects, particularly on safety, regulatory burden, costs and productivity, of:*

*State and Territory government exemptions from the national laws? For example, does the grandfathering from survey of some vessels have any safety implications?*

### **Grandfathering**

Every section of the National Law has a section on grandfathering. It is possible to grandfather provisions on physical items on vessels, on crewing numbers and qualifications, and operate vessels with qualifications with no expiry date that were issued decades ago. There are safety concerns with these arrangements, particularly with physical vessel standards for vessels operating commercially, in some cases with passengers, with significantly outdated standards. This problem is exacerbated by the fact that the vessels themselves are grandfathered, and even if the vessels are sold, retain the grandfathered provisions. This often gives the buyer an advantage over purchasing a newer vessel. In addition, the grandfathered provisions are void if significant changes are made to the vessel, providing a disincentive for upgrading the vessel to modern standards for one item on board as that may constitute a significant enough change to void the grandfathering exemption.

The grandfathering provisions also have the consequence of keeping older vessels in service for longer than may be prudent. While some older vessels are well maintained and in good condition, an owner may be tempted to run a less well found vessel past its prime in order to profit from a grandfathered clause. Older vessels, particularly smaller fishing vessels of <24m in length are at an increased risk of deteriorating stability as they age. This is caused by the initial stability of the vessel when new being compromised over time by adding and removing weight – replacing heavy old machinery with newer and lighter models, adding fridge and freezers, replacing netting and rigging, and a general accumulation of spares and junk over time. The concern with stability of these vessels is compounded by a lack of training in the Master <24m qualification in even the most basic stability concepts. Even if this was introduced immediately to the syllabus for the ticket, the grandfathered qualifications will ensure that stability will be an issue until the next generation of both vessels and seafarers takes over.

### ***Excessive use of exemptions***

The national regulator is empowered by the National Law to issue exemptions so long as the “exemption concerned, taken together with the conditions to which it is subject, will not jeopardise the safety of a vessel or a person on board a vessel” (Section 143 of the National Law). This is a very low bar for issuing an exemption.

The issue of an exemption should instead place the burden on the regulated entity to demonstrate that the risk remains ‘as low as reasonably practicable’ to maintain compliance with the WHS Act, and that complying with the regulation would be ‘grossly disproportionate’ to the hazard or risk concerned. An exemption should only be issued after an appropriate risk assessment and vessel inspection, subject to the approval of two or more managers, and published on AMSA’s website. The regulator must ensure that the operation, vessel or person where an exemption is to be issued is safe, before issuing the exemption.

The ease at which exemptions can currently be issued can also give rise to conflicts of interest in AMSA governance structures, unless robust rules are in place to explicitly prevent this. It is frequently of direct commercial benefit for a company to be issued with an exemption. Industry employers and vessel operators who benefit from exemptions should not be involved with AMSA governance and consultation structures until more robust rules are put in place.

### ***Safety implications of exemptions and grandfathering***

There are a number of fatalities that have taken place on vessels that have been issued with an exemption. Below we examine the deaths of Tim Macpherson on the *Maeve Ann* and Murray Turner, Mason Carter and Chad Fairley on the *Returner*.

On the 1st of March 2017, Tim Macpherson was struck and killed by a steel beam while working on board the barge *Maeve Anne* constructing the new ferry hub at Barangaroo, Sydney. The MUA is of the understanding that a coroner’s inquest will be undertaken, and that there will potentially be a prosecution forthcoming from Safework NSW. As in many other situations described in this submission, the interaction between Work Health and Safety and the National Law is convoluted and confusing, however, the decisions made by AMSA and NSW Maritime as the delegate provide a paper trail that shows a concerning chain of events.

This tragic incident was raised in the Senate by Sen Doug Cameron on the 22<sup>nd</sup> March 2017<sup>46</sup>. The MUA has established a timeline as follows:

- In **August 2015**, AMSA gave advice to Brady Marine and Civil Pty Ltd (BMC), the operator of the *Maeve Anne*, that the vessel would require a Certificate of Survey if the vessel was to change geographical area.<sup>47</sup>
- At some point in **February 2016**, the *Maeve Anne* was moved from Brisbane to Sydney for use in the construction of the Barangaroo Ferry Hub. BMC was a sub-contractor for Mc Connell Dowell, the contractor for construction of the ferry hub.
- On the 30<sup>th</sup> **May 2016** a prohibition notice for *Maeve Ann* was issued to BMC for operating the vessel without National Law certification.
- On the 8<sup>th</sup> **June 2016**, Roads and Maritime NSW issued a temporary operations exemption for the barge.
- In **June 2016**, the MUA contacted RMS with safety concerns regarding the vessel.
- On the 6<sup>th</sup> of **October 2016**, Mr Brian Hemming, National Operations Manager, Domestic Vessels, AMSA, issued a specific exemption for the vessel.
- On the 21<sup>st</sup> **October 2016**, the vessel was issued with a Certificate of Survey and Operation by RMS on behalf of AMSA.
- In **November 2016**, the MUA was refused right of entry to the barge and worksite after seeking access under NSW WHS legislation.
- Following Mr Macpherson's death on the **1<sup>st</sup> of March 2017**, the MUA was finally granted access to the site on the **7<sup>th</sup> March 2017**, and identified a significant number of safety issues.<sup>48</sup>
- On the **15<sup>th</sup> March 2017**, RMS inspected the barge and issued an 'improvement notice'.

AMSA had made BMC aware of the regulatory requirements that would apply to the vessel, and yet, even in the light of a prohibition notice being issued for a breach of these same requirements, AMSA and RMS still felt confident in issuing a Temporary Operations Exemption, a Specific Exemption, and a Certificate of Survey and Operation. It is unclear if at any time during this process of issuing paperwork, a physical safety inspection of the barge was carried out by a Maritime Safety Inspector, or even if a desktop audit of the vessel's Safety Management System was carried out.

*Returner* was a fishing vessel that was lost with three fatalities in July 2015.<sup>49</sup> One of the contributing factors to the loss of the vessel was insufficient stability following a major refit

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<sup>46</sup>Extract from Hansard available at:

[https://www.aph.gov.au/Parliamentary\\_Business/Hansard/Hansard\\_Display?bid=chamber/hansards/5a8fad58-1c5f-4288-b0fd-4bc542ae11ce/&sid=0056](https://www.aph.gov.au/Parliamentary_Business/Hansard/Hansard_Display?bid=chamber/hansards/5a8fad58-1c5f-4288-b0fd-4bc542ae11ce/&sid=0056)

<sup>47</sup> Information available on request

<sup>48</sup> Information available on request

<sup>49</sup> Coroner's report Carter, Fairly and Turner. See Appendix 5

of the vessel. Among the coroner's recommendations is that grandfathering of standards should end:

"I recommend that AMSA, as the National Regulator of the National Law, should give consideration to establishing a transitional approach to ending the grandfathering of safety standards for existing vessels. Compliance with current standards in regard to vessel operations and safety equipment should be given priority."

Since the sinking of *Returner* in 2015, the fishing vessels *Cassandra* (April 2016), *Seabring* (November 2016), *Night Raider* (November 2016) and *Dianne* (October 2017) have all been lost, with a total of 12 fatalities. The coroner's inquest into *Cassandra* and *Dianne* are being carried out at the time of writing this submission.

**Recommendation 13:** That the Commission recommend to the Australian Government that any exemptions issued by AMSA should only be issued after an appropriate risk assessment and vessel inspection, subject to the approval of two or more managers, and published on AMSA's website.

**Recommendation 14:** That the Commission recommend to the Australian Government that grandfathering provisions be phased out, with the understanding that the current arrangements are a threat to crew and public safety.

*Should any inconsistencies in the current system be addressed? If so, what are these and how should they be addressed?*

Inconsistencies abound in the legislation and regulations surrounding the maritime industry. The uncertainty that stems from this inconsistency affects operators and crew. The National Law has made this situation worse by introducing a new national system that now operates in parallel with the vessels operating domestically under the Navigation Act. The jurisdiction of the Navigation Act should be expanded to include more larger vessels, and to create a clear boundary with the National Law so that vessels are not operating under the two different systems in competition with each other (Section 4 and 5). Harmonisation of the OHS(MI) Act into the Commonwealth WHS Act would also be welcome.

### ***Fishing Vessels***

Another area where the regulations are convoluted and inconsistent is in the area of RAVs that are fishing vessels. Around the world, fishing vessels have been treated differently by regulators, Australia being no exception. Marine Order 51 (Fishing Vessels) applies to Australian fishing vessels on an international voyage. There are specific qualification and training requirements set out for the duties of the skipper, the officer in charge of a navigational watch, chief engineer or second engineer. Persons are also permitted to perform duties and functions if in possession of a medical certificate. However, no certificates are currently issued under this Marine Order, and instead fishing vessels on

international voyages are being manned with near coastal crew with no required training on fishing vessel stability or operations. STCW F, an international convention on the standards of training for persons working on fishing vessels is not being considered by AMSA and is not included in their regulatory plan. This lack of a proactive approach to fishing vessel qualifications could impact on the safety of these vessels, as well as impede their access to international ports, including New Zealand, which is in the process of ratifying STCW F.<sup>50</sup>

### ***Dangerous Goods***

The carriage of dangerous goods on board Domestic vessels must be clarified. For RAVs, the regulations are clear and unambiguous. Marine Order 41<sup>51</sup> brings into force the International Maritime Dangerous Goods Code (IMDG Code) which specifies how dangerous goods should be carried on board vessels, including how different cargoes should be separated to avoid fire from spreading and causing a catastrophe. These regulations are used all over the world, are based on risk, and are updated regularly. MO 41, however, does not apply to DCVs under the National Law. Prior to AMSA administering the National Law, states often made it a condition for state regulated vessels that carry dangerous goods to comply with the IMDG code. The current regulations under the National Law do not enforce or even recommend that DCVs follow the IMDG code, instead allowing operators to do their own risk assessment as to how to separate cargoes to reduce the risk. This also includes how passengers are carried on these vessels.

### ***Insurance***

Another area that is of concern is that of marine insurance. Before maritime safety regulation became the norm in the early 1900's, insurance companies would set the rules themselves to avoid additional risk. Before this happened, unscrupulous owners would deliberately send out unseaworthy, overloaded and over insured vessels, knowing that if the ship made the voyage, profit would be increased, and if it foundered on the voyage, the insurance would pay out and a profit would still be made. Vessels today must be 'classed' - a member of a classification society that governs the physical characteristics of a vessel so it meets the requirements to be insured. All the DCVs 35m and over must be classed<sup>52</sup>. However, class societies do not insist on operational requirements, which are the purview of maritime safety agencies. This includes manning documents, crewing levels, training requirements, risk assessments and safety management systems. We do not claim to be experts in the risk held by marine insurance companies, however surely one of the effects of robust regulation should be lowered insurance premiums. It is of concern that uncertainty in the marine regulation sphere may increase insurance costs in the DCV sector.

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<sup>50</sup> New Zealand treaties: <https://www.treaties.mfat.govt.nz//search/details/p/14/2220>

<sup>51</sup> Marine Order 41 – Carriage of Dangerous goods

<sup>52</sup> NSCV Part C, Section 3, 3.1

**Recommendation 15:** The International Maritime Dangerous Goods Code (IMDG Code) must apply to vessels regulated under the National Law.

## 9. What are the effects of remaining state level regulation and regulators?

*Are there other examples of inconsistency? If so, what has been their practical effect? Should any inconsistencies in the current system be addressed? If so, how?*

There is a possible inconsistency with the ability to prosecute breaches of the National Law in Queensland and Western Australia's inland waterways. McInnes Wilson Lawyers have published a brief<sup>53</sup> outlining the constitutional limitations that the National Law has on DCVs operating landward of the baseline. While most states have passed legislation that closes this 'gap', Queensland and Western Australia have not.

## 10. Have regulatory burden and costs fallen?

*How might any unnecessary regulatory burden and compliance or administrative costs be reduced?*

### ***Reducing the Regulatory burden on seafarers by creating a single, streamlined qualification system***

The dual system of the Navigation Act and the National Law operating in Australia means that seafarers must navigate a complex array of short courses, medicals, VET qualifications, paperwork, application fees, considerable variation in wages and constantly changing language. It also means that employers may not understand what the person they are hiring is trained and qualified to do. For example, the training and experience of an Integrated Rating is far superior to that of a General Purpose Hand, and more suited to the additional risks associated with operating on bigger vessels and further offshore, yet under the National Law they are equally qualified to work on vessels regulated under the National Law in Australia's coastal shipping industry. Even the basic safety training, a practical and expensive course including sea survival, first aid and firefighting is different between the two 'streams', and seafarers may be required to do both.

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<sup>53</sup> Brief describing the gaps between QLD state law and the commonwealth jurisdiction of the National Law: [https://www.mcw.com.au/page/Publications/Administrative\\_Law/2014/passengers-duties-and-the-marine-safety-domestic-commercial-vessel-national-law-on-queensland-s-internal-waters/](https://www.mcw.com.au/page/Publications/Administrative_Law/2014/passengers-duties-and-the-marine-safety-domestic-commercial-vessel-national-law-on-queensland-s-internal-waters/)

The Australian maritime industry is not large enough to support training organisations offering two similar courses for the same purpose. A Master <24m NC may operate similar vessels to a Master <500GT, however again, the training and experience levels are substantially different. Having these two separate, yet similar systems, that are very difficult to transfer between has led to the bizarre situation of experienced and trained seafarers facing high unemployment.

The seafarer qualifications framework should be simplified and streamlined into a quality and progressive system that increases safety, utilises the entire workforce and complies with our international obligations, both with the IMO and with Australia's Trans – Tasman Mutual Recognition Arrangement (TTRMA) with New Zealand.

### ***Importance of a trained and competent seafaring workforce***

The MIAL Seafaring Skills Census Report 2018 report found, based on the views of maritime organisations that employ internationally certified seafarers on board ships and ashore, that an additional 560 internationally (Navigation Act) certified and qualified seafarers will be required (under current shipping policy settings) in the next 5 years to 2023, an 11.6% increase. These seafarers are required to operate ports, terminals and maritime infrastructure.

The significant increase in the number of ships now crewed by seafarers trained only to the lower standards in the National Law Act, or with no certified seafarers in some occupational streams on board, will continue to undermine the maritime skills base that Australian ports require to continue to function. Seafarers with specialised skills are required to work on petroleum and gas tankers and offshore oil and gas by the global industries that operate these ships, and the associated shore side roles in surveying, maintenance, loading and discharging etc. <sup>54</sup> Increasingly, these seafarers are not available to be recruited from overseas. CEO of the Maritime Industry Australia Limited Teresa Lloyd explained to a Senate committee that: “We are facing a worldwide shortage of these skilled seafarers ... we can't rely on immigration for those skills and we can't rely on alternative pathways to create those training platforms ... What we do know is the way to get those skills to run our ports, which our farmers are going to need, is to have time on board ships, and we need those assets to get that.”<sup>55</sup>

**Recommendation 16:** That the Commission recommend to the Australian Government that a full and transparent review of the seafarer qualification framework and associated VET

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<sup>54</sup> OCIMF and OPITO are global industry bodies that set the standards for the oil and gas industry and the offshore industry respectively. <https://www.ocimf.org/>, <https://www.opito.com/>,

<sup>55</sup> Proof Committee Hansard Senate, *Inquiry into the policy, regulatory, taxation, administrative and funding priorities for Australian shipping*, Senate Rural and Regional Affairs and Transport References Committee, p.13.

certificates and units of competency be carried out. Domestic and international seafarer qualifications must be streamlined in order to have STCW standards of competence integrated at all levels in order to have a qualification system that allows all seafarers to develop their career and training in a straightforward process. Incorporating the higher standards of STCW, at an appropriate level, into the units of competency of the VET certificates will increase the overall standards of Australian seafarers, reduce the complexity of the system and reduce overall training costs. It is also recommended that all personnel working on any type of vessel must have health and safety training specific to work on vessels, as well as STCW-compliant survival and fire prevention training.

### ***Have the reforms delivered indirect benefits?***

It is the MUA's opinion that the implementation of the Marine Safety (Domestic Commercial Vessel) Act has not delivered any benefit. The implementation of the Act has lowered the safety standards of the industry, removed oversight by effective state safety regulators, and replaced it with a national system based on the standards of the least effective models, with even less oversight, and a national regulator seeking to unburden itself of risk and additional workload. Seafarers welfare and rights have been directly affected by the changing in jurisdiction from the Navigation Act to the National Law. Industry organisations and large and vocal companies have had a disproportionate influence in eroding safety standards, and the skills required to carry Australia into the future are being eroded to the lowest possible level.

## **11. How have the regulators performed in undertaking their regulatory functions?**

*PC: Are the regulators effective? Are they adequately resourced? Do they have appropriate powers to achieve their objectives?*

*Where regulatory arrangements are not operating as expected, what are the reasons? For example, are there issues with the regulatory structure or with government policies? How might any issues best be addressed?*

*Are current accountability arrangements for the national regulators effective? If not, why not and how might they be improved?*

*What kinds of implementation issues are still to be resolved?*

*Have there been any limitations on the national regulators arising from the original COAG negotiations? Grandfathering arrangements or service level agreements might be examples. Are these limitations still in force? If so, are they still appropriate?*

*What if anything, needs to be done to address any outstanding implementation issues?*

## **Lack of resources**

AMSA's vessel regulation task has increased dramatically since taking over as the Regulator for the National Law. In 2010, AMSA was responsible for regulating less than 100 Regulated Australian Vessels, approximately 4,500 international ship visits, search and rescue, aids to navigation, pollution response and other regulatory functions. On the 1<sup>st</sup> of July 2013, the Navigation Act 2012 came into force with the added responsibility of inspecting and regulating the provisions of the Maritime Labour Convention on both RAVs and visiting international vessels. On the same day, AMSA also became responsible for the development and enforcement of regulations under the Marine Safety (Domestic Commercial Vessel) National Law Act 2012. This new responsibility came with it (as estimated by AMSA in 2016) 27,000 vessels and 66,000 seafarers.<sup>56</sup>

The National Law regulates vessels covering the entire spectrum of floating transport from kayaks for hire to intrastate trading vessels, from water taxis to the Manly ferries, and every type of vessel and operation in-between.

It has only been since the 1<sup>st</sup> of July 2018 that AMSA has taken over full-service delivery of the National System for Domestic Commercial Vessels, and in preparation AMSA has significantly increased its IT infrastructure to cope with certification systems that the states were previously responsible for – AMSA reported computer software assets of \$24 million in 2017-18, compared to \$3.4 million in 2009-10.<sup>57</sup>

Figure 5 and Figure 6 compare AMSA's annual expenses and staffing expenses from 2009-10 to 2017-18 to the numbers of vessels it is regulating. While there has been some increase in relation to CPI, the increase is nowhere near commensurate with the additional burden of regulating 20,000-27,000 vessels and crew. Visits by individual international vessels have increased from 4,500 to 5,900 and the inspection process for these vessels is more complex and time-consuming due to new MLC provisions.

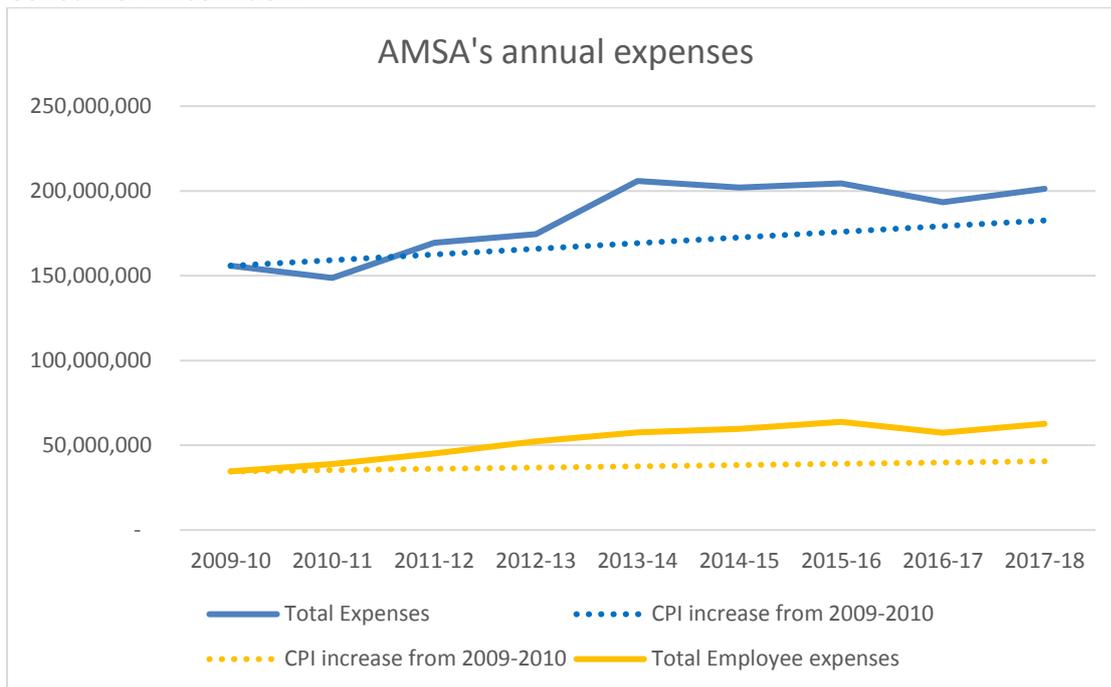
While a significant increase in IT expenditure has taken place, it appears to us that AMSA is significantly under resourced to carry out the job it has been given. More Maritime Safety Inspectors (MSIs), Port State Control Officers, and Marine Surveyors are needed. Resources are needed to provide the kind of safety analysis identified in Sections 6 and 7, to develop appropriate regulatory response and education materials and to interface properly with other jurisdictions.

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<sup>56</sup> Noting potential inconsistency in the numbers of Domestic vessels as described in section 6.

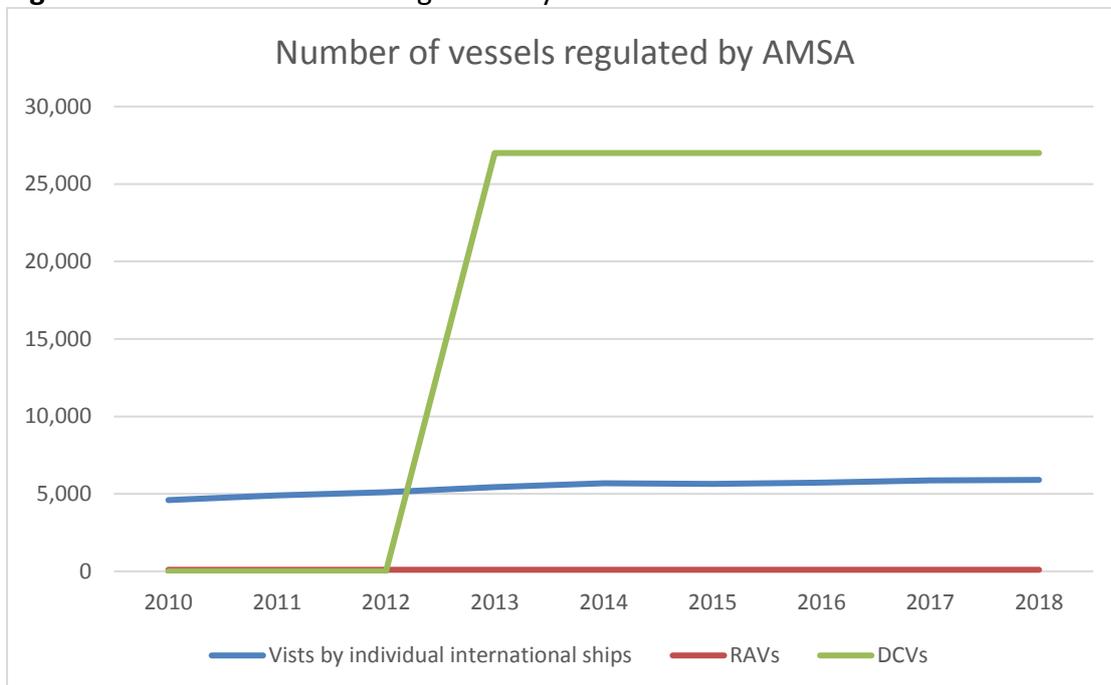
<sup>57</sup> AMSA's Annual Reports 2010- 2018

**Figure 5:** AMSA's Annual Expenses and Total Employee Expenses compared to the Consumer Price Index.



**Sources:** AMSA's Annual Reports 2010-2018, Australian Bureau of Statistics.

**Figure 6:** Numbers of vessels regulated by AMSA from 2010.



**Sources:** AMSA's Annual Reports 2010-2018, AMSA Port State Control Annual Reports 2010-2018. We do not know the actual number of RAVs but a figure of 100 has been used for this graph. This number is likely to be lower in recent years.

**Recommendation 17:** That the Commission recommend to the Australian Government that a review be made of resources available to AMSA, the allocation of those funds within AMSA, and whether further resources need to be allocated to enable AMSA to achieve their stated outcomes to the standard expected of an Australian Safety Authority.

### ***Lack of regulatory enforcement action***

AMSA seems unwilling or unable to prosecute vessel owners, masters or crew under the National Law. Since the National Law came into effect in 2013, the state maritime safety authorities have sent breach reports to AMSA for referral to the Commonwealth Director of Public Prosecutions.

Table 5 shows the charges placed under the laws that AMSA has responsibility for since 1 July 2013. A summary, or simple offence, is tried by a magistrate in the Local or District Court. Examples of summary offences include less serious cases of fraud and some drug offences. An indictable offence is a serious criminal offence that is usually heard in a higher court, such as the County, District or Supreme Court. Indictable offences require a trial by judge and jury. Examples of Commonwealth indictable offences include major drug importation cases, terrorism offences and fraud cases where the sum of money involved is large.

**Table 5:** Charges placed under the various maritime safety acts.

Financial year	Number of charges placed under the Marine Safety (DCV) National Law Act	Number of charges placed under the Navigation Act	Number of charges under the Protection of the Sea (Prevention of Pollution from Ships) Act 1983	Number of defendants dealt with referred by AMSA
2013/2014	nil reported	nil reported	nil reported	nil reported
2014/2015	Nil reported	Nil reported	9 summary	8 summary
2015/2016	4 summary	nil reported	3 summary	6 summary
2016/2017	13 summary	2 indictable	2 summary	6 summary
2017/2018	8 summary	nil reported	10 summary	6 summary

Source: DPP Annual reports

In total, 25 charges have been laid under the provisions of the National Law. Some of these include:

- *Spirit of 1770* fire, QLD May 2016, 46 people on board total, no fatalities. 2 charges laid on the Master of the vessel and dropped on 4<sup>th</sup> Dec 2018.<sup>58</sup>

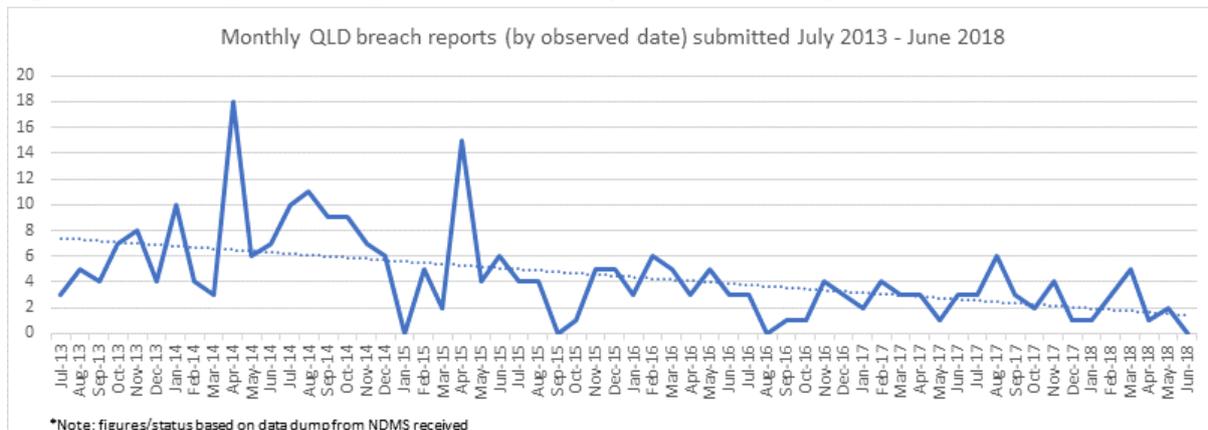
<sup>58</sup>ABC news report on the sinking of *Spirit of 1770*: <https://www.abc.net.au/news/2016-05-12/passenger-recounts-rescue-burning-sinkin-catamaran-1770/7407354>

- *She's Awesome* with serious injuries to passenger. Charges were successfully laid against both the owner and Master in NSW.<sup>59</sup>
- *MV Voyager* incident in Queensland, where the master was convicted on 2 charges, operator convicted on 5 charges.<sup>60</sup>

Unfortunately, there is no record of any other charges referred to the DPP by AMSA, and most of the state maritime authorities have not kept records of breach reports. When requested to share this information, the state authorities referred to AMSA as the 'owner' of this information.

Maritime Safety Queensland did, however, feel confident in sharing some data on breach reports which were sent to AMSA while it was acting as the delegate of the National Regulator (Figure 8).

**Figure 8:** Monthly QLD breach reports submitted by Maritime Safety Queensland to AMSA.

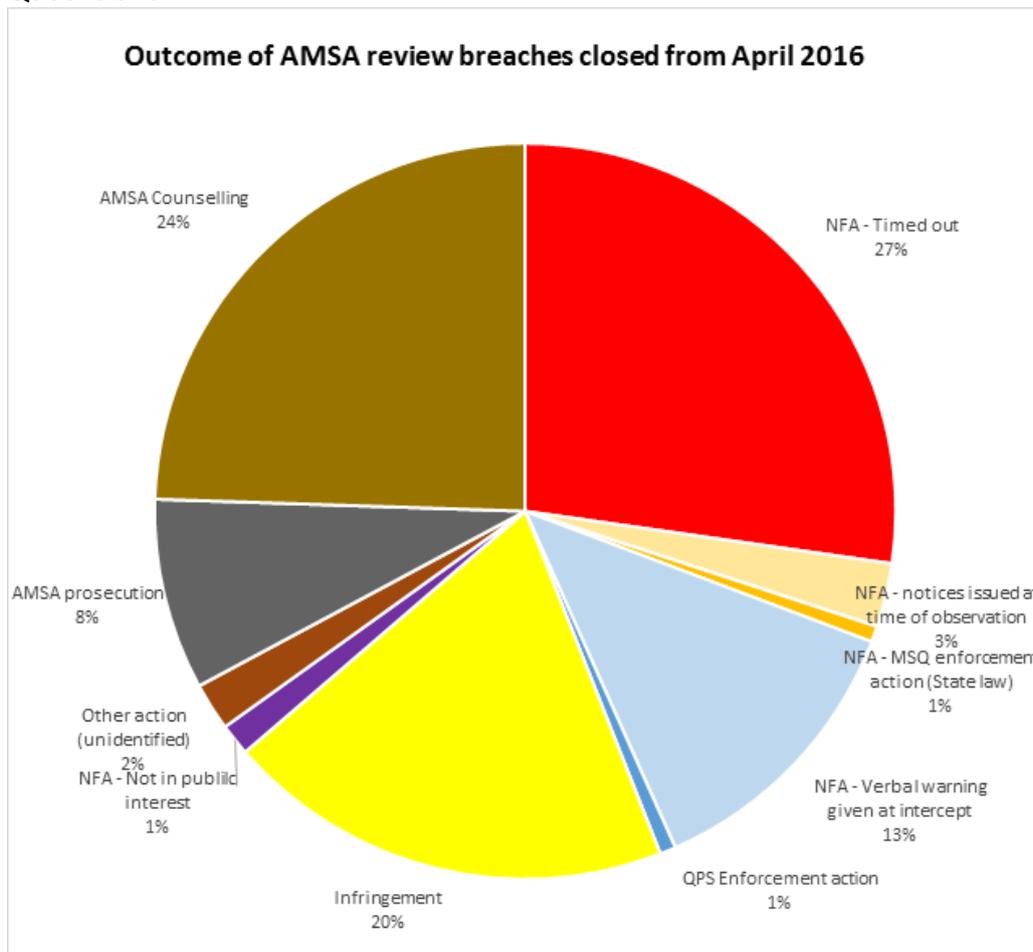


Source: Maritime Safety Queensland, personal correspondence 13 March 2019

<sup>59</sup>AMSA media release successful prosecution relating to “She’s Awesome”: <https://www.amsa.gov.au/news-community/news-and-media-releases/joint-media-release-newcastle-speed-boat-operation-fined>.

<sup>60</sup>AMSA medial release successful prosecution relating to “MV Voyager”: <https://www.amsa.gov.au/news-community/news-and-media-releases/gold-coast-skipper-convicted-maritime-offences>

**Figure 9:** Outcome of breaches of the National Law submitted to AMSA by Maritime Safety Queensland.



Source: Maritime Safety Queensland, personal correspondence 13 March 2019

The data provided by MSQ shows a significant number of breach reports were sent to AMSA, and while some resulted in infringement notices, a few in prosecutions and some in “AMSA counselling”, more than a quarter were ‘timed out’ (Figure 9).

Some incidents where it would be expected for incident and investigation reports to be made public and potentially charges to be successfully laid include:

- The fire on board *Spirit of Seventeen Seventy*<sup>61</sup>
- The death of Mr Mills on *Ten Sixty Six*<sup>62</sup>
- The death of Daniel Bradshaw on *Sammy Express*<sup>63</sup>
- The death of Ryan Donoghue on *Newfish 1*<sup>64</sup>

<sup>61</sup> Media article describing the follow on effects of the fire on board *Spirit of Seventeen Seventy* on the town of 1770 and the surrounding region: <https://www.gladstoneobserver.com.au/news/possible-class-action-for-1770-and-agnes-water/3392846/>

<sup>62</sup> See Appendix 5 for links to coroner’s report

<sup>63</sup> See Appendix 5 for links to coroner’s report

<sup>64</sup> See Appendix 5 for links to coroner’s report

- The collision between a small vessel and *Jane Virgo*<sup>65</sup>
- The death of Tim Macpherson on *Maeve Ann*<sup>66</sup>
- The death of Paul McVeigh on *Moonraker*<sup>67</sup>

Because of the lack of publicly available data into maritime incidents, it is impossible to determine what action should be taken, if any. However, the Australian public should be satisfied that if a marine incident occurs, the party responsible should be held to account.

**Recommendation 18:** That the Commission recommend that AMSA carry out more transparent reporting of the agency's enforcement actions.

### ***Changes to improve enforcement and clarity of National Law***

It is our understanding that some of the challenges in prosecuting breaches of the National Law have are due to the lack of robust and enforceable wording in the Act. A pattern seems to be emerging that more prosecutions are going ahead under the WHS Act than the National Law. This was the case with the death of Mr Bradshaw in the NT.

Below we suggest improvements in a number of areas.

#### ***General Safety Duties***

The differences in the wording for the National Law 'General safety Duties' of owners (s.12) and the WHS Act 'duty of care' (s.19) for a Person Conducting a Business or Undertaking (PCBU) should be reviewed. The WHS Act (s.19) explicitly states that a PCBU 'must ensure' health and safety, safe systems of work, and other aspects of the work environment, in some level of detail. The National Law (s 12.1) uses this wording more briefly in relation to vessels, vessel equipment, and vessel operations. However, s. 12.2, 12.3 and 12.4 provide that an owner contravenes the section if they do \*not\* implement, provide, or maintain safety. It should be examined whether this reverse wording makes the National Law more unclear or harder to enforce, as it would appear to require proof that an action is not safe. The WHS Act duty may be higher and clearer.

The Duties of Owners (s.12) should also be expanded to explicitly make it an offence to terminate employment, reduce hours, or otherwise punish a master or crewmember for

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<sup>65</sup> *Jane Virgo* is a DCV that collided with a small fishing vessel, but was unaware of the incident until sometime after the fact: <https://www.ntnews.com.au/news/northern-territory/mv-jane-virgo-crew-were-not-aware-of-the-collision-which-destroyed-an-8m-boat/news-story/770f2e13c1266681e3ab1fd01e00f445>

<sup>66</sup> Tim Macpherson was crushed to death while working on the construction of the Barangaroo Ferry Hub: <https://www.theherald.com.au/story/4876500/call-for-inquest-into-tim-macphersons-death/>

<sup>67</sup> Paul McVeigh was killed while on a dolphin watching cruise: <https://www.theage.com.au/national/victoria/torie-mackinnon-to-avoid-jail-over-deadly-boating-accident-during-dolphin-swim-20151023-gkguh4.html>

refusing an order if that person is convinced that the order is unsafe (except when the vessel is in immediate danger).

The offences relating to General Safety Duties and other Duties have a high burden of proof for the highest level of offence (requiring proof of intent) and relatively low penalties (Section 13, 15, 18, 20, 22, 24, 26). These sections should be expanded to include higher level offences for an act that exposes an individual to serious injury or death. This would bring the National Law into line with the Work Health and Safety Acts, and other similar Acts such as the Heavy Vehicle National Law.

### ***Status of Safety Management Systems in law***

The Duties of Masters in the National Law (s.16) creates the ability to interpret the law in a farcical way and has already been tested in court and found problematic.<sup>68</sup> The section effectively frames the vessel's SMS as law that must be complied with by the master.<sup>69</sup> The master is legally obligated to comply with the SMS, without being required to have any input in its creation, and without having the SMS externally inspected or verified. The assumption that all SMSs are useful working documents is false, and this provision may lead to the unintended consequence that SMS are deliberately vague and non-specific, as there is no offence for an operator creating and using a generic SMS of poor quality and limited practicality.

Similarly, the General Safety Duties outlined in the National Law (s. 12) give no protection to masters and crew for diverging from Safety Management Systems in order to ensure the safety of the vessel, crew and passengers. In effect, the burden is placed on the Master to prove that their action is necessary for the safety of the vessel. This is problematic in that the system relies on the safety management system to be comprehensive, sufficient and practical. Unlike the WHS Act, the National Law does not provide for masters and crew to participate in developing the risk assessments and the Safety Management System, so they could very well be operating with a system that they do not see as realistic or workable.

### ***Due diligence***

Safety duties in the National Law and the WHS Acts refer to what is 'reasonably practicable' to ensure safety. Section 27 sets out what this means for the National Law. In the WHS Acts a section on 'due diligence' is included in the 'duties of officers' (s.27.5 – similar language is included in the Heavy Vehicle National Law). This section incorporates the criteria that an officer of the person conducting the business or undertaking must have sufficient knowledge of the risks in order to carry out a health and safety duty. This knowledge must

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<sup>68</sup> Submission from Pacific Maritime Lawyers to the Senate Inquiry into the performance of AMSA

<sup>69</sup> The National Law says (s.16): 'the master of a domestic commercial vessel contravenes that subsection if the master does not, so far as reasonably practicable, implement and comply with the safety management system for the vessel and the operations of the vessel'.

be obtained through due diligence, including gaining an understanding of the operation, the hazards and risks, staying up to date and ensuring that resources are available. Expanding the Section 27 of the National Law to include 'due diligence' would seem to be a reasonable step to ensure that the only qualified, experienced and informed people should be responsible for making safety decisions.

**Recommendation 19:** Sections of the National Law involving General Safety Duties and Safety Management Systems should be reviewed and amended to ensure that they are clear, robust and practical. Safety Management Systems that are not subject to consultation or review should not be elevated to the status of law, instead, a safety code of practice should be developed to cover minimum standards. The National Law should be amended to required due diligence of vessel owners.

## 12. How have other institutions performed in supporting the reform agenda?

*Are the current roles and responsibilities (for transport regulation) of each level of government clear and appropriate? If not, what changes (if any) to the roles of the different levels of government would support a safer national system of transport?*

*How is the effectiveness of the national regulators in pursuing the objectives of the COAG transport regulatory reforms affected by the various other government bodies that help to regulate transport?*

*Does the involvement of these other agencies in setting standards complement or undermine the role of national regulators in meeting safety and productivity objectives? Are there opportunities to make these arrangements work better?*

*How well is no-fault accident investigation working in maritime and rail? Is there a case for no-fault accident investigation in heavy vehicles? If so, how might it best be achieved? Would the ATSB — properly resourced — be the best agency to undertake this investigation?*

*Multiple bodies are involved in enforcement, including police and the regulators. Are there opportunities to make this work better?*

### **Incident Reporting and investigation**

The lack of incident and accident data collection and analysis by AMSA has been discussed in section 5. Marine incidents must be reported to AMSA in a timely manner by RAVs, DCVs and international vessels. Any reports submitted to AMSA may be used to enforce breaches of the Navigation Act or National Law, and this reporting is then passed on to the Australian Transport Safety Bureau (ATSB) under the Transport Safety Investigation Act 2003.

The ATSB is Australia's national transport safety investigator, and contributes to transport safety by independently investigating, analysing and openly reporting on transport safety

matters. The ATSB directs its investigation resources to those incidents and accidents with the greatest potential of identifying systemic issues in aviation, marine and rail transport operations. The ATSB can, if they decide the situation warrants, produce occurrence briefs, safety studies and full investigation reports on incidents that the board thinks will assist in improving safety in the maritime industry. The purpose of the ATSB is not to assign blame, and investigation reports cannot be used in civil or criminal cases.

No- fault investigation in the maritime industry is another casualty of the National Transport reform. The power for the ATSB to investigate marine incidents is limited to the historical jurisdiction of the Navigation Act 1912 and specified in the Transport Safety Investigation Regulations 2003, Regulation 3.1. Both intra-state trading vessels and domestic fishing vessels are excluded from the ATSBs scope of investigation. The specific incidents that are required to be reported by the Navigation Act, the National Law and the Transport Safety Investigation Act are different - adding another complication to the legislative framework required to be navigated by the maritime industry.

In NSW, the Office of Transport Safety Investigations is specifically tasked with investigating incidents involving passenger vessels, and in Victoria, the Chief Investigator, Transport Safety conducts investigations. It is unclear, now that the state safety regulators are no longer delegated by AMSA to collect safety information how reportable incidents will be passed on to these bodies. The other states and the Northern Territory do not seem to have a specific instrument for no – fault investigation in the marine industry. The ATSB was included in the rail reform by COAG in 2011, however no agreement was reached for maritime.

It appears to us that there is no comprehensive national data base of marine safety issues, no systematic investigation or analysis, and no marine investigation branch operating at all in most states and at a national level. In far too many cases, the only investigation into maritime fatalities has been carried out by the relevant state coroner’s office. Table 7 shows that of the 13 investigations into Australian maritime fatalities that we are aware of since 1 July 2013, only two were carried out by the ATSB. Eleven of the investigations were carried out by four different state coroners, and two state transport investigation bodies. For a national industry with serious safety concerns, this is an unacceptable state of affairs.

**Table 7:** Investigations of Australian maritime fatalities (that we are aware of) from 1 July 2013.

<b>Fatality</b>	<b>Incident Type &amp; Location</b>	<b>Assumed Status</b>	<b>Date of incident</b>	<b>Investigating body</b>	<b>Link to report</b>
Atlantic Princess	South Australia Fall during transfer between a DCV	DCV, Foreign Vessel	3 Jul 2013	ATSB	<a href="#">Atlantic Princess</a>

	and a foreign vessel.				
Glen Anthony WILSON	Queensland, Coral Trout Fishing, Dory capsized	DCV	26 Jul 2013	Queensland Coroner's Court	<a href="#">WILSON</a>
Thomas Francis LEVINGE	Western Australia, Cruise Ship, Foreign Vessel, Suicide	Foreign Vessel	7 Oct 2013	Coroner's Court of Western Australia	<a href="#">LEVINGE</a>
Ryan Harry DONOGHUE	Northern Territory, Fishing Vessel, Electrocutation.	DCV	29 Nov 2013	Darwin Coroner's Court	<a href="#">DONOGHUE</a>
Paul McVEIGH	Victoria, Passenger Vessel	DCV	13 Dec 2013	Chief Investigator, Transport Safety, Victoria	<a href="#">MC VEIGH</a>
Ian Graham THOMPSON	Tasmania, Fishing	DCV	3 Dec 2013	Tasmanian Coroner's Court	<a href="#">THOMPSON</a>
Leila Michelle TROTT	Queensland, Passenger Vessel, Master	DCV	06 Apr 2014	Queensland Coroner's Court	<a href="#">TROTT</a>
Damien Mark MILLS	Western Australia, Passenger Vessel	DCV	31 Oct 2014	Coroner's Court of Western Australia	<a href="#">MILLS</a>
FAIRLEY, CARTER, and TURNER ( <i>Returner</i> )	Western Australia, Fishing,	DCV	11 Jul 2015	Coroner's Court of Western Australia	<a href="#">FAIRLEY, CARTER and TURNER</a>
Andrew KELLY	Australian Crew, Foreign Vessel	Foreign Vessel	14 Jul 2015	ATSB	<a href="#">KELLY</a>
Daniel Thomas BRADSHAW	Construction Barge, Sydney Harbour	DCV	8 Jan 2017	Darwin Coroner's Court	<a href="#">BRADSHAW</a>
Luke Anthony MURRAY	Western Australia, Fishing	DCV	19 Jan 2016	Coroner's Court of Western Australia	<a href="#">MURRAY</a>
Shalina HUSSEIN	NSW, Passenger	DCV	2 Feb 2019	Office of Transport Safety Investigation (OTSI)	<a href="#">HUSSEIN (interim)</a>

Source: Table compiled by the MUA.

The ATSB outline the issues preventing them from taking on a greater role in the investigation of maritime fatalities the ATSB Corporate Plan 2018-2019 (pg 11):

“Similar to rail, in 2011 COAG signed an agreement to consolidate the safety regulatory framework for the marine transport industry. Although there is a general view that there is merit in having a single national maritime safety investigator, the Intergovernmental Agreement on Commercial Vessel Safety Reform did not include a final decision to establish the ATSB in this role at the time.

Consequently, at this time the ATSB’s marine jurisdiction is largely confined to the Commonwealth’s historical jurisdiction covering interstate and overseas shipping, including freight and international cruise shipping.”

The ATSB’s approach to investigation could also be improved. Investigations seem to focus on individual actions, rather than organizational and system failures.<sup>70</sup> The ATSB report on the grounding of the *Lauren Hansen*, for example, does not discuss such potential safety issues such as whether the vessel was operating under the National Law or the Navigation Act, whether a lookout or helmsman was required under the Act, the inadequacies of any safety management system in place, or other organisational failures such as the reason the chief mate was standing a watch when he had been awake for 20 hours.<sup>71</sup>

The final report into the grounding of *Roebuck Bay* has recently been published.<sup>72</sup> The findings involve significant systematic and operational failures in the use of EDCIS (electronic charts). One of the areas that the ATSB did not address was why the Border Force Vessel was operating without an approved Border Force Management Plan in place, and was using Domestic-qualified crew as officers on watch (OOW). Vessels must have a Border Force Management Plan in place in order to comply with the conditions of the ABF provision in the Nav Act, and without this, the normal regulations with regards to manning apply (Marine Order 70). Marine Order 70 requires Navigation Act qualifications on RAVs. But in this case, the Master held a Master <500GT STCW Certificate of Competency (under the Navigation Act), while the Navigator/ OOW held a Master <35m NC CoC (under the National Law). National Law qualifications do not require ECDIS training – only those under the Navigation Act. Attention to these matters will be needed to address some of the systematic failures in current Australian maritime safety regulation.

The lack of analysis of the organisational causes of marine incidents could be the result of the relatively small number of investigations the ATSB carries out in the maritime industry, in comparison to the aviation industry (Table 6).

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<sup>70</sup> See for example the approaches outlined in Bohle, N. et al., 2010. *Managing Occupational Health and Safety*

<sup>71</sup> ATSB investigation 342-MO-2018-005: Grounding of the landing craft *Lauren Hansen*, Cape Keith, Melville Island, Northern Territory, on 11 April 2018

<sup>72</sup> ATSB investigation 335-MO-2017-009: Grounding of *ABFC Roebuck Bay* on Henry Reef, Queensland, on 30 September 2017

**Table 6:** ATSB publications by industry

	<b>Marine</b>	<b>Aviation</b>	<b>Rail</b>
<b>Occurrence briefs</b>	3	142	nil
<b>Safety Publication</b>	1	7	508
<b>REPCON</b>	7	176	46
<b>Investigations &amp; reports</b>	358	6900	245
<b>Completed</b>	349	6796	209
<b>Active</b>	9	104	36

**Source:** Compiled by the MUA from data available from the ATSB at <https://www.atsb.gov.au/>

**Recommendation 20:** That the Commission recommend that the ATSB’s role and resources be expanded to encompass all maritime incidents, in Australia, including Domestic Commercial Vessels. The ATSB must also be directed to identify organisational failures leading to incidents, including vessel regulation, seafarer qualifications and training, the application of safety management systems, and seafarer fatigue.

### 13. The impact of port privatisation on maritime safety reforms

*Several regulators have responsibility for regulating intermodal transport hubs such as a port. Are there opportunities for improvement?*

The privatisation of Australian container and break bulk ports over the past 25 years, commencing with the privatisation of the ports of Portland and Geelong in 1995/1996, and now including SA ports (Flinders Ports), Brisbane, Port Botany, Port Kembla, Newcastle, Melbourne and Darwin has invariably altered the role of both the safety/operational regulator and the economic regulator.

Privatisation has resulted in port functions previously being performed solely by a government entity, a number of which have a direct bearing on safety and safety regulation, being separated, with some functions remaining with a government entity (usually a government owned corporation) and others being transferred to the private port operator under the lease/sale agreement. In each port this has been done in a different way, with varying divisions of responsibility between private operators and either government departments or residual government agencies.

In the case of the Port of Melbourne for example, the Victorian Ports Corporation (Melbourne) (VPCM) trading as Victorian Ports, Melbourne, a statutory authority accountable to the Minister for Ports, whose board of directors hold office pursuant to the *Transport Integration Act 2010* (Vic) is responsible for the following functions at the port:

- Harbourmaster;
- Vessel service traffic and navigation;

- Dangerous goods oversight;
- Waterside emergency management;
- Marine pollution response;
- Management of towage and anchorage regulation; and
- Management of Station Pier.

Alongside that government entity sits the Port of Melbourne Group, a privately owned corporation trading as the Port of Melbourne (PoM - Port of Melbourne Operations Pty Ltd as the Trustee for the Port of Melbourne Unit Trust), the leaseholder or port licence holder. It is responsible for the following functions at the port:

- The operation of wharves and berths (except Station Pier);
- Maintenance and operation of shipping channels; and
- Management of port leased land and the commercial arrangements for use of that land by port service providers (stevedores, transport operators, logistics operators, etc);

This separation of responsibilities impinging on safety regulation has blurred the lines of authority over port safety and made the arrangements opaque for users of the system, be they service providers or the workforce and their trade unions.

The functions performed by both port entities involves, inter alia, the procurement of marine service providers such as towage operators, pilotage operators and mooring operators, all of which require vessels for the delivery of their services. Furthermore, the shipping operators that use the Port of Melbourne are also involved in procuring service providers that use ships in servicing shipping lines, such as ships used for bunkering, provisioning and waste disposal.

There is no regulatory supervision, monitoring, or quality control over these marine service provider procurement processes, meaning that the tender or hiring arrangements for these services are not under the supervision of any overall regulatory body that ensures minimum standards of ship and crew safety to underpin the hiring or tender processes, notwithstanding that AMSA has responsibility for ship and crew safety standards. AMSA appears to have no established relationship with the port regulator (in the case of the Port of Melbourne, VPCM and in the case of Port Botany/Port Kembla, the Port Authority of NSW) or with the leaseholder or shipping operators using those ports, only with the service providers themselves.

This structure allows the procurement of services by port operator entities to occur in a regulatory vacuum, where invariably the price is the determinant factor in procurement, and not safety standards such as those provided by crew occupational licencing and VET qualifications. By the time AMSA sees itself as having a role, the horse has bolted i.e. service providers have been secured and contracted and safety standards have been locked

in by commercial considerations, not sufficiently underpinned by pre-determined or agreed safety standards. MO 504, which governs minimum crewing for Domestic Commercial Vessels, sets only the barest minimum standards and is not a solid basis for port operations.

Furthermore, AMSA has no relationship with the affected workforce in implementing its regulatory role, yet it is the workforce, through their unions, that are then obligated to try to claw back safety standards dependent on appropriate crew licences and associated VET qualifications through industrial negotiations under the provisions of the *Fair Work Act 2009*. This is an unsatisfactory arrangement given that the Fair Work Act severely limits the negotiation rights of workers as well as rights of access. The only other channel open to the workforce and unions is to pursue safety issues through the rights afforded to Health and Safety Representatives under WHS legislation.

In the absence of a return to public ownership of port operations where government sets the rules for safety standards for all marine service provider procurement in collaboration with stakeholders, including safety regulators like AMSA, the inadequacy and opaqueness of current arrangements can be readily addressed without disturbing the current public-private operational model.

This can be achieved by amending State and NT port administration legislation to require all port entities to only procure marine service providers who are licenced and meet minimum tests (fit and proper person provisions, and declarations around labour and OHS obligations etc) similar to those provided in Part 3 Divisions 2 and 3 of the Victorian *Labour Hire Licensing Act 2018*, noting that there would need to be a declaration around ship safety in marine service provider licencing arrangements that would require agreement with stakeholders, including maritime unions.

**Recommendation 21:** Amend State and NT port administration legislation to require all port entities to only procure marine service providers who are licenced and meet minimum tests (fit and proper person provisions, and declarations around labour and WHS obligations) similar to those provided in Part 3 Divisions 2 and 3 of the Victorian *Labour Hire Licensing Act 2018*, noting that there would need to be a declaration around ship safety in marine service provider licencing arrangements that would require agreement with stakeholders, including maritime unions.

#### 14. Further opportunities to improve safety and productivity

*What are the impediments to further harmonisation within the three transport modes? What are the best options to address those impediments? What net benefits might be expected from achieving common systems and consistency?*

## ***Promoting competitive neutrality among transport modes***

A focus on safety regulation within a review of national transport regulatory reform cannot be divorced from the wider issue of the need for competitive neutrality among freight transport modes. In fact, safety regulation as administered by AMSA has now become a lightning rod in the competitive neutrality debate because current maritime safety law and AMSAs administration of it has deliberately tipped the competitive balance away from shipping and towards road and rail.

The replacement of the higher safety and crewing standards required under the Navigation Act with the bottom of the barrel safety standards required under the National Law Act has had the effect of accelerating the exit of reputable and quality shipowners from the domestic sea freight market. While this may appear counter intuitive due to the fact that lower safety and crewing standards should make ships cheaper to operate, quality owners who want their ships to be able to enter ports all around the globe in an international shipping services marketplace cannot compete against owners who face a lower safety and therefore lower cost regime in the Australian sea freight market. The consequence is that the domestic sea freight market is now dominated by foreign Flag of Convenience (FOC) ships.

In effect, the Australian domestic shipping fleet, while technically operating under a national register, exhibits all the characteristics of a FOC registry.

Furthermore, those shipowners who remain in the domestic market are competing on many longer haul routes with both trucks and trains, both of which enjoy considerable subsidy, especially long haul trucks.

What is required is creation of a level playing field for Australian ships which will provide fair competition with road and rail, and with international ships, helping develop the national freight and passenger transport network and modal choice for shippers.

The MUA supports the position of the Australasian Railways Association which advocates that the national freight market should operate as far as possible on a level footing among all modes by creating an environment where there is an equitable and comparable regulatory environment and/or competitive neutrality between competing modes of transport. Along with the ARA we also endorse an economically competitive level playing field between sea, rail and road and advocate a mass-distance-location charging mechanism for heavy vehicles along major interstate routes, which will help close the competitive gap between ships and other modes, particularly road transport.<sup>73</sup>

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<sup>73</sup> Australasian Railway Association, *Ten Point Plan to Creating National Freight and Supply Chain Efficiencies*, [https://ara.net.au/sites/default/files/u647/ARA%20Info%20Sheet\\_Freight.pdf](https://ara.net.au/sites/default/files/u647/ARA%20Info%20Sheet_Freight.pdf)

Ports Australia say that Australian governments invested \$26 billion on construction and maintenance of roads in 2015-16. Since 1999-00 this expenditure had risen by 62%. In addition, under-recovery of damage caused by heavy vehicle road freight is estimated at between \$7,000 and \$10,500 per truck each year. Rail expenditure by all governments was \$11 billion in 2015-16. Since 1999-00 this expenditure has increased by 16%.<sup>74</sup>

In contrast, no Commonwealth or State taxation revenue is currently allocated, directly or indirectly, to support the domestic shipping industry.<sup>75</sup> The cost of the Tasmanian Freight Equalisation Scheme (TFES) is not a subsidy to ships or ship operators, as it flows to exporters (shippers).

Ports are paid for by port fees paid by ship operators, and navigation by water is free. Therefore, ships require no sea side or navigation infrastructure funding from Government (except in and around harbours and ports), resulting in its access being by and large cost neutral, notwithstanding the high capital cost of market entry.

Although it is argued that the 2012 shipping taxation incentives are a form of indirect forgone tax revenue, the fact that there has been such a low take-up of the tax incentives means that forgone revenue is negligible, and even more negligible when weighed against the benefits of increased economic activity from Australian shipping.<sup>76</sup>

It is well accepted for example that road network average road user charges under PAYGO (fuel excise and vehicle registration) do not convey signals to road users about the costs of using roads. Nor do those charges send price signals to road providers about the demand for different roads. The result is a disconnect between road charges when they are not linked to road spending, that leads to inefficient taxpayer funded spending decisions. The current road and rail access charging regimes provide an artificial price advantage to road freight in particular. Rail access charges account for 30-40% of a rail freight's operational costs, while road charges accounts for around 5-10% of road freights operating costs.

Government subsidisation of road and rail transport modes significantly disadvantages coastal shipping and distorts the national freight market. Ships do not face a level playing field. This needs to change.

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<sup>74</sup> Ports Australia, *Using Australia's Blue Highway*, <https://www.portsaustralia.com.au/our-role/policy/blue-highway>

<sup>75</sup> A very small amount of government revenue is currently forgone where ship owners and ship operators have accessed Commonwealth shipping taxation incentives, and in the case of Victoria, where some port charges favour coastal shipping relative to foreign shipping.

<sup>76</sup> In 2018 there were just 20 Certificates issued to companies seeking an Income Tax Exemption, 4 Certificates issued for the Refundable Tax Offset, 2 Certificates for Accelerated Depreciation and zero Certificates issued for Rollover Relief.

The Australian Strategic Policy Institute has argued that “trying to get more interstate and intrastate cargo back to sea is sensible, but that hasn’t happened for several reasons: road transport provides better door-to-door movement; road transport doesn’t pay its true costs of using the roads; large integrated transport companies have a lot of government influence; and Australian industry has argued strongly against the risks of increased costs.”<sup>77</sup>

The Institute noted that “Europe has faced a similar dilemma but, with increased road congestion and high highway tolls that put more of the true costs onto road trucking, a trend has emerged of more trucks and containers being moved by sea (‘short sea shipping’) where sea transport is an alternative to land transport. Special types of dedicated truck ferries and container or ro-ro (roll-on/roll-off) ships have emerged for this trade.”<sup>78</sup>

Importantly, the Institute concluded that “there could be scope for a similar move back to sea transport in Australia, particularly if the true costs of road transport were factored in.”<sup>79</sup>

### ***Shipping is competitive, notwithstanding the subsidisation of road and rail***

All the evidence shows that ships are highly price competitive with road and rail, the two main competitors to ships in the domestic freight market. A 2008 report on an *Economic Appraisal of Australia's Shipping Future*, prepared for the Department of Infrastructure, Transport, Regional Development and Local Government found that coastal shipping exhibited a 10-20% freight rate advantage over rail.<sup>80</sup>

Figure 8 shows that sea freight rates are highly competitive with road and rail and that the decline in sea freight rates over the period 1990 to 2015 has bettered the productivity performance of road freight and matched rail freight productivity.

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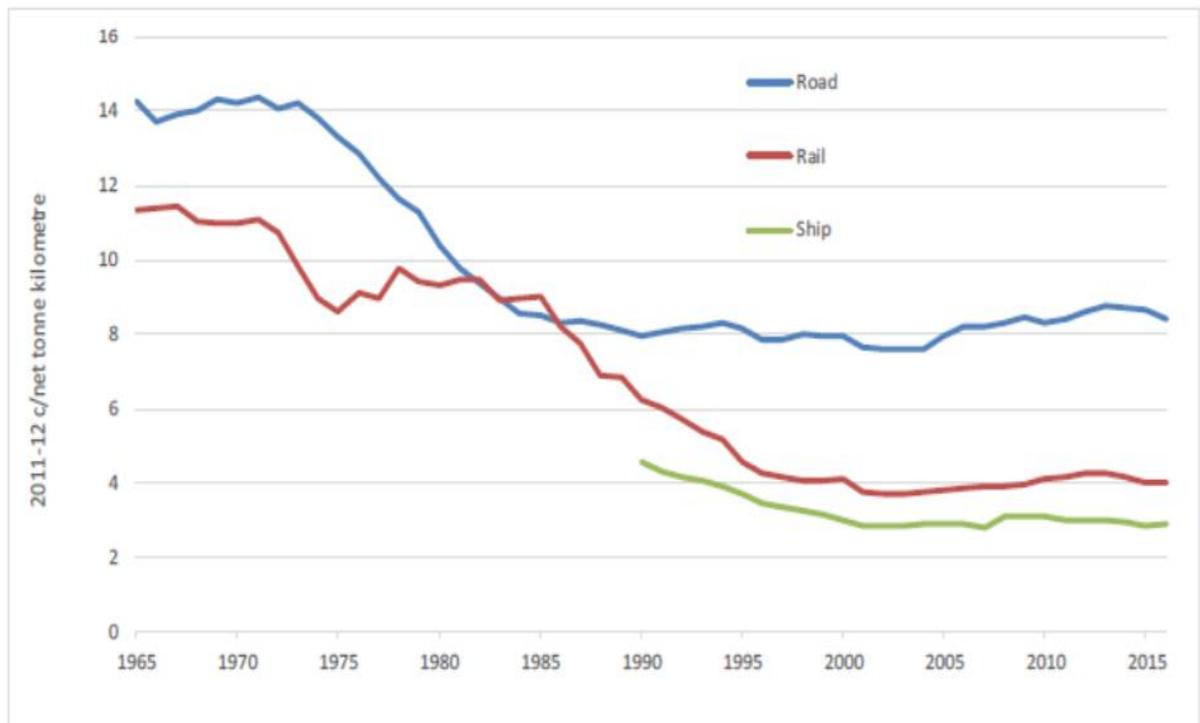
<sup>77</sup> Australian Strategic Policy Institute, *Does Australia need a merchant shipping fleet?* The Strategist, 4 March 2019, <https://www.aspistrategist.org.au/does-australia-need-a-merchant-shipping-fleet/>

<sup>78</sup> Ibid

<sup>79</sup> Ibid

<sup>80</sup> Meyrick and Associates *Economic Appraisal of Australia's Shipping Future*, prepared for the Commonwealth Department of Infrastructure, Transport, Regional Development and Local Government, December 2008

**Figure 8: Real interstate road, rail and sea freight rates**



**Source:** Department of Infrastructure, Regional Development and Cities, *Report of the Inquiry into National Freight and Supply Chain Priorities*, March 2018

In a study published in 2010, the National Institute of Economic and Industry Research (NIEIR)<sup>81</sup> compared the characteristics of the sea, rail and road freight modes. It found that shipping is able to offer competitive service/cost packages where:

- Freight origins and destinations are right on the wharf or, where this ideal condition is not met, intermodal costs are low;
- Flows are of the order of several thousand tonnes a day; or
- Flows are moderate and frequency of service is not important, so that the flow can be interrupted while loading builds up to shiploads. This last attribute is characteristic of bulk commodities of low value per tonne, because stockpiling costs for such commodities are relatively low.

NIEIR found that the competitiveness of coastal shipping vis-à-vis other land-based alternatives increases at higher volumes and over longer distances. It concluded that on the Australian coast, where trade volumes are quite low compared to the European or American coasts, the key challenge for the shipping industry to be able to compete with alternative land-based transport modes is to capture sufficient trade volumes to justify reasonably frequent service. It identified the key factor in getting those volumes as the ability to consolidate larger parcels of cargo under long term contracts of affreightment (COA).

<sup>81</sup> Manning, Ian and Brain, Peter, *Australian Coastal Shipping: Its future Role*, National Institute of Economic and Industry Research, 2007, published March 2010

More recent research involving a survey of nearly 600 Australian shippers by the University of Sydney shows that while shippers showed a general preference for established road and rail alternatives, they did identify value in obtaining increases in reliability within short sea services. Furthermore, respondents indicated interesting shifts in preferences across modal alternatives under the presence of integrated short sea shipping services. The authors concluded that:

“Given the choice of domestic or foreign flag, the research has demonstrated that the buyer of shipping services in this market will not necessarily support “national flag” shipping through a willingness to pay a premium price, but that the value of national flag shipping may well be tied to its ability to integrate services in the last mile, e.g. in terms of meeting delivery windows and reliability requirements. Given the current revisions planned for Australia’s coastal shipping permitting regulations, this implies that public policy planners may wish to consider approaches that will assist coastal operators in integrating their services with land-based delivery”.<sup>82</sup>

Additionally, an important component of implementation support for Australian coastal shipping needs to be encouraging service integration as is being developed by some freight logistics companies such as Hutchison Port Holdings and Qube Logistics, which is developing the Moorebank Logistics Park, predicted to become the largest intermodal freight precinct in Australia, to include a rail freight shuttle service from Port Botany.

It is simply not true that the Australian trading fleet is uncompetitive in terms of operating costs and labour arrangements in the domestic freight market. When compared to road, rail and air, ships are price competitive in many domestic freight routes, and in addition they offer shippers other competitive advantages such as the capacity to move large volumes of cargo in a single shipment, an option for shippers of cargo that is oversize and would not be suitable for road or air, and in many cases, rail transport, they save inventory costs by acting as inventory warehouses while in transit, and they do not cause congestion or accidents by competing in transport corridors that are also used by citizens – a factor in the competitiveness and efficiency of both road and rail transport.

It is true that Australian ships have a cost structure that impacts on their price competitiveness relative to international ships, which are bound by an entirely different set of labour, tax, safety and other laws. This was accepted by the Federal Government in its April 2014 Options Paper, where the Government acknowledged that:

*“Ships registered in foreign countries may be subject to less stringent requirements around workforce pay and conditions, safety, security, environment, taxation, and*

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<sup>82</sup> Noetic Infrastructure Solutions, *National Shipping Legislation – A review of Australian Coastal Shipping*, May 2014 (prepared for the Maritime Union of Australia), unpublished

*other fees, charges and levies under the rules of their flag state when compared to Australian ships”<sup>83</sup>*

This creates a different cost structure for those ships, enabling them to offer lower freight rates, particularly when carriage of domestic cargo on a spot market basis is “bonus” cargo i.e. it does not need to be factored into the business case for those international ships, which can already turn a profit on each voyage without the need for “bonus” spot cargo on a route the ship was already plying.

It is obvious therefore that no freight mode would be price competitive if it operated in a market where a competitor had a cost structure based on the price of labour somewhere between 25 per cent and 30 per cent of Australian labour costs.

Furthermore, Australian labour and immigration laws do not permit non-nationals to work in Australian domestic industries at rates of pay that are only 25 percent to 30 percent of the Australian market rate. Regrettably, the combination of migration, customs and shipping regulation permits this to occur in the domestic shipping industry.

The question therefore arises as to why this should be permitted in the Australian domestic freight market? No cogent and sustainable argument has been mounted for such a policy position, and no proponent of such a policy has been able to explain why Australia should breach international human rights conventions to achieve such an outcome.

This competitive imbalance is one reason why so many nations have adopted various forms of legislated support for their domestic shipping industry – to enable their domestic fleet to compete on a fair competitive basis. That principle has underpinned Australian maritime laws since early last century. What the previous Labor Government (2007-2013) was attempting to do with its shipping laws was to create a better balance in the fair competition equation, which had become unbalanced under the former Howard Government’s use of the permit guidelines which bent the competitive position almost entirely towards foreign registered ships such that it created unfair competition.

Fair competition should be guided by a number of underpinning principles, aimed at improving allocative efficiency. These include:

- Competitive neutrality, or where that is not possible in the short to medium term, adoption of countervailing policy measures to replicate competitive neutrality;

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<sup>83</sup> Department of Infrastructure and Regional Development, Options Paper: *Approaches to regulating coastal shipping in Australia*, April 2014, [http://www.infrastructure.gov.au/maritime/business/coastal\\_trading/review/files/Options\\_Paper\\_Approaches\\_to\\_regulating\\_coastal\\_shipping\\_in\\_Australia.pdf](http://www.infrastructure.gov.au/maritime/business/coastal_trading/review/files/Options_Paper_Approaches_to_regulating_coastal_shipping_in_Australia.pdf)

- Consistency in application of national regulatory and planning principles across all freight modes and across all jurisdictions; and
- Integration of externality costs into regulatory pricing decisions and cost benefit analyses for transport planning.

The Full Federal Court judgement in *CSL Australia Pty Limited v Minister for Infrastructure and Transport* in 2014 made an important observation on the issue of competition. It said that:

“The multifactorial aims of the regulatory framework may, to a degree, have some tension amongst them, for example, the promotion of competition in coastal trading with the maximisation of the use of General Shipping Register vessels. The notion of promotion of competition in coastal trading has a number of elements. One aspect, referred to in the report of the Parliamentary Standing Committee in 2008 is the competition between coastal shipping and road and rail transport in the domestic transport sector. This aspect is reflected also in para (c) of s3(1). This perspective of competition would or might see (as stated at [3.29] of the Standing Committee’s Report) Australian ships, using Australian crew being employed “when at all possible” in the carriage of domestic cargo. The promotion of such domestic competition would or may see Australian ships being given the right to carry coastal trade cargo, even in the face of cheaper (or more “competitive”) freight alternatives from foreign ships. In other words, the promotion of domestic “competition” may not lead to the lowest freight rate for an Australian shipper, when set against foreign-registered competition. That said, the reforms to the taxation system, the setting up of an Australian International Register and the pressure of foreign-registered vessels having the opportunity to participate in the coasting trade would or may be seen to promote the efficiency of Australian shipping and to foster a greater capacity to compete realistically with foreign-registered shipping.”<sup>84</sup>

### ***Regulatory cost pricing flexibility***

The MUA is a strong advocate for regulatory cost pricing flexibility that can accommodate differential regulated pricing to support Australian ships relative to foreign ships, in circumstances where governments are committed to developing an Australian domestic shipping industry.

We have suggested in submissions to other recent inquiries into shipping and ports that the National Ports Strategy be revised so that that it identify and coordinate measures to keep port fees and charges for Australian coastal shipping low; to develop principles for consistency in port fees and charges regimes at Australia’s ports that apply to Australian

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<sup>84</sup> Full Federal Court *CSL Australia Pty Limited v Minister for Infrastructure and Transport* [2014] FCAFC 10 26 February 2014, Para 166

ships engaged in coastal trading; and importantly, that it examine and promote the options for differential port pricing charges that distinguish between Australian coastal ships and foreign ships trading both domestically and internationally.<sup>85</sup>

Differential port pricing is one of the most important initiatives that State and Territory governments can take in helping facilitate Australian coastal shipping. This position is supported by Maritime Industry Australia Ltd (MIAL) the association for Australian shipowners and by shipping companies.

One of MIALs priority reforms for the maritime industry is that ports provide discounts and or exemptions to Australian ships for port and regulatory fees.<sup>86</sup>

Hermes Maritime Shipping and Logistics, an emerging Qld ship operator that has been considering a new coastal shipping company to carry freight between Brisbane and Townsville reported to the Qld inquiry into coastal shipping the impact of port and government charges, specifically on ships that engage regularly in coastal trading. Hermes said:

“Ships engaged in international trades have long sea legs between ports however, ships engaged in coastal trading are in port regularly (e.g. on the Brisbane/Townsville shuttle, the ship is in port every two days) and the associated port and government charges/costs occur frequently and can become quite substantial over a relatively short period. As a matter of principle, it makes good sense to have a differential pricing regime that takes account of the exigencies of domestic coastal shipping compared to international shipping.”<sup>87</sup> and

“It can be argued that the fees and charges imposed by ports owned by shareholding (government) ministers are Government fees and charges and long-term leased ports like Brisbane are Port fees and charges, the government having no control over the latter. For a ship on the weekly Brisbane/Townsville/Brisbane shuttle, government charges (which include the charges imposed by the Port of Townsville) amount to about \$2 million/annum. Once again, a moratorium on government fees

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<sup>85</sup> MUA submission to Senate Inquiry into the policy, regulatory, taxation, administrative and funding priorities for Australian shipping (available from [https://www.apf.gov.au/Parliamentary\\_Business/Committees/Senate/Rural\\_and\\_Regional\\_Affairs\\_and\\_Transport/Shipping\\_2018](https://www.apf.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/Shipping_2018)) and draft (unpublished) submission to the Victorian Government review of coastal shipping arrangements in development of a Victorian port strategy

<sup>86</sup> Maritime Industry Australia Ltd (MIAL), Maritime Extra Magazine (MAX), 2019 Election Issue, *2019 Ten Point Plan of Priority Reforms for the Maritime Industry*, April 2019, P18  
[https://view.flipdocs.com/?ID=10018338\\_998230#1](https://view.flipdocs.com/?ID=10018338_998230#1)

<sup>87</sup> Hermes Maritime Shipping and Logistics submission to the *Inquiry into a sustainable Queensland intrastate shipping industry*, Transport and Public Works Committee, Report No. 23, 56th Parliament, May 2019, P27  
<https://www.parliament.qld.gov.au/documents/tableOffice/TabledPapers/2019/5619T808.pdf>

and charges for a maximum of three years will be invaluable support to a “start-up” coastal shipping service.”<sup>88</sup> and

“Compared to what is spent by government on road and rail, the strategies proposed above to assist coastal shipping services are, in relative terms, inexpensive. In fact, we are not suggesting that the government parts with any money; we are suggesting that it foregoes a new stream of revenue in the short term in order to increase its revenue streams in the longer term. The benefit to the state, which includes the employment of Australian seafarers, a tri-modal integrated freight transport system generating increased transport efficiencies, (cost, time and productivity efficiencies), trucks off roads, reduction in CO2 emissions, reductions in road deaths, reduction in pavement damage, savings in road and rail maintenance and repair etc., is enormous. In the longer term—after the three-year moratorium—the government will be the beneficiary of steady cash flows coming from those ships engaged in coastal shipping services.”

Hermes made the following recommendations to the Qld inquiry:

- Establish a differential pricing regime for Port and Government fees and charges that takes account of the exigencies of domestic coastal shipping.
- Review “pilotage exemption” legislation to ensure its requirements are sensible and objectively based on modern safety management principles.
- Provide a moratorium on government and port authority fees and charges for competent “start-up” coastal shipping operators. The moratorium to be in place for a period not exceeding three years and applies to the following:
  - Pilotage
  - Conservancy
  - Harbour Dues
  - Wharfage
  - Port Access
  - Port Security
  - Common user Wharf Fees
- Reimburse competent “start-up” intrastate coastal shipping operators the difference between HFO and diesel prices for a period not exceeding three years.<sup>89</sup>

We note that currently Victoria is the leading proponent of differential port pricing, where for example, the Port of Melbourne provides an exemption from its Channel Deepening Infrastructure fee (to cover the costs of dredging) for ship movements between Tasmania and the Port of Melbourne (compared to an international TEU fee of \$41.25).

In addition, the PoM provides a channel fee discount of 40 per cent for multi-sailing vessels, such as Bass Strait ship operators, which are directly relevant to the three Australian

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<sup>88</sup> Ibid P43

<sup>89</sup> Ibid P43

operators of Bass Strait freight and passenger services and a 10 per cent discount for passenger cruise ships. If more regular coastal ships were to use the Port of Melbourne, the multi sailing discount could be increased to say 50 per cent, while the passenger cruise ship discount could be increased for home ported cruise ships that are issued with a Temporary Licence as proposed by the MUA.<sup>90</sup>

At present, some fees and charges for Bass Strait ships, which are all Australian General Licenced (GL) ships, are reduced, but there remains opportunity to further assist Australian GL ships. For example, full Bass Strait TEUs are charged a wharfage fee of \$80.29 compared to an international TEU at \$120.24 (inward) and \$105.38 (outward).<sup>91</sup> The weighting of these charges could be further refined to favour Bass Strait container ships and could also be extended to all Australian coastal (GL) container ships, not just those navigating Bass Strait, in ways that would not result in an overall loss of revenue for the PoM.

These incentives appear to be working because under these policy settings, Bass Strait shipping operators are all either investing or considering new investment in ship assets, creating efficiencies for freight and passenger users and reducing greenhouse emissions through adoption of lower emission ship fuel technologies in their replacement ship purchases.

We urge the Productivity Commission to ensure that its findings and recommendations provide for regularly pricing flexibility to enable ports to provide differential pricing so that policy objectives like increasing the role of Australian ships in coastal trading can be successfully pursued.

**Recommendation 22:** The Productivity Commission should investigate opportunities to improve productivity in freight shipping through an investigation into the obstacles to achieving competitive neutrality for shipping. It could examine measures to address this including: a mass-distance-location charging mechanism for heavy vehicles along major interstate routes, differential port pricing for Australian domestic shipping, and investment into infrastructure to facilitate domestic shipping.

### ***Intermodal freight terminals***

It is important that in considering opportunities for more efficient and streamlined regulation that unintended consequences are not created that could impact on functional intermodal relationships that have served the freight industry well for decades.

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<sup>90</sup> PoM, *Tariff Reference Schedule 2018*, <https://www.portofmelbourne.com/wp-content/uploads/rts-port-of-melbourne-2018-19.pdf>

<sup>91</sup> Ibid

This is particularly important in relation to intermodal freight terminals where all freight transport modes intersect. Sectional interests which promote the application of a particular set of safety regulation to the exclusion of another that impacts on the boundaries of what is considered a sea port and what is not can have far reaching labour force and industrial relations implications. The MUA has witnessed port operators seeking to use the provisions of the *Maritime Transport and Offshore Facilities Security Act 2003* (MTOFSA) to redefine port boundaries when identifying port security zones as a method to have lower industrial standards and different safety standards apply to sections of the workforce.

This opportunity is likely to be even more prevalent as new land side intermodal terminals develop.

It will be important that this is understood by the Productivity Commission to avoid any unintended consequences that could arise from its findings or recommendations.

## 15. Future developments in transport and the role of governments

*Where are the biggest opportunities for future safety and productivity gains in the transport sector, and what impediments exist? What new challenges may arise?*

A significant future development in transport that has not been given much attention in the Issues Paper is the need for Australia to move to zero net emissions by 2050 in order to prevent global heating from exceeding 1.5°C.<sup>92</sup> Meeting this target requires halving emissions each decade. Emissions from transport make up 19% of Australian emissions, but while energy emissions are decreasing, transport emissions are increasing – by 3% in 2018, largely driven by an 11% increase in the use of diesel.<sup>93</sup> Australian transport emissions have increased from 80 MtCo<sub>2e</sub> in 2007<sup>94</sup> to 102 MtCo<sub>2e</sub> in 2018, and are projected to increase to 112 MtCo<sub>2e</sub> by 2030. There has been a 63% increase in transport emissions since 1990 – more than any other sector of the economy.<sup>95</sup>

The government must develop a comprehensive plan to systematically reduce greenhouse gas emissions from transport. This can be achieved by shifting freight on to ships, and by in the long term, by shifting to zero-emissions shipping.

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<sup>92</sup> Intergovernmental Panel on Climate Change, Special report: Global warming of 1.5°C, Summary for Policy Makers, Headline Statements, November 2018.

<sup>93</sup> Department of Environment and Energy, *Quarterly Update of Australia's National Greenhouse Gas Inventory: December 2018*, p.7-8, 14-15.

<sup>94</sup> Parliament of Australia, Australian transportation emissions, November 2010.

<sup>95</sup> Climate Council, *Waiting for the Green Light: Transport solutions to climate change*, p.6

In 2005, shipping accounted for 22% of the Australian domestic freight task but only 4% of freight emissions, in contrast to road freight, which carried less than 40% of freight, but was responsible for over 80% of freight emissions. These differences are due to the energy and emissions intensities of the different transport modes.<sup>96</sup> Ports Australia says that shipping produces 1/5th the carbon emissions of road per tonne-km.<sup>97</sup>

A 2007 study into coastal shipping and transport emissions concluded that any mode shifting to sea freight would result in an improvement in the emissions performance of the domestic freight sector. The report also noted that in contestable freight corridors such as the East-West corridor, there is potential to move more than 200 container shiploads (of 1700 TEUs) off the road and onto ships. That equates to reducing 26,637 truck movements (222 trucks) annually off the E-W highways, rising to 86,569 truck movements [or 594 trucks] if the N-S corridor is included. This would result in a substantial reduction of greenhouse emissions from the freight transport sector.<sup>98</sup>

The *Inquiry into Coastal Sea Freight* carried out by the Queensland Parliament's Transport, Housing and Local Government Committee in 2014 detailed the benefits to the Queensland economy of a regular intrastate sea freight service. Among the benefits identified was reduction in road and rail congestion, a reduction in road infrastructure maintenance, and improvements in road safety. For example:

- It was estimated that 200,000 annual TEUs of containers travelling on rail and road between Townsville and Brisbane could potentially be transported by coastal shipping. At the time it was estimated that there are 10 trains per week servicing one of the major grocery retailers between Rockhampton and Cairns from Brisbane, equating to around 1,200 TEU per week that could be delivered by ship; and
- 60,000 tonnes of fertilizer which travels from Townsville to Brisbane per annum by rail and road, could be transported by ship.<sup>99</sup>

Shifting more freight to ships could reduce congestion, as one container ship can carry the same load as almost 400 trucks.<sup>100</sup> The congestion difficulties in Sydney, Melbourne, Brisbane and Perth affect all parts of the country through bottlenecks in the import/export gateways, and congestion costs are rising. Congestion costs for all the major cities are expected to rise by between 60 and 100% over the period to 2030. Figure 9 demonstrates the overall costs of traffic congestion.

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<sup>96</sup> Andrew Macintosh, Australia Institute, *Climate Change and Australian Coastal Shipping*, Discussion Paper Number 97, October 2007 - <http://www.tai.org.au/node/1390> (8 July 2019).

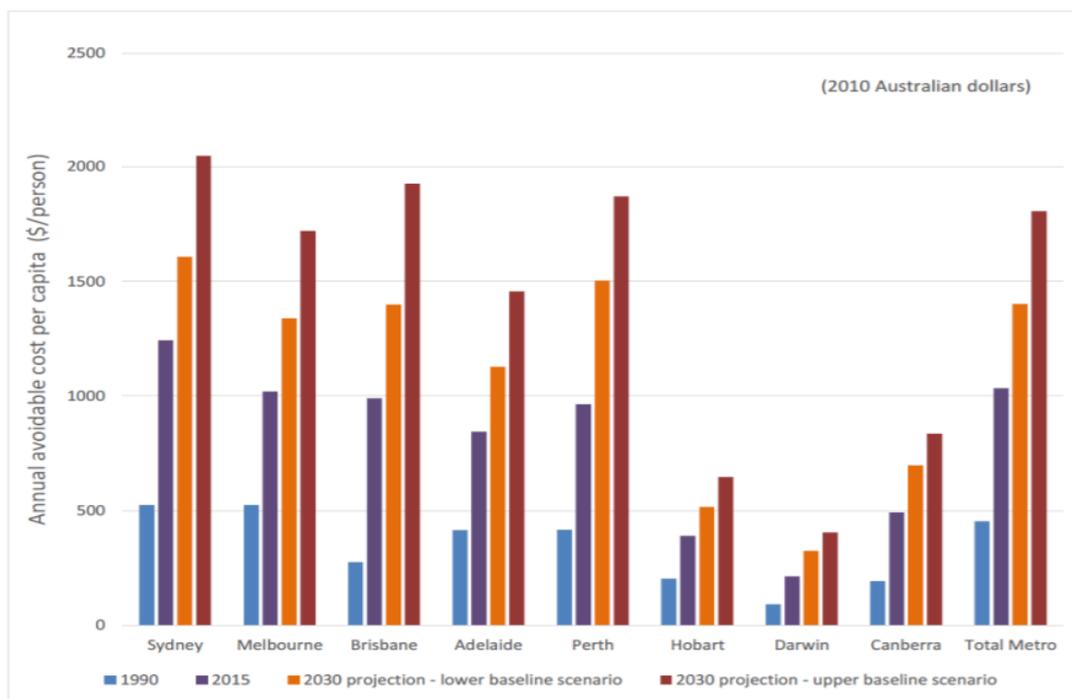
<sup>97</sup> Ports Australia, *Using Australia's Blue Highway*, <https://www.portsaustralia.com.au/our-role/policy/blue-highway>

<sup>98</sup> MUA analysis based on data in the Australia Institute report.

<sup>99</sup> Report of the Qld Parliament's Transport, Housing and Local Government Committee Report No. 59, *'Inquiry into Coastal Sea Freight'* P30 (referencing TMR, Sea Freight Action Plan, July 2014)

<sup>100</sup> Ports Australia, *Using Australia's Blue Highway*, <https://www.portsaustralia.com.au/our-role/policy/blue-highway>

**Figure 9: Average per capita congestion costs for Australian metropolitan areas**



**Source:** Department of Infrastructure, Regional Development and Cities, *Report of the Inquiry into National Freight and Supply Chain Priorities*, March 2018

The International Council on Clean Transportation found that lower sulphur fuels, optimized engines, and exhaust after-treatment, such as selective catalytic reduction (SCR), have been shown to significantly improve the environmental performance of ships. Other measures such as shoreside electricity and improved auxiliary engines can reduce emissions generated while ships are docked at port. It also found that the feasibility and cost-effectiveness of these measures has been demonstrated at several ports., and that such measures are very cost-effective compared to remaining pollution control options for other mobile and stationary sources, especially in countries that have adopted a range of regulations to limit land-based emissions.<sup>101</sup>

The lower emissions intensity of shipping in Australia has been achieved even with relatively old ships using conventional ships' bunkers. From 2020, the global maritime fleet will be required to use cleaner fuel,<sup>102</sup> and a number of Australian ships in the Bass Strait have been moving to use LNG as fuel. However, even after this shift, the shipping industry globally will still be making considerable emissions. As an IMO member, Australia has agreed to reduce

<sup>101</sup> The International Council on Clean Transportation, *Air Pollution and Greenhouse Gas Emissions from Ocean-going Ships: Impacts, Mitigation Options and Opportunities for Managing Growth*, March 2017

[https://www.theicct.org/sites/default/files/publications/oceangoing\\_ships\\_2007.pdf](https://www.theicct.org/sites/default/files/publications/oceangoing_ships_2007.pdf)

<sup>102</sup> <http://www.imo.org/en/mediacentre/hottopics/pages/sulphur-2020.aspx>

shipping emissions by 50% by 2050. This will require zero-emissions international cargo ships to be operational by 2030, which means that the technology and infrastructure for engines and fuel will need to start being put in place in the 2020s.<sup>103</sup>

In their study of zero-emissions shipping, Lloyds Register and UMAS look at a number of potential fuels: hydrogen, ammonia, batteries, and biofuels (plant matter). They conclude that biofuels will need an area the size of Australia to grow fuel if the shipping industry converts, which would undermine food supplies. Batteries are very expensive (except for smaller vessels on shorter routes). So that leaves hydrogen and ammonia, both of which are quite difficult to handle, but are being discussed as realistic options. They can go straight into specialised internal combustion engines, or into fuel cells. They can be made from renewable energy.<sup>104</sup> These fuels are also the subject of detailed studies by the Hydrogen Working Group of the COAG Energy Council for production in Australia.<sup>105</sup>

Lloyds Register and UMAS highlight that implementing any of these measures in shipping will require significant government investment and regulation. The Australian government could begin developing and testing these fuels and technologies on ships in an Australian Strategic Fleet.

It should be noted that using both hydrogen and ammonia as fuel, or exporting them for use in other countries, will require detailed safety regulation to be put in place to regulate their use as both a fuel and as an export cargo.

**Recommendation 23:** The Commission include updated figures on greenhouse gas emissions and emissions intensity of various transport sectors, and the necessity of reducing emissions from transport in its final report. The Commission recommend to the Australian government to develop a comprehensive plan to systematically reduce greenhouse gas emissions from transport. This can be achieved, in part, by shifting freight on to ships, and by in the long term, by shifting to zero-emissions shipping. Both require government coordination, regulation, and investment.

## 16. Digitalisation and automation

*Are there other technological changes and technologies emerging with the potential to significantly affect the transport sector?*

*How should regulatory arrangements take account of technological changes and emerging technologies? Are current arrangements fit for purpose?*

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<sup>103</sup> Lloyd's Register and UMAS, 2019, *Zero-Emission Vessels: Transition Pathways*.

<sup>104</sup> Lloyd's Register and UMAS, 2019, *Zero-Emission Vessels: Transition Pathways*.

<sup>105</sup> COAG Energy Council Hydrogen Working Group, <https://www.industry.gov.au/about-us/what-we-do/coag-energy-council-hydrogen-working-group>

*What role, if any, should existing regulators have in encouraging better use of technology and ensuring public safety?*

### ***Electronic charts***

The use of electronic chart systems (ECDIS) and virtual aids to navigation is well under way in the global industry. Australian vessels have, however, been slow to pick up the technology, and there is a shortage of deck officers familiar with the use of these systems. The rise in the use of virtual aids to navigation and technology is leaving smaller vessels behind. Moreover, the qualifications under the National Law do not include any significant training on these developments. The syllabus for both the Master <24m NC and the Master <35m NC both only include '*a basic understanding of ECDIS*'. The requirements to complete a generic ECDIS course, simulator training, and type specific ECDIS training is only included in the internationally-compliant qualifications and regulations under the Navigation Act.

**Recommendation 24:** Training in the use of electronic charts should be incorporated into all relevant qualifications under the National Law.

## Appendix 1: Difference between the Navigation Act and National Law Act

Australian ship and seafarer safety are currently regulated under two Acts, the *Navigation Act 2012 (Navigation Act)* and the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012 (National Law Act)*.

The Navigation Act applies the standards of the International Maritime Organisation (IMO) Conventions such as the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended; the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 and by the Protocol of 1997 (MARPOL); the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) as amended, including the 1995 and 2010 Manila Amendments,<sup>106</sup> while the National Law Act applies Australian standards designed by the States/NT and originally only intended for small inshore vessels, essentially operating in coastal waters (3 nautical miles from the territorial sea baseline).<sup>107</sup>

The way the two Acts are now administered by AMSA means that invariably, the default standard of ship safety and seafarer certification/VET qualifications on Australian registered ships is the National Law Act jurisdiction or domestic commercial vessel (DCV) jurisdiction rather than the pre-2012 default standard which was the Navigation Act or regulated Australian vessel (RAV) jurisdiction, which is based on internationally recognised standards of the IMO maritime Conventions.

Details of the different standards of the two Acts are outlined in Table 6.

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<sup>106</sup> These Conventions, and a full list of IMO Conventions can be found at <http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/Default.aspx>

<sup>107</sup> A full list of maritime boundary definitions can be found at <http://www.ga.gov.au/scientific-topics/marine/jurisdiction/maritime-boundary-definitions#heading-3>

**Table 6:** Comparison of vessel safety standards under the Navigation Act and under the DCV Act.

<b>Navigation Act 2012</b>	<b>Marine Safety (Domestic Commercial Vessel) National Law Act 2012</b>
<p><b>Survey</b> Physical standards of vessels set by Classification Societies, IMO conventions and codes and marine orders. Vessels are issued with a series of internationally recognised certificates and inspected by AMSA surveyors and class surveyors on a regular basis, with inspections occurring every 12 months. Specific IMO codes and Marine Orders apply to the construction and equipment of certain vessels (see MO31 &amp; Nav Act Chapter 3). Passenger vessel Certificates of Survey are only valid for 1 year.</p>	<p>Physical standards of vessels set by the NSCV Part C (National Standard for Commercial Vessels) and recognised organisations (class societies) for vessels over 35m and over. Issued with Certificates of Survey (MO 503) valid for 5 years, with periodic survey frequency based on a risk category.</p>
<p><b>Working Conditions</b> The Navigation Act (Chapter 2), Maritime Labour Convention (MLC) and MO11 set out the employment and accommodation standards for seafarers, including the physical accommodation, work agreements, hours of work and rest, regulations regarding the provision of food and water, catering facilities, sanitary facilities, regulations concerning repatriation, exemption from serving on jury, and seafarers not to be wrongfully be left behind.</p>	<p>Maritime Labour Convention does not apply. No regulations for working and living conditions are in the DCV Act. These are in the Nav Act as the environment in which seafarers live and work presents unique challenges.</p>
<p><b>Manning</b> The Navigation Act, (Chapter 2, Part 4, Division 2) states that AMSA may make a written determination for a vessel regarding the minimum complement of crew. MO 21 (Safety and Emergency Arrangements, Division 2, Section 9) refers to the Principles of</p>	<p><b>Crewing*</b> MO 21 Division 2 applies to DCVs – however unless vessels are not required by SOLAS to have MSMDs, (ie. on an overseas voyage) section 9 does not apply. Marine Order 504, Schedule 1, Section 6, has defined the minimum crew allowed for a specific type of</p>

<p>Minimum Safe Manning (IMO Res A.1047(27)), that the Minimum Safe Manning Document (MSMD) must be kept on board, and a copy must be available in a location such that the seafarer can access it without the need to ask.</p>	<p>vessel, and expects the operator to determine the ‘appropriate crewing’ based on a list of factors that must be considered. The reasoning behind this ‘self determination’ must be kept on board with the vessel’s documentation. There is no requirement for consultation with crew or for checking with surveyors or AMSA. There is no guidance regarding working hours, and ‘uncertified crew’ can be part of not only the ‘minimum’ crew but also the ‘appropriate crew’. Many operators crew their vessels such that ‘uncertified crew’ are standing a navigation watch by themselves.</p>
<p><b>Safety and Emergency Arrangements</b></p> <p>Marine Order 21 incorporates many safety arrangements found in SOLAS (as the minimum international standard). This includes Division 3 – Emergency procedures, including alarm signals, abandon ship signals, emergency drills, training, passenger lists, emergency management plans, emergency instructions for passengers, emergency duties for seafarers, assignment of survival craft. It also includes regulations on the carriage of portable gas detectors.</p>	<p>There are sections of MO21 Division 2 which relate to pilot boarding arrangements and steering drills on board DCVs. For Domestic Commercial Vessels, these procedures should be included in the vessels ‘Safety Management System’ as per the requirements of Marine Order 504, Schedule 1. This is based on the operator’s own risk assessments and tasks on board, and include an emergency plan, briefings for passengers, maintenance schedules. The owner and crew must also receive ‘sufficient’ training in operations and emergency procedures.</p>
<p><b>Operating Standards</b></p> <p>Marine Order 28 (Operation Standards and Procedures) includes the standards of watchkeeping, including recording hours of rest and complying with the Minimum Safe Manning Document. Section 17 specifically states that watchkeepers comply with watchkeeping standards set out in STCW. STCW states the specific duties that a</p>	<p>STCW does not apply to DCVs. There is no requirement in the DCV Act that provides for a navigational lookout, or that watchkeepers maintain the minimum required standard. Even the duties and functions of a ‘deck watchkeeper’ are not defined in NSCV part D, or elsewhere in the National Law. This has resulted in the practice</p>

<p>holder of a Certificate of Competency may perform, including holding a navigational watch, and the fundamental principle that a Navigational watch rating assist the watchkeeper as a lookout at all times, and may only leave the bridge during daylight if they are able to be called to the bridge quickly.</p>	<p>of uncertified crew, particularly on fishing vessels, holding a 'steering watch', under the supervision of the Master – who is asleep nearby.</p> <p>See: collision between FV Mako and Glasgow Express  <a href="https://www.atsb.gov.au/publications/investigation_reports/2017/mair/333-mo-2017-007/">https://www.atsb.gov.au/publications/investigation_reports/2017/mair/333-mo-2017-007/</a></p>
<p><b>Specific vessel risks</b>  Marine Orders 32, 33, 34, 35, 41, 42, 43, 49, 50, 51, 52, 53, 57 and 60 all contain regulations based on minimum international standards and codes for specific types of vessels and cargoes and operations that pose unique risks. Some of these include dangerous cargoes, helicopter operations, securing cargoes, bulk carriers and training vessels.</p>	<p>None of these marine orders apply to Domestic Commercial Vessels.</p>
<p><b>Safety Management</b>  Marine Order 58 relates to the Safe Management of Vessels and gives effect to the International Safety Management (ISM) Code. It requires companies operating vessels to have has their Safety Management System audited and approved by the regulator, and certificates issued as appropriate.</p>	<p>Marine Order 504 requires vessel owners to sign a declaration that they have a Safety Management System in place before AMSA will issue a Certificate of Operation. The SMS may never be inspected or audited before this is issued.</p>
<p><b>Safety and Skills training</b>  Navigation Act vessels are required to ensure every person on board, including hospitality crew has basic safety training to the required international standard. This is a week-long course, covering security, personal safety, firefighting, sea survival and first aid. All crew on</p>	<p>Marine Order 504 allows crew to sail as 'uncertificated' this can include all hospitality crew, as well as deck and engine crew. The onus is on the owner to ensure that the crew is provided with "so far as reasonably practicable, such information, instruction,</p>

<p>passenger vessels are also required to obtain certification regarding Crowd Management, Crisis Management and Human Behaviour to ensure they are equipped to manage passengers in the event of an onboard emergency/evacuation. Deck and Engine Crew are also required to gain appropriate certification for the emergency and operational roles they have on board, including operating lifeboats and rescue boats and fast rescue craft, tanker familiarisation for oil and chemical or gas vessels, advanced firefighting, confined space entry, and designated security duties. In addition, a competent and qualified integrated rating who is able to work unsupervised, will have at least 12 months sea time, experience and a Certificate III in Marine Operations.</p>	<p><i>training or supervision to people on board the vessel as is necessary to ensure their safety.”</i> Marine Safety (Domestic Commercial Vessel) National Law, Schedule 1 Part 3, Division 1, Section 12.</p> <p>Completing such courses as the ‘shipboard survival skill set’ and the ‘General Purpose Hand is voluntary, and onboard training is considered sufficient by most owners.</p> <p>Crew then have no approved training on personal safety, practical survival and firefighting training, passenger management, confined space entry etc.</p>
<p><b>Additional provisions</b></p> <p>Under the Navigation Act, there are certain other provisions which are not allowed for in the National Law, including drug and alcohol tests, the Master’s ability to detain crew or passengers, penalties for harming a seafarer, obstructing a vessel, and taking a vessel to sea without charts.</p>	

## Appendix 2: AMSA reporting of DCV fatalities 2016-17

**Table 7:** AMSA reporting of vessel fatalities, 2016-17

1.1.6	Performance criterion	Target	Results 2016–17	Results 2015–16
	Improvement in the standard of domestic commercial vessels is demonstrated through:			
1.1.6.1	Decreasing number of fatalities (see analysis of performance)			Not reported
1.1.6.2	Number of domestic seafarers attending education and training activities		2935	Not reported
<p><b>Rationales:</b>            1.1.6.1 Indicates whether domestic vessel safety is improving or worsening, and prompts further investigation/action.            1.1.6.2 Improvements in the level of training of seafarers and quality of vessels which they operate saves lives.</p>				
<p><b>Analysis of performance:</b>            1.1.6.1: As this is the first year of AMSA reporting against this measure, there is no data available to indicate a increasing or decreasing trend. There is wide disparity in safety culture and attitudes towards regulation across the domestic vessel industry. Tragically, this is evidenced by 13 domestic vessel-related fatalities over the year. As AMSA assumes full responsibility for the service delivery of the National System for Domestic Commercial Vessel Safety, its aim will be to reduce the number of fatalities over time. AMSA is working closely with partner agencies and authoritative bodies to investigate these incidences. In the process it identifies and actions any required safety campaigns or areas for improvement in the relevant standards.</p>				
Case study: p.20		Source: 2016–20 Corporate Plan: p.19 2016–17 PBS: N/A		RPF KPI: N/A
<p><b>Footnote:</b>            1.1.6.1 Measure for 2017–18 has been updated to include a proportionate component. Measure is now: 'Fatalities as a percentage of the total size of domestic commercial vessel fleet workforce'.            1.1.6.2 Measure has been deleted for 2017–18.</p>				

**Source:** AMSA Annual Report 2016-17, p.54

“AMSA is working closely with partner agencies and authoritative bodies to investigate these incidences. In the process it identifies and actions any required safety campaigns or areas for improvement in the relevant standards.”

## Appendix 3: AMSA reporting of DCV fatalities 2017-18

**Table 8:** AMSA reporting of DCV fatalities 2017-18

1.1.5	Performance criterion	Target	Results		
			15–16	16–17	17–18
	Improvement in the standard of commercial domestic vessels is demonstrated through:				
	1.1.5.1 Fatalities as a percentage of the total size of the domestic commercial vessel fleet workforce	0%	Not reported	Not reported	0.01% (9 fatalities)
	1.1.5.2 Serious incidents as a percentage of the total number of vessels in the domestic commercial fleet	0%	Not reported	Not reported	0.06% (90 incidents)
<p><b>Rationales:</b></p> <p>1.1.5.1 Indicates whether domestic vessel safety is improving or worsening, and prompts further investigation/action.</p> <p>1.1.5.2 Indicates whether domestic vessel safety is improving or worsening, and prompts further investigation/action.</p>					
<p><b>Analysis of performance:</b></p> <p>1.1.5.1: Calculations made on the assumption of 27,000 vessels and 66,500 seafarers. There were nine fatalities during the year.</p> <p>1.1.5.2: Calculations made on 90 incidents reported. Serious incidents include: vessel lost, major vessel damage, person overboard, capsizing, sinking, vessel lost, fire, explosion, serious injury.</p>					
Case study: p.23		Source: 2017–18 Corporate Plan: p.22		RPF KPI: N/A	
<p><b>Footnote:</b></p> <p>1.1.5.1 Measure for 2017–18 was updated to include a proportionate comparative component. For example, if the number of seafarers working in the domestic commercial fleet doubles, then the raw number of fatalities may increase—so the percentage of fatalities against the total number is a better indicator.</p> <p>1.1.5.2 Introduced as a new measure for 2017–18. Includes a proportionate, comparative component—same rationale as 1.1.5.1 above.</p> <p>General: measures appeared as 1.1.6 in 2016–17 annual performance statements. Previous 1.1.5 measure now at 1.4.1.</p>					

**Source:** AMSA Annual Report 2017-18, p.54.

## Appendix 4: AMSA reporting of DCV fatalities to the MUA

**Table 9:** AMSA reporting of DCV fatalities to the MUA.

Year	Class	State	No of fatalities
2013	1	VIC	1+
	2	SA	1
	3	QLD	1
	3	NT	1
	3	TAS	1
	4	NT	1
	4	TAS	1
2014	1	WA	1+
	3	VIC	1
	3	QLD	1
	4	NSW	1
	4	NSW	1
2015	1	QLD	3*+
	1	NSW	1*+
	2	QLD	1^
	3	SA	1
	3	TAS	1
	3	WA	3
2016	1	QLD	4*+ plus 1*
	3	QLD	7
	3	WA	1
	4	QLD	1
2017	1	NSW	1^+
	2	NSW	1
	2	NT	1
	3	QLD	6

+ Most Class 1 fatalities are passengers except 1 (master)

\*Diving and/or snorkelling related fatalities (passengers)

^ Fatalities due to illness (i.e. heart failures, etc.)

**Source:** Personal correspondence AMSA to the MUA dated 31 May 2018.

## Appendix 5: List of relevant Coroner's inquiries and ATSB reports

Fall from the pilot ladder on the bulk carrier Atlantic Princess, Whyalla, South Australia on 3 July 2013:

[https://www.atsb.gov.au/publications/investigation\\_reports/2013/mair/300-mo-2013-007/](https://www.atsb.gov.au/publications/investigation_reports/2013/mair/300-mo-2013-007/)

Glen Anthony WILSON:

[https://www.courts.qld.gov.au/\\_data/assets/pdf\\_file/0012/468759/cif-wilson-g-20160524.pdf](https://www.courts.qld.gov.au/_data/assets/pdf_file/0012/468759/cif-wilson-g-20160524.pdf)

Thomas Francis LEVINGE

[https://www.coronerscourt.wa.gov.au/l/inquest\\_into\\_the\\_death\\_of\\_thomas\\_francis\\_levinge.aspx](https://www.coronerscourt.wa.gov.au/l/inquest_into_the_death_of_thomas_francis_levinge.aspx)

Ryan Harry DONOGHUE

[https://justice.nt.gov.au/\\_data/assets/pdf\\_file/0005/281777/D02102013-Donoghue-including-attachment.pdf](https://justice.nt.gov.au/_data/assets/pdf_file/0005/281777/D02102013-Donoghue-including-attachment.pdf)

Ian Graham THOMPSON

[https://www.magistratescourt.tas.gov.au/\\_data/assets/pdf\\_file/0003/405534/Thompson,-Ian-Graham.pdf](https://www.magistratescourt.tas.gov.au/_data/assets/pdf_file/0003/405534/Thompson,-Ian-Graham.pdf)

Leila Michelle TROTT

[https://www.courts.qld.gov.au/\\_data/assets/pdf\\_file/0010/514477/cif-trott-lm-20170316.pdf](https://www.courts.qld.gov.au/_data/assets/pdf_file/0010/514477/cif-trott-lm-20170316.pdf)

Damien Mark MILLS

[https://www.coronerscourt.wa.gov.au/l/inquest\\_into\\_the\\_death\\_of\\_damien\\_mark\\_mills.aspx](https://www.coronerscourt.wa.gov.au/l/inquest_into_the_death_of_damien_mark_mills.aspx)

Chad Alan FAIRLEY, Mason Laurence CARTER, Murray Allan TURNER

[https://www.coronerscourt.wa.gov.au/l/inquest\\_into\\_the\\_death\\_of\\_chad\\_alan\\_fairley\\_and\\_mason\\_laurence\\_carter\\_and\\_murray\\_allan\\_turner.aspx](https://www.coronerscourt.wa.gov.au/l/inquest_into_the_death_of_chad_alan_fairley_and_mason_laurence_carter_and_murray_allan_turner.aspx)

Andrew KELLY, fatality on board Skandi Pacific, off the Pilbara Coast, Western Australia, 14 July 2015

[https://www.atsb.gov.au/publications/investigation\\_reports/2015/mair/322-mo-2015-005/](https://www.atsb.gov.au/publications/investigation_reports/2015/mair/322-mo-2015-005/)

Daniel Thomas BRADSHAW

[https://justice.nt.gov.au/\\_data/assets/pdf\\_file/0019/482005/D00052017-Daniel-Bradshaw.pdf](https://justice.nt.gov.au/_data/assets/pdf_file/0019/482005/D00052017-Daniel-Bradshaw.pdf)

Luke Anthony MURRAY

[https://www.coronerscourt.wa.gov.au/l/inquest\\_into\\_the\\_death\\_of\\_luke\\_anthony\\_murray.aspx](https://www.coronerscourt.wa.gov.au/l/inquest_into_the_death_of_luke_anthony_murray.aspx)