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Australian Maritime Safety Authority

# Port State Control Australia

2019 Report





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**Australian Government**  
**Australian Maritime Safety Authority**

# Port State Control Australia

**2019 Report**



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# Purpose of this report

Australia has one of the world's largest mixed market economies and the largest continental landmass surrounded by water. Australia's national livelihood depends on ensuring maritime trade to and from the country remains safe, efficient and compliant with all relevant international conventions. Australia relies on sea transport for the majority of its imports and exports by weight. In 2017 Australian sea freight comprised of 1450.1 million tonnes of exports and 99.3 million tonnes of imports with a five year growth trend of 8.6%<sup>1</sup>. Port State control (PSC) is an essential element in ensuring the safe operation of ships and protection of the marine environment.

This report summarises the PSC activities of the Australian Maritime Safety Authority (AMSA), detailing the performance of commercial shipping companies, flag States and Classification Societies for the 2019 calendar year.

AMSA is a statutory authority established under the Australian Maritime Safety Authority Act 1990 (the AMSA Act).

AMSA's principal functions are:

- promoting maritime safety and protection of the marine environment
- protecting life at sea by enforcing the safe operation of ships
- preventing and combatting ship-sourced pollution in the marine environment
- providing infrastructure to support safety of navigation in Australian waters
- providing a national search and rescue service to the maritime and aviation sectors.

To meet government and community expectations, AMSA is empowered to perform an enforcement function, regulating maritime trade in Australia through the implementation of rigorous flag State control (FSC) and PSC regimes. Professional and consistent FSC and PSC regimes are essential in ensuring vessels comply with minimum standards of maritime safety, seafarer welfare and protection of Australia's 60,000 kilometre coastline (including approximately 12,000 islands) from environmental damage.

AMSA works in close cooperation with the International Maritime Organization (IMO) and PSC partner nations across the Asia-Pacific and Indian Ocean regions, sharing PSC information and actively participating in international policy development. These efforts are aimed at ensuring AMSA remains a transparent, trusted and consistent member of the international maritime community.

As the flag State for Australian ships, AMSA is responsible for maintaining the operational safety standards of Australian-registered ships, wherever in the world they may be operating.

Noting that information related to AMSA's PSC activities is used by a diverse range of stakeholders on a regular basis, AMSA supplies current information via the AMSA website ([amsa.gov.au](http://amsa.gov.au)). This information includes monthly ship detentions, details of ongoing PSC activities, current shipping trends and emerging issues. We also detail and promulgate government regulation and important information through marine orders and marine notices respectively.

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<sup>1</sup> Bureau of Infrastructure, Transport and Regional Economics – Statistical report – Australian sea freight 2016-17 released 2 September 2019

# Year in review

## Introduction

The PSC inspection results for 2019 saw an ongoing reduction in the detention rate of vessels to 5.1 per cent from 5.5 per cent in 2018 and down from a peak of 9.2 per cent in 2011. This is the lowest detention rate since 2006.

Similarly the deficiency rate also reduced from 1.8 deficiencies per inspection in 2018 to 1.6 deficiencies per inspection in 2019. This is the lowest deficiency rate since AMSA first published annual port State control (PSC) reports in 1991. The reduction in the detention rate and deficiency rate emphasises the ongoing benefit in maintaining a consistent and rigorous PSC inspection regime.

As noted in previous reports, from 2013 ships and operators with a record of poor performance can be refused access from entering or using Australian ports using a direction issued under section 246 of the *Navigation Act 2012*<sup>2</sup>. In 2019, AMSA refused access to two ships for periods ranging from 12 to 18 months. Both of these directions were issued in response to significant breaches of the *Maritime Labour Convention, 2006* (MLC).

The annual PSC report previously contained a section dedicated to MLC. This section looked in detail at PSC, as related to MLC, and MLC complaints. The information is now contained in a separate dedicated MLC PSC report available on the AMSA website co-located with this report. The 2019 report retains basic MLC PSC statistics contained in previous reports for the purpose of comparison between deficiency and detention categories.

## 2019 summary of PSC activity

- During the calendar year there were:
  - 28,584 ship arrivals by 5981 foreign-flagged ships
  - 3222 PSC inspections
  - 163 ship detentions.
- Bulk carriers accounted for 50.4 per cent of ship arrivals and 56.7 per cent of PSC inspections.
- PSC inspections were carried out at 53 Australian ports.
- The average gross tonnage per visit was 52,775 GT compared to 51,808 GT in 2018.
- The average age of vessels in 2019 was 10 years, compared to 10 in 2018 and nine in 2017.

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<sup>2</sup> In exercising this power it is important to note that AMSA only employs this mechanism where routine PSC intervention has not been effective in achieving a lasting change in behaviour. It is only used where a systemic failure has been identified. The intent of the process is to improve performance rather than simply remove problem vessels from Australian ports.

## 10-year summary of inspection, detentions and deficiency rate

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Total inspections</b>	3127	3002	3179	3342	3742	4050	3675	3128	2922	3222
<b>Total detentions</b>	222	275	210	233	269	242	246	165	161	163
<b>Detention %</b>	7.1	9.2	6.6	7.0	7.2	6.0	6.7	5.3	5.5	5.1
<b>Deficiencies per inspection</b>	2.4	2.8	2.4	2.4	2.9	2.3	2.4	2.3	1.8	1.6

## Snapshot comparison to previous year

		2018	2019	When compared to 2018	
<b>Arrivals</b>	Total arrivals	29094	28584	-1.8%	(a decrease of 510)
	Individual ships which made those arrivals	5900	5981	1.4%	(an increase of 81)
	Ships eligible for PSC inspection	5765	5822	1.0%	(an increase of 57)
<b>PSC inspections</b>	Total PSC inspections	2922	3222	10.3%	(an increase of 300)
	Total PSC inspections - by individual ships	2616	2823	7.9%	(an increase of 207)
	Inspection rate of eligible ships %	45.4%	48.5%		
	Total deficiencies	5320	5281	-0.7%	(a decrease of 39)
<b>Deficiencies</b>	Total detainable deficiencies	232	218	-6.0%	(a decrease of 14)
	Rate of deficiencies per inspection	1.8	1.6		
<b>Detentions</b>	Total detentions	161	163	1.2%	(an increase of 2)
	Detentions as a percentage of total inspections	5.51%	5.06%		

## Key points

- In 2019, the number of foreign-flagged arrivals decreased by 510 (1.8 per cent) to 28,584. The number of arrivals by individual ships increased to 5981 (up 1.4 per cent).
- The number of initial PSC inspections conducted during 2019 increased by 300 (10.3 per cent) to 3222 inspections, which is consistent with the increase in individual ship arrivals.
- The overall number of deficiencies decreased slightly from 5320 in 2018 to 5281 in 2019 despite the increase in inspections.
- The average number of deficiencies per inspection decreased slightly from 1.8 to 1.6.
- There was a decrease in the number of detainable deficiencies from 232 in 2018 to 218 in 2019.
- The number of detained vessels increased to 163 in 2019, compared to 161 in 2018. However, given the increase in the total number of inspections, the detention per inspection rate decreased from 5.51 per cent in 2018 to 5.06 per cent in 2019.

The rate of deficiencies per inspection are now at the lowest rate since AMSA first published its annual PSC reports in 1991, having steadily decreased over the last decade. The overall picture reflects the fact that AMSA seeks only to issue a deficiency where it is necessary. It is also a strong indication that AMSA's PSC regime is exerting a positive influence on the quality of ships arriving in Australia.

### Top five initial PSC inspections by flag State 2019

<p>There were 3222 foreign-flagged vessels inspected in 2019.</p> <p>The top five flag States accounted for 67% of all inspections.</p>	Flag State (number of inspections)
	Panama (678) 21.0%
	Marshall Islands (405) 12.6%
	Liberia (401) 12.4%
	Hong Kong (399) 12.4%
	Singapore (289) 9.0%

### Top five detention rates by flag State 2019

<p>There were a total of 163 foreign-flag vessels detained in 2019.</p> <p>The average detention rate for all vessels was 5.1%.</p>	Flag State (Detention Rate %)
	1. Antigua and Barbuda – 13.3%
	2. Cayman Islands – 10.3%
	3. Cyprus – 9.1%
	3. Philippines – 9.1%
	4. Denmark – 8.3%
4. Malaysia – 8.3%	
5. Liberia – 6.7%	

Note: this table only covers vessel types with 10 or more inspections

## Trends for 2019

As observed in past PSC annual reports, the most frequent cause of detention since 2010 relates to ineffective implementation of the safety management system required by the International Safety Management (ISM) Code.

Since 2015, issues concerning passage planning, conduct of voyages and the operation of vessels have contributed significantly to the number of ISM detentions and this remains a significant concern for AMSA. To address this AMSA issued a marine notice MN 2019/02 (Responsible navigational practices), in 2019 with a view to highlighting issues associated with navigational practices.

Since 2014, the same material issues have featured in the top five categories for detention. This was repeated in 2019 with fire safety (17.4 per cent), emergency systems (16.5 per cent) and life-saving appliances (14.7 per cent). Pollution prevention (11.5 per cent) was among the top five categories of detainable deficiencies for the second consecutive year.

This trend has to be considered in light of the reduction in detainable deficiencies and ongoing downward trend in the number of deficiencies per inspection. This is a very positive result and, while improvements in ISM performance are desired, this trend indicates the port State control regime is currently improving the overall performance of ships arriving at Australian ports.

In noting this, it is possible that the implementation of the reduction of the sulphur cap that came into effect through MARPOL Annex VI on 01 January 2020, may have an impact for the 2020 reporting period.

### Top five detainable deficiencies 2017-19

2017	2018	2019
ISM – 29.2%	ISM – 21.1%	ISM – 23.9%
Emergency systems – 14.6%	Fire safety – 16.8%	Fire safety – 17.4%
Life-saving appliances – 11.9%	Emergency systems – 12.5%	Emergency systems – 16.5%
Fire safety – 11.4%	Pollution Prevention – 12%	Lifesaving appliances – 14.7%
Water/weather-tight conditions – 9.1%	Lifesaving appliances – 11.2%	Pollution Prevention – 11.5%

In 2019, AMSA continued its work with flag States and ship owners to increase awareness of factors that may impact on PSC performance. AMSA is also working jointly with some flag States to bring vessels into compliance. This includes assisting flag States to access ships in Australian ports in order to conduct their flag State inspections. More information on this process is available at:

[www.amsa.gov.au/flag-state-duties](http://www.amsa.gov.au/flag-state-duties)

## Summary of shipping industry activity 2019

In 2018 commodities such as coal, metals, ores, concentrates, gas, livestock and petroleum made up eight of the top 10 exports from Australia<sup>3</sup>. These made up 51.8 per cent by value of Australian exports and the vast majority by weight. Coal and iron ore remain the largest bulk exports in Australia. These are closely followed by natural gas (LNG and LPG) exports which continue to grow in volume and value.

The average gross tonnage of visiting ships increased again in 2019, though the number of port visits decreased slightly.

### The main trends in 2019 were:

- Foreign-flagged port visits totalled 28,584 in 2019, a decrease of 1.8 per cent from 2018. The number of individual ships that made these port calls increased slightly to 5981, an increase of 81 (1.4 per cent) over the 5900 in 2018.
- Bulk carrier port arrivals decreased by 0.6 per cent in 2019, accounting for 50.4 per cent of foreign-flagged port arrivals. Arrivals decreased by 20.4 per cent for general cargo ships, 9.4 per cent for vehicle carriers and 5 per cent for oil tankers. Arrivals increased by 8 per cent for gas carriers and 5.1 per cent for livestock carriers.
- Foreign-flagged shipping activity remains geographically disparate between Australian ports. Port Hedland remains the busiest Australian port for foreign ship visits, accounting for 10.5 per cent of arrivals nationwide.
- The trend towards an increase in the size of visiting ships continued with the average gross tonnage increasing from 51,808 GT in 2018 to 52,775 GT in 2019.
- The average age of foreign vessels arriving in Australian ports remained at 10 years.
- The fleet share of priority one (P1) vessels increased compared to 2018, however 73.6 per cent of arrivals were in the lower priority groups (P3 and P4) which reflects the fact the age of the majority of ships arriving in Australia is lower than the world average and statistically less likely to be detained.

**Table 1 – Port visits by priority group**

Priority*	2017		2018		2019	
	Number of visits	Fleet share	Number of visits	Fleet share	Number of visits	Fleet share
P1	4676	16.4%	4,362	15.0%	4632	16.2%
P2	3131	11.0%	3,220	11.1%	2900	10.1%
P3	7202	25.3%	7,226	24.9%	7407	25.9%
P4	13,494	47.3%	14,219	49.0%	13,645	47.7%
<b>Total</b>	<b>28,503</b>	<b>100.0%</b>	<b>29,027</b>	<b>100.0%</b>	<b>28,584</b>	<b>100.0%</b>

\* See page 39 for more details on priority groups.

<sup>3</sup> Based on ABS trade data on DFAT STARS database and ABS catalogue 5368.0.



**PROCEDURE FOR START EMERGENCY FIRE PUMP**  
1. CHECK PROPER POSITION OF EMERGENCY FIRE PUMP ISOLATION VALVE.  
2. START EMERGENCY FIRE PUMP FROM ANY CONTROL KEYS, OTHER FROM RANGE EMERGENCY FIRE PUMP COMPARTMENT OR FIRE CONTROL STATION.  
3. DEPENDING ON SITUATION OPERATE ISOLATION VALVES OF THE MAP.

**ПРОЦЕДУРА ЗАПУСКА АВАРИЙНОГО ПОЖАРНОГО НАСОСА**

1. ПРОВЕРИТЬ ПОЗИЦИЮ ВАЛВА ИЗОЛЯЦИИ ПОЖАРНОГО НАСОСА.  
2. ЗАПУСТИТЬ АВАРИЙНЫЙ ПОЖАРНЫЙ НАСОС С ЛЮБОГО КОНТРОЛЬНОГО ПУНКТА, ИЛИ С ЛЮБОГО КНОПКИ АВАРИЙНОГО ПОЖАРНОГО КОМПАРТИМЕНТА ИЛИ ПОЖАРНОГО СТАНЦИОНА.  
3. В ЗАВИСИМОСТИ ОТ СИТУАЦИИ РАБОТАТЬ ВАЛВАМИ ИЗОЛЯЦИИ ПОЖАРНОГО НАСОСА.

**FURUNO**



Handwritten notes and diagrams on a piece of paper on the desk.

# Analysis of 2019 inspection results

## Arrivals

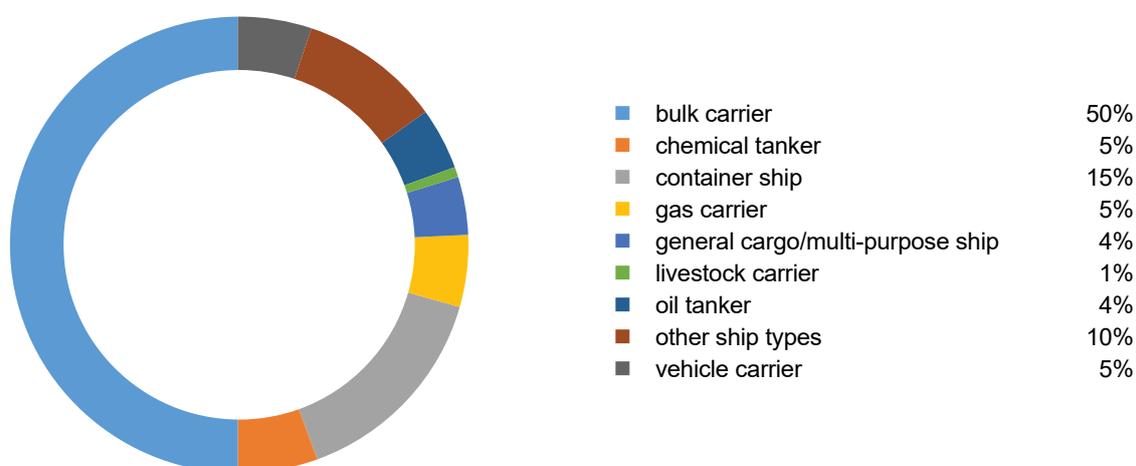
AMSA conducted PSC inspections in 53 ports across Australia. As shown in the table below, arrivals were not distributed evenly across the 72 ports visited by foreign ships in 2019, with 41 per cent of all arrivals occurring at the top five ports.

### Ship arrivals in Australian ports for 2019

Total of 28,584 ship arrivals at Australian ports during 2019.	Arrivals – top five ports
	1. Port Hedland 2990 (10.5%)
	2. Brisbane 2516 (8.8%)
	3. Newcastle 2300 (8.0%)
	4. Melbourne 2053 (7.2%)
	5. Sydney 1995 (7.0%)

Port Hedland remained the busiest port for foreign-flagged ship arrivals, predominantly for the export of iron ore. In Newcastle the majority of arrivals were for the dry bulk export market, mainly coal. In Brisbane, Melbourne, and Sydney the majority of arrivals were engaged in the container trade.

**Figure 1 – 2019 Port arrivals by ship type**



**Table 2 – Ship arrivals by ship type in 2019 compared to 2018**

Ship type	2018	2019	Change
Bulk carrier	14,498	14,418	-0.6%
Chemical tanker	1472	1460	-0.8%
Container ship	4470	4359	-2.5%
Gas carrier	1321	1427	8.0%
General cargo/ multi-purpose	1316	1047	-20.4%
Livestock carrier	376	395	5.1%
Oil tanker	1163	1105	-5.0%
Vehicle carrier	1687	1529	-9.4%
Other	2791	2844	1.9%
<b>Totals arrivals</b>	<b>29,094</b>	<b>28,584</b>	<b>-1.8%</b>

## Inspections by ship type

In 2019, AMSA surveyors carried out 3222 initial PSC inspections and 1573 PSC follow up inspections in compliance with international conventions, associated codes, resolutions and Australian legislation.

### PSC inspections by ship type

AMSA conducted 3222 PSC inspections in 2019.	<b>2019 top five PSC inspections</b>
	1. Bulk carrier – 1826 (56.7%)
	2. Container ships – 327 (10.1%)
	3. Chemical tanker – 201 (6.2%)
	4. Vehicle carrier – 172 (5.3%)
	5. Oil tankers 168 – (5.2%)

**Table 3 – Total ships inspected by ship type**

Ship type	2015	2016	2017	2018	2019
Bulk carrier	2389	2132	1732	1585	1826
Chemical tanker	187	208	181	179	201
Combination carrier	0	0	1	0	0
Commercial yacht	0	0	1	0	0
Container ship	378	342	297	311	327
Gas carrier	79	74	52	53	77
General cargo/ multi-purpose ship	174	163	184	154	129
Heavy load carrier	48	25	19	30	40
High speed passenger craft	0	0	0	0	0
Livestock carrier	52	57	49	52	56
MODU or FPSO	4	0	2	0	0
NLS tanker	24	28	27	25	30
Offshore service vessel	22	10	17	19	12
Oil tanker	218	227	194	155	168
Other types of ship	27	21	29	14	21
Passenger ship	52	51	47	55	56
Refrigerated cargo vessel	5	4	2	3	2
Ro-ro cargo ship	6	6	6	2	9
Ro-ro passenger ship	0	0	0	1	0
Special purpose ship	18	14	8	7	10
Tugboat	91	40	28	30	24
Vehicle carrier	209	197	180	181	172
Wood-chip carrier	67	77	72	66	62
<b>Totals</b>	<b>4050</b>	<b>3675</b>	<b>3128</b>	<b>2922</b>	<b>3222</b>

Table 3 shows the number of inspections by ship type from 2015 to 2019.

## Inspection by location

Port Hedland was the busiest port for initial PSC inspections in 2019, with Sydney moving ahead of Brisbane and Newcastle when compared to 2018.

### PSC inspections by location

A total of 3222 PSC inspections were conducted in 2019.	2019 top five locations
	1. Port Hedland – 694 (21.5%)
	2. Fremantle – 382 (11.9%)
	3. Sydney – 282 (8.8%)
	4. Brisbane – 249 (7.7%)
	5. Newcastle – 207 (6.4%)

Of the 53 ports where inspections were conducted, the top five ports accounted for 56.3 per cent of the 3222 initial PSC inspections undertaken as shown in Table 4.

**Table 4 – PSC inspections by location**

	2015	2016	2017	2018	2019	% of total in 2019
Port Hedland, WA	358	247	311	441	694	21.5%
Fremantle, WA	284	448	416	410	382	11.9%
Sydney, NSW	152	282	205	190	282	8.8%
Brisbane, QLD	338	304	278	238	249	7.7%
Newcastle, NSW	424	401	316	212	207	6.4%
Hay Point, QLD	247	255	180	155	184	5.7%
Dampier, WA	304	281	187	156	159	4.9%
Melbourne, VIC	204	151	156	156	151	4.7%
Gladstone, QLD	290	251	206	181	147	4.6%
Darwin, NT	124	94	96	109	137	4.3%
Geraldton, WA	129	127	94	83	100	3.1%
Townsville, QLD	139	115	100	81	75	2.3%
Port Adelaide, SA	106	90	88	99	56	1.7%
Port Kembla, NSW	146	162	83	49	43	1.3%
Port Walcott, WA	55	60	48	45	40	1.2%

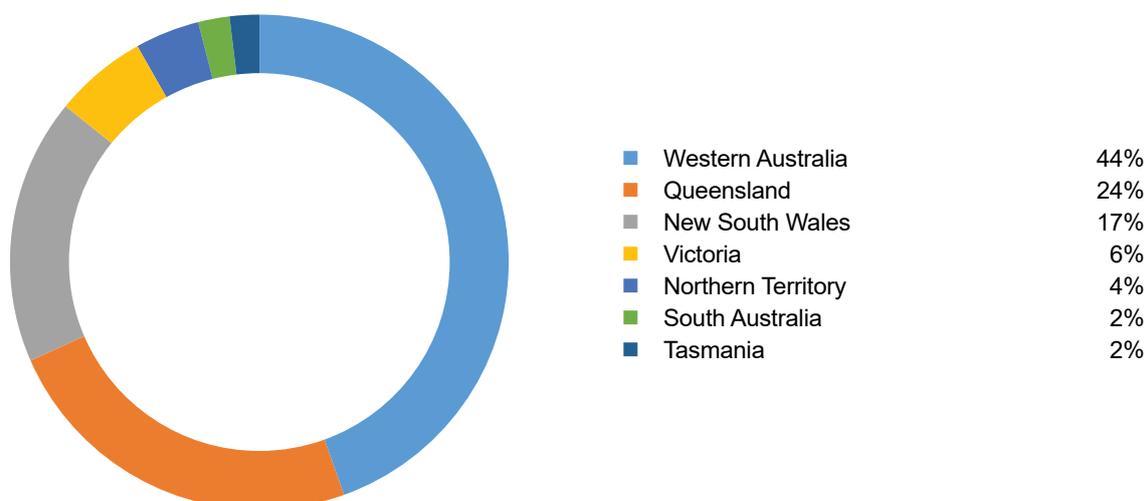
As in previous years, in 2019 the greatest numbers of PSC initial inspections were undertaken in Western Australia followed by Queensland then New South Wales. Inspections by state are shown in Table 5 and Figure 2.

**Table 5 – PSC inspections in 2019 by state/territory**

State/territory	PSC inspections
Western Australia	1431
Queensland	767
New South Wales	534
Victoria	201
Northern Territory	148
Tasmania	76
South Australia	65
<b>Total</b>	<b>3222</b>

State by state totals continue to emphasise the significance of the bulk cargo trade from Queensland and Western Australia.

**Figure 2 – PSC inspections in 2019 by state/territory**



## Inspections by flag State

In 2019, Panama remained the flag State with the largest number of ships inspected by AMSA, with a total of 678 Panamanian ships (21 per cent of the total) being subject to an initial PSC inspection.

The top five flag States remains unchanged since 2015 and inspections of ships from Panama, Marshall Islands, Singapore, Hong Kong and Liberia, accounted for 67 per cent of all PSC inspections. The top 12 flags with 25 or more inspections, as listed in Table 6, accounted for 2802 inspections, or 87 per cent of all inspections.

A five-year breakdown of the number of vessels inspected by flag State is provided in Table 7. The table does not show any significant change in the proportional inspection rates by flag State over the last five years.

**Table 6 – PSC inspections by top 12 flag States in 2019**

Top 12 flag States	2015	2016	2017	2018	2019
PANAMA	1045	942	763	622	678
MARSHALL ISLANDS	338	358	337	377	405
LIBERIA	372	360	304	340	401
HONG KONG, CHINA	482	426	311	306	399
SINGAPORE	427	368	326	292	289
MALTA	216	196	210	186	191
BAHAMAS	158	138	121	97	119
NORWAY	51	49	55	53	70
CYPRUS	89	87	73	63	66
CHINA	93	70	53	46	63
GREECE	91	81	49	60	63
JAPAN	83	71	60	54	58

Note: figures in red are not in the top 12 in those years.

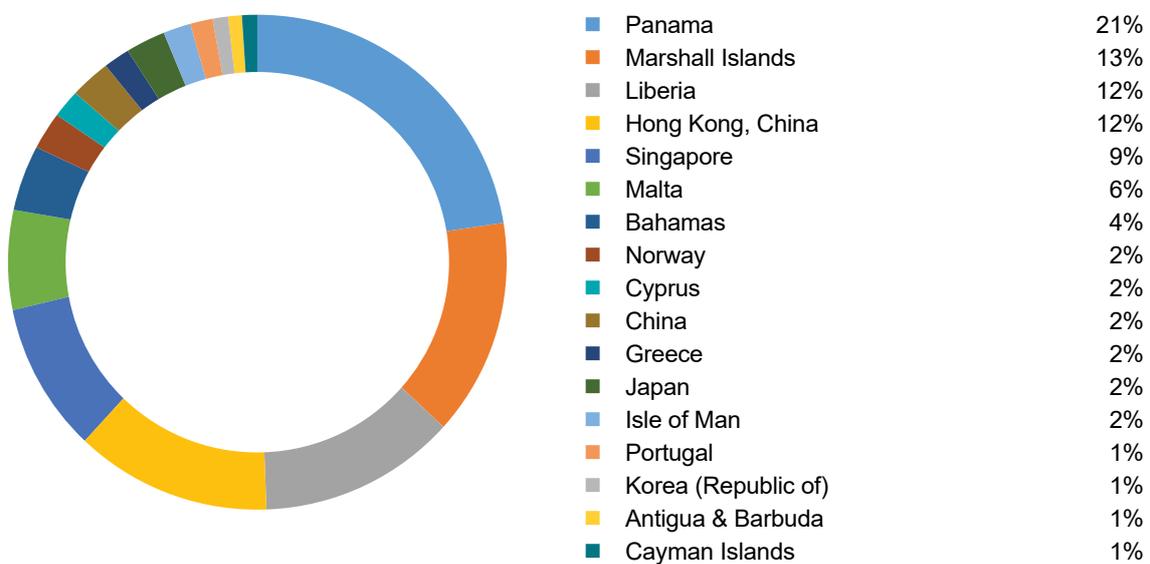
**Table 7 – Total ships inspected by flag State**

Flag State	2015	2016	2017	2018	2019
ANTIGUA & BARBUDA	66	51	44	31	30
BAHAMAS	158	138	121	97	119
BARBADOS	2	1	3	5	1
BELGIUM	6	6	3	8	3
BELIZE	0	0	0	1	0
BERMUDA	30	29	15	11	17
BRAZIL	0	1	0	0	0
BRUNEI DARUSSALAM	0	0	1	1	0
CAYMAN ISLANDS	24	23	34	32	29
CHINA	93	70	53	46	63
COMOROS	1	1	1	0	0
COOK ISLANDS	7	7	7	5	5
CROATIA	4	5	5	3	0
CURACAO	3	0	0	0	0
CYPRUS	89	87	73	63	66
DENMARK	22	22	16	12	24
DOMINICA	1	0	0	0	1
EGYPT	0	0	0	1	0
ESTONIA	1	0	0	0	0
FAROE ISLANDS	0	1	0	0	0
FIJI	0	2	4	2	0
FRANCE	4	12	8	3	8
GERMANY	2	7	9	6	4
GIBRALTAR	15	7	4	7	2
GREECE	91	81	49	60	63
HONG KONG, CHINA	482	426	311	306	399
INDIA	18	7	9	11	6
INDONESIA	11	6	0	2	0
IRAN (ISLAMIC REPUBLIC OF)	0	0	1	0	0
IRELAND	0	1	0	0	0
ISLE OF MAN	63	54	52	54	54
ITALY	22	20	16	21	24
JAMAICA	0	1	0	0	2
JAPAN	83	71	60	54	58
KOREA (REPUBLIC OF)	76	48	47	36	37
KUWAIT	4	3	4	4	4
LIBERIA	372	360	304	340	401
LIBYA	0	1	0	1	2

Flag State	2015	2016	2017	2018	2019
LUXEMBOURG	2	11	7	5	16
MALAYSIA	8	8	8	10	12
MALTA	216	196	210	186	191
MARSHALL ISLANDS	338	358	337	377	405
MAURITIUS	1	0	0	0	0
MONTENEGRO	0	0	0	0	1
NETHERLANDS	38	17	20	18	22
NEW ZEALAND	7	3	3	3	2
NORWAY	51	49	55	53	70
PAKISTAN	1	1	1	0	0
PANAMA	1045	942	763	622	678
PAPUA NEW GUINEA	8	9	7	4	0
PHILIPPINES	29	27	19	23	11
PORTUGAL	8	21	30	41	38
QATAR	0	0	0	2	0
RUSSIAN FEDERATION	0	0	0	0	1
SAINT KITTS & NEVIS	2	0	0	0	0
SAINT VINCENT & THE GRENADINES	3	1	4	2	0
SAMOA	1	0	0	0	0
SAUDI ARABIA	2	2	1	0	2
SINGAPORE	427	368	326	292	289
SOLOMON ISLANDS	4	3	0	0	0
SOUTH AFRICA	0	1	0	0	0
SPAIN	2	5	1	3	5
SRI LANKA	0	1	1	0	1
SWEDEN	9	14	10	7	7
SWITZERLAND	6	12	7	5	1
TAIWAN (PROVINCE OF CHINA)	24	18	7	4	9
TANZANIA (UNITED REPUBLIC OF)	0	0	1	0	0
THAILAND	8	9	9	9	6
TURKEY	6	8	3	1	3
TUVALU	1	0	1	0	1
UNITED KINGDOM	33	31	28	23	22
UNITED STATES	5	2	5	2	2
VANUATU	11	7	7	5	4
VIETNAM	4	1	1	2	0
<b>Total:</b>	<b>4050</b>	<b>3675</b>	<b>3128</b>	<b>2922</b>	<b>3222</b>

Figure 3 represents inspections by flag State where 25 or more vessels have been subjected to inspection during 2019. Flag States that have less than 25 inspections in a year are not considered to be statistically significant in this context.

**Figure 3 – Distribution of PSC inspections by flag State**



Distribution of inspections by flag State (with more than 25 inspections).





CLOSE T

# Deficiencies

## What is a deficiency?

The IMO defines a deficiency as ‘a condition found not to be in compliance with the requirements of the relevant convention’. Serious deficiencies contribute to the vessel being substandard or unseaworthy. AMSA will issue a ship with a deficiency if it is determined, or reasonably suspected, that the condition of a ship, its equipment, or performance of its crew does not comply with the requirements of relevant international conventions.

There was a slight decrease in the number of deficiencies issued in 2019 (5281) compared to 2018 (5320), despite an increase in the number of PSC inspections from 2922 to 3222. The corresponding deficiency rate decreased from 1.8 in 2018 to 1.6 in 2019.

As shown later in Table 10, the rate of deficiencies per inspection by category decreased for operational and for human factors. The deficiency rate for the categories of structure and equipment, ISM and MLC remained unchanged from 2018.

## Deficiencies by category and ship type

For reporting purposes, deficiencies have been categorised into groups that identify key areas of non-compliance, being structural/equipment, operational, human factors, International Safety Management (ISM) and MLC. Table 8 identifies the number of deficiencies by category along with a comparison of the deficiency rates to those in 2018.

If the number of deficiencies is considered in isolation, as depicted in Table 8, the majority of deficiencies were issued to bulk carriers. However, this is not surprising given bulk carriers account for over 50 per cent of ship arrivals and 56.7 per cent of all inspections. In order to assess the performance of vessel types, it is necessary to compare the deficiencies per inspection for each category. This information is provided in Table 9.

### Top five deficiencies per inspection by ship type 2019

A total of 5281 deficiencies were issued in 2019 with the average deficiencies per inspection being 1.6	Ship type (deficiencies per inspection)
	1. Wood-chip carrier – 3.10
	2. Container ship – 2.84
	3. Heavy load carrier – 2.53
	4. Tugboat – 2.17
	5. General cargo/multi-purpose ships – 2.15

Note: only vessel types that had 10 or more inspections are included.

**Table 8 – Deficiencies by category and ship type**

Ship type	Structural/ equipment	Operational	Human factor	ISM	MLC	PSC inspections
Bulk carrier	1558	485	415	137	339	1826
Chemical tanker	92	19	15	4	8	201
Container ship	507	144	85	53	141	327
Gas carrier	27	5	6	3	8	77
General cargo/multi-purpose ship	126	45	40	18	47	129
Heavy load carrier	59	12	11	7	12	40
Livestock carrier	38	18	13	5	9	56
NLS tanker	29	5	5	3	10	30
Offshore service vessel	13	9	0	0	0	12
Oil tanker	66	16	10	6	11	168
Other types of ship	20	10	2	2	4	21
Passenger ship	47	8	10	3	7	56
Refrigerated cargo vessel	13	5	4	1	2	2
Ro-ro cargo ship	10	0	0	0	4	9
Special purpose ship	3	0	0	0	0	10
Tugboat	25	11	5	1	10	24
Vehicle carrier	86	25	39	10	22	172
Wood-chip carrier	100	22	18	13	39	62
Totals for 2019	2819	839	678	266	673	3222
2019 category deficiency rates	0.9	0.3	0.2	0.1	0.2	1.6
Totals for 2018	2548	1027	819	242	674	2922
2018 category deficiency rates	0.9	0.4	0.3	0.1	0.2	1.8

Note: as the category deficiency rates are rounded to one decimal place their sum differs slightly from the overall deficiency rate for each year.

Table 9 – Rate of deficiencies per inspection by category and ship type

	Structural / Equipment	Operational	Human Factor	MLC	ISM	Total inspections	Total Deficiencies	Deficiency rate	Number of Detentions	Detention Rate
Bulk carrier	0.85	0.27	0.23	0.19	0.08	1826	2938	1.61	107	5.86%
Chemical tanker	0.46	0.09	0.07	0.04	0.02	201	139	0.69	7	3.48%
Container ship	1.55	0.44	0.26	0.43	0.16	327	930	2.84	22	6.73%
Gas carrier	0.35	0.06	0.08	0.10	0.04	77	49	0.64	1	1.30%
General cargo/ multi-purpose ship	0.98	0.35	0.31	0.36	0.14	129	277	2.15	10	7.75%
Heavy load carrier	1.48	0.30	0.28	0.30	0.18	40	101	2.53	4	10.00%
Livestock carrier	0.68	0.32	0.23	0.16	0.09	56	83	1.48	2	3.57%
NLS tanker	0.97	0.17	0.17	0.33	0.10	30	52	1.73	1	3.33%
Offshore service vessel	1.08	0.75	0.00	0.00	0.00	12	22	1.83	2	16.67%
Oil tanker	0.39	0.10	0.06	0.07	0.04	168	109	0.65	1	0.60%
Passenger ship	0.84	0.14	0.18	0.13	0.05	56	75	1.34	0	0.00%
Refrigerated cargo vessel	6.50	2.50	2.00	1.00	0.50	2	25	12.50	0	0.00%
Ro-ro cargo ship	1.11	0.00	0.00	0.44	0.00	9	14	1.56	0	0.00%
Special purpose ship	0.30	0.00	0.00	0.00	0.00	10	3	0.30	0	0.00%
Tugboat	1.04	0.46	0.21	0.42	0.04	24	52	2.17	0	0.00%
Vehicle carrier	0.50	0.15	0.23	0.13	0.06	172	182	1.06	5	2.91%
Wood-chip carrier	1.61	0.35	0.29	0.63	0.21	62	192	3.10	1	1.61%
Other types of ship	0.95	0.48	0.10	0.19	0.10	21	38	1.81	0	0.00%
Total	2819	839	678	673	266	3222	5281	1.6	163	5.1%
Category deficiency rates	0.9	0.3	0.2	0.2	0.1					

Figures in red are the top five in each category; Figures in blue are above average.

Note: as the category deficiency rates are rounded to one decimal place their sum differs slightly from the overall deficiency rate for the year.

**Table 10 – Change in deficiency rate per inspection by category only**

Deficiency	2018	2019	Trend
Structure/equipment	0.9	0.9	-
Operational	0.4	0.3	↓
Human factors	0.3	0.2	↓
ISM	0.1	0.1	-
MLC	0.2	0.2	-

Note: as the category deficiency rates are rounded to one decimal place their sum differs slightly from the overall deficiency rate for each year.





# Detentions

## What is a detention?

The IMO defines a detention as: 'intervention action taken by the port State when the condition of the ship or its crew does not correspond substantially with the applicable conventions to ensure that the ship will not sail until it can proceed to sea without presenting a danger to the ship or persons on board, or without presenting an unreasonable threat of harm to the marine environment, whether or not such action will affect the scheduled departure of the ship'.

## Detainable deficiencies by category

Table 11 shows the proportion of detainable deficiencies in different categories over a three-year period. As indicated in the table, the detainable deficiencies relating to the category of ISM increased slightly while the categories of fire safety, emergency systems, lifesaving appliances and pollution prevention round out the top five categories of detainable deficiencies. The proportion of MLC related detentions remains significant and this continues to be the sixth most prevalent category of detainable deficiency since 2014.

The relatively high proportion of detainable deficiencies attributed to the ISM category reflects the importance of ISM to the safe and effective operation of the ship. While the proportion may be considered to be a cause of concern history provides context. In 2013, the number of ISM detainable deficiencies peaked at 120 (31.2% of the total) but this number has steadily declined and was 52 (23.9% of the total) in 2019.

Shipboard operations and maintenance were the highest contributors to ISM detentions, followed by emergency preparedness. Issues relating to safety of navigation remain high among ISM detentions once again in 2019, followed closely by work and rest hour issues (including rest hour breaches and incorrect recording of work and rest hours). There was also a relatively high number of ISM detentions on container ships where securing of cargo was not carried out as per the cargo securing manual.

**Table 11 – Detainable deficiencies by category**

Category	2017 No. of deficiencies	2017 Share %	2018 No. of deficiencies	2018 Share %	2019 No. of deficiencies	2019 Share %
ISM	64	29.2%	49	21.1%	52	23.9%
Fire safety	25	11.4%	38	16.4%	38	17.4%
Emergency systems	32	14.6%	29	12.5%	36	16.5%
Lifesaving appliances	26	11.9%	26	11.2%	32	14.7%
Pollution prevention	15	6.9%	28	12.0%	25	11.5%
Labour conditions	19	8.7%	21	9.1%	15	6.9%
Water/weather-tight conditions	20	9.1%	12	5.2%	9	4.1%
Safety of navigation	1	0.5%	3	1.3%	4	1.8%
Radio communications	7	3.2%	2	0.9%	4	1.8%
Certificates and documentation	4	1.9%	3	1.3%	3	1.4%
Other	1	0.5%	12	5.2%	0	0.0%
Propulsion and auxiliary machinery	1	0.5%	5	2.2%	0	0.0%
Structural conditions	4	1.8%	2	0.9%	0	0%
Alarms	0	0%	1	0.4%	0	0%
Cargo operations including equipment	0	0%	0	0%	0	0%
Working and living conditions	0	0%	0	0%	0	0%
Dangerous goods	0	0%	0	0%	0	0%
International Ship and Port Facility Security Code (ISPS)	0	0%	0	0%	0	0%

## Detentions by ship type

In 2019 AMSA detained 163 ships with an average detention rate of 5.1 per cent compared to 161 ships detained in 2018 with an average detention rate of 5.5 per cent.

**Table 12 – Top five detention rates by ship type in 2018 and 2019**

AMSA detained 163 ships in 2019, with an average detention rate of 5.1%.	2018 – 5.5% average (number of detentions)	2019 – 5.1% average (number of detentions)
	Heavy Load – 16.7% (5)	Offshore service vessel – 16.7% (2)
	General cargo/multi-purpose ship – 8.4% (13)	Heavy load carrier – 10% (4)
	NLS Tanker – 8% (2)	General cargo/multi-purpose ship – 7.8% (10)
	Livestock carrier – 7.7% (4)	Container ship – 6.7% (22)
	Container – 6.1% (19) Wood-chip carrier – 6.1% (4)	Bulk carrier – 5.9% (107)

Note: only vessel types with 10 or more inspections are included.

Bulk carriers represented the largest number of PSC detentions, as shown in Table 13. This is expected given the significant proportion of bulk carrier arrivals and the number of ships eligible to be inspected<sup>4</sup>. The bulk carrier detention rate remained unchanged from 2018 at 5.9 per cent, which is above the 5.1 per cent average for all ships in 2019. This is a continuing trend as bulk carriers have exceeded the average detention rate for the last four years and are the fifth worst performing ship type in 2019.

The poorest performing ship type was offshore service vessels, followed by heavy load carriers, general cargo ships and container ships. It is noteworthy that general cargo ships remain in the top five for detentions by ship type and have been in the top five poorest performing ship types for the past six years.

<sup>4</sup> All foreign flag vessels are eligible for inspection six months from a previous inspection by AMSA or on their first arrival at an Australian port.

**Table 13 – Detentions by ship type**

Category	2019			2018
Ship type	Inspections	Detentions	Detention rate	Detention rate
Bulk carrier	1826	107	5.9%	5.9%
Chemical tanker	201	7	3.5%	2.2%
Container ship	327	22	6.7%	6.1%
Gas carrier	77	1	1.3%	1.9%
General cargo/multi-purpose ship	129	10	7.8%	8.4%
Heavy load carrier	40	4	10.0%	16.7%
Livestock carrier	56	2	3.6%	7.7%
NLS tanker	30	1	3.3%	8.0%
Offshore service vessel	12	2	16.7%	0%
Oil tanker	168	1	0.6%	3.9%
Other types of ship	21	0	0.0%	0.0%
Passenger ship	56	0	0.0%	3.6%
Refrigerated cargo vessel	2*	0	0.0%	33.3%
Ro-ro cargo ship	9*	0	0.0%	0%
Ro-ro passenger ship	0	0	0.0%	0%
Special purpose ship	10	0	0.0%	0%
Tugboat	24	0	0.0%	3.3%
Vehicle carrier	172	5	2.9%	3.3%
Wood-chip carrier	62	1	1.6%	6.1%
<b>Totals</b>	<b>3222</b>	<b>163</b>	<b>5.1%</b>	<b>5.5%</b>

\* As there are less than 10 inspections of this ship type these are not counted in the performance assessment.

The following is notable with regard to detention by ship type in 2019:

- In 2019, 1826 bulk carriers were inspected, 2938 deficiencies were issued and 107 ships were detained. In 2018, 1585 bulk carriers were inspected, 3272 deficiencies were issued and 93 ships were detained. The 2019 detention rate of 5.9 per cent remained unchanged from 2018.
- Oil tankers had a substantial improvement in the already above average performance for this ship type. In 2019, 109 deficiencies were issued resulting in one detention giving a detention rate of 0.6 per cent, compared with 2018 where 135 deficiencies were issued, resulting in six detentions with a detention rate of 3.9 per cent.
- Woodchip carriers had a reduction in detainable deficiencies in 2019 with one detention and a detention rate of 1.6 per cent, compared to 2018 with four detentions and a detention rate of 6.1 per cent. However, the total number of deficiencies increased from 163 to 192.
- Chemical tanker performance deteriorated in 2019 with 139 deficiencies issued resulting in seven detentions and a detention rate of 3.5 per cent, compared to 2018 where 126 deficiencies were issued, resulting in four detentions and a detention rate of 2.2 per cent. This ship type still performed well above average.

## Detentions by flag State

Individual flag State performance can be determined by comparing the percentage share of the number of inspections against the percentage share of the number of detentions for each flag State. Where the percentage share of detentions is higher than the percentage share of inspections, this is an indication that the vessels of that flag State are performing below average. This is represented in Figure 4.

### Top five detention rates by flag State 2019

<p>There were a total of 163 foreign-flag vessels detained in 2019.</p> <p>The average detention rate for all vessels was 5.1%.</p>	<b>Flag State (Detention Rate %)</b>
	1. Antigua and Barbuda – 13.3%
	2. Cayman Islands – 10.3%
	3. Cyprus – 9.1%
	3. Philippines – 9.1%
	4. Denmark – 8.3%
4. Malaysia – 8.3%	
	5. Liberia – 6.7%

Note: this table only covers vessel types with 10 or more inspections.

Where a flag State is subject to a small number of inspections, a single detention can result in the flag State exceeding the average detention rate, as shown in Table 15. This may not be an accurate measure of performance. A more accurate assessment of performance of individual flag States can be drawn by comparing detention rates over three years, as shown in Table 14. This table shows that Cyprus, Liberia, Panama and Philippines have all exceeded the overall average detention rate over the three years from 2017 to 2019.

**Table 14 – Flag States that exceeded the average in 2017, 2018 and 2019**

2017 (average 5.3%)		2018 (average 5.5%)		2019 (average 5.1%)	
Flag State	Detention rate (number)	Flag State	Detention rate (number)	Flag State	Detention rate (number)
Denmark	25% (4)	India	18.2% (2)	Antigua and Barbuda	13.3% (4)
Philippines	10.5% (2)	Antigua and Barbuda	16.1% (5)	Cayman Islands	10.3% (3)
Malta	8.6% (18)	Italy	14.3% (3)	Cyprus	9.1% (6)
Cyprus	6.8% (5)	Philippines	13.0% (3)	Philippines	9.1% (1)
Bahamas	6.6% (8)	Portugal	9.8% (4)	Denmark	8.3% (2)
Italy	6.3% (1)	Liberia	9.4% (32)	Malaysia	8.3% (1)
Liberia	6.3% (19)	Cyprus	7.9% (5)	Liberia	6.7% (27)
Panama	5.8% (44)	Japan	7.4% (4)	Greece	6.3% (4)
		Hong Kong, China	6.5% (20)	Panama	6.3% (43)
		Panama	5.9% (37)	Luxembourg	6.3% (1)
		Netherlands	5.6% (1)	Malta	5.8% (11)
		Republic of Korea	5.6% (2)	Isle of Man	5.6% (3)
				Portugal	5.3% (2)

- Exceeded the average detention rate in two years out of three
- Exceeded the average detention rate in three years out of three

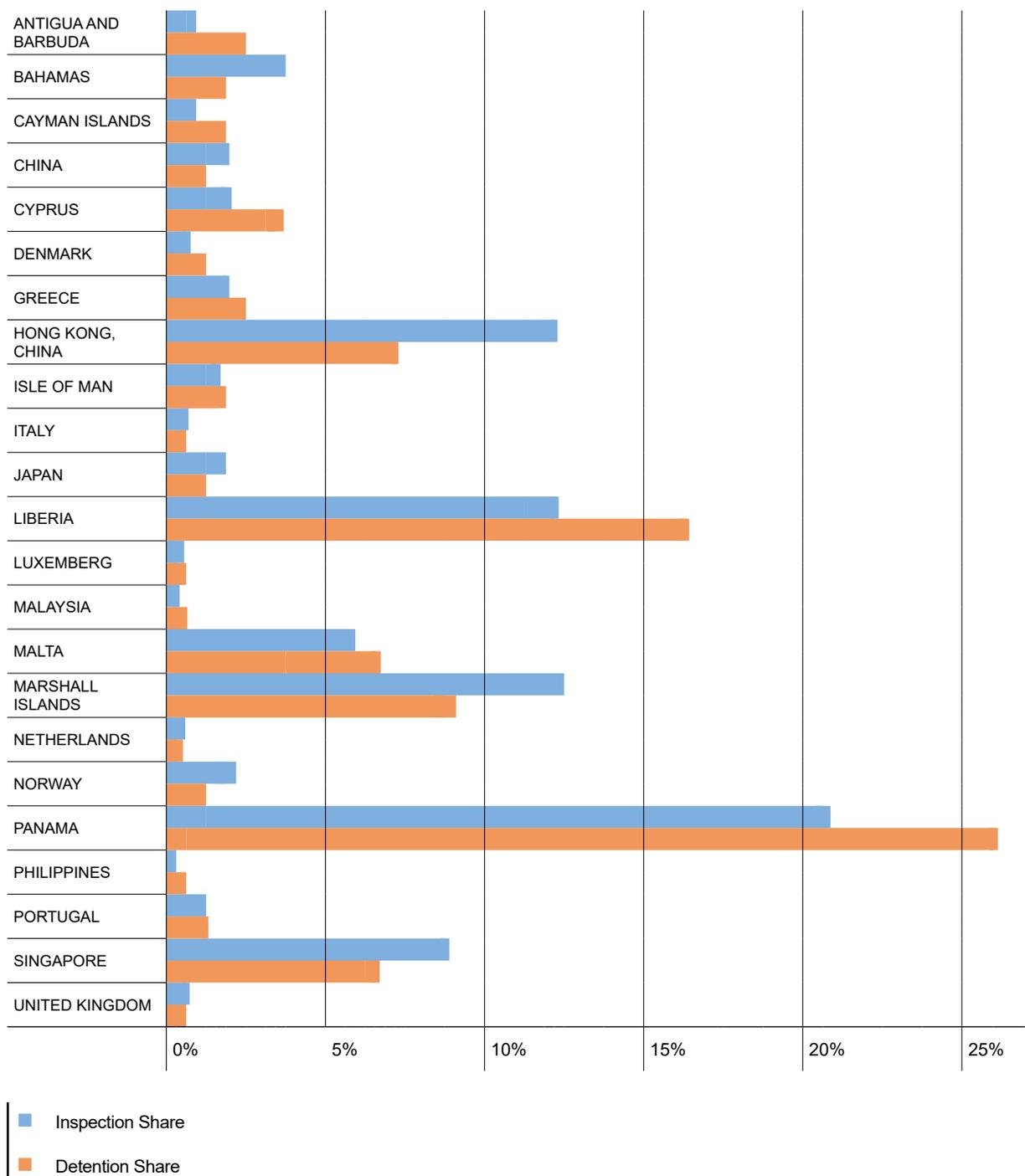
Table 15 – Inspections and detentions by flag State

Flag State	Inspections	Detentions	Detention rate
ANTIGUA AND BARBUDA	30	4	13.3%
BAHAMAS	119	3	2.5%
BARBADOS	1	0	0.0%
BELGIUM	3	0	0.0%
BERMUDA	17	0	0.0%
CAYMAN ISLANDS	29	3	10.3%
CHINA	63	2	3.2%
COOK ISLANDS	5	0	0.0%
CYPRUS	66	6	9.1%
DENMARK	24	2	8.3%
DOMINICA	1	0	0.0%
FRANCE	8	0	0.0%
GERMANY	4	0	0.0%
GIBRALTAR	2	0	0.0%
GREECE	63	4	6.3%
HONG KONG, CHINA	399	12	3.0%
INDIA	6	0	0.0%
ISLE OF MAN	54	3	5.6%
ITALY	24	1	4.2%
JAMAICA	2	1	50.0%
JAPAN	58	2	3.4%
KOREA (REPUBLIC OF)	37	0	0.0%
KUWAIT	4	0	0.0%
LIBERIA	401	27	6.7%
LIBYA	2	0	0.0%
LUXEMBOURG	16	1	6.3%

Flag State	Inspections	Detentions	Detention rate
MALAYSIA	12	1	8.3%
MALTA	191	11	5.8%
MARSHALL ISLANDS	405	15	3.7%
MONTENEGRO	1	1	100.0%
NETHERLANDS	22	1	4.5%
NEW ZEALAND	2	0	0.0%
NORWAY	70	2	2.9%
PANAMA	678	43	6.3%
PHILIPPINES	11	1	9.1%
PORTUGAL	38	2	5.3%
RUSSIAN FEDERATION	1	0	0.0%
SAUDI ARABIA	2	0	0.0%
SINGAPORE	289	11	3.8%
SPAIN	5	1	20.0%
SRI LANKA	1	0	0.0%
SWEDEN	7	0	0.0%
SWITZERLAND	1	0	0.0%
TAIWAN (PROVINCE OF CHINA)	9	1	11.1%
THAILAND	6	0	0.0%
TURKEY	3	0	0.0%
TUVALU	1	0	0.0%
UNITED KINGDOM	22	1	4.5%
UNITED STATES	2	0	0.0%
VANUATU	4	1	25.0%
<b>Total:</b>	<b>3222</b>	<b>163</b>	<b>5.1%</b>

Note: flag States above the average detention rate with more than 10 inspections are provided in red.

Figure 4 – Share of detentions compared to share of inspections



Note: a detailed breakdown of this graph can be found in the Appendix.

## Detention appeals and review processes

Vessel owners, operators, Recognised Organisations (RO)<sup>3</sup> and flag States all have the right to appeal against inspection outcomes and AMSA actively encourages these parties to appeal if they believe it is warranted. Appeals can be made through a number of different mechanisms and the master of a vessel is advised of their right to appeal at the conclusion of each PSC inspection.

Masters are advised that the initial avenue for review is through a direct approach to the Manager, Ship Inspection and Registration. This involves an examination of all information provided by the applicant and feedback from the attending AMSA marine surveyor to determine the merits of the case put forward. If an appellant is unsuccessful with this initial AMSA review, further appeal processes are available either by the flag State to the detention review panel of the Tokyo or Indian Ocean Memorandum of Understanding (MOU), or to the Australian Administrative Appeals Tribunal (AAT).

During 2019, AMSA received 27 appeals against vessel detention, with each undergoing a full review of all information provided. In one instance, upon review there was insufficient evidence to support the detention and the inspection was amended to remove the detainable deficiency.

AMSA received seven appeals from ROs challenging the assignment of RO responsibility during the inspection process. AMSA accepted four of these challenges upon review and amended the inspection record accordingly. The remainder were rejected.

There were no appeals lodged against AMSA inspections to the Detention Review Panel of either the Tokyo MOU, Indian Ocean MOU or the AAT during the reporting period.

A full list of ships AMSA detained in 2019, can be found on the AMSA website ([amsa.gov.au](http://amsa.gov.au)).

<sup>3</sup> RO can appeal the assignment of RO Responsibility for a detainable deficiency but not the detention itself.

## Recognised Organisation performance

The performance of Recognised Organisations (RO) in 2019, including inspections, deficiency rates, detention rates and the percentage of the detainable deficiencies that were allocated RO responsibility are recorded in Table 16. The table shows a relatively small proportion of detainable deficiencies assigned to ROs. However, the average in RO responsible detainable deficiencies increased from 4.3 per cent in 2018 to 5.0 per cent in 2019.

**Table 16 – Performance of Recognised Organisations**

Recognised Organisation	PSC inspection	Deficiencies	Detentions	Detention rate	Detainable deficiencies	RO responsible detainable deficiencies	RO responsible as share of all detainable deficiencies
American Bureau of Shipping (ABS)	410	440	15	3.7%	17	1	5.9%
Bureau Veritas (BV)	291	568	20	6.9%	25	0	0.0%
China Classification Society (CCS)	227	230	7	3.1%	8	0	0.0%
CR Classification Society (CR)	4	3	0	0.0%	0	0	0.0%
DNV GL AS (DNVGL)	546	959	29	5.3%	41	5	12.2%
Indian Register of Shipping (IRS)	1	10	0	0.0%	0	0	0.0%
Korean Register of Shipping (KRS)	167	296	6	3.6%	7	0	0.0%
Lloyd's Register (LR)	451	721	18	4.0%	18	2	11.1%
Nippon Kaiji Kyokai (NKK)	1025	1857	60	5.9%	86	3	3.5%
RINA Services SpA (RINA)	94	176	7	7.4%	13	0	0.0%
No class	6	21	1	16.7%	3	0	0.0%
<b>Totals:</b>	<b>3222</b>	<b>5281</b>	<b>163</b>	<b>5.1%</b>	<b>218</b>	<b>11</b>	<b>5.0%</b>

Note: the results for DNV and GL have been merged into DNV GL.

## Risk rating

AMSA continues to use a dynamic risk profiling system to assist in allocating inspection resources in the most effective manner. The risk factor does not mean the vessel is a high risk as such, it is simply a statistical tool to prioritise inspections. AMSA's risk calculation uses multiple criteria to categorise vessels into four priority groups, to calculate a risk factor for the 'probability of detention'. Each group has a specific target inspection rate as shown below.

**Table 17 – Target inspection rate**

Priority group	Risk factor (probability of detention)	Target inspection rate
Priority 1	6 or higher	80%
Priority 2	4 or 5	60%
Priority 3	2 or 3	40%
Priority 4	0 or 1	20%

The risk profile of ships visiting Australian ports shows an increase in unique arrivals of priority one, two and three ships and a decrease in the unique arrivals of priority four ships. This data, along with targeted inspection rates, as shown in Table 18, indicates that AMSA resources are being used in an effective manner and are achieving target inspection rates in all priority groups with an overall inspection rate of 45.5 per cent.

To provide a better measure of performance, Table 18 has been modified for the 2019 report to detail the number of inspections where no deficiencies were recorded. The data for 2018 indicates that 52.7% of all inspections (1541 inspections out of the 2922 undertaken) resulted in no deficiencies being issued. In 2019, the outcome was even better with 53.8% of all inspections (1732 inspections out of the 3222 undertaken) resulting in no deficiency being issued.

The fact that risk factor is not representative of the level of risk posed by all ships in a particular group represent is reflected in the proportion of vessel in P1 and P2 where no deficiencies were identified.

**Table 18 – Unique foreign-flagged ships – by priority group**

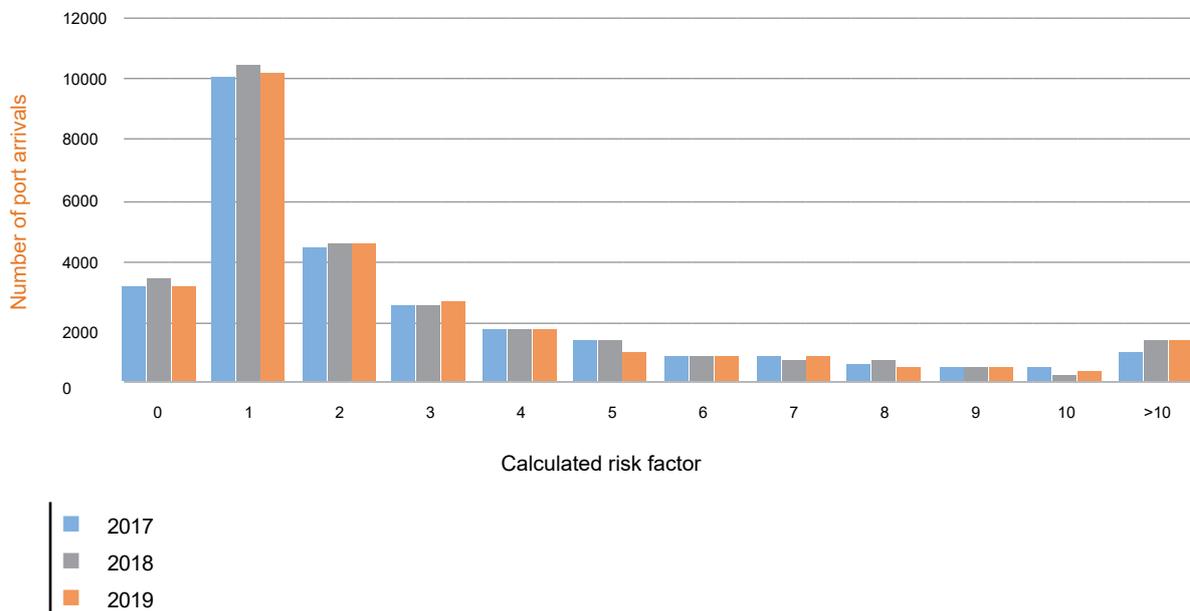
Inspection priority	Ship arrivals		Eligible ships		Ships inspected		Inspection rate		Inspections with no deficiencies	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
<b>Priority 1</b>	599	631	448	431	420	393	93.8%	91.4%	225 43.7%	194 39.7%
<b>Priority 2</b>	619	660	443	453	311	329	70.2%	72.6%	163 49.2%	164 46.1%
<b>Priority 3</b>	1860	2022	1582	1686	747	845	47.2%	50.1%	435 54.6%	467 51.4%
<b>Priority 4</b>	4004	3939	3931	3883	1245	1366	31.7%	35.2%	718 56.1%	907 61.8%
<b>Totals:</b>	<b>7082</b>	<b>7252</b>	<b>6404</b>	<b>6453</b>	<b>2727</b>	<b>2933</b>	<b>42.6%</b>	<b>45.5%</b>	1541 52.7%	1732 53.8%

Note: ship numbers may not match if a vessel arrives multiple times over the year and the priority changes.

**Table 19 – Number of deficiencies by vessel Priority Group**

Priority group	2018		2019	
	Deficiencies	Deficiencies per inspection	Deficiencies	Deficiencies per inspection
Priority 1	1186	2.3	1285	2.6
Priority 2	675	2.0	704	2.0
Priority 3	1415	1.8	1580	1.7
Priority 4	2044	1.6	1712	1.2
<b>Totals</b>	<b>5320</b>	<b>1.8</b>	<b>5281</b>	<b>1.6</b>

**Figure 5 – Risk factor (RF) of arrivals – foreign-flagged ships**



It is evident that the number of vessels, of all risk factors, remained relatively consistent in 2019, compared with the results in 2018.



 **KEEP CLEAR 30m**



# How it works

## Flag State control (FSC)

AMSA surveyors conduct inspections on Australian-flagged vessels subject to the *Navigation Act 2012* using the same targeting arrangements applied to foreign-flagged vessels.

AMSA conducted 72 FSC inspections on 60 Australian-flagged vessels during 2019, resulting in 174 deficiencies being recorded, 25 of which were detainable deficiencies resulting in the detention of three vessels. This represents an increase in the average number of deficiencies per inspection from 1.83 in 2018 to 2.42 in 2019, which is above the average recorded for foreign flagged ships during the same period.

The number of FSC detentions increased to three in 2019, from one in 2018. This equated to a detention rate of 4.2 per cent which is below the average recorded for foreign-flagged ships during the same period.

## Port State control – Australian-flagged ships (overseas)

Australian-flagged ships calling at foreign ports were subject to a total of 11 PSC inspections by foreign maritime authorities, resulting in eight deficiencies and no detentions.

## Concentrated inspection campaign

From 1 September 2019 to 30 November 2019, AMSA participated in a concentrated inspection campaign (CIC) on MARPOL Annex VI. This was aimed at verifying compliance with Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL). Over this three-month period, AMSA conducted a total of 479 inspections covering CIC verification. No detentions were recorded as a result of the CIC.

## Refusal of a ship's access and condition of entry

Australia is a signatory to various International Maritime Organization (IMO) and International Labour Organization (ILO) conventions which aim to ensure ships are safe.

Vessels that are not operated and managed to meet applicable minimum standards and relevant Australian laws pose an increased risk to seafarers, vessels and the environment. The *Navigation Act 2012* provides additional powers that allow AMSA to consider issuing a direction, refusing access to Australian ports, where a vessel is a repeated offender, has a poor PSC record, or there are concerns about the performance of the vessel operator.

AMSA can issue a vessel with a direction not to enter or use an Australian port (or ports) for a set period of time, as deemed necessary. When considering vessel performance, AMSA also looks at the performance of the entire company responsible for the operations of the vessel. Where the company's performance is also deemed to be unacceptable, the periods for which the vessel is not permitted to enter an Australian port may be extended. A direction resulting from a detention will generally take effect as soon as the vessel leaves the Australian port or anchorage following rectification of the detainable deficiency.

Table 20 lists the vessels issued with directions not to enter or use an Australian port in 2019.

**Table 20 – Vessels issued with directions**

Vessel name (IMO number)	Flag	Direction	Issue date	Expiry
<i>Fortune Genius</i> (9221877)	Panama	Refused access for 12 months	13/09/2019	13/09/2020
<i>Xing Jing Hai</i> (9728344)	Panama	Refused access for 18 months	13/09/2019	14/03/2021

## High performing operators

When considering vessel performance AMSA also consider the performance of the operator in respect of the detention and deficiency rates of the ships they operate. For this report, and in subsequent reports, AMSA will identify those operators that are considered to be high performing. This is assessed on the following basis:

- At least 10 inspections during the year (less than 10 is not statistically significant)
- No detentions during the year
- A deficiency rate at no more than 70% of the average deficiency rate for the year.

Applying this criteria to data for 2019 AMSA identified 21 high performing operators as listed in Table 21 below.

**Table 21 – High performing operators 2019**

ISM company name	PSC Inspections	Deficiency Rate
Nanjing Tanker Corp	17	0.1
BP Shipping Limited	16	0.3
MOL Ship Management Co., Ltd.	12	0.3
Ocean Longevity Shipping & Management Co Ltd	11	0.3
Dockendale Ship Management DMC Co	14	0.3
Wilhelmsen Ship Management AS	13	0.3
MOL Ship Management (Singapore) Pte Ltd	13	0.4
COSCO Bulk Carrier Co Ltd (COSCO BULK)	48	0.4
MOL LNG Transport Co Ltd	12	0.4
Anglo-Eastern (Antwerp) NV	11	0.5
U-Ming Marine (Xiamen) Int	10	0.5
Orient Overseas Container Line Ltd (OOCL)	13	0.6
Toyo Sangyo Co Ltd (Toyo Sangyo KK)	22	0.6
Alpha Bulkers Shipmanagement Inc.	18	0.7
Bernhard Schulte Shipmanagement (Singapore) Pte Ltd	15	0.7
Hoegh Wallem Ship Management Inc	15	0.7
Anglo-Eastern Maritime Services Pte Ltd	11	0.7
Bernhard Schulte Shipmanagement (Hong Kong) Ltd	20	0.8
Sinotrans Ship Management Limited	10	0.8
H-Line Shipping Co Ltd S.Korea	12	0.9
Hachiuma Steamship Co Ltd (Hachiuma Kisen KK)	15	1.1

# Appendix

## Share of detentions compared to share of inspections

In 2019, detentions occurred in 5.1 per cent of all inspections, and the rate of deficiencies per inspection was 1.6.

Flag State	Number of PSC inspections	Deficiencies	Deficiencies per PSC inspection	Detained	Detention rate	PSC share	Detention share
ANTIGUA AND BARBUDA	30	103	3.43	4	13.33%	0.93%	2.45%
BAHAMAS	119	154	1.29	3	2.52%	3.69%	1.84%
BERMUDA	17	24	1.41	0	0.00%	0.53%	0.00%
CAYMAN ISLANDS	29	49	1.69	3	10.34%	0.90%	1.84%
CHINA	63	84	1.33	2	3.17%	1.96%	1.23%
CYPRUS	66	119	1.80	6	9.09%	2.05%	3.68%
DENMARK	24	44	1.83	2	8.33%	0.74%	1.23%
GREECE	63	47	0.75	4	6.35%	1.96%	2.45%
HONG KONG, CHINA	399	463	1.16	12	3.01%	12.38%	7.36%
ISLE OF MAN	54	70	1.30	3	5.56%	1.68%	1.84%
ITALY	24	49	2.04	1	4.17%	0.74%	0.61%
JAPAN	58	52	0.90	2	3.45%	1.80%	1.23%
KOREA (REPUBLIC OF)	37	59	1.59	0	0.00%	1.15%	0.00%
LIBERIA	401	698	1.74	27	6.73%	12.45%	16.56%
LUXEMBOURG	16	19	1.19	1	6.25%	0.50%	0.61%
MALAYSIA	12	4	0.33	1	8.33%	0.37%	0.61%
MALTA	191	243	1.27	11	5.76%	5.93%	6.75%
MARSHALL ISLANDS	405	687	1.70	15	3.70%	12.57%	9.20%
NETHERLANDS	22	38	1.73	1	4.55%	0.68%	0.61%
NORWAY	70	98	1.40	2	2.86%	2.17%	1.23%
PANAMA	678	1428	2.11	43	6.34%	21.04%	26.38%
PHILIPPINES	11	41	3.73	1	9.09%	0.34%	0.61%
PORTUGAL	42	74	1.76	3	7.14%	1.30%	1.84%
SINGAPORE	289	435	1.51	11	3.81%	8.97%	6.75%
UNITED KINGDOM	22	40	1.82	1	4.55%	0.68%	0.61%
<b>Total</b>	<b>3142</b>	<b>5122</b>		<b>159</b>			

Note: this table only covers flag States with 10 or more inspections.





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2019

Port State Control

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