



Australian Government  
Australian Maritime Safety Authority

# Port State Control Australia

2021 Report





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

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# **Port State control Australia—2021 Annual 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. 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 2021 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 compliance and enforcement functions, 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 ships 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 delivers current information to stakeholders 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.

## Office locations





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This report and [AMSA detention data available online](#) .

# Year in review

## Introduction

Despite a full year of COVID-19 restrictions, AMSA inspectors undertook 2,820 PSC inspections during 2021, a 6.65 per cent drop in the inspection rate from 2020 (3,021 PSC inspections). This was due to the continuation of procedures put in place in 2020 to protect both inspectors and crew from possible transmission of COVID-19 infection during inspections.

The PSC inspection results for 2021 saw a slight decrease in the detention rate of ships from 5.9 per cent in 2020 to 5.6 per cent (the peak in 2011 was 9.2 per cent).

The average deficiency rate remained relatively constant, increasing slightly from 2.1 deficiencies per inspection in 2020 to 2.2 deficiencies per inspection in 2021.

As noted in previous reports, from 2013 onwards, ships and operators with a record of poor performance can be refused access from entering or using Australian ports through a direction issued under section 246 of the *Navigation Act 2012*<sup>1</sup>. In 2021, AMSA refused access to four ships for periods ranging from six to 36 months. Three of these directions were issued in response to significant breaches of the *International Convention for the Safety of Life at Sea (SOLAS)* and *Maritime Labour Convention, 2006 (MLC)*.

This report includes basic MLC PSC statistics for comparison between deficiency and detention categories, however AMSA publishes a standalone MLC annual report which is available on the AMSA website.

## 2021 summary of PSC activity

- During the calendar year there were:
  - 26,400 ship arrivals by 6,170 foreign-flagged ships
  - 2,820 PSC inspections
  - 159 ship detentions.
- Bulk carriers accounted for 56.1 per cent of ship arrivals and 60.7 per cent of PSC inspections.
- PSC inspections were carried out at 53 Australian ports.
- The average gross tonnage per visit was 54,015 GT compared to 54,318 GT in 2020.
- The average age of ships calling Australian ports remained at 11 years, the same as 2020.

## 10-year summary of inspection, detention and deficiency rates

|                                    | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Total inspections</b>           | 3,179 | 3,342 | 3,742 | 4,050 | 3,675 | 3,128 | 2,922 | 3,222 | 3,021 | 2,820 |
| <b>Total detentions</b>            | 210   | 233   | 269   | 242   | 246   | 165   | 161   | 163   | 178   | 159   |
| <b>Detention %</b>                 | 6.6   | 7.0   | 7.2   | 6.0   | 6.7   | 5.3   | 5.5   | 5.1   | 5.9   | 5.6   |
| <b>Deficiencies per inspection</b> | 2.4   | 2.4   | 2.9   | 2.3   | 2.4   | 2.3   | 1.8   | 1.6   | 2.1   | 2.2   |

## Snapshot comparison to previous year

|                        |   | 2020   | 2021   | When compared to 2020 |                      |
|------------------------|---|--------|--------|-----------------------|----------------------|
| <b>Arrivals</b>        | Total arrivals                              | 26,179 | 26,400 | +0.8%                 | (an increase of 221) |
|                        | Individual ships which made those arrivals  | 6,081  | 6,170  | +1.4%                 | (an increase of 89)  |
|                        | Ships eligible for PSC inspection           | 5,877  | 5,995  | +2.0%                 | (an increase of 118) |
| <b>PSC inspections</b> | Total PSC inspections                       | 3,021  | 2,820  | -7.1%                 | (a decrease of 201)  |
|                        | Total PSC inspections - by individual ships | 2,764  | 2,567  | -7.7%                 | (a decrease of 197)  |
|                        | Inspection rate of eligible ships %         | 47%    | 42.8%  | -4.2%                 | (a decrease of 4.2%) |
|                        | Total deficiencies                          | 6,387  | 6,242  | -2.3%                 | (a decrease of 145)  |
| <b>Deficiencies</b>    | Total detainable deficiencies               | 270    | 221    | -22.2%                | (a decrease of 49)   |
|                        | Rate of deficiencies per inspection         | 2.1    | 2.2    | +4.5%                 | (an increase of 0.1) |
| <b>Detentions</b>      | Total detentions                            | 178    | 159    | -11.9%                | a decrease of 19)    |
|                        | Detentions as a % of total inspections      | 5.9%   | 5.6%   | -0.3%                 | (a decrease of 0.3%) |

## Key points

- In 2021, the number of foreign-flagged ship arrivals increased by 221 (0.8 per cent) to 26,400. The number of arrivals by individual ships increased by 89 to 6,170 (1.4 per cent).
- The number of initial PSC inspections conducted during 2021 decreased by 201 (7.1 per cent) to 2820.
- The overall number of deficiencies decreased to 6,242 in 2021, compared to 6,387 in 2020.
- The average number of deficiencies per inspection increased slightly to 2.2 in 2021, compared to 2.1 in 2020.
- The number of detainable deficiencies decreased to 221 in 2021, compared to 270 in 2020. The largest contributor to this was ISM detainable deficiencies despite decreasing to 53 in 2021, compared to 76 in 2020.
- The number of detained ships decreased to 159 in 2021, compared to 178 in 2020. The detention per inspection rate decreased to 5.6 per cent in 2021, compared to 5.9 per cent in 2020.

The quality of ships coming to Australia continues to be of a high standard with the deficiency per inspection rate in 2021 remaining relatively low at 2.2 compared to 2.1 in 2020. Australia's port State control regime continues to deliver the desired outcome of improved safety and exerts a positive influence on the quality of ships arriving in Australia.

## Top five PSC inspections by flag State 2021

|   |                                    |
|---|------------------------------------|
| <p>There were 2820 foreign-flagged ships inspected in 2021.<br/>The top five flag States accounted for 72% of all inspections (2027 inspections).</p> | Flag State (number of inspections) |
|   | Panama (624) 22.1%                 |
|   | Marshall Islands (429) 15.2%       |
|   | Liberia (378) 13.4%                |
|   | Hong Kong (358) 12.7%              |
|   | Singapore (238) 8.4%               |

## Top five PSC detention rates by flag State 2021



|   |  |
|---|--|
| There was a total of 159 foreign-flag ship detentions in 2021. The average detention rate for all ships was 5.9%. | Flag State (Detention Rate %)          |
|   | 1. Antigua and Barbuda – 11.1%         |
|   | 2. Denmark – 10.0%                     |
|   | 3. Taiwan, (Province of China) – 10.0% |
|   | 4. Thailand – 10.0%                    |
|   | 5. Portugal – 8.8%                     |

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

## Trends from 2021

As observed in past PSC annual reports, the most frequent cause of detention since 2010 relates to ineffective implementation of the safety management system (SMS) as required by the *International Safety Management (ISM) Code*. In 2021 the number of ISM detainable deficiencies decreased to 53 (occurring in 1.9% of PSC inspections) compared to 76 in 2020 (occurring in 2.5% of PSC inspections). The rate of structural and equipment deficiencies per inspection remained substantial at 1.1, the same as in 2020 and an increase from 0.9 in 2019. This continues to highlight that maintenance issues are not being addressed by the ship's SMS as implemented onboard. This is likely to be related to a combination of factors including:

- Ongoing difficulties, as reported by operators, with conducting shore-based maintenance due to COVID-19 restrictions. Operators also reported difficulty in superintendents not being able to visit their ships due to COVID-19 restrictions, which affected their ability to conduct on-board SMS audits.
  - While AMSA acknowledges the effects of COVID-19 on shipping operations, AMSA considers that there has been sufficient time for operators to adapt their processes taking into account the effects of COVID-19.

Life-saving appliances (14.5 per cent), fire safety (13.6 per cent), and emergency systems (12.2 per cent) again appeared in the top five categories of detainable deficiencies. These three categories have been in the top five since 2014.

Water/weather-tight deficiencies remained in the top five detainable deficiencies and increased slightly to 9.0 percent from 8.1 percent in 2020.

## Top five detainable deficiencies 2019-2021

| 2019                          | 2020                          | 2021                          |
|-------------------------------|-------------------------------|-------------------------------|
| ISM – 23.9%                   | ISM – 28.1%                   | ISM – 24.0%                   |
| Fire safety – 17.4%           | Fire safety – 13.7%           | Lifesaving appliances – 14.5% |
| Emergency systems – 16.5%     | Lifesaving appliances – 13.7% | Fire safety – 13.6%           |
| Lifesaving appliances – 14.7% | Emergency systems – 13.0%     | Emergency systems – 12.2%     |
| Pollution prevention – 11.5%  | Water/weather-tight – 8.1%    | Water/weather-tight – 9.0%    |

In 2021, AMSA continued its work with flag States and ship owners to increase awareness of factors that may impact PSC performance. AMSA is also working jointly with flag States to bring ships into compliance. This includes assisting flag States to access ships in Australian ports to conduct their inspections. More information on this process is available at the [flag State administration webpage](#) .

## Summary of shipping industry activity 2021

In 2021, iron ore and coal were again the largest bulk exports by value from Australia followed by gas<sup>2</sup>.

The average gross tonnage of visiting ships decreased slightly in 2021 and the number of the port visits increased.

The main trends in 2021 were:

- Foreign-flagged ship port visits totalled 26,400 in 2021, an increase of 0.8% from 2020. The number of individual ships that made these port calls increased slightly to 6,170, an increase of 89 (1.4 per cent) compared to 6,081 in 2020.
- Bulk carrier port arrivals (14,814) increased by 3.2 per cent in 2021 compared to 2020 (14,355) and accounted for 56.1 per cent of foreign-flagged ship port arrivals.
- Arrivals increased by 19.6 per cent for vehicle carriers and 12.0 per cent for general cargo ships. Arrivals decreased by 19.9 per cent for livestock carriers and 11.9 per cent for chemical tankers.
- Arrivals of passenger ships dropped from 536 vessels in 2020 to 34 vessels in 2021, due to COVID-19.
- Foreign-flagged shipping activity remains geographically disparate between Australian ports. Port Hedland remains the busiest Australian port for foreign ship visits, accounting for 12.3 per cent of arrivals in Australia. The top five ports of Port Hedland, Newcastle, Brisbane, Gladstone and Melbourne accounted for 43.6 per cent of arrivals in Australia.
- The size of visiting ships decreased slightly with the average gross tonnage reducing to 54,015 GT in 2021 compared to 54,318 GT in 2020. The average age of foreign ships arriving in Australian ports has increased slightly to 11.3 years in 2021.
- The number of ship visits across inspection priority groups P1 and P2 remained similar to 2020 while P3 visits decreased by 4 per cent and P4 visits increased by 4 per cent. 76 per cent of arrivals were in the lower priority groups of P3 and P4. This reflects the average age of ships arriving in Australia being lower than the world average.<sup>3</sup>

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

| Priority*    | 2019             |               | 2020             |               | 2021             |               |
|--------------|------------------|---------------|------------------|---------------|------------------|---------------|
|              | Number of visits | Fleet share   | Number of visits | Fleet share   | Number of visits | Fleet share   |
| P1           | 4,632            | 16.2%         | 3,831            | 14.6%         | 3,814            | 14.5%         |
| P2           | 2,900            | 10.1%         | 2,593            | 9.9%          | 2,643            | 10.0%         |
| P3           | 7,407            | 25.9%         | 7,150            | 27.3%         | 6,874            | 26.0%         |
| P4           | 13,645           | 47.7%         | 12,605           | 48.1%         | 13,069           | 49.5%         |
| <b>Total</b> | <b>28,547</b>    | <b>100.0%</b> | <b>26,179</b>    | <b>100.0%</b> | <b>26,400</b>    | <b>100.0%</b> |

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

## Footnotes

<sup>1</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 ships from Australian ports.

<sup>2</sup> Based on [ABS trade data - 5368.0 International Trade in Goods and Services, Australia, Table 12b](#)

<sup>3</sup> Based on [Statista Research Department data](#)

# Analysis of 2021 inspection results

## Arrivals

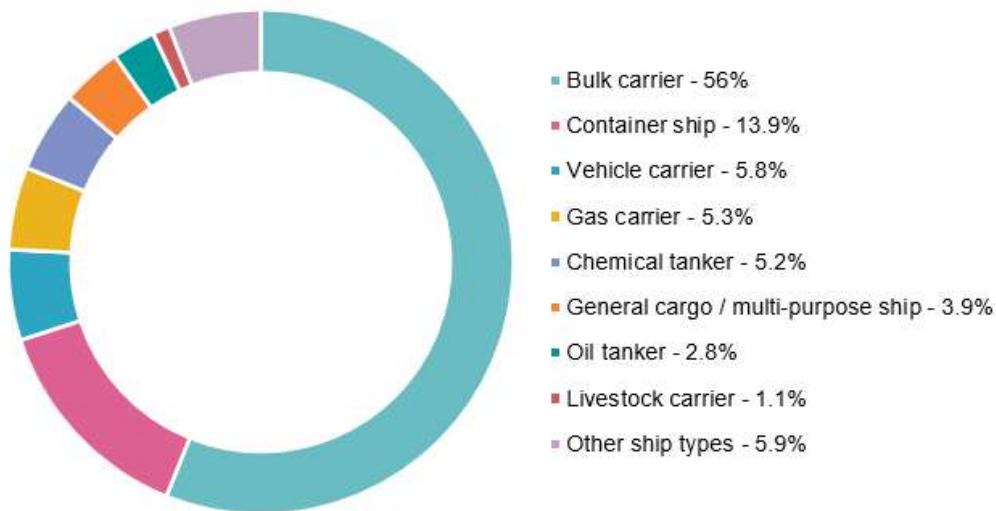
AMSA conducted PSC inspections at 53 out of the 74 ports visited by foreign ships across Australia in 2021. As shown in the table below, arrivals were not distributed evenly across the ports visited, with 42 per cent of all arrivals occurring at the top five ports.

### Ship arrivals in Australian ports for 2021

|  |                                  |
|--|----------------------------------|
| Total of 26,400 ship arrivals at Australian ports during 2021. | <b>Arrivals - top five ports</b> |
|  | 1. Port Hedland 3,238 (12.3%)    |
|  | 2. Newcastle 2,358 (8.9%)        |
|  | 3. Brisbane 2,207 (8.4%)         |
|  | 4. Gladstone 1,915 (7.3%)        |
|  | 5. Melbourne 1,790 (6.8%)        |

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

**Figure 1 - 2021 Port arrivals by ship type**



**Table 2 - Ship arrivals by ship type in 2021 compared to 2020**

| Ship type                    | 2020          | 2022          | Change      |
|------------------------------|---------------|---------------|-------------|
| Bulk carrier                 | 14,355        | 14,814        | 3.2%        |
| Chemical tanker              | 1,555         | 1,370         | -11.9%      |
| Container ship               | 3,698         | 3,675         | -0.6%       |
| Gas carrier                  | 1,474         | 1,406         | -4.6%       |
| General cargo/ multi-purpose | 927           | 1,038         | 12.0%       |
| Livestock carrier            | 351           | 281           | -19.9%      |
| Oil tanker                   | 757           | 733           | -3.2%       |
| Vehicle carrier              | 1,274         | 1,524         | 19.6%       |
| Other                        | 1,847         | 1,559         | -15.6%      |
| <b>Total arrivals</b>        | <b>26,179</b> | <b>26,400</b> | <b>8.4%</b> |

### Inspections by ship type

In 2021, AMSA inspectors carried out 2,820 initial PSC inspections and 1,455 follow up inspections. AMSA inspectors are now able to conduct remote follow up inspections in accordance with Tokyo Memorandum of Understanding guidelines, 35 of the follow up inspections in 2021 were conducted remotely.

### PSC inspections by ship type

|  |   |
|--|---|
| AMSA conducted 2820 PSC inspections in 2021. | <b>2021 top five ship types</b>             |
|  | 1. Bulk carrier – 1,712 (60.7%)             |
|  | 2. Container ships – 238 (8.4%)             |
|  | 3. Chemical tanker – 191 (6.8%)             |
|  | 4. General Cargo/multi-purpose – 156 (5.5%) |
|  | 5. Oil tankers 124 – (4.4%)                 |

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

| Ship type                         | 2017         | 2018         | 2019         | 2020         | 2021         |
|-----------------------------------|--------------|--------------|--------------|--------------|--------------|
| Bulk carrier                      | 1,732        | 1,585        | 1,826        | 1,840        | 1,712        |
| Chemical tanker                   | 181          | 179          | 201          | 235          | 191          |
| Combination carrier               | 1            | 0            | 0            | 1            | 4            |
| Commercial yacht                  | 1            | 0            | 0            | 0            | 1            |
| Container ship                    | 297          | 311          | 327          | 263          | 238          |
| Gas carrier                       | 52           | 53           | 77           | 55           | 24           |
| General cargo/ multi-purpose ship | 184          | 154          | 129          | 135          | 156          |
| Heavy load carrier                | 19           | 30           | 40           | 36           | 27           |
| High speed passenger craft        | 0            | 0            | 0            | 0            | 0            |
| Livestock carrier                 | 49           | 52           | 56           | 29           | 36           |
| MODU or FPSO                      | 2            | 0            | 0            | 0            | 0            |
| NLS tanker                        | 27           | 25           | 30           | 31           | 27           |
| Offshore service vessel           | 17           | 19           | 12           | 15           | 10           |
| Oil tanker                        | 194          | 155          | 168          | 126          | 124          |
| Oil tanker/ chemical tanker       | 0            | 0            | 0            | 2            | 16           |
| Oil Tanker/ NLS Tanker            | 0            | 0            | 0            | 0            | 1            |
| Other types of ship               | 29           | 14           | 21           | 18           | 26           |
| Passenger ship                    | 47           | 55           | 56           | 23           | 2            |
| Refrigerated cargo ship           | 2            | 3            | 2            | 1            | 4            |
| Ro-ro cargo ship                  | 6            | 2            | 9            | 2            | 4            |
| Ro-ro passenger ship              | 0            | 1            | 0            | 1            | 0            |
| Special purpose ship              | 8            | 7            | 10           | 8            | 5            |
| Tugboat                           | 28           | 30           | 24           | 26           | 18           |
| Vehicle carrier                   | 180          | 181          | 172          | 122          | 129          |
| Wood-chip carrier                 | 72           | 66           | 62           | 52           | 65           |
| <b>Totals</b>                     | <b>3,128</b> | <b>2,922</b> | <b>3,222</b> | <b>3,021</b> | <b>2,820</b> |

Table 3 shows the number of inspections by ship type from 2017 to 2021.

### Inspection by location

Of the 53 ports where inspections were conducted, the top five ports accounted for 43.6% per cent of the 2,820 initial PSC inspections undertaken as shown in Table 4.

#### Table 4 - PSC inspections 2021 top 15 locations

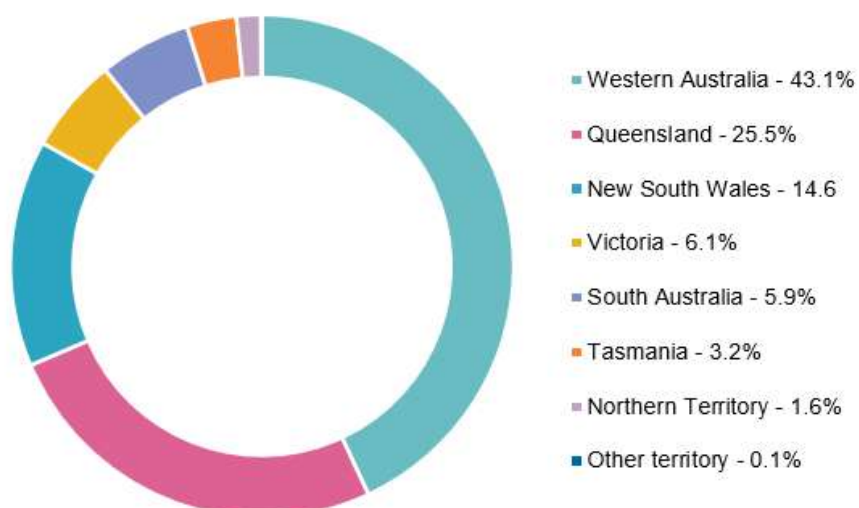
|               | 2017 | 2018 | 2019 | 2020 | 2021 | % of total in 2021 |
|---------------|------|------|------|------|------|--------------------|
| Port Hedland  | 311  | 441  | 694  | 497  | 536  | 19.0%              |
| Fremantle     | 416  | 410  | 382  | 312  | 280  | 9.9%               |
| Brisbane      | 278  | 238  | 249  | 248  | 249  | 8.8%               |
| Sydney        | 205  | 190  | 282  | 249  | 174  | 6.2%               |
| Gladstone     | 206  | 181  | 147  | 214  | 164  | 5.8%               |
| Newcastle     | 316  | 212  | 207  | 235  | 163  | 5.8%               |
| Dampier       | 187  | 156  | 159  | 175  | 155  | 5.5%               |
| Port Adelaide | 88   | 99   | 56   | 109  | 132  | 4.7%               |
| Melbourne     | 156  | 156  | 151  | 104  | 130  | 4.6%               |
| Hay Point     | 180  | 155  | 184  | 157  | 124  | 4.4%               |
| Geraldton     | 94   | 83   | 100  | 74   | 90   | 3.2%               |
| Bunbury       | 32   | 33   | 31   | 58   | 87   | 3.1%               |
| Port Kembla   | 83   | 49   | 43   | 62   | 74   | 2.6%               |
| Townsville    | 100  | 81   | 75   | 75   | 63   | 2.2%               |
| Port Walcott  | 96   | 110  | 137  | 58   | 45   | 1.6%               |
| Bell Bay      | 43   | 41   | 40   | 35   | 45   | 1.6%               |

As in previous years, in 2021 the greatest numbers of PSC initial inspections were undertaken in Western Australia, followed by Queensland and New South Wales. Inspections by state are shown in Table 5.

**Table 5 - PSC inspections in 2021 by state/territory**

| State/territory                                   | PSC inspections |
|---|-----------------|
| Western Australia                                 | 1214            |
| Queensland  | 720             |
| New South Wales                                   | 411             |
| Victoria  | 173             |
| South Australia                                   | 166             |
| Tasmania  | 90              |
| Northern Territory                                | 44              |
| Other Territory (Christmas Island, Cocos Keeling) | 2               |
| <b>Total</b>                                      | <b>2820</b>     |

**Figure 2 - PSC inspections in 2021 by state/territory**



## Inspections by flag State

In 2021, Panama remained the flag State with the largest number of ships inspected by AMSA, with 624 Panamanian ships (22 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, Liberia, Marshall Islands, Hong Kong China and Singapore accounted for 72 per cent of all PSC inspections in 2021. The top 12 flags, as listed in Table 6, accounted for 2,505 inspections, or 89 per cent of all inspections.

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

**Table 6 – PSC inspections by top 12 flag States in 2021**

| Top 12 flag States | 2017      | 2018      | 2019      | 2020 | 2021 |
|--------------------|-----------|-----------|-----------|------|------|
| PANAMA             | 763       | 622       | 678       | 703  | 624  |
| MARSHALL ISLANDS   | 337       | 377       | 405       | 397  | 429  |
| LIBERIA            | 304       | 340       | 401       | 399  | 378  |
| HONG KONG, CHINA   | 311       | 306       | 399       | 330  | 358  |
| SINGAPORE          | 326       | 292       | 289       | 295  | 238  |
| MALTA              | 210       | 186       | 191       | 184  | 143  |
| BAHAMAS            | 121       | 97        | 119       | 114  | 89   |
| CYPRUS             | 73        | 63        | 66        | 54   | 57   |
| NORWAY             | 55        | 53        | 70        | 55   | 56   |
| JAPAN              | 60        | 54        | 58        | 66   | 49   |
| GREECE             | <b>49</b> | 60        | 63        | 47   | 42   |
| ISLE OF MAN        | <b>52</b> | <b>54</b> | <b>54</b> | 40   | 42   |

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

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



| Flag State                 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------------------|------|------|------|------|------|
| ANTIGUA & BARBUDA          | 44   | 31   | 30   | 37   | 36   |
| BAHAMAS                    | 121  | 98   | 119  | 114  | 89   |
| BANGLADESH                 | 0    | 0    | 0    | 0    | 1    |
| BARBADOS                   | 3    | 5    | 1    | 2    | 1    |
| BELGIUM                    | 3    | 8    | 3    | 12   | 3    |
| BELIZE                     | 0    | 1    | 0    | 0    | 0    |
| BERMUDA                    | 15   | 11   | 17   | 7    | 3    |
| BRUNEI DARUSSALAM          | 1    | 1    | 0    | 0    | 0    |
| CAYMAN ISLANDS             | 34   | 32   | 29   | 29   | 25   |
| CHINA                      | 53   | 46   | 63   | 36   | 41   |
| COMOROS                    | 1    | 0    | 0    | 0    | 0    |
| COOK ISLANDS               | 7    | 5    | 5    | 8    | 9    |
| CROATIA                    | 5    | 3    | 0    | 1    | 1    |
| CYPRUS                     | 73   | 63   | 66   | 54   | 57   |
| DENMARK                    | 16   | 12   | 24   | 12   | 10   |
| DOMINICA                   | 0    | 0    | 1    | 0    | 0    |
| EGYPT                      | 0    | 1    | 0    | 0    | 0    |
| FIJI                       | 4    | 2    | 0    | 0    | 0    |
| FRANCE                     | 8    | 3    | 8    | 3    | 0    |
| GERMANY                    | 9    | 6    | 4    | 1    | 3    |
| GIBRALTAR                  | 4    | 7    | 2    | 2    | 3    |
| GREECE                     | 49   | 60   | 63   | 47   | 42   |
| HONG KONG, CHINA           | 312  | 306  | 399  | 330  | 358  |
| INDIA                      | 9    | 11   | 6    | 5    | 7    |
| INDONESIA                  | 0    | 2    | 0    | 0    | 1    |
| IRAN (ISLAMIC REPUBLIC OF) | 1    | 0    | 0    | 0    | 0    |
| ISLE OF MAN                | 52   | 54   | 54   | 40   | 42   |
| ITALY                      | 16   | 21   | 24   | 20   | 9    |
| JAMAICA                    | 0    | 0    | 2    | 0    | 1    |
| JAPAN                      | 60   | 55   | 58   | 66   | 49   |
| KOREA (THE REPUBLIC OF)    | 48   | 36   | 37   | 27   | 23   |
| KUWAIT                     | 4    | 4    | 4    | 3    | 3    |
| LIBERIA                    | 304  | 340  | 401  | 399  | 378  |
| LIBYA                      | 0    | 1    | 2    | 0    | 1    |
| LUXEMBOURG                 | 7    | 5    | 16   | 5    | 8    |
| MALAYSIA                   | 8    | 10   | 12   | 8    | 6    |
| MALTA                      | 210  | 186  | 191  | 184  | 143  |
| MARSHALL ISLANDS           | 337  | 377  | 405  | 397  | 429  |
| MONTENEGRO                 | 0    | 0    | 0    | 0    | 1    |
| NETHERLANDS                | 20   | 18   | 22   | 23   | 14   |
| NEW ZEALAND                | 3    | 3    | 2    | 1    | 2    |
| NORWAY                     | 55   | 52   | 70   | 55   | 56   |
| PAKISTAN                   | 1    | 0    | 0    | 1    | 0    |
|                            |      |      |      |      |      |

|                                  |             |             |             |             |             |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| PANAMA                           | 761         | 621         | 678         | 703         | 624         |
| PAPUA NEW GUINEA                 | 7           | 4           | 0           | 1           | 0           |
| PHILIPPINES                      | 19          | 23          | 11          | 9           | 7           |
| PORTUGAL                         | 31          | 43          | 42          | 35          | 34          |
| QATAR                            | 0           | 2           | 0           | 5           | 3           |
| RUSSIAN FEDERATION               | 0           | 0           | 1           | 0           | 0           |
| SAINT VINCENT AND THE GRENADINES | 4           | 2           | 0           | 0           | 1           |
| SAMOA                            | 0           | 0           | 0           | 0           | 1           |
| SAUDI ARABIA                     | 1           | 0           | 2           | 0           | 0           |
| SINGAPORE                        | 328         | 292         | 289         | 295         | 238         |
| SOUTH AFRICA                     | 0           | 0           | 0           | 0           | 1           |
| SPAIN                            | 0           | 1           | 2           | 1           | 0           |
| SRI LANKA                        | 1           | 0           | 1           | 0           | 1           |
| SWEDEN                           | 10          | 7           | 7           | 2           | 6           |
| SWITZERLAND                      | 7           | 5           | 1           | 1           | 1           |
| TAIWAN (PROVINCE OF CHINA)       | 7           | 4           | 9           | 10          | 10          |
| TANZANIA (UNITED REPUBLIC OF)    | 1           | 0           | 0           | 0           | 0           |
| THAILAND                         | 9           | 9           | 6           | 6           | 10          |
| TURKEY                           | 3           | 1           | 3           | 1           | 2           |
| TUVALU                           | 1           | 0           | 1           | 2           | 1           |
| UNITED KINGDOM                   | 28          | 23          | 22          | 18          | 16          |
| UNITED STATES OF AMERICA         | 5           | 2           | 2           | 0           | 2           |
| VANUATU                          | 7           | 5           | 4           | 3           | 5           |
| VIETNAM                          | 1           | 2           | 0           | 0           | 2           |
| <b>Total:</b>                    | <b>3128</b> | <b>2922</b> | <b>3222</b> | <b>3021</b> | <b>2820</b> |

Figure 3 represents inspections by flag State where 25 or more ships have been subjected to inspection during 2021. 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**



- Panama - 22.1%
- Marshall Islands - 15.2%
- Liberia - 13.4%
- Hong Kong, China - 12.7%
- Singapore - 8.4%
- Malta - 5.1%
- Bahamas - 3.2%
- Cyprus - 2.0%
- Norway - 2.0%
- Japan - 1.7%
- Greece - 1.5%
- Isle of Man - 1.5%
- China - 1.5%
- Antigua and Barbuda - 1.3%
- Portugal - 1.2%
- Cayman Islands - 0.9%

# 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 ship 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 2021 (6,242) compared to 2020 (6,387), corresponding with the decrease in PSC inspections from 3,021 to 2,820. The deficiency rate increased slightly from 2.1 in 2020 to 2.2 in 2021.

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

## 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, ISM and MLC. Table 8 identifies the number of deficiencies by category along with a comparison of the deficiency rates to those in 2020.

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 accounted for 56 per cent of ship arrivals and 61 per cent of all inspections. To assess the performance of ship types, it is necessary to compare the deficiencies per inspection for each category as provided in table 9.

### Top five deficiencies per inspection by ship type 2021

| A total of 6242 deficiencies were issued in 2021 with the average deficiencies per inspection being 2.21 | Ship type (deficiencies per inspection) |
|--|---|
|  | 1. Container ship – 3.53                |
|  | 2. Heavy Load Carrier – 2.96            |
|  | 3. Woodchip carrier – 2.68              |
|  | 4. Bulk carrier – 2.37                  |
| 5. General cargo/multi-purpose ship – 2.27   |   |

Note: only ship 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                     | 2,027                 | 593         | 558          | 217 | 656   | 1,712           |
| Chemical tanker                  | 81                    | 16          | 10           | 6   | 18    | 191             |
| Combination Carrier              | 1                     | 0           | 0            | 0   | 0     | 4               |
| Commercial Yacht                 | 0                     | 0           | 0            | 0   | 0     | 1               |
| Container ship                   | 414                   | 172         | 87           | 40  | 128   | 238             |
| Gas carrier                      | 9                     | 2           | 3            | 0   | 7     | 24              |
| General cargo/multi-purpose ship | 165                   | 59          | 70           | 14  | 46    | 156             |
| Heavy load carrier               | 37                    | 16          | 11           | 5   | 11    | 27              |
| Livestock carrier                | 35                    | 5           | 7            | 3   | 14    | 36              |
| NLS tanker                       | 18                    | 3           | 2            | 1   | 5     | 27              |
| Offshore service vessel          | 6                     | 4           | 1            | 0   | 1     | 10              |
| Oil tanker                       | 79                    | 13          | 22           | 6   | 12    | 124             |
| Oil tanker/chemical tanker       | 16                    | 2           | 1            | 1   | 0     | 16              |
| Oil tanker/NLS tanker            | 6                     | 0           | 0            | 0   | 5     | 1               |
| Other types of ship              | 25                    | 20          | 2            | 1   | 2     | 26              |
| Passenger ship                   | 10                    | 0           | 3            | 0   | 0     | 2               |
| Refrigerated cargo ship          | 10                    | 10          | 6            | 1   | 6     | 4               |
| Ro-ro cargo ship                 | 8                     | 3           | 2            | 1   | 4     | 4               |
| Special purpose ship             | 2                     | 0           | 2            | 0   | 0     | 5               |
| Tugboat                          | 17                    | 7           | 2            | 1   | 2     | 18              |
| Vehicle carrier                  | 85                    | 28          | 30           | 12  | 19    | 129             |
| Wood-chip carrier                | 74                    | 32          | 23           | 9   | 36    | 65              |
| Totals for 2021                  | 3,125                 | 985         | 842          | 318 | 972   | 2,820           |
| 2021 category deficiency rates   | 1.1                   | 0.4         | 0.3          | 0.1 | 0.3   | 2.2             |
| Totals for 2020                  | 3,237                 | 970         | 840          | 304 | 1,036 | 3,021           |
| 2020 category deficiency rates   | 1.1                   | 0.3         | 0.3          | 0.1 | 0.3   | 2.1             |

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

|                                   | Structural / Equipment | Operational | Human Factor | ISM         | MLC         | Total inspections | Total Deficiencies | Deficiency rate | Number of Detentions | Detention Rate |
|-----------------------------------|------------------------|-------------|--------------|-------------|-------------|-------------------|--------------------|-----------------|----------------------|----------------|
| Bulk carrier                      | <i>1.18</i>            | 0.35        | <i>0.33</i>  | <i>0.13</i> | <i>0.38</i> | 1,712             | 4,051              | 2.37            | 105                  | 6.1%           |
| Chemical tanker                   | 0.42                   | 0.08        | 0.05         | 0.03        | 0.09        | 191               | 131                | 0.69            | 3                    | 1.6%           |
| Combination carrier               | 0.25                   | 0.00        | 0.00         | 0.00        | 0.00        | 4                 | 1                  | 1.25            | 0                    | 0.0%           |
| Commercial Yacht                  | 0.00                   | 0.00        | 0.00         | 0.00        | 0.00        | 1                 | 0                  | 0.00            | 0                    | 0.0%           |
| Container ship                    | <b>1.74</b>            | <b>0.72</b> | <i>0.37</i>  | <b>0.17</b> | <b>0.54</b> | 238               | 841                | 3.53            | 18                   | 7.6%           |
| Gas carrier                       | 0.38                   | 0.08        | 0.13         | 0.00        | 0.29        | 24                | 21                 | 0.88            | 1                    | 4.2%           |
| General cargo/ multi-purpose ship | 1.06                   | 0.38        | <b>0.45</b>  | 0.09        | 0.29        | 156               | 354                | 2.27            | 12                   | 7.7%           |
| Heavy load carrier                | <i>1.37</i>            | <b>0.59</b> | <b>0.41</b>  | <b>0.19</b> | <i>0.41</i> | 27                | 80                 | 2.96            | 4                    | 14.8%          |
| Livestock carrier                 | 0.97                   | 0.14        | 0.19         | 0.08        | <i>0.39</i> | 36                | 64                 | 1.78            | 2                    | 5.6%           |
| NLS tanker                        | 0.67                   | 0.11        | 0.07         | 0.04        | 0.19        | 27                | 29                 | 1.07            | 1                    | 3.7%           |
| Offshore service vessel           | 0.60                   | <i>0.40</i> | 0.10         | 0.00        | 0.10        | 10                | 12                 | 1.20            | 0                    | 0.0%           |
| Oil tanker                        | 0.64                   | 0.10        | 0.18         | 0.05        | 0.10        | 124               | 132                | 1.06            | 2                    | 1.6%           |
| Oil tanker/ chemical tanker       | 1.00                   | 0.13        | 0.06         | 0.06        | 0.00        | 16                | 20                 | 1.25            | 1                    | 6.3%           |
| Oil tanker/NLS tanker             | <b>6.00</b>            | 0.00        | 0.00         | 0.00        | <b>5.00</b> | 1                 | 11                 | 11.00           | 0                    | 0.0%           |
| Other types of ship               | 0.96                   | <b>0.77</b> | 0.08         | 0.04        | 0.08        | 26                | 50                 | 1.92            | 0                    | 0.0%           |
| Passenger ship                    | <b>5.00</b>            | 0.00        | <b>1.50</b>  | 0.00        | 0.00        | 2                 | 13                 | 6.50            | 1                    | 50.0%          |
| Refrigerated cargo ship           | <b>2.50</b>            | <b>2.50</b> | <b>1.50</b>  | <b>0.25</b> | <b>1.50</b> | 4                 | 33                 | 8.25            | 1                    | 25.0%          |
| Ro-ro cargo ship                  | <b>2.00</b>            | <b>0.75</b> | <b>0.50</b>  | <b>0.25</b> | <b>1.00</b> | 4                 | 18                 | 4.50            | 1                    | 25.0%          |
| Special purpose ship              | 0.40                   | 0.00        | <i>0.40</i>  | 0.00        | 0.00        | 5                 | 4                  | 0.80            | 0                    | 0.0%           |
| Tugboat                           | 0.94                   | <i>0.39</i> | 0.11         | 0.06        | 0.11        | 18                | 29                 | 1.61            | 1                    | 5.6%           |
| Vehicle carrier                   | 0.66                   | 0.22        | 0.23         | 0.09        | 0.15        | 129               | 174                | 1.35            | 4                    | 3.1%           |
| Wood-chip carrier                 | <i>1.14</i>            | <i>0.49</i> | <i>0.35</i>  | <b>0.14</b> | <b>0.55</b> | 65                | 174                | 2.68            | 2                    | 3.1%           |
| Total                             | 3125                   | 985         | 842          | 318         | 972         | 2,820             | 6,242              | 2.21            | 159                  | 5.6%           |
| Category deficiency rates         | 1.11                   | 0.35        | 0.30         | 0.11        | 0.34        |                   |                    |                 |                      |                |

Figures in bold are the top five in each category; Figures in italics are above average.

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

| <b>Deficiency</b>   | <b>2020</b> | <b>2021</b> | <b>Trend</b> |
|---------------------|-------------|-------------|--------------|
| Structure/equipment | 1.07        | 1.11        | ↑            |
| Operational         | 0.32        | 0.35        | ↑            |
| Human factors       | 0.28        | 0.30        | ↑            |
| ISM                 | 0.10        | 0.11        | ↑            |
| MLC                 | 0.34        | 0.34        | -            |

# 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 remained the highest, though decreasing in share in 2021 (24 per cent of detainable deficiencies) as compared to 2020 (28.1 per cent of detainable deficiencies). Along with ISM, the categories of fire safety, emergency systems, lifesaving appliances and water/weather-tight conditions were the top five categories of detainable deficiencies. The proportion of MLC-related detentions remained the 7th highest category. AMSA exercised flexibility and worked with industry in its dealings with MLC related deficiencies during the height of the COVID-19 pandemic. Flexibility and proactive work with industry, specifically around seafarer repatriation, prevented a significant surge in detainable deficiencies relating to MLC.

The relatively high proportion of detainable deficiencies attributed in the ISM category suggests that safety management systems (SMS) are not properly and effectively implemented onboard. While the proportion may be a cause of concern, history provides context. In 2013, the number of ISM detainable deficiencies peaked at 120 (31.2 per cent share of detainable deficiencies). While there was an increase in ISM deficiencies between 2018-2020, the decrease in ISM deficiencies between 2020 (28.1%) and 2021(24%) is a positive result.

Shipboard operations and maintenance were again the highest contributors to ISM detentions, followed by emergency preparedness.

## Table 11 – Detainable deficiencies by category



| Category                             | 2020<br>No. of deficiencies | 2020<br>Share % | 2021<br>No. of deficiencies | 2021<br>Share % | Trend |
|--------------------------------------|-----------------------------|-----------------|-----------------------------|-----------------|-------|
| ISM                                  | 76                          | 28.1%           | 53                          | 24.0%           | ↓     |
| Lifesaving appliances                | 37                          | 13.7%           | 32                          | 14.5%           | ↑     |
| Fire safety                          | 37                          | 13.7%           | 30                          | 13.6%           | ↓     |
| Emergency systems                    | 35                          | 13.0%           | 27                          | 12.2%           | ↓     |
| Water/weather-tight conditions       | 22                          | 8.1%            | 20                          | 9.0%            | ↑     |
| Pollution prevention                 | 21                          | 7.8%            | 18                          | 8.2%            | ↑     |
| Labour conditions                    | 19                          | 7.0%            | 12                          | 5.4%            | ↓     |
| Other                                | 9                           | 3.3%            | 8                           | 3.6%            | ↑     |
| Certificates and documentation       | 3                           | 1.1%            | 6                           | 2.7%            | ↑     |
| Cargo operations including equipment | 5                           | 1.9%            | 4                           | 1.8%            | ↓     |
| Safety of navigation                 | 0                           | 0.0%            | 4                           | 1.8%            | ↑     |
| Radio communications                 | 1                           | 0.4%            | 3                           | 1.4%            | ↑     |
| Structural conditions                | 2                           | 0.7%            | 2                           | 0.9%            | ↑     |
| Propulsion and auxiliary machinery   | 1                           | 0.4%            | 2                           | 0.9%            | ↑     |
| Alarms                               | 2                           | 0.7%            | 0                           | 0.0%            | ↓     |

## Detentions by ship type

In 2021 AMSA detained 159 ships with an average detention rate of 5.6 per cent compared to 178 ships detained in 2020 with an average detention rate of 5.9 per cent.

**Table 12 – Top five detention rates by ship type in 2020 and 2021**

|  |   |   |
|--|---|---|
| AMSA detained 159 ships in 2021, with an average detention rate of 5.6%. | <b>2020 – 5.9% average (number of detentions)</b> | <b>2021 – 5.6% average (number of detentions)</b> |
|  | General cargo/multi-purpose ship -- 10.4% (14)    | Heavy load carrier – 14.8% (4)                    |
|  | Heavy load carrier – 8.3% (3)                     | General cargo/multi-purpose ship – 7.7% (12)      |
|  | Livestock carrier – 6.9% (2)                      | Container ship -- 7.6% (18)                       |
|  | Bulk carrier – 6.6% (121)                         | Oil tanker/chemical tanker – 6.3% (1)             |
|  | Container ship – 6.5% (17)                        | Bulk carrier – 6.1% (105)                         |

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

The poorest performing ship type was heavy load carriers, followed by general cargo ships and container ships. General cargo ships have been in the top five poorest performing ship types for the past eight years while container ships have been in the top five for the past four years.

Bulk carriers represented the largest number of PSC detentions, as shown in Table 13. The bulk carrier detention rate was 6.1 per cent, and this detention rate remains higher than the average detention rate. This is a continuing and concerning trend as bulk carriers have exceeded the average detention rate for the last six years and are among the five worst performing ship types again in 2021, while also being the highest proportion of ship arrivals<sup>4</sup>.

**Table 13 – Detentions by ship type**

| Category                         | 2021         |            |                | 2020           |
|----------------------------------|--------------|------------|----------------|----------------|
|                                  | Inspections  | Detentions | Detention rate | Detention rate |
| bulk carrier                     | 1,712        | 105        | 6.1%           | 6.6%           |
| chemical tanker                  | 191          | 3          | 1.6%           | 3.0%           |
| combination carrier              | 4*           | 0          | 0.0%           | 0.0%           |
| commercial yacht                 | 1*           | 0          | 0.0%           | 0.0%           |
| container ship                   | 238          | 18         | 7.6%           | 6.5%           |
| gas carrier                      | 24           | 1          | 4.2%           | 3.6%           |
| general cargo/multi-purpose ship | 156          | 12         | 7.7%           | 10.4%          |
| heavy load carrier               | 27           | 4          | 14.8%          | 8.3%           |
| livestock carrier                | 36           | 2          | 5.6%           | 6.9%           |
| NLS tanker                       | 27           | 1          | 3.7%           | 3.2%           |
| offshore service vessel          | 10           | 0          | 0.0%           | 0.0%           |
| oil tanker                       | 124          | 2          | 1.6%           | 3.2%           |
| oil tanker/chemical tanker       | 16           | 1          | 6.3%           | 0.0%           |
| oil tanker/NLS tanker            | 1*           | 0          | 0.0%           | 0.0%           |
| other types of ship              | 26           | 0          | 0.0%           | 0.0%           |
| passenger ship                   | 2*           | 1          | 50.0%          | 4.3%           |
| refrigerated cargo vessel        | 4*           | 1          | 25.0%          | 0.0%           |
| ro-ro cargo ship                 | 4*           | 1          | 25.0%          | 0.0%           |
| special purpose ship             | 5*           | 0          | 0.0%           | 0.0%           |
| tugboat                          | 18           | 1          | 5.6%           | 0.0%           |
| vehicle carrier                  | 129          | 4          | 3.1%           | 3.3%           |
| wood-chip carrier                | 65           | 2          | 3.1%           | 3.8%           |
| <b>Totals</b>                    | <b>2,820</b> | <b>159</b> | <b>5.6%</b>    | <b>5.9%</b>    |

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

The following is notable with regard to detention by ship type in 2021:

- 1,712 bulk carriers were inspected with 4,051 deficiencies issued resulting in 105 detentions. The detention rate for bulk carriers decreased to 6.1% from 6.6% in 2020.
- Heavy load carriers had the highest detention rate at 14.8%, a 6.5% increase compared to 8.3% in 2020.
- General cargo vessels had the second highest detention rate at 7.7%, a 2.7% decrease compared to 2020.
- General cargo ships and heavy load carriers had the two highest detention rates of all ship types in 2021, 2020 and 2019.
- Oil tankers had a detention rate of 1.6%, well below the 2021 average of 5.6%.
- Offshore service vessels had zero detentions from 10 inspections.
- Tugboats had one detention from 18 inspections.

#### **Detentions by flag State**

Individual flag State performance can be determined by comparing the percentage share of inspections against the percentage share of detentions for each flag State (as shown in figure 4 below). Below average performance is indicated when a flag State's percentage share of detentions is higher than its percentage share of inspections.

### Top five detention rates by flag State 2021

|   |                                       |
|---|---------------------------------------|
| There was a total of 159 foreign-flag ships detained in 2021.<br>The average detention rate for all ships was 5.6%. | Flag State (Detention Rate %)         |
|   | 1. Antigua and Barbuda – 11.1%        |
|   | 2. Denmark – 10.0%                    |
|   | 3. Taiwan (Province of China) – 10.0% |
|   | 4. Thailand – 10.0%                   |
| 5. Portugal – 8.8%  |                                       |

Note: this table only covers ship 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 individual flag State performance can be drawn by comparing detention rates over three years as shown in Table 14. This table shows that Antigua and Barbuda, Denmark, Greece, Liberia and Panama have exceeded the overall average detention rate over the three years from 2019 to 2021.

**Table 14 – Flag States that exceeded the average in 2019, 2020 and 2021**

| 2019 (average 5.1%)        |                         | 2020 (average 5.9%)               |                         | 2021 (average 5.6%)               |                         |
|----------------------------|-------------------------|-----------------------------------|-------------------------|-----------------------------------|-------------------------|
| Flag State                 | Detention rate (number) | Flag State                        | Detention rate (number) | Flag State                        | Detention rate (number) |
| <i>Antigua and Barbuda</i> | 13.3% (4)               | <i>Denmark</i>                    | 16.7% (2)               | <i>Antigua and Barbuda</i>        | 11.1% (4)               |
| Cayman Islands             | 10.3% (3)               | <i>Antigua and Barbuda</i>        | 10.8% (4)               | <i>Denmark</i>                    | 10.0% (1)               |
| Cyprus                     | 9.1% (6)                | <b>Taiwan (Province of China)</b> | 10.0% (1)               | <b>Taiwan (Province of China)</b> | 10.0% (1)               |
| Philippines                | 9.1% (1)                | Norway                            | 9.1% (5)                | Thailand                          | 10.0% (1)               |
| <i>Denmark</i>             | 8.3% (2)                | <b>Netherlands</b>                | 8.7% (2)                | <b>Portugal</b>                   | 8.8% (3)                |
| Malaysia                   | 8.3% (1)                | <i>Liberia</i>                    | 8.0% (32)               | <i>Panama</i>                     | 7.2% (45)               |
| <i>Liberia</i>             | 6.7% (27)               | <i>Panama</i>                     | 6.7% (47)               | <i>Greece</i>                     | 7.1% (3)                |
| <i>Greece</i>              | 6.3% (4)                | Hong Kong, China                  | 6.7% (22)               | <b>Netherlands</b>                | 7.1% (1)                |
| <i>Panama</i>              | 6.3% (43)               | <i>Greece</i>                     | 6.4% (3)                | <i>Liberia</i>                    | 6.6% (25)               |
| Luxembourg                 | 6.3% (1)                |                                   |                         | Marshall Islands                  | 6.5% (28)               |
| Malta                      | 5.8% (11)               |                                   |                         | United Kingdom                    | 6.3% (1)                |
| Isle of Man                | 5.6% (3)                |                                   |                         | Hong Kong, China                  | 5.9% (21)               |
| <b>Portugal</b>            | 5.3% (2)                |                                   |                         |                                   |                         |

Bold text = Exceeded the average detention rate in two years out of three

Italics = Exceeded the average detention rate in three years out of three

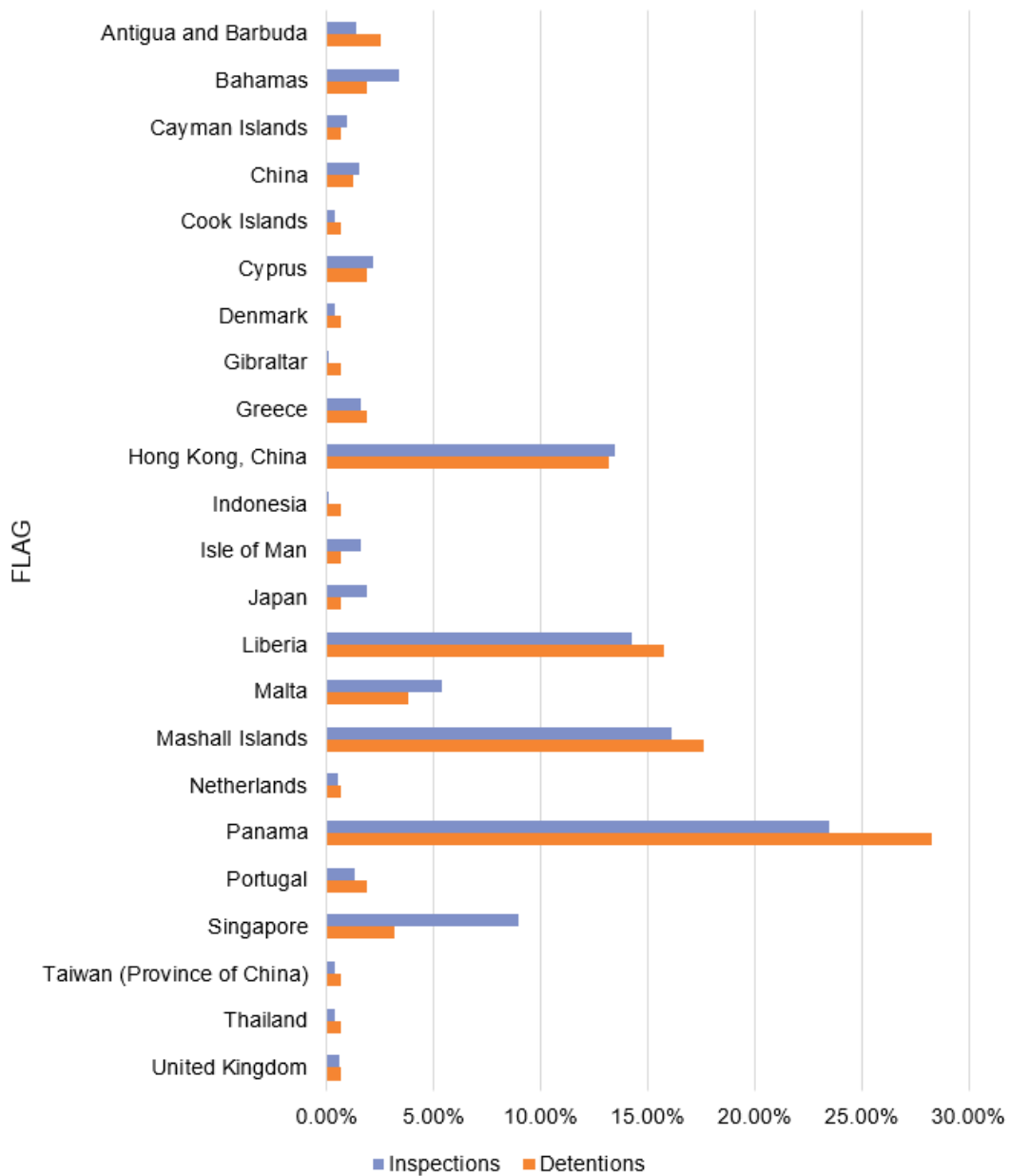
**Table 15 – Inspections and detentions by flag State**

| Flag State              | Inspections | Detentions | Detention rate |
|-------------------------|-------------|------------|----------------|
| ANTIGUA & BARBUDA       | 36          | 4          | <b>11.1%</b>   |
| BAHAMAS                 | 89          | 3          | 3.4%           |
| BANGLADESH              | 1           | 0          | 0.0%           |
| BARBADOS                | 1           | 0          | 0.0%           |
| BELGIUM                 | 3           | 0          | 0.0%           |
| BERMUDA                 | 3           | 0          | 0.0%           |
| CAYMAN ISLANDS          | 25          | 1          | 4.0%           |
| CHINA                   | 41          | 2          | 4.9%           |
| COOK ISLANDS            | 9           | 1          | 11.1%          |
| CROATIA                 | 1           | 0          | 0.0%           |
| CYPRUS                  | 57          | 3          | 5.3%           |
| DENMARK                 | 10          | 1          | <b>10.0%</b>   |
| GERMANY                 | 3           | 0          | 0.0%           |
| GIBRALTAR               | 3           | 1          | 33.3%          |
| GREECE                  | 42          | 3          | <b>7.1%</b>    |
| HONG KONG, CHINA        | 358         | 21         | <b>5.9%</b>    |
| INDIA                   | 7           | 0          | 0.0%           |
| INDONESIA               | 1           | 1          | 100.0%         |
| ISLE OF MAN             | 42          | 1          | 2.4%           |
| ITALY                   | 9           | 0          | 0.0%           |
| JAMAICA                 | 1           | 0          | 0.0%           |
| JAPAN                   | 49          | 1          | 2.0%           |
| KOREA (THE REPUBLIC OF) | 23          | 0          | 0.0%           |
| KUWAIT                  | 3           | 0          | 0.0%           |
| LIBERIA                 | 378         | 25         | <b>6.6%</b>    |
| LIBYA                   | 1           | 0          | 0.0%           |
| LUXEMBOURG              | 8           | 0          | 0.0%           |
| MALAYSIA                | 6           | 0          | 0.0%           |
| MALTA                   | 143         | 6          | 4.2%           |
| MARSHALL ISLANDS        | 429         | 28         | <b>6.5%</b>    |
| MONTENEGRO              | 1           | 0          | 0.0%           |
| NETHERLANDS             | 14          | 1          | <b>7.1%</b>    |
| NEW ZEALAND             | 2           | 0          | 0.0%           |
| NORWAY                  | 56          | 0          | 0.0%           |
| PANAMA                  | 624         | 45         | <b>7.2%</b>    |
| PHILIPPINES             | 7           | 0          | 0.0%           |
| PORTUGAL                | 34          | 3          | <b>8.8%</b>    |
| QATAR                   | 3           | 0          | 0.0%           |
| SAINT VINCENT           | 1           | 0          | 0.0%           |
| SAMOA                   | 1           | 0          | 0.0%           |
| SINGAPORE               | 238         | 5          | 2.1%           |
| SOUTH AFRICA            | 1           | 0          | 0.0%           |
| SRI LANKA               | 1           | 0          | 0.0%           |

| Flag State                 | Inspections | Detentions | Detention rate |
|----------------------------|-------------|------------|----------------|
| SWEDEN                     | 6           | 0          | 0.0%           |
| SWITZERLAND                | 1           | 0          | 0.0%           |
| TAIWAN (PROVINCE OF CHINA) | 10          | 1          | <b>10.0%</b>   |
| THAILAND                   | 10          | 1          | <b>10.0%</b>   |
| TURKEY                     | 2           | 0          | 0.0%           |
| TUVALU                     | 1           | 0          | 0.0%           |
| UNITED KINGDOM             | 16          | 1          | <b>6.3%</b>    |
| UNITED STATES OF AMERICA   | 2           | 0          | 0.0%           |
| VANUATU                    | 5           | 0          | 0.0%           |
| VIETNAM                    | 2           | 0          | 0.0%           |
| <b>Total:</b>              | 2820        | 159        | 5.6%           |

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

**Figure 4 - Share of detentions compared to share of inspections**



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

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### Footnotes

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

# Detention appeals and review processes

Ship owners, operators, Recognised Organisations (RO)<sup>5</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 ship 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 AMSA Manager Ship Inspection and Registration. This involves an examination of all information provided by the applicant and feedback from the attending AMSA inspector 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 2021, AMSA received 20 appeals against a detainable deficiency, with each undergoing a review of all information provided against the evidence available at the time of the PSC inspection. In two instances, it was found that the decision to detain was technically incorrect and both these deficiencies were expunged.

There was one appeal against a non-detainable deficiency raised during an inspection, this was accepted, and the deficiency was expunged.

AMSA received five appeals from ROs challenging the assignment of RO responsibility during the inspection process. AMSA accepted three of these challenges upon review and amended the inspection record accordingly to remove the assignment of RO Responsibility. The remaining two were rejected.

There were no appeals lodged against an AMSA inspection to the Detention Review Panel of the Tokyo MOU, during this reporting period.

There was one appeal lodged against AMSA inspections to the AAT.

A full list of ships AMSA detained in 2021, can be found on the [AMSA website](#) .

## Footnotes

<sup>5</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 2021, 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. The average in RO-responsible detainable deficiencies considerably decreased to 3.2 per cent compared to 6.3 per cent in 2020.

**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)   | 384            | 643          | 18         | 4.7%           | 22                      | 0                                      | 0  |
| Bureau Veritas (BV)                 | 267            | 743          | 25         | 9.4%           | 31                      | 2                                      | 6.5%   |
| China Classification Society (CCS)  | 168            | 254          | 7          | 4.2%           | 8                       | 0                                      | 0  |
| CR Classification Society (CCRS)    | 24             | 35           | 2          | 8.3%           | 2                       | 0                                      | 0  |
| Croatian Register of Shipping (CRS) | 38             | 62           | 2          | 5.3%           | 3                       | 0                                      | 0  |
| DNV (formerly DNVGL)*               | 572            | 1,219        | 30         | 5.2%           | 37                      | 0                                      | 0  |
| Korean Register of Shipping (KRS)   | 101            | 334          | 12         | 11.9%          | 25                      | 2                                      | 8.0%   |
| Lloyd's Register (LR)               | 324            | 692          | 17         | 5.2%           | 27                      | 0                                      | 0  |
| Nippon Kaiji Kyokai (NKK)           | 856            | 2,031        | 43         | 5.0%           | 61                      | 3                                      | 4.9%   |
| RINA Services SpA (RINA)            | 69             | 152          | 2          | 2.9%           | 2                       | 0                                      | 0  |
| Viet Nam Register (VR)              | 1              | 12           | 0          | 0.0%           | 0                       | 0                                      | 0  |
| No class                            | 16             | 65           | 1          | 6.3%           | 3                       | 0                                      | 0  |
| <b>Totals:</b>                      | <b>2820</b>    | <b>6242</b>  | <b>159</b> | <b>5.6%</b>    | <b>221</b>              | <b>7</b>                               | <b>3.2%</b>  |

\* Note: the results for DNVGL and DNV have been merged after DNV changed their name.



# Risk rating

## Risk rating

AMSA applies a dynamic risk profiling system to assist in allocating inspection resources in the most effective manner. The risk factor does not mean the ship is a high risk as such, it is simply a statistical tool to prioritise inspections. AMSA's risk calculation uses multiple criteria to categorise ships 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                                 | 40%                    |
| 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 four ships and a slight decrease in the unique arrivals of priority three ships. Table 18 shows that AMSA achieved targeted inspection rates in all priority groups with an overall inspection rate of 39.8 per cent. This was achieved despite ongoing challenges of COVID-19 due to early implementation of precautionary measures to protect AMSA inspectors and ship's crew during inspections.

As shown in table 19 the risk profile has been successful in identifying priority 1 vessels as these have had higher detention and deficiency rates compared to other vessels inspected in 2021. The identification of lowest priority vessels, those in priority 4, was also successful as these vessels had a lower detention and deficiency rate compared to other vessels inspected in 2021.

There was some disparity in 2021 between priority 2 and priority 3 vessels and their related deficiency and detention rates, this disparity also occurred in 2016 and 2019. In response to these results AMSA has implemented a project to review and improve our targeting system aligning it with a dynamic risk-based approach that utilises modern data related to inspections, incidents and industry capability.

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

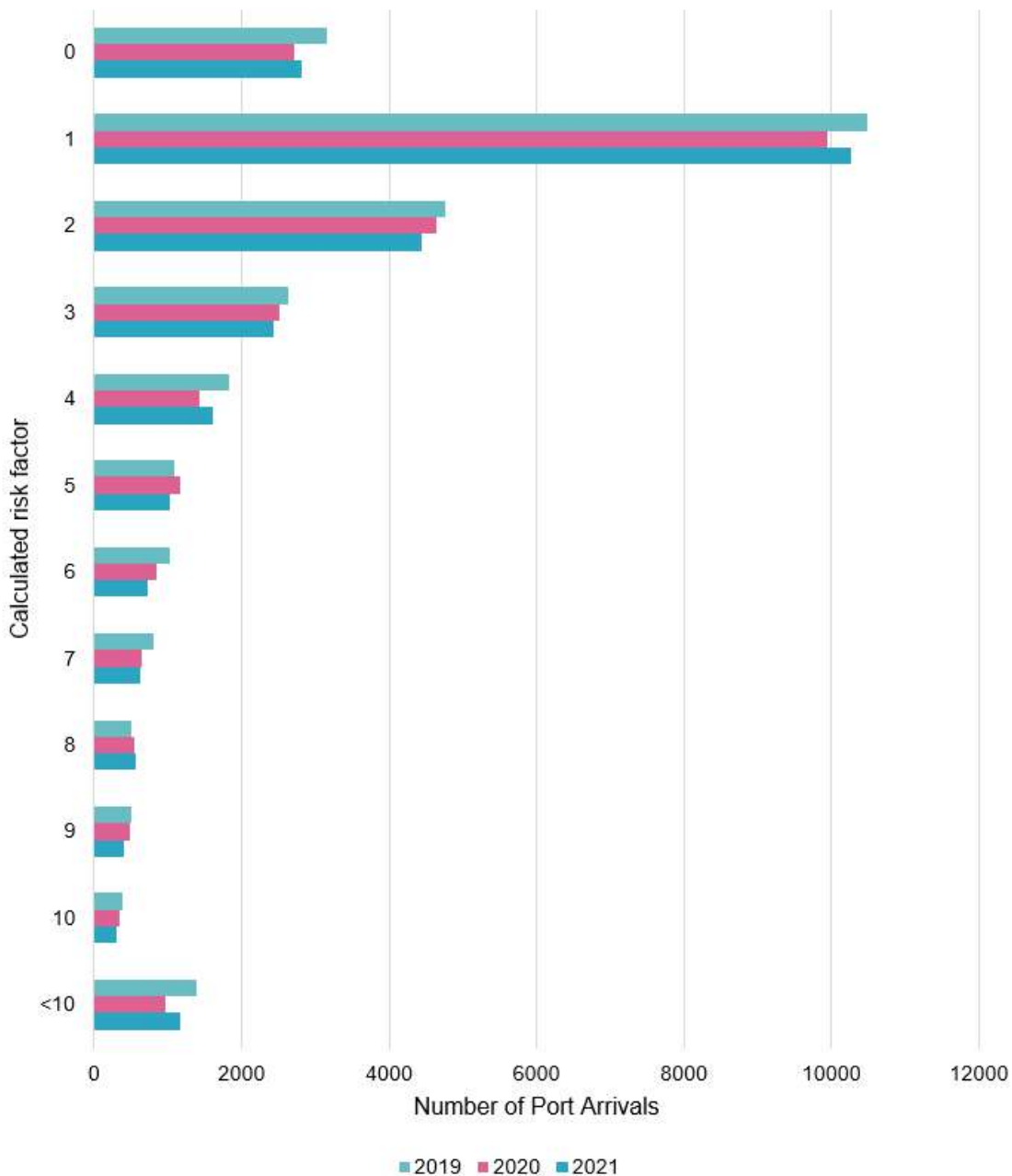
| Inspection priority | Ship arrivals |              | Eligible ships |              | Ships inspected |              | Inspection rate |              |
|---------------------|---------------|--------------|----------------|--------------|-----------------|--------------|-----------------|--------------|
|                     | 2020          | 2021         | 2020           | 2021         | 2020            | 2021         | 2020            | 2021         |
| Priority 1          | 613           | 634          | 379            | 414          | 334             | 351          | 84.1%           | 84.8%        |
| Priority 2          | 694           | 737          | 467            | 475          | 315             | 301          | 67.5%           | 63.4%        |
| Priority 3          | 2,152         | 2,140        | 1,777          | 1,731        | 850             | 771          | 47.8%           | 44.5%        |
| Priority 4          | 3,961         | 4,183        | 3,898          | 4,125        | 1,367           | 1,264        | 35.1%           | 30.6%        |
| <b>Totals:</b>      | <b>7,420</b>  | <b>7,694</b> | <b>6,539</b>   | <b>6,745</b> | <b>2,866</b>    | <b>2,687</b> | <b>43.8%</b>    | <b>39.8%</b> |

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

**Table 19 – Detentions and deficiencies by ship Priority Group**

| Inspection Priority | 2020         |                 |                | 2021         |                 |                |
|---------------------|--------------|-----------------|----------------|--------------|-----------------|----------------|
|                     | Deficiencies | Deficiency rate | Detention rate | Deficiencies | Deficiency rate | Detention rate |
| Priority 1          | 1,236        | 3.3             | 9.3%           | 1,198        | 3.0             | 7.6%           |
| Priority 2          | 817          | 2.4             | 7.1%           | 729          | 2.3             | 5.0%           |
| Priority 3          | 1,915        | 2.1             | 5.9%           | 2,054        | 2.5             | 7.1%           |
| Priority 4          | 2,419        | 1.7             | 4.7%           | 2,261        | 1.8             | 4.3%           |
| Totals              | 6,387        | 2.1             | 5.9%           | 6,242        | 2.2             | 5.6%           |

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



It is evident that the number of ships, of all risk factors, remained relatively consistent in 2021, compared with the results in 2020.

# How it works

## Flag State control (FSC)

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

AMSA conducted 95 initial FSC inspections on 76 Australian-flagged ships during 2021, resulting in 254 deficiencies being recorded, seven of which were detainable deficiencies resulting in the detention of three ships. The average number of deficiencies per inspection increased from 2.4 in 2020 to 2.7 in 2021.

The number of FSC detentions increased to three in 2021, from one in 2020. This equated to a detention rate of 3.2 per cent, which is well below the average of 5.6 per cent 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 one PSC inspection by foreign maritime authorities, resulting in four deficiencies and one detention. AMSA is working with the operator of this ship to address their compliance with all requirements applicable to ships on an international voyage.

## 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.

Ships that are not operated and managed to meet applicable minimum standards and relevant Australian laws pose an increased risk to seafarers, ships and the environment. The Navigation Act 2012 gives AMSA the power to direct that a ship be refused access to Australian ports. AMSA exercises that power on occasions where a ship is repeatedly detained, has a poor PSC record, or there are concerns about the performance of the ship operator. We promulgate our [policy on refusing access](#) on our website.

AMSA can issue a ship with a direction not to enter or use an Australian port (or ports) for a set period, as deemed necessary. When considering ship performance, AMSA also looks at the performance of the entire company responsible for the operations of the ship. Where the company's performance is also deemed unacceptable, the periods for which the ship 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 ship leaves the Australian port or anchorage following rectification of the detainable deficiency.

We publish a [list of ships that are refused access to Australian ports](#) on our website.

Table 20 lists the ships issued with directions not to enter or use an Australian port in 2021.

## Table 20 – Ships issued with directions<sup>6</sup>

| Ship name<br>(IMO number)       | Flag             | Direction                    | Issue date | Expiry     |
|---------------------------------|------------------|------------------------------|------------|------------|
| <i>Western Callao (9606041)</i> | Singapore        | Refused access for 6 months  | 02/10/2021 | 31/03/2022 |
| <i>Maryam (9272864)</i>         | Panama           | Refused access for 36 months | 28/05/2021 | 27/05/2024 |
| <i>Movers 3 (9250244)</i>       | Panama           | Refused access for 18 months | 29/04/2021 | 29/10/2022 |
| <i>Barkly Pearl (9044295)</i>   | Marshall Islands | Refused access for 18 months | 7/01/2021  | 7/07/2022  |

### High performing operators

When considering ship performance, AMSA also considers the performance of operators in respect of the detention and deficiency rates of the ships they operate. In this report AMSA has identified 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 these criteria to data for 2021, AMSA identified 25 high performing operators as listed in Table 21 below.

### **Table 21 – High performing operators 2021**

| Company number | ISM company name   | PSC inspections | Deficiency rate |
|----------------|--|-----------------|-----------------|
| 1204098        | Wilhelmsen Ship Management (Norway) AS                                   | 14              | 0.07            |
| 5879984        | Golden Top Shipping Company Limited (P.R. China)                         | 12              | 0.08            |
| 5602215        | Klaveness Ship Management AS (Norway)                                    | 11              | 0.09            |
| 1425380        | Ocean Longevity Shipping & Management Company Limited (Hong Kong, China) | 10              | 0.20            |
| 5738734        | Zenith Gemi Isletmeciligi A.S. (Turkey)                                  | 12              | 0.25            |
| 1314173        | Eastern Pacific Shipping Private Limited (Republic of Singapore)         | 13              | 0.31            |
| 6071296        | Hoegh Autoliners Management AS (Norway)                                  | 16              | 0.31            |
| 1578540        | Nanjing Tanker Corporation (P.R. China)                                  | 14              | 0.36            |
| 1755263        | KLC SM Company Limited (Republic of Korea)                               | 13              | 0.38            |
| 5634079        | Dorval Ship Management K.K. (Japan)                                      | 23              | 0.39            |
| 0208451        | Fukujin Kisen KK (Japan)   | 10              | 0.40            |
| 2037740        | Diana Shipping Services S.A. (Greece)                                    | 12              | 0.50            |
| 5562457        | Scorpio Marine Management (India) Private Limited                        | 22              | 0.55            |
| 5659188        | Union Marine Management Services Private Limited (Republic of Singapore) | 11              | 0.55            |
| 6069701        | Stolt Tankers B.V. (Netherlands)   | 16              | 0.56            |
| 0979251        | MMS Company Limited (Japan)  | 10              | 0.60            |
| 5261954        | MOL Ship Management (Singapore) Private Limited                          | 13              | 0.69            |
| 0283257        | NS United Kaiun Kaisha Limited (Japan)                                   | 12              | 0.75            |
| 1677771        | Anglo-Eastern Shipmanagement (Singapore) Private Limited                 | 11              | 0.91            |
| 1027944        | Santoku Senpaku K.K. (Santoku Shipping Company Limited)                  | 17              | 1.00            |
| 5772007        | Alpha Bulkers Shipmanagement Incorporated (Greece)                       | 11              | 1.09            |
| 5105614        | Pacific Basin Shipping (Hong Kong) Limited                               | 28              | 1.14            |
| 5362413        | Livestock Express B.V. (Netherlands)                                     | 18              | 1.17            |
| 4115119        | Fleet Ship Management Private Limited (Republic of Singapore)            | 11              | 1.27            |
| 0255909        | K Line RoRo Bulk Ship Management Company Limited (Japan)                 | 19              | 1.32            |

## Footnotes

<sup>6</sup> The full list of ships which have been refused access to Australian ports, or issued letters of warning, can be found [on the AMSA website here](#) .

# Appendix

## Inspections, deficiencies and detentions by flag State

In 2021, detentions occurred in 5.6 per cent of all inspections, and the rate of deficiencies per inspection was 2.2.

| Flag State                       | Number of PSC inspections | Deficiencies | Deficiencies per PSC inspection | Detained | Detention rate | PSC share | Detention share |
|----------------------------------|---------------------------|--------------|---------------------------------|----------|----------------|-----------|-----------------|
| Antigua and Barbuda              | 36                        | 64           | 1.78                            | 4        | 11.1%          | 1.28%     | 2.52%           |
| Bahamas                          | 89                        | 152          | 1.71                            | 3        | 3.4%           | 3.16%     | 1.89%           |
| Bangladesh                       | 1                         | 4            | 4.00                            | 0        | 0.0%           | 0.04%     | 0.00%           |
| Barbados                         | 1                         | 0            | 0.00                            | 0        | 0.0%           | 0.04%     | 0.00%           |
| Belgium                          | 3                         | 1            | 0.33                            | 0        | 0.0%           | 0.11%     | 0.00%           |
| Bermuda                          | 3                         | 11           | 3.67                            | 0        | 0.0%           | 0.11%     | 0.00%           |
| Cayman Islands                   | 25                        | 48           | 1.92                            | 1        | 4.0%           | 0.89%     | 0.63%           |
| China                            | 41                        | 56           | 1.37                            | 2        | 4.9%           | 1.45%     | 1.26%           |
| Cook Islands                     | 9                         | 24           | 2.67                            | 1        | 11.1%          | 0.32%     | 0.63%           |
| Croatia                          | 1                         | 11           | 11.00                           | 0        | 0.0%           | 0.04%     | 0.00%           |
| Cyprus                           | 57                        | 154          | 2.70                            | 3        | 5.3%           | 2.02%     | 1.89%           |
| Denmark                          | 10                        | 18           | 1.80                            | 1        | 10.0%          | 0.35%     | 0.63%           |
| Germany                          | 3                         | 3            | 1.00                            | 0        | 0.0%           | 0.11%     | 0.00%           |
| Gibraltar                        | 3                         | 19           | 6.33                            | 1        | 33.3%          | 0.11%     | 0.63%           |
| Greece                           | 42                        | 31           | 0.74                            | 3        | 7.1%           | 1.49%     | 1.89%           |
| Hong Kong, China                 | 358                       | 846          | 2.36                            | 21       | 5.9%           | 12.70%    | 13.21%          |
| India                            | 7                         | 16           | 2.29                            | 0        | 0.0%           | 0.25%     | 0.00%           |
| Indonesia                        | 1                         | 38           | 38.00                           | 1        | 100.0%         | 0.04%     | 0.63%           |
| Isle of Man                      | 42                        | 55           | 1.31                            | 1        | 2.4%           | 1.49%     | 0.63%           |
| Italy                            | 9                         | 34           | 3.78                            | 0        | 0.0%           | 0.32%     | 0.00%           |
| Jamaica                          | 1                         | 0            | 0.00                            | 0        | 0.0%           | 0.04%     | 0.00%           |
| Japan                            | 49                        | 47           | 0.96                            | 1        | 2.0%           | 1.74%     | 0.63%           |
| Korea (the Republic of)          | 23                        | 84           | 3.65                            | 0        | 0.0%           | 0.82%     | 0.00%           |
| Kuwait                           | 3                         | 1            | 0.33                            | 0        | 0.0%           | 0.11%     | 0.00%           |
| Liberia                          | 378                       | 803          | 2.12                            | 25       | 6.6%           | 13.4%     | 15.72%          |
| Libya                            | 1                         | 1            | 1.00                            | 0        | 0.0%           | 0.04%     | 0.00%           |
| Luxembourg                       | 8                         | 10           | 1.25                            | 0        | 0.0%           | 0.28%     | 0.00%           |
| Malaysia                         | 6                         | 9            | 1.50                            | 0        | 0.0%           | 0.21%     | 0.00%           |
| Malta                            | 143                       | 268          | 1.87                            | 6        | 4.2%           | 5.07%     | 3.77%           |
| Marshall Islands                 | 429                       | 825          | 1.92                            | 28       | 6.5%           | 12.21%    | 17.61%          |
| Montenegro                       | 1                         | 5            | 5.00                            | 0        | 0.0%           | 0.04%     | 0.00%           |
| Netherlands                      | 14                        | 38           | 2.71                            | 1        | 7.1%           | 0.50%     | 0.63%           |
| New Zealand                      | 2                         | 3            | 1.50                            | 0        | 0.0%           | 0.07%     | 0.00%           |
| Norway                           | 56                        | 63           | 1.13                            | 0        | 0.0%           | 1.99%     | 0.00%           |
| Panama                           | 624                       | 1,822        | 2.92                            | 45       | 7.2%           | 22.13%    | 28.30%          |
| Philippines                      | 7                         | 21           | 3.00                            | 0        | 0.0%           | 0.25%     | 0.00%           |
| Portugal                         | 34                        | 92           | 2.71                            | 3        | 8.8%           | 1.21%     | 1.89%           |
| Qatar                            | 3                         | 2            | 0.67                            | 0        | 0.0%           | 0.11%     | 0.00%           |
| Saint Vincent and the Grenadines | 1                         | 0            | 0.00                            | 0        | 0.00%          | 0.04%     | 0.00%           |
| Samoa                            | 1                         | 0            | 0.00                            | 0        | 0.0%           | 0.04%     | 0.00%           |
| Singapore                        | 238                       | 419          | 1.76                            | 5        | 2.1%           | 8.44%     | 3.14%           |
| South Africa                     | 1                         | 0            | 0.00                            | 0        | 0.0%           | 0.04%     | 0.00%           |

| Flag State                 | Number of PSC inspections | Deficiencies | Deficiencies per PSC inspection | Detained   | Detention rate | PSC share | Detention share |
|----------------------------|---------------------------|--------------|---------------------------------|------------|----------------|-----------|-----------------|
| Sri Lanka                  | 1                         | 0            | 0.00                            | 0          | 0.0%           | 0.04%     | 0.00%           |
| Sweden                     | 6                         | 2            | 0.33                            | 0          | 0.0%           | 0.21%     | 0.00%           |
| Switzerland                | 1                         | 6            | 6.00                            | 0          | 0.0%           | 0.04%     | 0.00%           |
| Taiwan (Province of China) | 10                        | 9            | 0.90                            | 1          | 10.0%          | 0.35%     | 0.63%           |
| Thailand                   | 10                        | 48           | 4.80                            | 1          | 10.0%          | 0.35%     | 0.63%           |
| Turkey                     | 2                         | 10           | 5.00                            | 0          | 0.0%           | 0.07%     | 0.00%           |
| Tuvalu                     | 1                         | 3            | 3.00                            | 0          | 0.0%           | 0.04%     | 0.00%           |
| United Kingdom             | 16                        | 42           | 2.63                            | 1          | 6.3%           | 0.57%     | 0.63%           |
| United States of America   | 2                         | 7            | 3.50                            | 0          | 0.0%           | 0.07%     | 0.00%           |
| Vanuatu                    | 5                         | 5            | 1.00                            | 0          | 0.0%           | 0.18%     | 0.00%           |
| Viet Nam                   | 2                         | 12           | 6.00                            | 0          | 0.0%           | 0.07%     | 0.00%           |
| <b>Total</b>               | <b>2,820</b>              | <b>6,242</b> | <b>2.21</b>                     | <b>159</b> | <b>5.6%</b>    |           |                 |

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Source URL: <https://www.amsa.gov.au/port-state-control-australia-2021-annual-report>