

ANNUAL REPORT

ON

PORT STATE CONTROL

IN THE ASIA-PACIFIC REGION

2017



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FOREWORD

We are pleased to present the **Annual Report on Port State Control in the Asia-Pacific Region 2017**.

The most important event during 2017 was the successful organization of the 3rd Joint Ministerial Conference of the Paris and Tokyo Memoranda on Port State Control, held in Vancouver, Canada, on 2 - 4 May 2017. This Conference will not only promote the PSC activities of the two MOUs but also facilitate the achievement of responsible and sustainable shipping of the industry. The Ministerial Declaration, signed at the Conference, requests the member Authorities to take specific steps to reach the ultimate objective of eliminating substandard ships. To this end, the Tokyo MOU will develop the actions to be taken and monitor progress made thereof in the coming years.

This annual report summarises the port State control developments and activities of the Tokyo MOU in 2017. Moreover, the report also provides port State control statistics and analysis on the results of inspections carried out by member Authorities during the year.

It is worth to note that the number of detentions during the year has decreased to 941 in 2017. This is the lowest number and the first time less than 1,000 during the past two decades. However, on the other hand, average number of detainable deficiencies per detention has been increasing in the last three years. This may be interpreted as a trend that conditions of some substandard ships are becoming worse. Therefore the Tokyo MOU will need to further enhance and strengthen measures on inspection of under-performing and substandard ships.



Carlos Fanta
Chair
Port State Control Committee



Hideo Kubota
Secretary
Tokyo MOU Secretariat

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OVERVIEW

GENERAL INTRODUCTION

The Annual Report on Port State Control in the Asia-Pacific Region is published under the auspices of the Port State Control Committee of the Memorandum of Understanding on Port State Control in the Asia-Pacific Region (Tokyo MOU). This annual report is the twenty-third issue and covers port State control activities and developments in the 2017 calendar year.

The Memorandum was signed in Tokyo on 1 December 1993 and came into effect on 1 April 1994. In accordance with the provisions of the Memorandum, Authorities that have signed and formally accepted the Memorandum or that have been accepted by unanimous consent of the Port State Control Committee become full members. Currently, the Memorandum has 20 full members, namely: Australia, Canada, Chile, China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea, Malaysia, the Republic of the Marshall Islands, New Zealand, Papua New Guinea, Peru, the Philippines, the Russian Federation, Singapore, Thailand, Vanuatu and Viet Nam. A maritime Authority that has declared its intention to fully adhere to the Memorandum within a three-year period may be accepted as a co-operating member by unanimous consent of the Port State Control Committee. Panama is currently participating in the Tokyo MOU as a co-operating member Authority.

The main objectives of the Memorandum are to establish an effective port State control regime in the Asia-Pacific region through co-operation of its members, harmonization of the members' activities, to eliminate sub-standard shipping, to promote maritime safety and security, to protect the marine environment and to safeguard seafarers working and living conditions on board ships.

The Port State Control Committee established under the Memorandum monitors and controls the implementation and on-going operation of the Memorandum. The Committee consists of representatives from the member Authorities, co-operating member Authorities and observers. Observer status has been granted to the following maritime Authorities and inter-governmental organizations by the Committee: Democratic People's Republic of Korea, Macao (China), Samoa, Solomon Islands, Tonga, United States Coast Guard, the International Maritime Organization (IMO), the International Labour Organization (ILO), the Paris MOU, the Viña del Mar Agreement, the Indian Ocean MOU, the Black Sea MOU, the Riyadh MOU and the Caribbean MOU. The Secretariat of the Memorandum is located in Tokyo, Japan. The Asia-Pacific Computerized Information System is established in the Russian Federation.

For the purpose of the Memorandum, the following instruments are the basis for port State control activities in the region:

- the International Convention on Load Lines, 1966;
 - the Protocol of 1988 relating to the International Convention on Load Lines, 1966, as amended;
 - the International Convention for the Safety of Life at Sea, 1974, as amended;
 - the Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974;
 - the Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974;
 - the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 relating thereto, as amended;
 - the International Convention on Standards for Training, Certification and Watchkeeping for Seafarers, 1978, as amended;
 - the Convention on the International Regulations for Preventing Collisions at Sea, 1972;
 - the International Convention on Tonnage Measurement of Ships, 1969;
 - the Merchant Shipping (Minimum Standards) Convention, 1976 (ILO Convention No. 147);
 - the Maritime Labour Convention,
- 2006;
- the International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001;
 - the Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage, 1969; and
 - the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004.

REVIEW OF YEAR 2017

Thirteen years after the Second Conference, the Ministers responsible for Port State Control from the members of the Paris and Tokyo MOUs gathered in Vancouver, Canada, for a Third Joint Ministerial Conference of the Paris and the Tokyo Memoranda on Port State Control on 2 - 4 May 2017. The Conference demonstrated the strong commitment and determination on eliminating substandard shipping of the Memoranda from the political level. The outcome of the Conference, in the form of Joint Ministerial Declaration, would not only provide a framework for the direction of development of PSC but also influence global policies for promotion of a wider safety and security culture, protection of the marine environment worldwide and safeguarding seafarers' living and working conditions on board ships. (See also page 6)

Although a concentrated inspection campaign (CIC) on Safety of Navigation had previously been conducted in 2008, the subject was selected again for the CIC in 2017 as there are a number of new requirements which have been implemented since then, such as ECDIS,

and the number of deficiencies relating to safety of navigation have remained high. The CIC on Safety of Navigation was carried out from 1 September to 30 November 2017. During the CIC period, a total of 8,150 PSC inspections were conducted by the member Authorities, of which 6,720 were with a CIC inspection. PSC officers verified vital points of compliance in accordance with SOLAS Ch. V on all types of foreign merchant ships through CIC inspections. The highest number of CIC inspections relating to ship types were conducted on bulk carriers 2,360 (35.12%), followed by general cargo/multipurpose vessels 1,333 (19.84%) and container vessels 1,186 (17.65%). The most notable deficiencies found during the campaign were related to the passage plan for the voyage 338 (21.82%), exhibition of navigation/signal lights 304 (19.63%) and recognition of stages of remote audible alarm of BNWAS 168 (10.85%). There were 36 detentions as a direct result of the campaign. The CIC related detention rate was 0.54%, much lower than the overall detention rate of 2.75% during the same period. The CIC on Safety of Navigation in 2017 was conducted jointly with the Paris MOU. Regional PSC regimes of the Black Sea MOU, the Indian Ocean MOU and the Viña del

Mar Agreement also participated in the CIC.

Measures targeting under-performing ships are effectively implemented continuously. The number of under-performing ships has further decreased during 2017. Now, both the numbers of under-performing ships listed and individual ships involved are only one fourth of those at the initial stage of implementation of the measures targeting under-performing ships.

For promotion of transparency on PSC activities of the Tokyo MOU, a summary of cases considered by the detention review panel are published on the Tokyo MOU web-site on internet.

THE PORT STATE CONTROL COMMITTEE

The twenty-eighth meeting Port State Control Committee was held in Vladivostok, the Russian Federation, from 18 to 21 September 2017. The meeting was hosted by the Ministry of Transport of the Russian Federation. The meeting was chaired by Mr. Carlos Fanta, Rear Admiral (retired), Head of Port State Control Division, Directorate of Maritime Safety, Security and Operation, Directorate



The twenty-eighth Committee meeting, Vladivostok, September 2017.

General of the Maritime Territory and Merchant Marine (DIRECTEMAR) of Chile. Secretary-General of IMO, Mr. Kitack Lim, was invited by the Ministry of Transport of the Russian Federation to attend the opening ceremony and to deliver a key note speech.

The meeting was attended by representatives from the member Authorities of Australia, Canada, Chile, China, Hong Kong (China), Indonesia, Japan, the Republic of Korea, Malaysia, the Marshall Islands, New Zealand, Papua New Guinea, Peru, the Philippines, the Russian Federation, Singapore, Thailand and Viet Nam; co-operating member Authority of Panama; and observers of the Democratic People's Republic of Korea, Macao (China), IMO, the Black Sea MOU, the Paris MOU and the Viña del Mar Agreement.

The Committee considered the application for observer status by the Caribbean MOU. In accordance with provision of the Memorandum, the Committee unanimously agreed to accept the Caribbean MOU as an observer to the Tokyo MOU. The Committee considered the outcome of the pilot project of peer support review. The Committee confirmed the necessity and usefulness of peer support review and approved to implement it as a permanent programme.

The Committee took note of the continuous effective implementation of measures on under-performing ships. The Committee reviewed the analysis report of the most important key performance indicators (KPIs). Based on the evaluation of the outcome of implementation of the new inspection regime (NIR), the Committee considered and adopted amendments to NIR for addition of 2 weighting points each for container ship and company with no inspection within previous 36 months,

which will take effect on 1 February 2018.

The Committee was informed of the successful organization of the Third Joint Ministerial Conference of the Paris and the Tokyo Memoranda on Port State Control. The Committee considered the follow-up actions to be taken on matters assigned by the Ministers. The Committee established an intersessional working group to review the items referred to in the Ministerial Declaration and to propose the follow-up actions thereon. Pursuing the decision on training and education of PSC officers by the Ministers, the Committee set up a working group for development of distance learning programmes (DLP).

The Committee considered and agreed to the planned updates of the PSC Manual. The Committee considered and approved a number of revised or new guidelines for PSC Officers, which included guidelines on the ISM Code, guidelines on the Polar Code, guidelines on ECDIS, guidelines on BWM, guidelines on MARPOL Annexes IV and V, guidelines on seafarer certification and manning and guidelines on inspection of ships below convention size.

The Committee considered and approved the final report of the 2016 CIC on Cargo Securing Arrangements. The Committee reviewed and confirmed the arrangements and preparations for the joint CIC with the Paris MOU on MARPOL Annex VI in 2018. The Committee considered possible topics for future CICs and agreed to make the proposal to the Paris MOU for a joint CIC on Emergency Systems, including electrical systems and equipment covered by SOLAS Chapter II-1 in 2019. The Committee further confirmed to continue the practice of planning future CICs in accordance with the approach

adopted at the previous meeting.

In addition, the Committee also gave consideration and made decisions on the following:

- assessment of performance of member Authorities;
- approval of arrangement for publication of summary of detention review cases on the MOU web-site;
- review of achievements and status of the action plan developed based on the strategic plan;
- adoption of amendments to the Rule of Procedure of the PSC Committee;
- revision of PSC Coding Specifications;
- restructuring the arrangements for open forums with the industry; and
- awarding of the winner of the deficiency photo of the year.

In conjunction with the Committee meeting, an open forum with industry was organized. The representatives of the Asia Classification Society (ACS), the Active Shipbuilding Experts' Federation (ASEF) and INTER-TANKO participated in the forum. In addition, the International Association of Classification Societies (IACS), the International Chamber of Shipping (ICS) and INTERCARGO also provided issues and topics for discussion at the forum.

The twenty-ninth meeting of the Port State Control Committee will be held in China in November 2018.

TECHICAL WORKING GROUP (TWG)

The eleventh meeting of the Technical Working Group (TWG) was held in Vladivostok, the Russian Federation, from 15 to 16 September 2017, prior to the twenty-eighth meeting of the Committee. The TWG11 meeting was chaired by Mr. Kenny Crawford, Manager, Technical, Environment and Navigation, Maritime New Zealand.

The TWG meeting discussed and made recommendations to the Committee on matters relating to:

- cases considered by the detention review panel;
- periodical revision of the PSC Manual;
- development and review of PSC guidelines;
- preparation and arrangements for on-going and upcoming CICs;
- reports of intersessional groups: advisory group on information exchange (AG-IE), intersessional group on batch protocol (IG-BP) and intersessional group on statistics (IG-Statistics);
- activities and operation of the Asia-Pacific Computerized Information System (APCIS);
- management and maintenance of the coding system;
- analysis and statistics on PSC;

- information exchange with other regional PSC databases; and
- reports and evaluations of technical co-operation activities.

THE THIRD JOINT MINISTERIAL CONFERENCE

By the invitation of the Minister of Transport Canada, the Third Joint Ministerial Conference of the Paris and the Tokyo Memoranda on Port State Control was held in Vancouver, British Columbia, Canada, from 3 to 4 May 2017. The Conference gathered the Ministers or Heads of Delegation from 37 member Authorities of the two MOUs, namely: Australia, Belgium, Canada, Chile, China, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong (China), Iceland, Indonesia, Ireland, Italy, Japan, the Republic of Korea, Latvia, Lithuania, Malta, the Marshall Islands, the Netherlands, New Zealand, Norway, Papua New Guinea, Peru, the Philippines, Poland, the Russian Federation, Slovenia, Sweden, Thailand, the United Kingdom and Viet Nam. The Co-operating Member Authority of Panama and observers from the Authorities of Macao (China), Tonga and the United States, and from the inter-governmental organizations of ILO, IMO, the Abuja MOU, the Black Sea MOU, the Caribbean MOU, the Mediterranean MOU, the Viña del Mar Agreement, and from the non-governmental organizations of Green Award, IACS, INTERTANKO, ICS and ITF also participated in the Conference.

The purpose of the Conference was to discuss and review progress and development achieved since previous conferences, to identify specific areas of concern and to agree on the appropriate course of action thereof.

Upon conclusion of the Conference, a Joint Ministerial Declaration of "Safeguarding Responsible and Sustainable Shipping" was adopted and signed, which reconfirmed the strong commitment of the two Memoranda to eliminate substandard shipping. For achieving the above ultimate objective, the Declaration outlined a series of actions and measures to be taken by the member Authorities of the two MOUs in the coming years.

ASIA-PACIFIC COMPUTERIZED INFORMATION SYSTEM (APCIS)

For reporting and storing of port State inspection results and facilitating exchange of information in the region, a computerized database system was established. The central site of the APCIS is located in Moscow, under the auspices of the Ministry of Transport of the Russian Federation.

The APCIS is connected by member Authorities on-line or by batch protocol for searching ships for inspection and for inputting and transmitting inspection reports. The APCIS also supports on-line publication of PSC data on the Tokyo MOU web-site (<http://www.tokyo-mou.org>) on a real time basis. Based on data stored in the database, the APCIS produces annual and detailed PSC statistics.

For inter-regional information exchange, the APCIS has established deep hyperlinks with the databases of:

- THETIS of the Paris MOU;
- BSIS of the Black Sea MOU;
- IOCIS of the Indian Ocean MOU; and
- CIALA of the Viña del Mar Agreement.

Furthermore, the Tokyo MOU PSC data is also provided to GISIS and EQUASIS.

TRAINING AND SEMINARS FOR PORT STATE CONTROL OFFICERS

The seventh general training course for PSC officers was held in Yokohama, Japan, from 14 August to 8 September 2017. This was the thirteenth training course jointly organized by IMO and the Tokyo MOU. A total of 17 PSC officers participated in the training course. Ten of them were from the Tokyo MOU Authorities of Fiji, Indonesia, Malaysia, New Zealand, Panama, Peru, the Philippines, Thailand, Tonga and Viet Nam. Six of them were invited by IMO, one each from the Abuja MOU, the Black Sea MOU, the Caribbean MOU, the



Training course for PSC officers

Indian Ocean MOU, the Mediterranean MOU and the Viña del Mar Agreement. In addition, one more participant was sent and supported by the Indian Ocean MOU. The course was conducted with the assistance of the Ship-building Research Center of Japan (SRC).

The general training course consisted of two-week classroom lectures in a wide range of subjects, main part of which are related to IMO and ILO conventions and regulations



Onboard training

relevant to PSC implementation supplemented by onboard training in the following two weeks. Experts from the Ministry of Land, Infrastructure, Transport and Tourism of Japan (MLIT), SRC and the Secretariat delivered lectures on relevant subjects. Onboard training was carried out in the following two weeks, during which participants received practical training on PSC inspections at ports allocated in eight District Transport Bureaus, namely: Hokkaido, Tohoku, Hokuriku-shin'etsu, Chubu, Kinki, Kobe, Chugoku and Kyusyu. In addition, a technical visit to a liferaft service station was also arranged.

The twenty-fifth seminar for PSC officers and



Onboard training



The twenty-fifth seminar for PSC officers

the Workshop on Effective Implementation of IMO Conventions were held in Shanghai, China, from 10 to 14 July 2017. The seminar and workshop were hosted by the China Maritime Safety Administration (MSA). Participants from Authorities of Australia, Canada, China, Fiji, Hong Kong (China), Indonesia, Japan, the Republic of Korea, Macao (China), Malaysia, the Marshall Islands, New Zealand, Panama, Papua New Guinea, Peru, the Philippines, Samoa, Singapore, Thailand, Vanuatu and Viet Nam attended the seminar. One each from the Pacific Islands States of Cook Islands, Kiribati and Tuvalu, including Samoa with the support by IMO and a representative from the Indian Ocean MOU (Seychelles) also participated in the seminar. In addition, a number of Chinese PSC officers attended the seminar as observers. The major topics of the seminar were the Concentrated Inspection Campaign (CIC) on Safety of Navigation 2017, Introduction of Guidelines for PSC Officers on Ballast Water Management Convention, results of CIC on Cargo Securing Arrangements 2016, Introduction of Polar Code and related PSC matters, Inspection of Electronic Certificates during PSC, PSC on 2014 Amendments to MLC and PSC Activities in China. Experts from Australia, China, the Marshall Islands and Japan provided

comprehensive and informative presentations on the relevant topics. Two case study sessions were carried out to discuss actual cases provided by Authorities or reviewed by the detention review panel. Following the seminar, a Workshop on Effective Implementation of IMO Conventions was organized jointly by IMO and the Tokyo MOU. Experts from the Korean Register of Shipping and IACS gave presentations on recent development on IMO conventions, PSCO decision support tool and IACS clarifications and unified interpretations relating to PSC.

The seventh specialized training course was co-organized by IMO and the Tokyo MOU in Busan, Republic of Korea, from 13 to 16 November 2017. The training was hosted by the Ministry of Oceans and Fisheries of Republic of Korea. The training focused on the 2004 Ballast Water Management Convention (BWM). Participants from China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea, Macao (China), Malaysia, the Marshall Islands, Panama, Papua New Guinea, Peru, the Philippines, Thailand and Viet Nam attended the course. In addition, two PSC officers from the Indian Ocean MOU region, one was from Iran and the other from Sri Lanka, and two participants from Mexico, which is a member of the *Viña del Mar*



Specialized training course

Agreement, also participated in the course. Experts from IMO, the Republic of Korea and the Tokyo MOU Secretariat delivered presentations at the training course. IMO provided financial support to the training course.

Five expert missions were conducted in 2017. The first mission was conducted in Bangkok, Thailand, from 25 to 27 July 2017 by experts from China. The second mission was delivered in Hai Phong, Viet Nam, from 23 to 27 October 2017 by experts from Republic of Korea. The third mission was carried out in Callao, Peru, from 13 to 17 November 2017 by experts from Japan. The fourth mission was organized in Manila and Batangas, the Philippines, from 13 to 24 November 2017 by experts from Canada, Republic of Korea and New Zealand. The fifth mission was implemented in Suva, Fiji, from 27 November to 1 December 2017 by experts from Japan.

Six PSC officer exchanges, involving ten PSC officers, were completed in 2017, namely one PSC officer from Australia to Peru, two PSC officers one each from Chile and Fiji to Hong Kong (China), three PSC officers two from China and one from Peru to Australia, two PSC officers one each from Hong Kong (China) and Singapore to Japan, one PSC officer from Japan to New Zealand and one PSC officer from the Russian Federation to Thailand.

Effective and successful implementation of the extensive, comprehensive technical co-operation programmes ensures the Tokyo MOU to keep the good potential and sustainability for development of its activities. The Nippon Foundation kindly provided continuous funding for the Tokyo MOU technical co-operation activities.

CO-OPERATION WITH OTHER REGIONAL PORT STATE CONTROL REGIMES

Establishment and effective operation of regional co-operation regimes on port State control has formed a worldwide network for elimination of substandard shipping. Currently, there are a total of nine regional port State control regimes (MOUs) covering the major part of the world, namely:

- Abuja MOU
- Black Sea MOU
- Caribbean MOU
- Indian Ocean MOU
- Mediterranean MOU
- Paris MOU
- Riyadh MOU
- Tokyo MOU
- Viña del Mar Agreement

As one of the inter-governmental organizations (IGO) associated with IMO, the Tokyo MOU has attended meetings of the Flag State Implementation (FSI) and Implementation of IMO Instruments (III) Sub-Committees since 2006. The Tokyo MOU Secretariat attended the fourth meeting of the III Sub-Committee in September 2017. Moreover, the Chair of PSC Committee, the Secretary and the APCIS Manager, representing the Tokyo MOU, participated in the seventh IMO Workshop for PSC MoU/Agreement Secretaries and Database Managers held from 24 to 26 October 2017.

In support of inter-regional collaboration on port State control, the Tokyo MOU holds observer status within the Paris MOU, the Caribbean MOU, the Indian Ocean MOU, the Viña del Mar Agreement and the Riyadh MOU. In a similar manner, the Tokyo MOU has

granted observer status to the Paris MOU, the Indian Ocean MOU, the Viña del Mar Agreement, the Black Sea MOU, the Riyadh MOU and the Caribbean MOU.

The Tokyo MOU has established, and maintains, effective and close co-operation with the Paris MOU at both administrative and technical levels. Representatives of the two Secretariats attend the Port State Control Committee meetings of each MOU on a regular basis. During the period of 2017, continuous efforts and further coordinated actions by the two Memoranda were made on the following:

- active participation in The Third Joint Ministerial Conference;
- ongoing co-operation for keeping harmonization of PSC guidelines with each other;
- closer liaison for better planning of joint CICs;
- joint updating PSC Coding Specifications;
- continuous submission to IMO on annual list of flags targeted by the Paris MOU, Tokyo MOU and the United States Coast Guard; and
- continuous analysis of performance of flag and RO and joint submission of the outcome to IMO.

A second expert mission training course was held in Oman from 19 February to 2 March 2017, under the project of technical co-operation with the Riyadh MOU. The course was organized by the Ministry of

Transport and Communications of Oman with support from the Secretariats of the Riyadh and the Tokyo Memoranda. Training was conducted by experts from the Tokyo MOU Authorities of Chile, China, Japan and New Zealand and an officer from the Tokyo MOU Secretariat. A total of 12 participants attended the course. The Nippon Foundation kindly rendered financial support to the project of technical co-operation to the Riyadh MOU. IMO also provided funding for participants from other regions.



Expert mission training course for the Riyadh MOU

PORT STATE CONTROL UNDER THE TOKYO MOU, 2017

INSPECTIONS

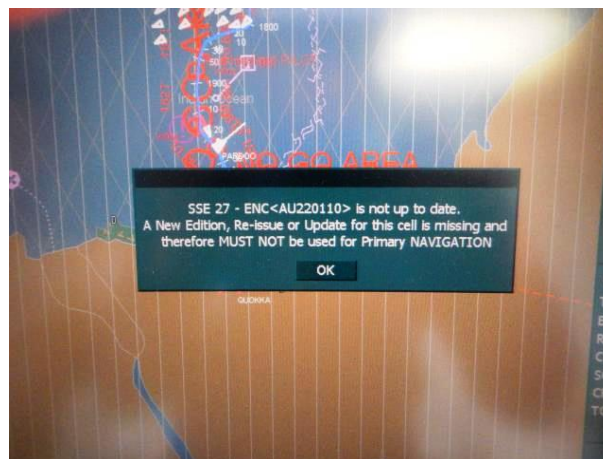
In 2017, 31,315 inspections, involving 17,369 individual ships, were carried out on ships registered under 99 flags. Figure 3 and Table 2 show the number of inspections carried out by the member Authorities of the Tokyo MOU. Out of 31,315 inspections, there were 18,113 inspections where ships were found with deficiencies. Since the total number of individual ships operating in the region was estimated at 24,939*, the inspection rate in the region was approximately 70%** in 2017 (see Figure 1).



apcis.tmo.u.org

* Number of individual ships which visited the ports of the region during the year (the figure was provided by LLI).

** The inspection rate is calculated by: number of individual ships inspected/number of individual ships visited.



Information on inspections according to ships' flag is shown in Table 4.

Figure 2 and Table 3 provide information on inspections per ship risk profile.

Figures summarizing inspections according to ship type are set out in Figure 4 and Table 5.

Inspection results regarding recognized organizations are shown in Table 6.

DETENTIONS

Ships are detained when the condition of the ship or its crew does not correspond substantially with the applicable conventions. Such strong action is to ensure that the ship can 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.

In 2017, 941 ships registered under 69 flags were detained due to serious deficiencies having been found onboard. The detention



rate of ships inspected was 3.00%. Both the number of detentions and detention percentage has decreased continuously.

Figure 5 shows the detention rate by flag for flags where at least 20 port State control inspections had been conducted and whose detention rate was above the average regional rate. Figure 6 gives the detention rate by ship type. Figure 8 illustrates the most frequent detainable deficiencies found during inspections, among which detainable deficiencies on Lifeboats (Life saving appliances) was continuously on the top.

The Black-grey-white list (Table 8) indicates levels of performance of flags over a three-year rolling period. Flags, whose ships were involved in 30 or more inspections during the period, are included in the list. The black-grey-white list for 2015-2017 consists of 66 flags, an increase of two from last year. The number of flags in the black list is 11, one flag more than last year. In a similar situation like the Federated States of Micronesia last year, Fiji became a black listed flag, due to the fact that there were some ships fraudulently registered under its flag and trading internationally during 2016 and 2017 as notified by the Maritime Safety Authority of Fiji (MSAF) officially. The number of flags on the

grey list decreased from 20 to 18 during the reporting period. The white list increased from 34 to 37 flags.

A list of under-performing ships (i.e. ships detained three or more times during previous twelve months) is published monthly. A total of 109 vessels, involving 24 individual ships, were identified as under-performing ships in 2017, the number of which is continuously decreasing. The list of under-performing ships is provided in Table 16.

DEFICIENCIES

Where conditions on board are found that are not in compliance with the requirements of the relevant instruments by the port State control officers, these are recorded as deficiencies and required to be rectified.

A total of 76,108 deficiencies were recorded in





2017. The deficiencies found are categorized and shown in Figure 7 and Table 7.

It has been noted that fire safety measures, safety of navigation and life-saving appliances continue to be the top three categories of deficiencies discovered on ships. In 2017, 13,707 deficiencies related to fire safety measures, 11,701 safety of navigation related deficiencies and 9,787 deficiencies related to life-saving appliances were recorded, representing nearly 50% of the total number of all recorded deficiencies.

In 2017, deficiencies reduced 5,163 in number or 6.35% by percentage. The reduction is found mainly in categories of fire safety, safety of navigation, life-saving appliances, radio communications, cargo operations and equipment and ISM. On the other hand, deficiencies relating to labour conditions/MLC, since its entry into force, has increased

year-by-year, which is considered the positive consequence of wider ratification of MLC by the member Authorities (i.e. 6 or 30% member Authorities were Parties to MLC when entry into force in 2013; 15 or 75% by the end of 2017).

The Ballast Water Management (BWM) Convention, included as a relevant instrument under the Tokyo MOU, entered into force on 8 September 2017. During the four months after its entry into force, 261 BWM related deficiencies were recorded by PSCOs. It is anticipated that this number will increase next year.

OVERVIEW OF PORT STATE CONTROL RESULTS 2007 – 2017

Figures 9-14 show the comparison of port State inspection results for 2007 - 2017. These figures indicate the trends in port State activities and ship performance over the past eleven years.

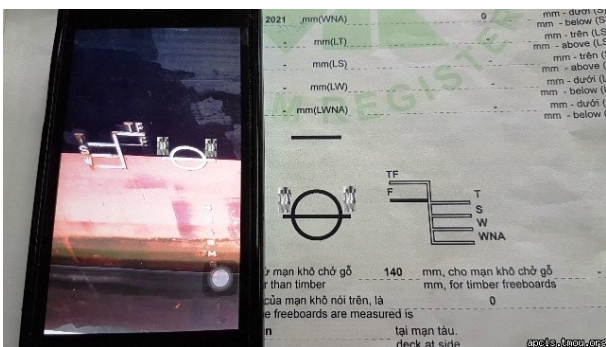
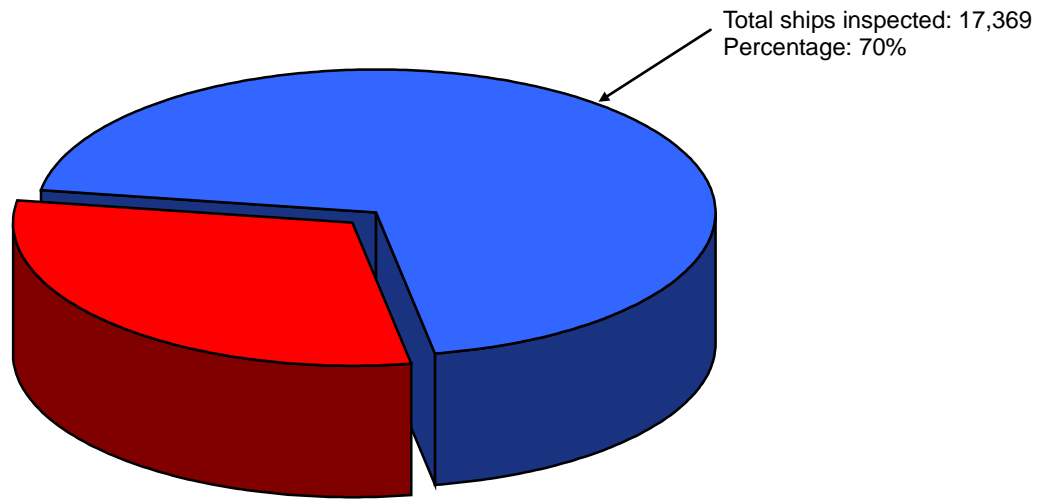


Figure 1: INSPECTION PERCENTAGE



Total individual ship visited: 24,939

Figure 2: INSPECTION PER SHIP RISK PROFILE

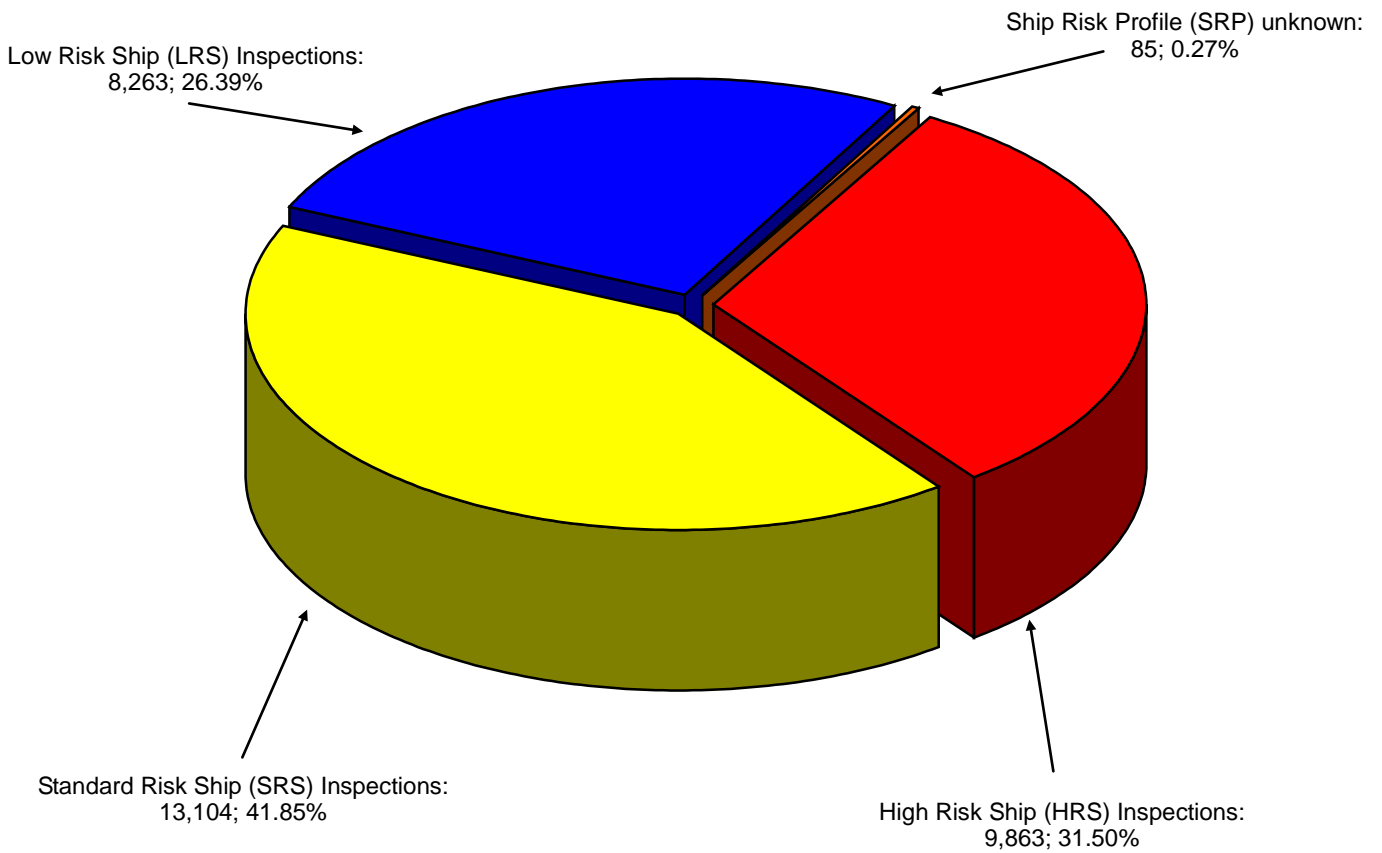


Figure 3: PORT STATE INSPECTIONS - CONTRIBUTION BY AUTHORITIES

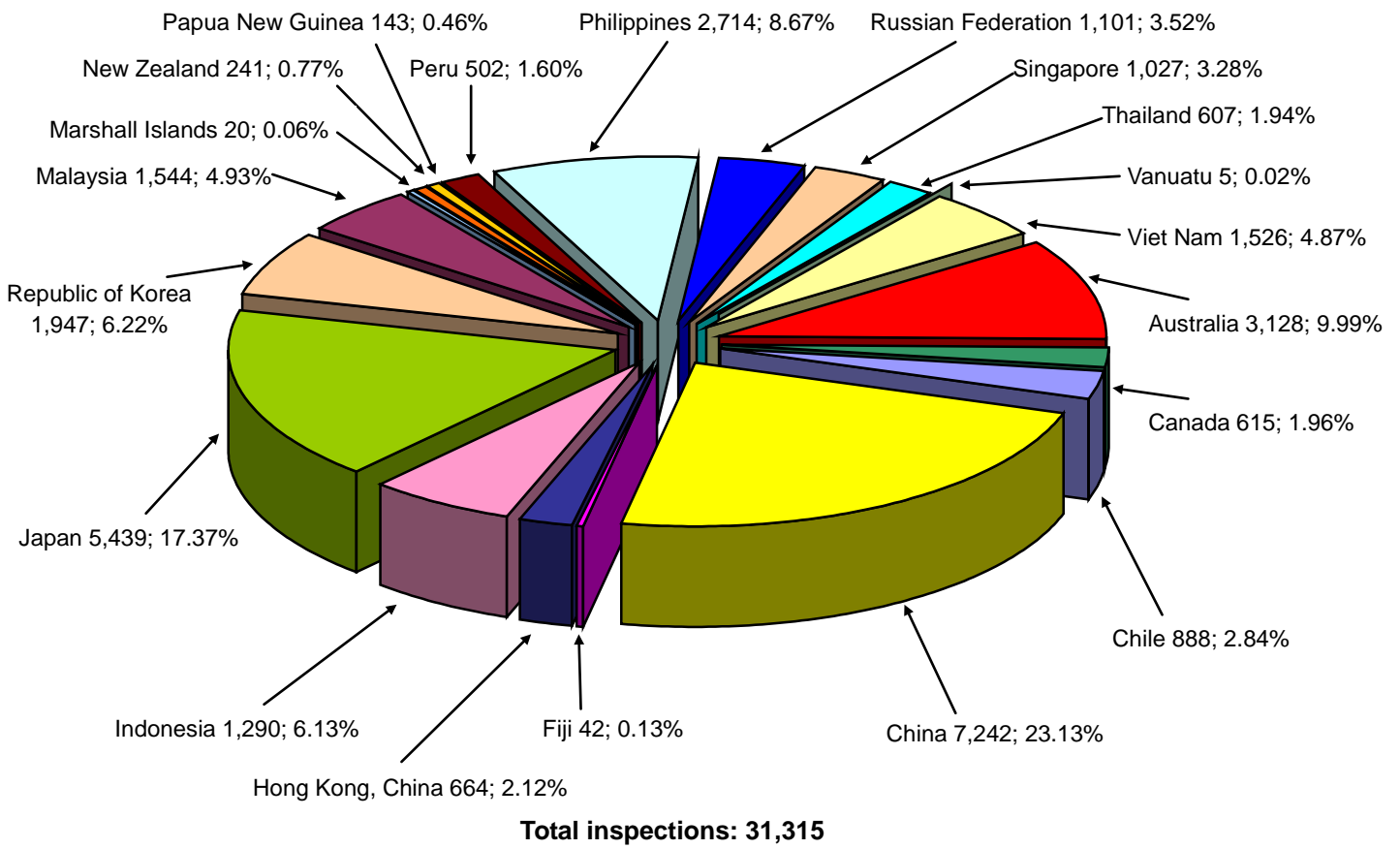


Figure 4: TYPE OF SHIP INSPECTED

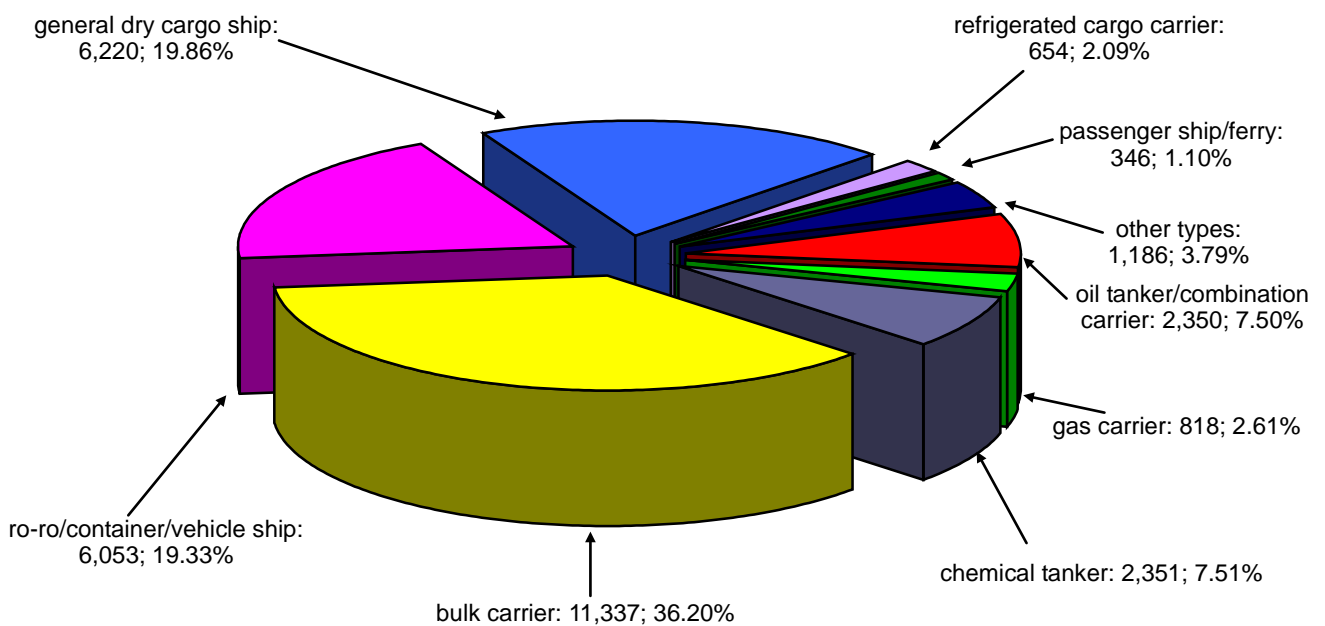
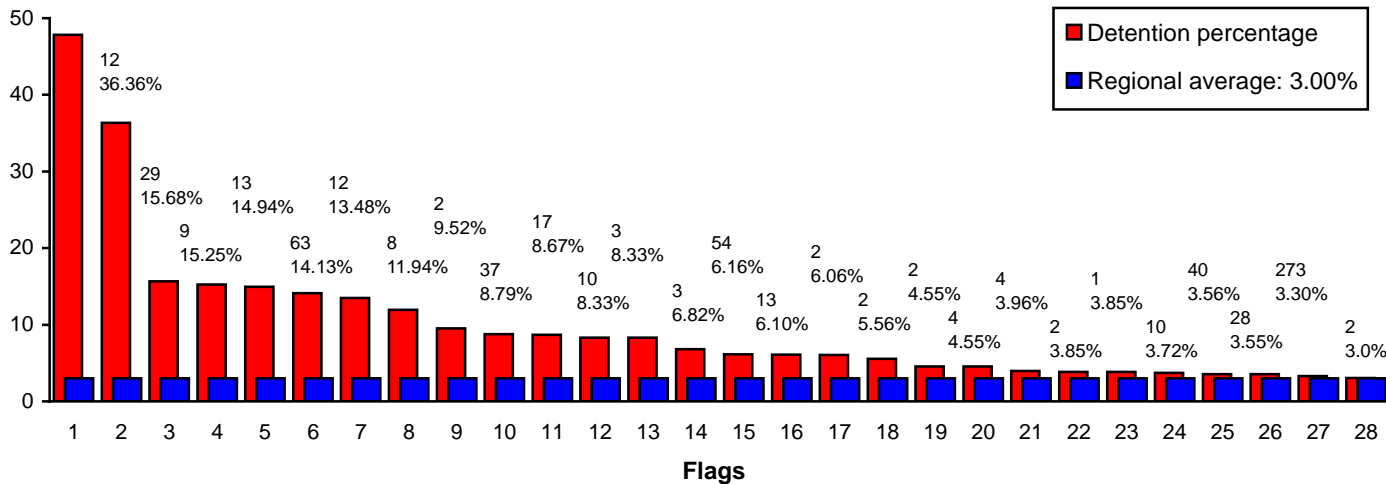


Figure 5: DETENTIONS PER FLAG

Detention: 11
Percentage: 47.83%



Flags:

- | | | | |
|--------------------------|------------------|------------------------------|--------------------------------------|
| 1. Fiji | 2. Tanzania | 3. Korea, Dem. People's Rep. | 4. Niue |
| 5. Mongolia | 6. Togo | 7. Palau | 8. Micronesia, Federated States of |
| 9. Saint Kitts and Nevis | 10. Sierra Leone | 11. Indonesia | 12. Kiribati |
| 13. Jamaica | 14. Turkey | 15. Belize | 16. Philippines |
| 17. Cook Islands | 18. Switzerland | 19. Iran | 20. India |
| 21. Netherlands | 22. Bangladesh | 23. Dominica | 24. Thailand |
| 25. Malta | 26. Viet Nam | 27. Panama | 28. Saint Vincent and the Grenadines |

Note: Flags listed above are those flags the ships of which were involved in at least 20 port State inspections and detention percentage of which are above the regional average detention percentage. The complete information on detentions by flag is given in Table 3.

Figure 6: DETENTION PER SHIP TYPE

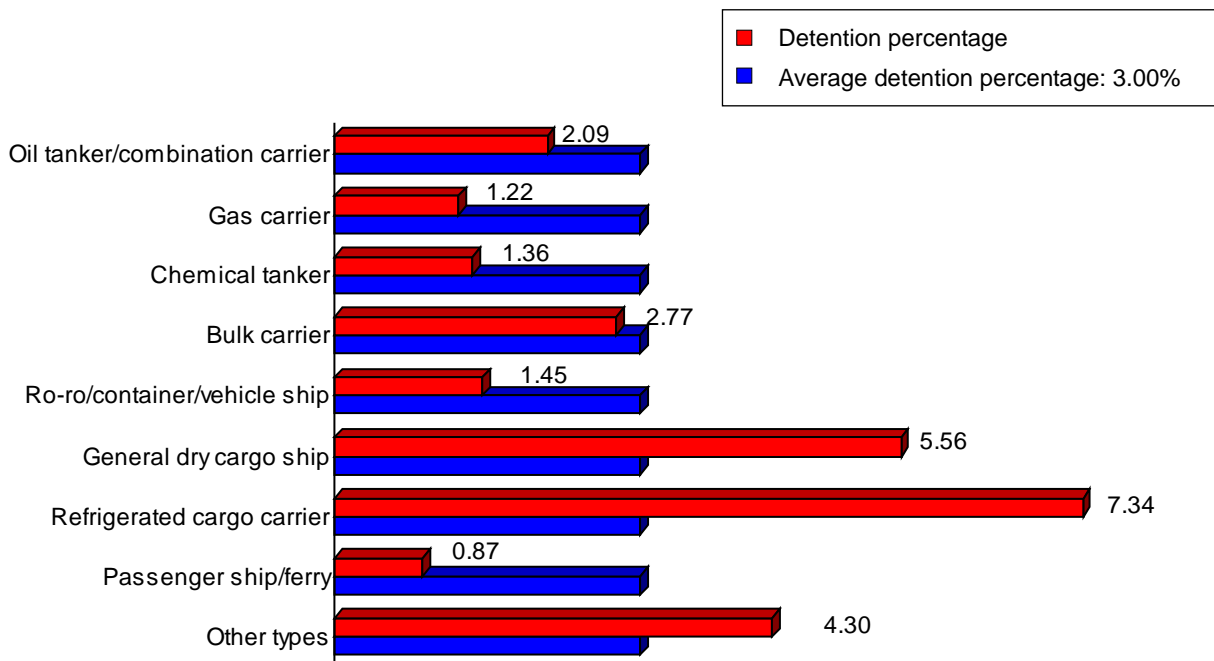


Figure 7: DEFICIENCIES BY MAIN CATEGORIES

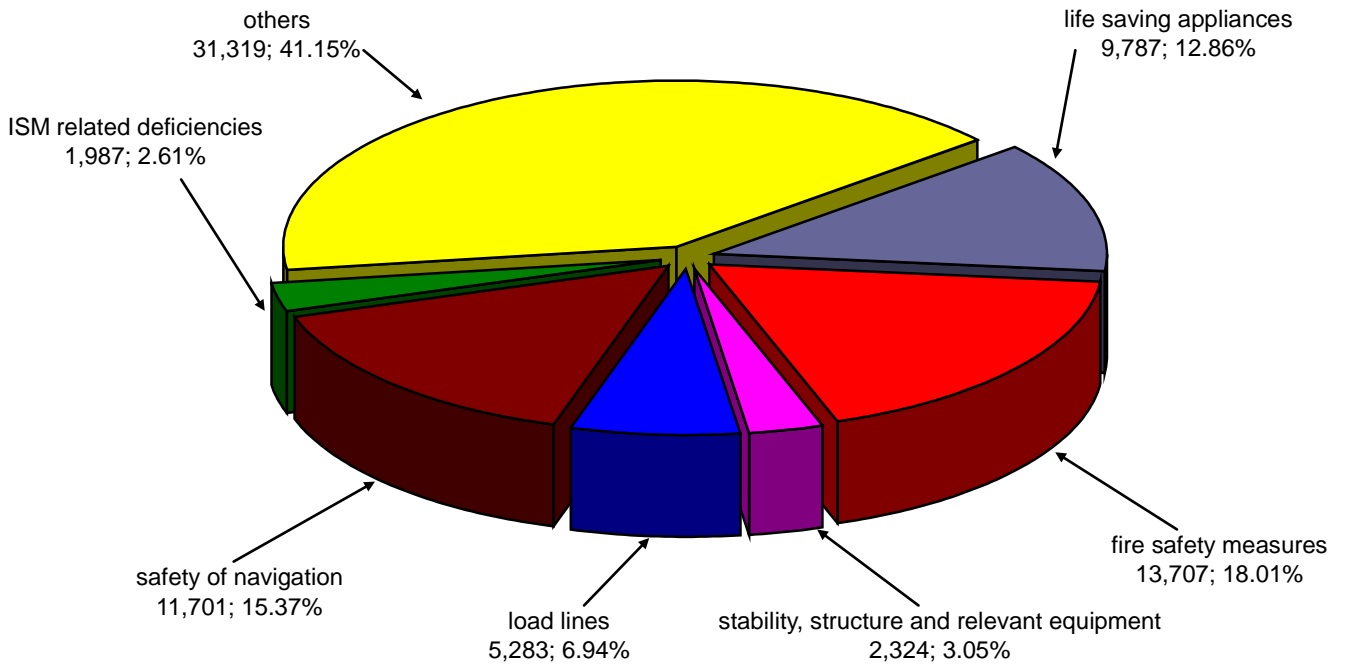
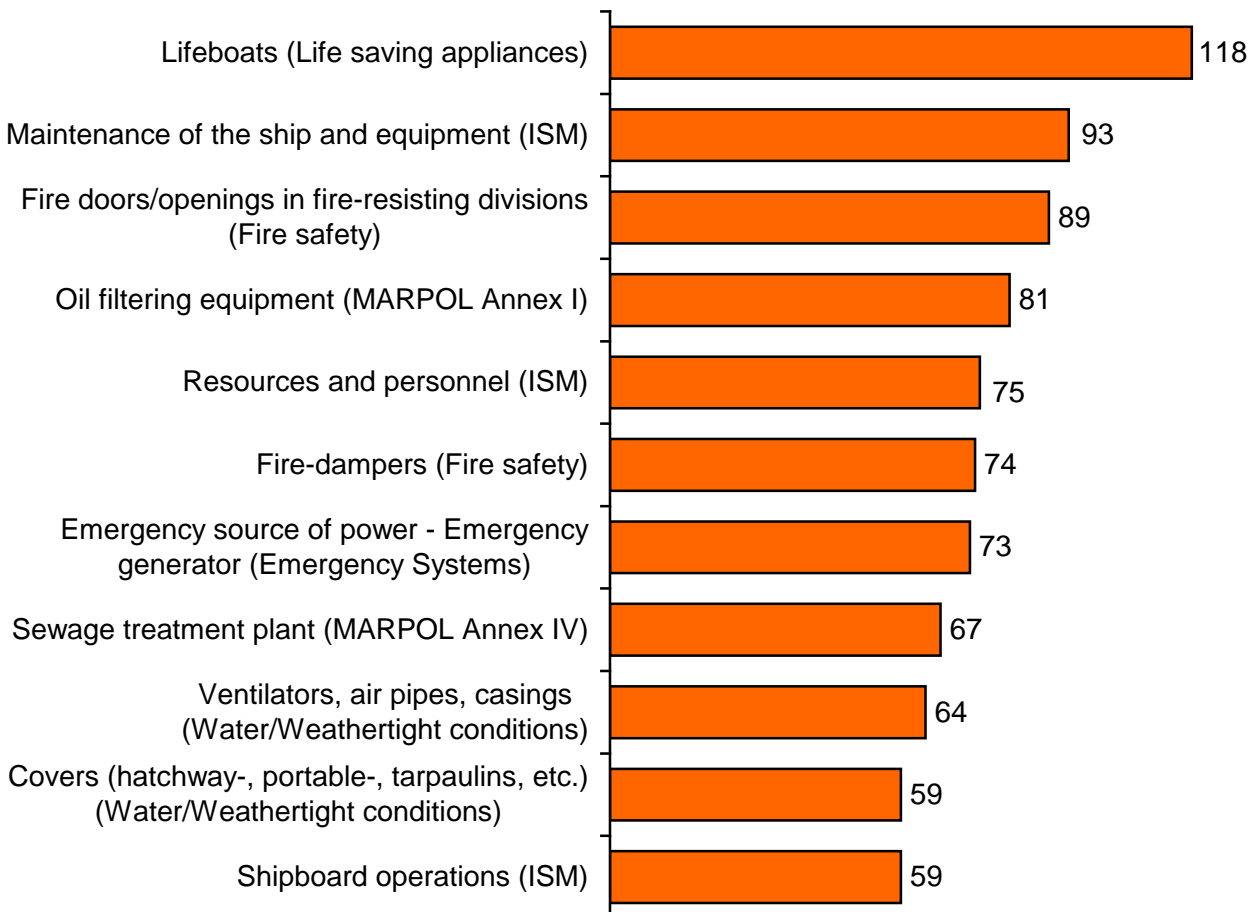


Figure 8: MOST FREQUENT DETAINABLE DEFICIENCIES



OVERVIEW OF PORT STATE CONTROL RESULTS 2007 - 2017

Figure 9: NO. OF INSPECTIONS

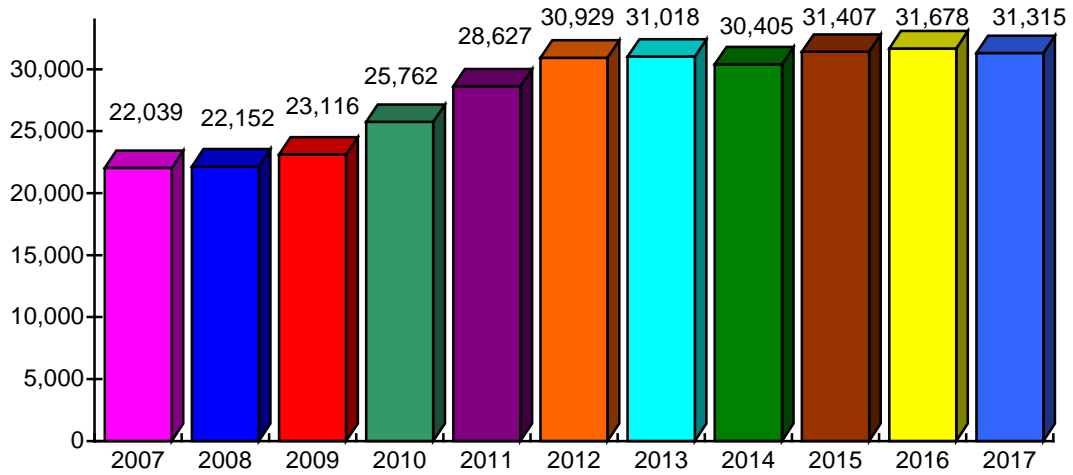


Figure 10: INSPECTION PERCENTAGE

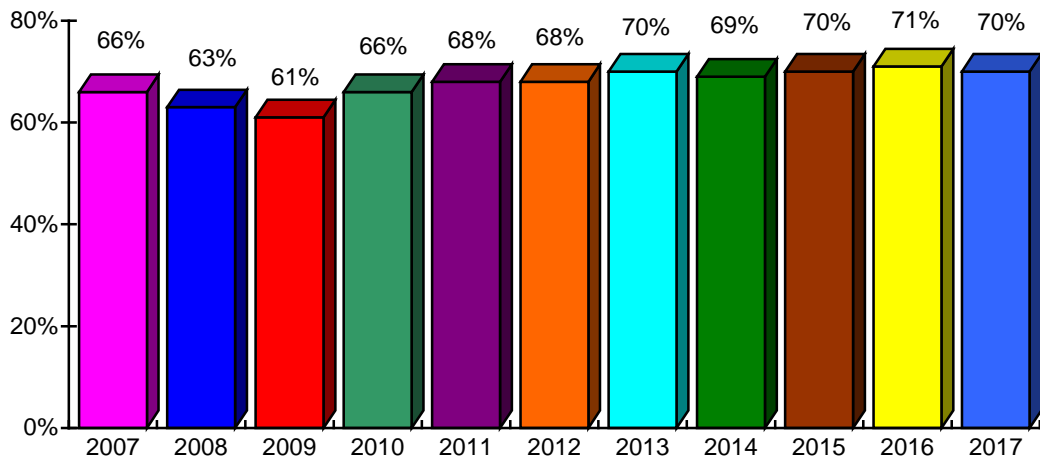


Figure 11: NO. OF INSPECTIONS WITH DEFICIENCIES

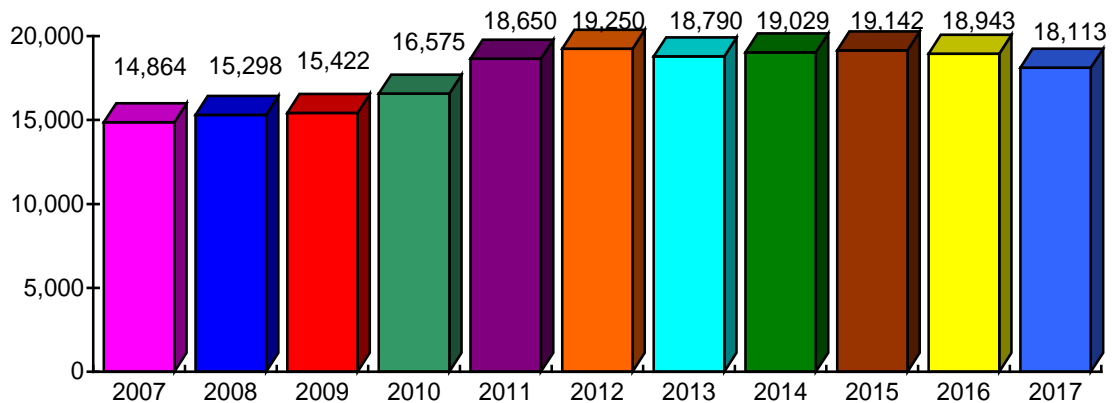


Figure 12: NO. OF DEFICIENCIES

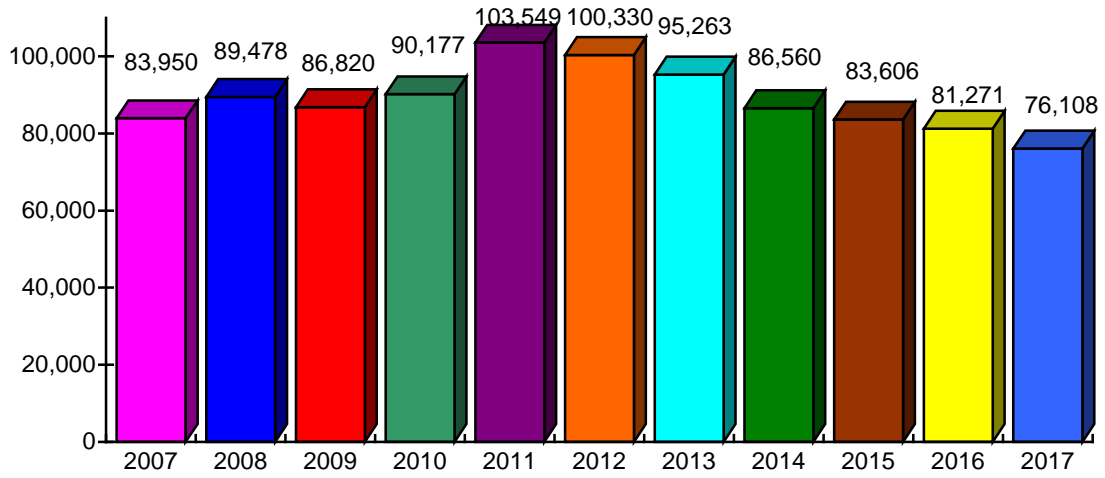


Figure 13: NO. OF DETENTIONS

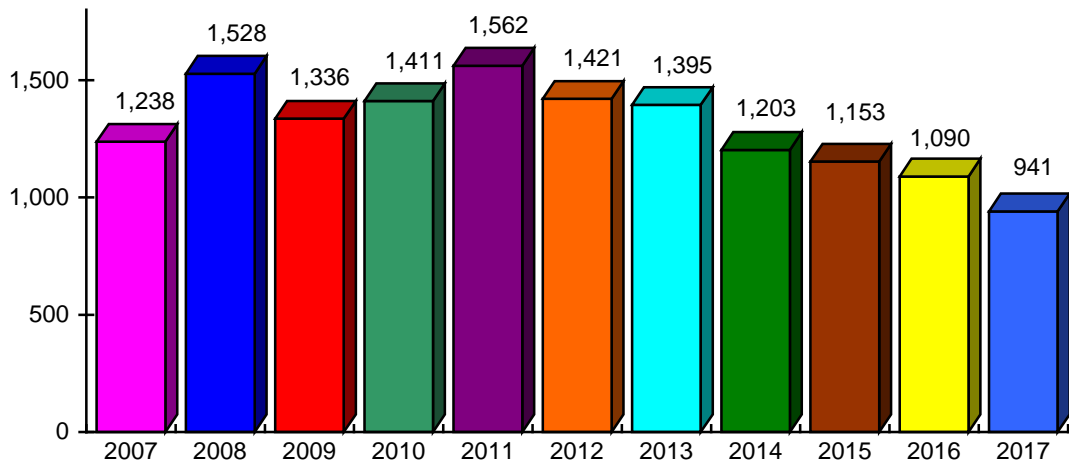
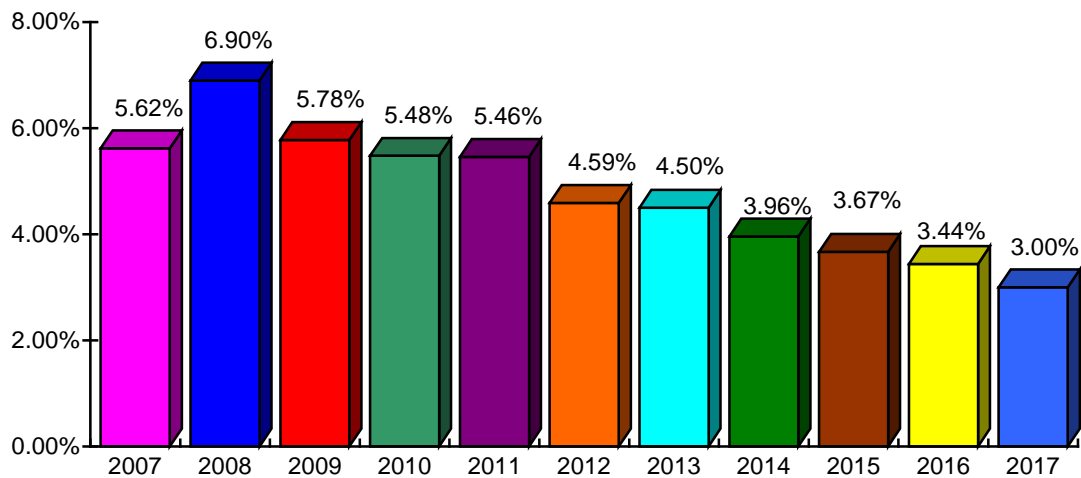


Figure 14: DETENTION PERCENTAGE



ANNEX 1

STATUS OF THE RELEVANT INSTRUMENTS

Table 1: STATUS OF THE RELEVANT INSTRUMENTS

(Date of deposit of instruments)

(as at 31 December 2017)

Authority	LOAD LINES 66	LOAD LINES PROT 88	SOLAS 74	SOLAS PROT 78	SOLAS PROT 88	MARPOL 73/78	STCW 78
Australia	29/07/68	07/02/97	17/08/83	17/08/83	07/02/97	14/10/87	07/11/83
Canada	14/01/70	08/04/10	08/05/78	-	08/04/10	16/11/92	06/11/87
Chile	10/03/75	03/03/95	28/03/80	15/07/92	29/09/95	10/10/94	09/06/87
China	05/10/73	03/02/95	07/01/80	17/12/82	03/02/95	01/07/83	08/06/81
Fiji	29/11/72	28/07/04	04/03/83	28/07/04	28/07/04	08/03/16	27/03/91
Hong Kong, China*	16/08/72	23/10/02	25/05/80	14/11/81	23/10/02	11/04/85	03/11/84
Indonesia	17/01/77	28/11/17	17/02/81	23/08/88	28/11/17	21/10/86	27/01/87
Japan	15/05/68	24/06/97	15/05/80	15/05/80	24/06/97	09/06/83	27/05/82
Republic of Korea	10/07/69	14/11/94	31/12/80	02/12/82	14/11/94	23/07/84	04/04/85
Malaysia	12/01/71	11/11/11	19/10/83	19/10/83	11/11/11	31/01/97	31/01/92
Marshall Islands	26/04/88	29/11/94	26/04/88	26/04/88	16/10/95	26/04/88	25/04/89
New Zealand	05/02/70	03/06/01	23/02/90	23/02/90	03/06/01	25/09/98	30/07/86
Papua New Guinea	18/05/76	-	12/11/80	-	-	25/10/93	28/10/91
Peru	18/01/67	24/06/09	04/12/79	16/07/82	21/08/09	25/04/80	16/07/82
Philippines	04/03/69	-	15/12/81	-	-	15/06/01	22/02/84
Russian Federation	04/07/66	18/08/00	09/01/80	12/05/81	18/08/00	03/11/83	09/10/79
Singapore	21/09/71	18/08/99	16/03/81	01/06/84	10/08/99	01/11/90	01/05/88
Thailand	30/12/92	-	18/12/84	-	-	02/11/07	19/06/97
Vanuatu	28/07/82	26/11/90	28/07/82	28/07/82	14/09/92	13/04/89	22/04/91
Viet Nam	18/12/90	27/05/02	18/12/90	12/10/92	27/05/02	29/05/91	18/12/90
Panama	13/05/66	17/09/07	09/03/78	14/07/82	17/09/07	20/02/85	29/06/92
DPR Korea	18/10/89	08/08/01	01/05/85	01/05/85	08/08/01	01/05/85	01/05/85
Macao, China*	18/07/05	11/10/10	20/12/99	20/12/99	24/06/05	20/12/99	18/07/05
Samoa	23/10/79	18/05/04	14/03/97	14/03/97	18/05/04	07/02/02	24/05/93
Solomon Islands	30/06/04	-	30/06/04	-	-	30/06/04	01/06/94
Tonga	12/04/77	15/06/00	12/04/77	18/09/03	15/06/00	01/02/96	07/02/95
Entry into force date	21/07/68	03/02/00	25/05/80	01/05/81	03/02/00	02/10/83	28/04/84

* Effective date of extension of instruments.

(as at 31 December 2017)

Authority	COLREG 72	TONNAGE 69	ILO 147**	MLC 2006***	AFS 2001	CLC PROT 92	BWM 2004
Australia	29/02/80	21/05/82	-	21/12/11	09/01/07	09/10/95	07/06/17
Canada	07/03/75	18/07/94	D	15/06/10	08/04/10	29/05/98	08/04/10
Chile	02/08/77	22/11/82	-	-	06/10/16	29/05/02	-
China	07/01/80	08/04/80	-	12/11/15	07/03/11	05/01/99	-
Fiji	04/03/83	29/11/72	-	21/01/13	08/03/16	30/11/99	08/03/16
Hong Kong, China*	15/07/77	18/07/82	28/11/80	-	15/02/16	05/01/99	-
Indonesia	13/11/79	14/03/89	-	12/06/17	11/09/14	06/07/99	24/11/15
Japan	21/06/77	17/07/80	D	05/08/13	08/07/03	24/08/94	10/10/14
Republic of Korea	29/07/77	18/01/80	-	09/01/14	24/07/08	07/03/97	10/12/09
Malaysia	23/12/80	24/04/84	-	20/08/13	27/09/10	09/06/04	27/09/10
Marshall Islands	26/04/88	25/04/89	-	25/09/07	09/05/08	16/10/95	26/11/09
New Zealand	26/11/76	06/01/78	-	09/03/16	-	25/06/98	09/01/17
Papua New Guinea	18/05/76	25/10/93	-	-	-	23/01/01	-
Peru	09/01/80	16/07/82	06/07/04	-	-	01/09/05	10/06/16
Philippines	10/06/13	06/09/78	-	20/08/12	-	07/07/97	-
Russian Federation	09/11/73	20/11/69	D	20/08/12	19/10/12	20/03/00	24/05/12
Singapore	29/04/77	06/06/85	-	15/06/11	31/12/09	18/09/97	08/06/17
Thailand	06/08/79	11/06/96	-	07/06/16	-	17/07/17	-
Vanuatu	28/07/82	13/01/89	-	-	20/08/08	18/02/99	-
Viet Nam	18/12/90	18/12/90	-	08/05/13	27/11/15	17/06/03	-
Panama	14/03/79	09/03/78	-	06/02/09	17/09/07	18/03/99	19/10/16
DPR Korea	01/05/85	18/10/89	-	-	-	-	-
Macao, China*	20/12/99	18/07/05	-	-	07/03/11	24/06/05	-
Samoa	23/10/79	18/05/04	-	21/11/13	-	01/02/02	-
Solomon Islands	12/03/82	30/06/04	-	-	-	30/06/04	-
Tonga	12/04/97	12/04/97	-	-	16/04/14	10/12/99	16/04/14
Entry into force date	15/07/77	18/07/82	28/11/81	20/08/13	17/09/08	30/05/96	08/09/17

* Effective date of extension of instruments.

** Although some Authorities have not ratified the ILO Convention No.147, parts of the ILO conventions referred to therein are implemented under their national legislation and port State control is carried out on matters covered by the national regulations.

*** MLC 2006 will supersede ILO147 if the Authority ratified both of them.

Table 1a: STATUS OF MARPOL 73/78

(Date of deposit of instruments)

(As at 31 December 2017)

Authority	Annexes I & II	Annex III	Annex IV	Annex V	Annex VI
Australia	14/10/87	10/10/94	27/02/04	14/08/90	07/08/07
Canada	16/11/92	08/08/02	26/03/10	26/03/10	26/03/10
Chile	10/10/94	10/10/94	10/10/94	15/08/08	16/10/06
China	01/07/83	13/09/94	02/11/06	21/11/88	23/05/06
Fiji	08/03/16	-	08/03/16	08/03/16	-
Hong Kong, China*	11/04/85	07/03/95	02/11/06	27/03/96	20/03/08
Indonesia	21/10/86	24/08/12	24/08/12	24/08/12	24/08/12
Japan	09/06/83	09/06/83	09/06/83	09/06/83	15/02/05
Republic of Korea	23/07/84	28/02/96	28/11/03	28/02/96	20/04/06
Malaysia	31/01/97	27/09/10	27/09/10	31/01/97	27/09/10
Marshall Islands	26/04/88	26/04/88	26/04/88	26/04/88	07/03/02
New Zealand	25/09/98	25/09/98	-	25/09/98	-
Papua New Guinea	25/10/93	25/10/93	25/10/93	25/10/93	-
Peru	25/04/80	25/04/80	25/04/80	25/04/80	04/12/14
Philippines	15/06/01	15/06/01	15/06/01	15/06/01	-
Russian Federation	03/11/83	14/08/87	14/08/87	14/08/87	08/04/11
Singapore	01/11/90	02/03/94	01/05/05	27/05/99	08/10/00
Thailand	02/11/07	-	-	-	-
Vanuatu	13/04/89	22/04/91	15/03/04	22/04/91	15/03/04
Viet Nam	29/05/91	19/12/14	19/12/14	19/12/14	19/12/14
Panama	20/02/85	20/02/85	20/02/85	20/02/85	13/05/03
DPR Korea	01/05/01	01/05/01	01/05/01	01/05/01	-
Macao, China*	20/12/99	20/12/99	02/11/06	20/12/99	23/05/06
Samoa	07/02/02	07/02/02	07/02/02	07/02/02	18/05/04
Solomon Islands	30/06/04	30/06/04	30/06/04	30/06/04	-
Tonga	01/02/96	01/02/96	01/02/96	01/02/96	20/03/15
Entry into force date	02/10/1983	01/07/1992	27/09/2003	31/12/1988	19/05/2005

* Effective date of extension of instruments.

ANNEX 2

PORT STATE INSPECTION STATISTICS

STATISTICS FOR 2017

Table 2: PORT STATE INSPECTIONS CARRIED OUT BY AUTHORITIES

Authority	No. of individual ships inspected (a)	No. of initial and follow-up inspections (b+c)	No. of initial inspections (b)	No. of follow-up inspections (c)	No. of inspections with deficiencies (d)	No. of deficiencies ¹⁾ (e)	No. of detentions ¹⁾ (f)	No. of individual ships visited ²⁾ (g)	Inspection rate (a/g%)	Detention percentage (f/b%)
Australia ³⁾	2,802	5,319	3,128	2,191	1,689	7,079	165	5,930	47.25	5.27
Canada ⁴⁾	614	615	615	0	327	1,104	5	2,007	30.59	0.81
Chile	823	1,285	888	397	360	832	13	1,842	44.68	1.46
China	5,859	8,738	7,242	1,496	6,017	27,309	372	15,990	36.64	5.14
Fiji	40	65	42	23	15	44	2	233	17.17	4.76
Hong Kong, China	632	908	664	244	599	2,917	27	5,280	11.97	4.07
Indonesia	1,632	2,111	1,920	191	760	2,920	66	7,108	22.96	3.44
Japan	3,546	7,082	5,439	1,643	3,201	14,625	107	7,500	47.28	1.97
Republic of Korea	1,676	2,933	1,947	986	1,271	4,946	66	10,091	16.61	3.39
Malaysia	1,255	1,805	1,544	261	597	2,857	24	7,089	17.70	1.55
Marshall Islands	20	31	20	11	16	78	1	90	22.22	5.00
New Zealand	205	314	241	73	144	560	6	1,037	19.77	2.49
Papua New Guinea	119	235	143	92	83	366	7	405	29.38	4.90
Peru	473	627	502	125	110	241	2	1,754	26.97	0.40
Philippines	1,885	3,291	2,714	577	525	1,184	2	3,183	59.22	0.07
Russian Federation ⁴⁾	727	2,173	1,101	1,072	874	4,319	54	2,305	31.54	4.90
Singapore	894	1,405	1,027	378	630	2,179	15	13,898	6.43	1.46
Thailand	445	701	607	94	102	257	0	3,981	11.18	0
Vanuatu	4	5	5	0	0	0	0	68	5.88	0
Viet Nam	1242	1,973	1,526	447	793	2,291	7	3,538	35.10	0.46
Total	17,369	41,616	31,315	10,301	18,113	76,108	941	Regional 24,939	Regional 70%	Regional 3.00%

1) Numbers of deficiencies and detentions do not include those related to security.

2) LLI data for 2017.

3) Data for Australia is also provided to Indian Ocean MOU.

4) Data are only for the Pacific ports.

Table 2a: PORT STATE INSPECTIONS ON MARITIME SECURITY

Authority	No. of inspections	No. of inspections with security related deficiencies	No. of security related deficiencies	No. of security related detentions	Detention percentage (%)
Australia	3,128	5	5	0	0
Canada	615	9	9	0	0
Chile	888	14	14	0	0
China	7,242	406	451	8	0.11
Fiji	42	1	1	0	0
Hong Kong, China	664	52	54	0	0
Indonesia	1,920	36	36	0	0
Japan	5,439	293	300	1	0.02
Republic of Korea	1,947	140	157	1	0.05
Malaysia	1,544	52	61	3	0.19
Marshall Islands	20	1	1	0	0
New Zealand	241	7	7	0	0
Papua New Guinea	143	3	3	0	0
Peru	502	6	6	0	0
Philippines	2,714	68	96	0	0
Russian Federation	1,101	62	66	2	0.18
Singapore	1,027	11	12	0	0
Thailand	607	12	12	0	0
Vanuatu	5	0	0	0	0
Viet Nam	1,526	54	54	0	0
Total	31,315	1,232	1,345	15	Regional 0.05%

Note: Security related data showing in the above table and the tables of deficiency by category are excluded from all other statistical tables and figures in this report.

Table 3: PORT STATE INSPECTIONS PER SHIP RISK PROFILE

Authority	Ship Risk Profile (SRP)				Total No. of inspections
	HRS	SRS	LRS	SRP Unknown	
Australia	540	1,389	1,186	13	3,128
Canada	79	257	279	0	615
Chile	126	466	294	2	888
China	2,672	2,953	1,617	0	7,242
Fiji	9	19	14	0	42
Hong Kong, China	189	330	145	0	664
Indonesia	444	796	679	1	1,920
Japan	2,217	2,118	1,076	28	5,439
Republic of Korea	824	752	371	0	1,947
Malaysia	340	676	489	39	1,544
Marshall Islands	7	10	3	0	20
New Zealand	82	101	58	0	241
Papua New Guinea	60	59	24	0	143
Peru	70	241	191	0	502
Philippines	507	1,175	1,032	0	2,714
Russian Federation	713	277	111	0	1,101
Singapore	241	614	172	0	1,027
Thailand	89	270	248	0	607
Vanuatu	0	2	3	0	5
Viet Nam	654	599	271	2	1,526
Total	9,863	13,104	8,263	85	31,315

Table 4: PORT STATE INSPECTIONS PER FLAG

Flag	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	Detention percentage %
Antigua and Barbuda	374	202	674	4	1.07
Argentina	2	2	5	0	0
Australia	13	1	6	0	0
Bahamas	757	354	1,320	17	2.25
Bahrain	2	1	17	1	50.00
Bangladesh	52	43	190	2	3.85
Barbados	19	12	42	3	15.79
Belgium	30	13	41	0	0
Belize	876	820	4,474	54	6.16
Bermuda (UK)	69	12	20	0	0
Brazil	7	5	19	0	0
Brunei Darussalam	6	3	19	0	0
Cambodia	2	2	6	0	0
Cayman Islands (UK)	117	31	93	0	0
Chile	10	5	16	0	0
China	543	275	1,094	1	0.18
Comoros	16	15	101	4	25.00
Cook Islands	33	20	116	2	6.06
Croatia	37	19	69	0	0
Curacao	11	1	2	1	9.09
Cyprus	532	290	1,011	14	2.63
Denmark	173	80	213	4	2.31
Dominica	26	24	224	1	3.85
Ecuador	2	1	2	0	0
Egypt	6	5	13	0	0
Equatorial Guinea	1	1	21	0	0
Ethiopia	9	9	47	2	22.22
Falkland Islands (UK) (Malvinas)	3	2	3	0	0
Faroe Islands (Denmark)	1	1	8	0	0
Fiji ⁽¹⁾	23	21	211	11	47.83
Finland	1	1	2	0	0
France	46	27	98	0	0
Germany	108	59	136	1	0.93
Gibraltar (UK)	50	25	81	1	2.00
Greece	320	192	636	5	1.56

⁽¹⁾ In January 2017, a notification was received from the Authority of Fiji, advising that some ships were fraudulently registered under its flag and trading internationally. In this connection, it would be possible that the inspections and detentions for Fiji involve the above mentioned fraudulently registered ships.

Flag	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	Detention percentage %
Honduras	1	1	4	0	0
Hong Kong, China	3,109	1,308	4,213	21	0.68
India	88	52	236	4	4.55
Indonesia	196	164	929	17	8.67
Iran	44	37	132	2	4.55
Isle of Man (UK)	228	116	406	5	2.19
Israel	5	5	17	0	0
Italy	119	74	282	3	2.52
Jamaica	36	34	224	3	8.33
Japan	195	110	430	1	0.51
Jordan	1	1	1	0	0
Kiribati	120	110	764	10	8.33
Korea, Democratic People's Republic	185	185	1,831	29	15.68
Korea, Republic of	1,394	992	3,815	7	0.50
Kuwait	21	11	41	0	0
Liberia	2,520	1,360	4,851	73	2.90
Libya	5	3	19	1	20.00
Luxembourg	21	12	57	0	0
Malaysia	186	118	404	3	1.61
Malta	1,124	645	2,357	40	3.56
Marshall Islands	2,667	1,301	4,404	53	1.99
Mauritius	1	0	0	0	0
Micronesia, Federated States of ⁽²⁾	67	64	499	8	11.94
Moldova	1	1	10	1	100.00
Mongolia	87	77	618	13	14.94
Montenegro	4	2	5	0	0
Myanmar	7	6	36	1	14.29
Netherlands	101	55	167	4	3.96
New Zealand	3	1	1	0	0
Niue	59	57	598	9	15.25
Norway	249	127	389	2	0.80
Pakistan	12	9	59	2	16.67
Palau	89	87	767	12	13.48
Panama	8,261	4,809	19,466	273	3.30
Papua New Guinea	8	8	48	1	12.50

⁽²⁾ In February 2017, a notification by the Permanent Mission of the Federated States of Micronesia (FSM) to the United Nations was received, advising that the laws of FSM do not provide or allow for an international ship registry and, therefore, ships registered under Micronesia International Ship Registry were fraudulent. In this connection, it would be possible that the inspections and detentions for Micronesia involve the above mentioned fraudulently registered ships.

MEMORANDUM OF UNDERSTANDING ON PORT STATE CONTROL IN THE ASIA-PACIFIC REGION

Flag	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	Detention percentage %
Peru	3	2	12	1	33.33
Philippines	213	136	582	13	6.10
Portugal	225	117	403	3	1.33
Qatar	7	6	15	1	14.29
Russian Federation	308	283	1,414	6	1.95
Saint Kitts and Nevis	21	18	95	2	9.52
Saint Vincent and the Grenadines	66	51	248	2	3.03
Samoa	3	2	52	1	33.33
Saudi Arabia	45	26	64	1	2.22
Sierra Leone	421	405	2,774	37	8.79
Singapore	2,309	970	3,133	18	0.78
South Africa	2	2	4	0	0
Spain	8	1	1	0	0
Sri Lanka	16	8	29	1	6.25
Sweden	15	5	6	0	0
Switzerland	36	23	70	2	5.56
Taiwan, China	95	37	205	2	2.11
Tanzania	33	33	357	12	36.36
Thailand	269	164	584	10	3.72
Togo	446	441	3,560	63	14.13
Tonga	3	3	29	0	0
Turkey	44	23	98	3	6.82
Tuvalu	139	88	372	1	0.72
Ukraine	7	5	15	2	28.57
United Kingdom (UK)	177	80	211	3	1.69
United States of America	48	30	91	0	0
Uruguay	1	1	11	1	100.00
Vanuatu	74	42	166	1	1.35
Viet Nam	788	593	2,373	28	3.55
Ship's registration withdrawn	2	2	24	1	50.00
Total	31,315	18,113	76,108	941	Regional 3.00

Table 5: PORT STATE INSPECTIONS PER SHIP TYPE

Type of ship	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	Detention percentage %
NLS tanker	70	31	135	2	2.86
Combination carrier	36	13	52	0	0
Oil tanker	2,244	1,053	3,949	47	2.09
Gas carrier	818	334	1,065	10	1.22
Chemical tanker	2,351	1,067	3,536	32	1.36
Bulk carrier	11,337	6,633	25,584	314	2.77
Vehicle carrier	806	227	598	4	0.50
Container ship	5,154	2,551	8,189	78	1.51
Ro-Ro cargo ship	93	79	410	6	6.45
General cargo/multi-purpose ship	6,220	4,660	25,278	346	5.56
Refrigerated cargo carrier	654	464	2,614	48	7.34
Woodchip carrier	235	107	344	3	1.28
Livestock carrier	65	39	197	5	7.69
Ro-Ro passenger ship	85	76	392	0	0
Passenger ship	261	161	690	3	1.15
Factory ship	9	6	14	1	11.11
Heavy load carrier	81	47	154	3	3.70
Offshore service vessel	101	61	197	3	2.97
MODU & FPSO	3	2	2	0	0
High speed passenger craft	30	27	156	1	3.33
Special purpose ship	84	44	166	1	1.19
Tugboat	214	153	706	10	4.67
Others	364	278	1,680	24	6.59
Total	31,315	18,113	76,108	941	3.00

Table 6: PORT STATE INSPECTIONS PER RECOGNIZED ORGANIZATION

Recognized organization (RO)	No. of overall inspections	No. of overall detentions	No. of RO responsible detentions	Detention percentage%	RO responsible detention percentage%	Percentage of RO responsible detentions%
American Bureau of Shipping	3,770	57	0	1.51	0	0
American Register of Shipping	31	0	0	0	0	0
Arados Bureau for Sea Services	2	0	0	0	0	0
Asia Classification Society	2	0	0	0	0	0
Biro Klasifikasi Indonesia	93	10	0	10.75	0	0
Bulgarski Koraben Registar	1	0	0	0	0	0
Bureau Veritas	3,780	121	3	3.20	0.08	2.48
China Classification Society	2,432	13	0	0.53	0	0
Columbus American Register	6	0	0	0	0	0
Cosmos Marine Bureau	129	18	6	13.95	4.65	33.33
CR Classification Society	254	10	0	3.94	0	0
Croatian Register of Shipping	51	1	0	1.96	0	0
Cyprus Bureau of Shipping	5	0	0	0	0	0
DNV GL AS	9,484	174	3	1.83	0.03	1.72
Dromon Bureau of Shipping	79	6	0	7.59	0	0
Ferriby Marine	1	0	0	0	0	0
Global Marine Bureau	18	4	0	22.22	0	0
Hellenic Register of Shipping	1	0	0	0	0	0
Icons Marine Services PTE Ltd	1	0	0	0	0	0
Indian Register of Shipping	92	6	0	6.52	0	0
Inspeccion y Clasificacion Maritima	1	0	0	0	0	0
Intermaritime Certification Services, S.A.	755	38	4	5.03	0.53	10.53
International Marine Survey Association	2	0	0	0	0	0
International Maritime Register	6	1	0	16.67	0	0
International Naval Surveys Bureau	38	3	0	7.89	0	0
International Register of Shipping	142	10	3	7.04	2.11	30.00
International Ship Classification	235	21	6	8.94	2.55	28.57
Iranian Classification Society	24	2	0	8.33	0	0
Isthmus Bureau of Shipping	499	31	3	6.21	0.60	9.68
Isthmus Maritime Classification Society S.A.	4	0	0	0	0	0
Korea Classification Society (former Joson Classification Society)	226	29	5	12.83	2.21	17.24
Korea Ship Safety Technology Authority	22	0	0	0	0	0
Korean Register of Shipping	3,219	53	2	1.65	0.06	3.77
Lloyd's Register	4,829	92	5	1.91	0.10	5.43
M&P Surveyors, S. de R.L. de C.V.	1	0	0	0	0	0
Macosnar Corporation	45	0	0	0	0	0
Maritime Bureau of Africa	11	6	2	54.55	18.18	33.33

Recognized organization (RO)	No. of overall inspections	No. of overall detentions	No. of RO responsible detentions	Detention percentage%	RO responsible detention percentage%	Percentage of RO responsible detentions%
Maritime Technical Systems and Services	11	1	0	9.09	0	0
National Cargo Bureau Inc.	2	0	0	0	0	0
National Shipping Adjusters Inc	2	0	0	0	0	0
New United International Marine Services Ltd	70	4	0	5.71	0	0
Nippon Kaiji Kyokai	10,993	264	14	2.40	0.13	5.30
Novel Classification Society S.A.	1	0	0	0	0	0
Overseas Marine Certification Services	410	46	5	11.22	1.22	10.87
Panama Bureau of Shipping	22	1	0	4.55	0	0
Panama Marine Survey and Certification Services, Inc.	6	0	0	0	0	0
Panama Maritime Documentation Services	456	34	5	7.46	1.10	14.71
Panama Maritime Surveyors Bureau Inc	3	2	0	66.67	0	0
Panama Register Corporation	49	1	0	2.04	0	0
Panama Shipping Registrar Inc.	56	10	2	17.86	3.57	20.00
Phoenix Register of Shipping	6	2	0	33.33	0	0
Polski Rejestr Statkow	50	3	1	6.00	2.00	33.33
Register of Shipping (Albania)	2	0	0	0	0	0
Registro Cubano de Buques	2	0	0	0	0	0
RINA Services S.p.A.	1,027	22	1	2.14	0.10	4.55
RINAVE Portuguesa	5	1	0	20.00	0	0
Russian Maritime Register of Shipping	428	13	0	3.04	0	0
Russian River Register	4	1	0	25.00	0	0
Ship Classification Malaysia	28	1	0	3.57	0	0
Shipping Register of Ukraine	6	2	0	33.33	0	0
SingClass International Pte Ltd	57	9	3	15.79	5.26	33.33
Sing-Lloyd	109	14	5	12.84	4.59	35.71
Union Bureau of Shipping	466	55	7	11.80	1.50	12.73
Union Marine Classification Society	1	0	0	0	0	0
Universal Maritime Bureau	292	31	3	10.62	1.03	9.68
Universal Shipping Bureau	5	1	0	20.00	0	0
Venezuelan Register of Shipping	2	0	0	0	0	0
Vietnam Register	821	29	1	3.53	0.12	3.45
Other	60	13	1	21.67	1.67	7.69

Note: The number of overall inspections and overall detentions is calculated corresponding to each recognized organization (RO) that issued statutory certificate(s) for a ship. In case that ship's certificates were issued by more than one ROs, the inspection and detention would be counted to each of them.

Table 7: DEFICIENCIES BY CATEGORIES

Nature of deficiencies		No. of deficiencies
Certificate & Documentation	Crew Certificates	1,462
	Documents	3,953
	Ship Certificates	1,937
Structural Conditions		2,324
Water/Weathertight conditions		5,283
Emergency Systems		4,350
Radio Communications		1,798
Cargo operations including equipment		744
Fire safety		13,707
Alarms		455
Safety of Navigation		11,701
Life saving appliances		9,787
Dangerous goods		272
Propulsion and auxiliary machinery		3,731
Working and Living Conditions	Living Conditions	383
	Working Conditions	2,288
Labour Conditions	Minimum requirements for seafarers	73
	Conditions of employment	631
	Accommodation, recreational facilities, food and catering	1,354
	Health protection, medical care, social security	2,504
Pollution prevention	Anti Fouling	22
	Ballast Water	261
	MARPOL Annex I	1,468
	MARPOL Annex II	30
	MARPOL Annex III	10
	MARPOL Annex IV	1,131
	MARPOL Annex V	1,014
MARPOL Annex VI	886	
ISM		1,987
Other		562
Total		76,108
ISPS		1,345
Grand total		77,453

SUMMARY OF PORT STATE INSPECTION DATA 2015 – 2017

Table 8: BLACK – GREY – WHITE LISTS *

Flag	Inspections 2015-2017	Detentions 2015-2017	Black to Grey Limit	Grey to White Limit	Excess Factor
BLACK LIST					
Fiji ⁽¹⁾	42	14	6		5.90
Tanzania	148	32	16		4.10
Mongolia	332	53	31		2.93
Togo	781	110	67		2.70
Cambodia	1,755	234	141		2.68
Niue	157	25	17		2.48
Indonesia	589	77	52		2.29
Sierra Leone	1,011	123	85		2.18
Palau	159	23	17		2.07
Korea, Democratic People's Republic	704	83	61		1.96
Micronesia, Federated States of ⁽²⁾	369	45	34		1.85
GREY LIST					
Dominica	45	4	6	0	0.63
Barbados	46	4	7	0	0.62
Saint Kitts and Nevis	73	6	9	1	0.61
Cook Islands	101	8	12	2	0.60
Jamaica	107	7	12	3	0.45
Kiribati	490	30	44	25	0.28
Curacao	55	2	7	0	0.24
Sri Lanka	39	1	6	0	0.22
Belize	2,134	138	169	129	0.21
Vanuatu	265	14	26	11	0.19
Croatia	82	3	10	1	0.18
India	256	13	25	11	0.16
Turkey	142	6	15	4	0.14
Saudi Arabia	128	5	14	4	0.12
Iran	133	5	15	4	0.10
Bangladesh	151	6	16	5	0.10
Switzerland	109	3	13	3	0.03
Kuwait	68	1	9	1	0.03
WHITE LIST					
Philippines	614	31		32	-0.07
Taiwan, China	324	14		15	-0.08

(1) For Fiji see footnote in page 26.

(2) For Micronesia, Federated States of, see footnote in page 27.

Flag	Inspections 2015-2017	Detentions 2015-2017	Black to Grey Limit	Grey to White Limit	Excess Factor
Italy	339	14		16	-0.18
Gibraltar (UK)	193	6		7	-0.27
Sweden	59	0		0	-0.40
Thailand	814	34		45	-0.49
France	126	2		4	-0.60
Luxembourg	100	1		2	-0.64
Russian Federation	909	34		50	-0.68
Netherlands	314	8		14	-0.79
Antigua and Barbuda	1,270	46		73	-0.79
Cyprus	1,558	57		92	-0.82
Malta	3,084	119		192	-0.84
Malaysia	579	17		30	-0.86
Viet Nam	2,252	78		137	-0.94
Saint Vincent and the Grenadines	228	4		9	-0.95
Belgium	85	0		2	-0.96
Isle of Man (UK)	634	17		33	-0.98
Germany	362	7		17	-1.11
Bermuda (UK)	222	3		9	-1.13
Greece	1,045	27		59	-1.15
Liberia	7,314	233		476	-1.15
Panama	25,321	851		1,705	-1.15
United States of America	148	1		5	-1.20
Tuvalu	353	5		16	-1.34
Denmark	536	9		27	-1.36
Cayman Islands (UK)	317	4		14	-1.37
Portugal	510	8		26	-1.39
United Kingdom (UK)	553	9		28	-1.39
Bahamas	2,254	51		137	-1.39
Marshall Islands	7,141	166		464	-1.46
Japan	599	7		31	-1.61
Norway	726	9		39	-1.62
Hong Kong, China	9,473	88		622	-1.96
Singapore	6,863	59		445	-1.98
Korea, Republic of	4,304	31		273	-2.03
China	1,981	7		119	-2.42

- Note:** 1) Flags listed above are those of ships which were involved in 30 or more port State inspections over the 3-year period.
2) According to the decision by the Port State Control Committee, flags involving 30-49 port State inspections with nil detentions are listed on top of the White List.

* See explanatory note on page 54.

$p=7\%$

$z_{95\%}=1.645$

$q=3\%$

Table 9: INSPECTIONS AND DETENTIONS PER FLAG

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2015	2016	2017	Total	2015	2016	2017	Total	
Antigua and Barbuda	473	423	374	1,270	25	17	4	46	3.62
Argentina	0	0	2	2	0	0	0	0	0
Australia	4	12	13	29	0	0	0	0	0
Bahamas	733	764	757	2,254	20	14	17	51	2.26
Bahrain	2	2	2	6	0	0	1	1	16.67
Bangladesh	57	42	52	151	2	2	2	6	3.97
Barbados	13	14	19	46	0	1	3	4	8.70
Belgium	28	27	30	85	0	0	0	0	0
Belize	546	712	876	2,134	44	40	54	138	6.47
Bermuda (UK)	72	81	69	222	0	3	0	3	1.35
Brazil	1	4	7	12	0	0	0	0	0
Brunei Darussalam	5	11	6	22	1	1	0	2	9.09
Cambodia	1,303	450	2	1,755	158	76	0	234	13.33
Canada	2	0	0	2	0	0	0	0	0
Cayman Islands (UK)	100	100	117	317	3	1	0	4	1.26
Chile	6	10	10	26	0	0	0	0	0
China	779	659	543	1,981	2	4	1	7	0.35
Comoros	2	3	16	21	2	1	4	7	33.33
Cook Islands	28	40	33	101	4	2	2	8	7.92
Croatia	22	23	37	82	0	3	0	3	3.66
Curacao	24	20	11	55	1	0	1	2	3.64
Cyprus	514	512	532	1,558	22	21	14	57	3.66
Denmark	181	182	173	536	3	2	4	9	1.68
Dominica	9	10	26	45	0	3	1	4	8.89
Ecuador	0	3	2	5	0	1	0	1	20.00
Egypt	6	6	6	18	1	0	0	1	5.56
Equatorial Guinea	0	0	1	1	0	0	0	0	0
Estonia	1	1	0	2	0	0	0	0	0
Ethiopia	9	4	9	22	0	0	2	2	9.09
Falkland Islands (UK) (Malvinas)	2	1	3	6	0	0	0	0	0
Faroe Islands (Denmark)	1	1	1	3	0	0	0	0	0
Fiji	0	19	23	42	0	3	11	14	33.33
Finland	0	0	1	1	0	0	0	0	0
France	37	43	46	126	0	2	0	2	1.59
Germany	144	110	108	362	5	1	1	7	1.93

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2015	2016	2017	Total	2015	2016	2017	Total	
Gibraltar (UK)	78	65	50	193	3	2	1	6	3.11
Greece	364	361	320	1,045	11	11	5	27	2.58
Honduras	3	1	1	5	2	1	0	3	60.00
Hong Kong, China	3,167	3,197	3,109	9,473	37	30	21	88	0.93
India	89	79	88	256	7	2	4	13	5.08
Indonesia	197	196	196	589	36	24	17	77	13.07
Iran	46	43	44	133	1	2	2	5	3.76
Ireland	0	1	0	1	0	0	0	0	0
Isle of Man (UK)	206	200	228	634	6	6	5	17	2.68
Israel	10	9	5	24	0	2	0	2	8.33
Italy	116	104	119	339	7	4	3	14	4.13
Jamaica	31	40	36	107	1	3	3	7	6.54
Japan	191	213	195	599	3	3	1	7	1.17
Jordan	0	0	1	1	0	0	0	0	0
Kiribati	220	150	120	490	15	5	10	30	6.12
Korea, Democratic People's Republic	244	275	185	704	29	25	29	83	11.79
Korea, Republic of	1,498	1,412	1,394	4,304	10	14	7	31	0.72
Kuwait	17	30	21	68	0	1	0	1	1.47
Lebanon	1	2	0	3	0	0	0	0	0
Liberia	2,346	2,448	2,520	7,314	97	63	73	233	3.19
Libya	2	4	5	11	0	0	1	1	9.09
Lithuania	1	0	0	1	0	0	0	0	0
Luxembourg	35	44	21	100	1	0	0	1	1.00
Malaysia	200	193	186	579	4	10	3	17	2.94
Maldives	2	1	0	3	0	1	0	1	33.33
Malta	943	1,017	1,124	3,084	38	41	40	119	3.86
Marshall Islands	2,103	2,371	2,667	7,141	45	68	53	166	2.32
Mauritius	2	1	1	4	0	0	0	0	0.00
Micronesia, Federated States of	0	302	67	369	0	37	8	45	12.20
Moldova	0	3	1	4	0	0	1	1	25.00
Mongolia	137	108	87	332	24	16	13	53	15.96
Montenegro	1	1	4	6	0	0	0	0	0
Myanmar	5	5	7	17	0	0	1	1	5.88
Netherlands	113	100	101	314	1	3	4	8	2.55
New Zealand	7	3	3	13	1	0	0	1	7.69
Niue	45	53	59	157	8	8	9	25	15.92

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2015	2016	2017	Total	2015	2016	2017	Total	
Norway	221	256	249	726	2	5	2	9	1.24
Pakistan	5	8	12	25	1	0	2	3	12.00
Palau	24	46	89	159	4	7	12	23	14.47
Panama	8,547	8,513	8,261	25,321	287	291	273	851	3.36
Papua New Guinea	8	10	8	26	1	6	1	8	30.77
Peru	6	4	3	13	0	1	1	2	15.38
Philippines	197	204	213	614	13	5	13	31	5.05
Poland	0	1	0	1	0	0	0	0	0
Portugal	98	187	225	510	1	4	3	8	1.57
Qatar	0	1	7	8	0	0	1	1	12.50
Russian Federation	276	325	308	909	13	15	6	34	3.74
Saint Kitts and Nevis	37	15	21	73	4	0	2	6	8.22
Saint Vincent and the Grenadines	87	75	66	228	1	1	2	4	1.75
Samoa	1	0	3	4	1	0	1	2	50.00
Saudi Arabia	41	42	45	128	2	2	1	5	3.91
Seychelles	0	3	0	3	0	1	0	1	33.33
Sierra Leone	280	310	421	1,011	54	32	37	123	12.17
Singapore	2,250	2,304	2,309	6,863	23	18	18	59	0.86
Solomon Islands	8	6	0	14	1	0	0	1	7.14
South Africa	1	2	2	5	0	0	0	0	0
Spain	1	9	8	18	0	0	0	0	0
Sri Lanka	8	15	16	39	0	0	1	1	2.56
Sweden	20	24	15	59	0	0	0	0	0
Switzerland	30	43	36	109	0	1	2	3	2.75
Taiwan, China	121	108	95	324	5	7	2	14	4.32
Tanzania	27	88	33	148	3	17	12	32	21.62
Thailand	269	276	269	814	11	13	10	34	4.18
Togo	84	251	446	781	12	35	63	110	14.08
Tonga	2	3	3	8	0	0	0	0	0
Turkey	53	45	44	142	1	2	3	6	4.23
Tuvalu	103	111	139	353	2	2	1	5	1.42
Ukraine	3	3	7	13	0	0	2	2	15.38
United Arab Emirates (UAE)	3	4	0	7	0	0	0	0	0
United Kingdom (UK)	186	190	177	553	4	2	3	9	1.63
United States of America	51	49	48	148	0	1	0	1	0.68
Uruguay	0	0	1	1	0	0	1	1	100.00

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2015	2016	2017	Total	2015	2016	2017	Total	
Vanuatu	112	79	74	265	6	7	1	14	5.28
Viet Nam	722	742	788	2,252	20	30	28	78	3.46
Ship's registration withdrawn	1	5	2	8	1	5	1	7	87.50
Total	31,407	31,678	31,315	94,400	1,153	1,090	941	3,184	3.37

Figure 15: COMPARISON OF INSPECTIONS PER SHIP TYPE

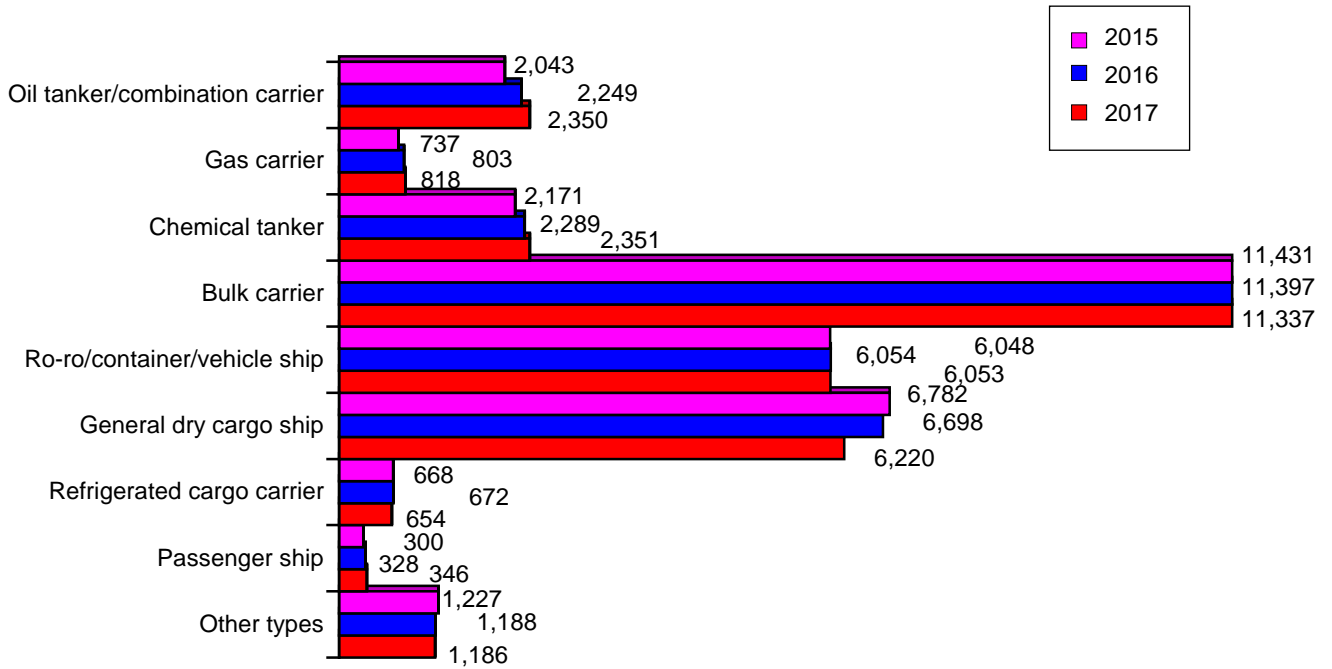


Figure 16: COMPARISON OF DETENTIONS PER SHIP TYPE

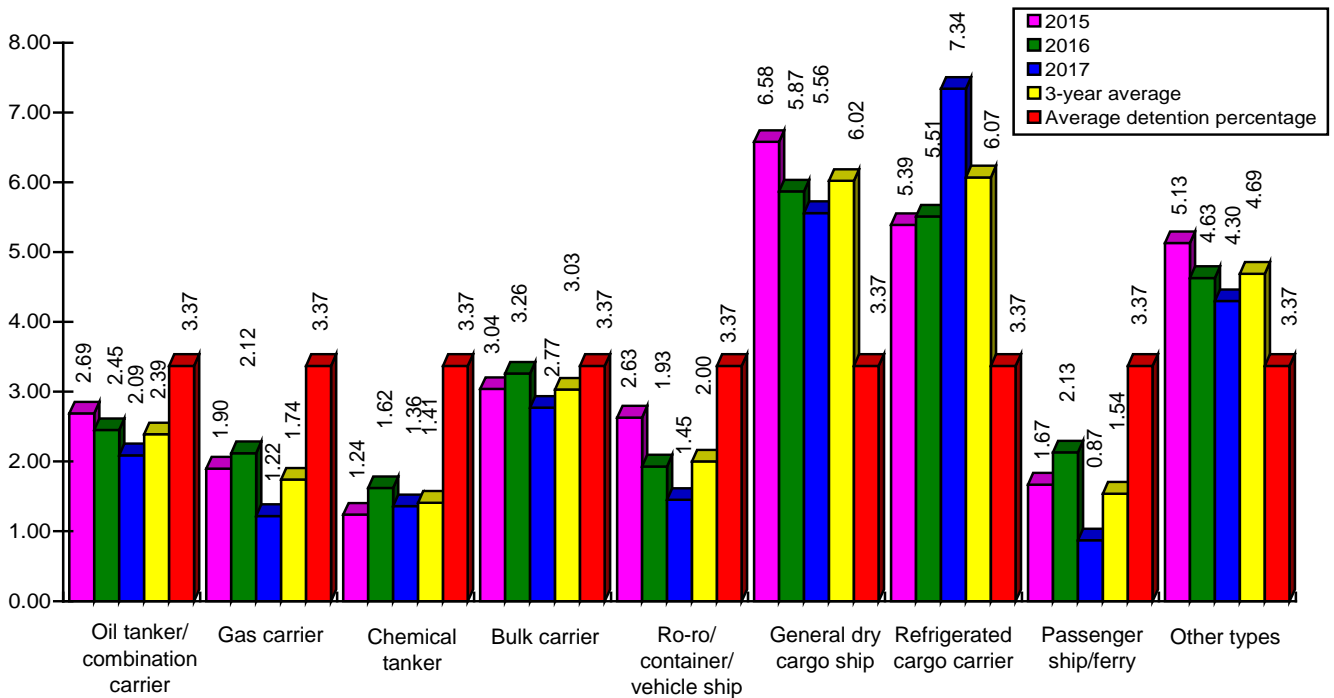
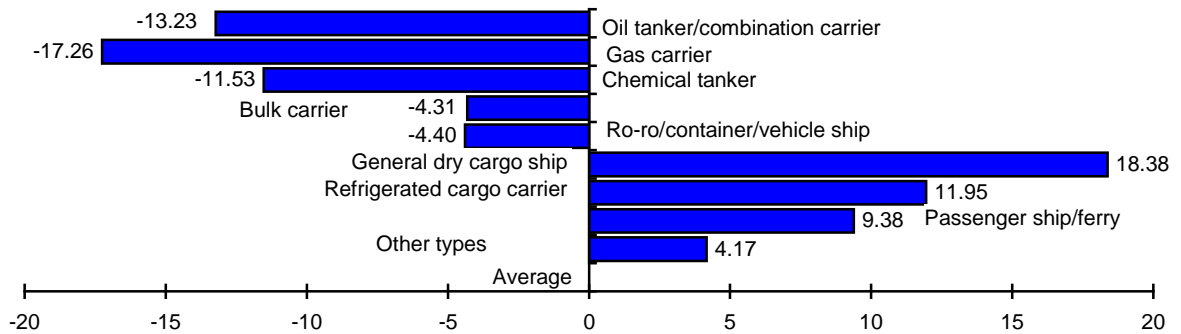


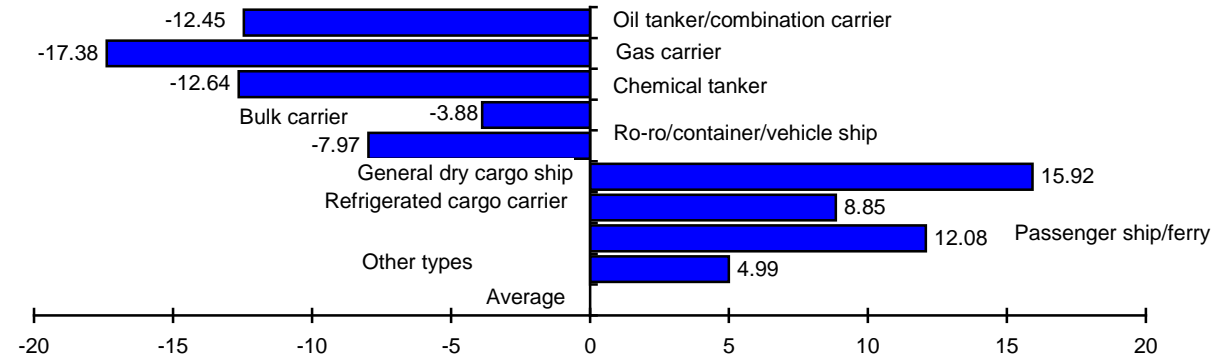
Table 10: INSPECTIONS AND DETENTIONS PER SHIP TYPE

Type of ship	Number of inspections				Number of detentions				Average detention percentage %
	2015	2016	2017	Total	2015	2016	2017	Total	
NLS tanker	54	61	70	185	4	4	2	10	5.41
Combination carrier	31	38	36	105	1	1	0	2	1.90
Oil tanker	1,958	2,150	2,244	6,352	50	50	47	147	2.31
Gas carrier	737	803	818	2,358	14	17	10	41	1.74
Chemical tanker	2,171	2,289	2,351	6,811	27	37	32	96	1.41
Bulk carrier	11,431	11,397	11,337	34,165	348	372	314	1,034	3.03
Vehicle carrier	871	889	806	2,566	20	9	4	33	1.29
Container ship	5,058	5,058	5,154	15,270	131	99	78	308	2.02
Ro-Ro cargo ship	119	107	93	319	8	9	6	23	7.21
General cargo/multi-purpose ship	6,782	6,698	6,220	19,700	446	393	346	1,185	6.02
Refrigerated cargo carrier	668	672	654	1,994	36	37	48	121	6.07
Woodchip carrier	223	243	235	701	7	6	3	16	2.28
Livestock carrier	64	71	65	200	4	4	5	13	6.50
Ro-Ro Passenger ship	76	101	85	262	2	3	0	5	1.91
Passenger ship	224	227	261	712	3	4	3	10	1.40
Factory ship	2	3	9	14	0	0	1	1	7.14
Heavy load carrier	102	79	81	262	4	4	3	11	4.20
Offshore service vessel	158	128	101	387	6	4	3	13	3.36
MODU & FPSO	5	1	3	9	1	0	0	1	11.11
High speed passenger craft	22	23	30	75	0	0	1	1	1.33
Special purpose ship	70	71	84	225	5	3	1	9	4.00
Tugboat	258	229	214	701	14	14	10	38	5.42
Others	323	340	364	1,027	22	20	24	66	6.43
Total	31,407	31,678	31,315	94,400	1,153	1,090	941	3,184	3.37

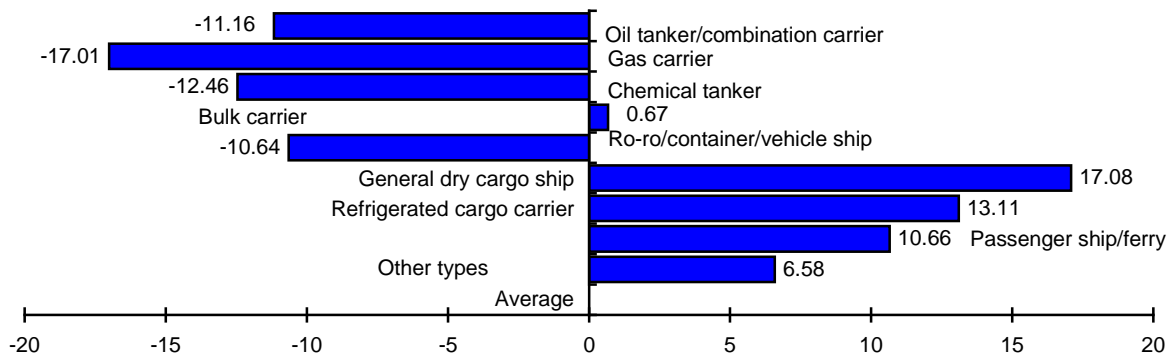
Figure 17: COMPARISON OF INSPECTIONS WITH DEFICIENCIES PER SHIP TYPE



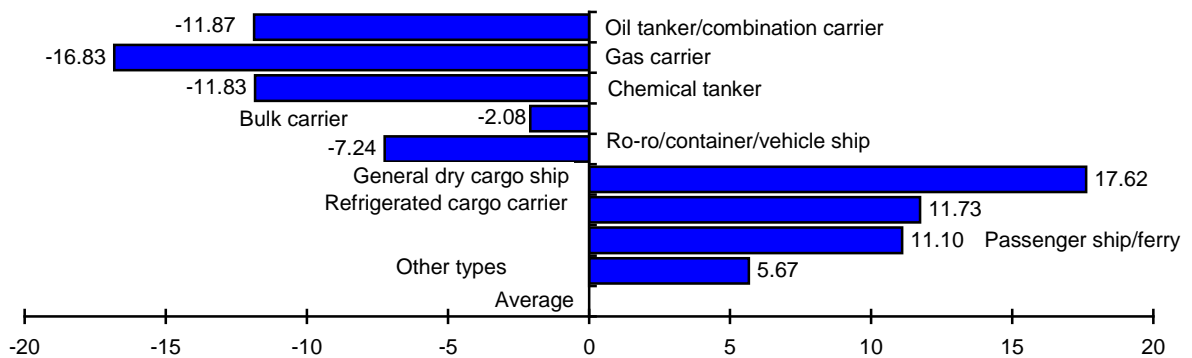
(a) Year 2015



(b) Year 2016



(c) Year 2017



(d) 3-year summary

* % over [+] or under [-] average

Table 11: INSPECTIONS WITH DEFICIENCIES PER SHIP TYPE

Type of ship	Number of inspections				Number of inspections with deficiencies				3-year average percentage %
	2015	2016	2017	Total	2015	2016	2017	Total	
Oil tanker/combination carrier	2,043	2,249	2,350	6,642	975	1094	1,097	3,166	47.67
Gas carrier	737	803	818	2,358	322	351	334	1,007	42.71
Chemical tanker	2,171	2,289	2,351	6,811	1,073	1109	1,067	3,249	47.70
Bulk carrier	11,431	11,397	11,337	34,165	6,475	6520	6,633	19,628	57.45
Ro-ro/container/vehicle ship	6,048	6,054	6,053	18,155	3,420	3216	2,857	9,493	52.29
General dry cargo ship	6,782	6,698	6,220	19,700	5,380	5158	4,660	15,198	77.15
Refrigerated cargo carrier	668	672	654	1,994	487	470	464	1,421	71.26
Passenger ship	300	328	346	974	211	240	237	688	70.64
Other types	1,227	1,188	1,186	3,601	799	785	764	2,348	65.20
Total	31,407	31,678	31,315	94,400	19,142	18,943	18,113	56,198	59.53

Table 12: INSPECTIONS AND DETENTIONS PER RECOGNIZED ORGANIZATION

Recognized organization (RO)	No. of overall inspections 2015-2017	No. of overall detentions 2015-2017	No. of RO responsible detentions 2015-2017	3-year average detention percentage%	3-year average RO responsible detention percentage%	3-year average percentage of RO responsible detentions%
American Bureau of Shipping	10,956	205	5	1.87	0.05	2.44
American Register of Shipping	94	2	0	2.13	0	0
Arados Bureau for Sea Services	3	0	0	0	0	0
Asia Classification Society	16	1	0	6.25	0	0
Biro Klasifikasi Indonesia	315	48	1	15.24	0.32	2.08
Bulgarski Koraben Registar	5	1	0	20.00	0	0
Bureau Veritas	10,916	336	19	3.08	0.17	5.65
C.T.M. Inspection and Classification Company, S. de R.L.	4	3	1	75.00	25.00	33.33
Caspian Register of Shipping	7	0	0	0	0	0
China Classification Society	7,594	59	0	0.78	0	0
Columbus American Register	7	1	0	14.29	0	0
Cosmos Marine Bureau	241	33	7	13.69	2.90	21.21
CR Classification Society	791	34	2	4.30	0.25	5.88
Croatian Register of Shipping	129	5	1	3.88	0.78	20.00
Cyprus Bureau of Shipping	15	0	0	0	0	0
DNV GLAS	28,429	680	13	2.39	0.05	1.91
Dromon Bureau of Shipping	167	16	1	9.58	0.60	6.25
Ferriby Marine	1	0	0	0	0	0
Global Marine Bureau	321	40	2	12.46	0.62	5.00
Global Shipping Bureau	15	1	0	6.67	0	0
Hellenic Register of Shipping	4	0	0	0	0	0
Horizon International of Naval Surveying and Inspection Bureau, S.A.	1	0	0	0	0	0
Icons Marine Services PTE Ltd	3	0	0	0	0	0
INCLAMAR (Inspeccion y Clasificacion Maritima, S. de R.L.)	4	0	0	0	0	0
Indian Register of Shipping	283	17	0	6.01	0	0
Inspeccion y Clasificacion Maritima	1	0	0	0	0	0
Intermaritime Certification Services, S.A.	1,943	114	8	5.87	0.41	7.02
International Marine Survey Association	4	0	0	0	0	0
International Maritime Register	11	2	0	18.18	0	0
International Naval Surveys Bureau	93	7	0	7.53	0	0
International Register of Shipping	471	43	4	9.13	0.85	9.30
International Ship Classification	759	58	12	7.64	1.58	20.69
Iranian Classification Society	117	5	0	4.27	0.00	0.00
Isthmus Bureau of Shipping	1,602	105	12	6.55	0.75	11.43
Isthmus Maritime Classification Society S.A.	11	0	0	0	0	0
Korea Classification Society (former Joson Classification Society)	807	84	7	10.41	0.87	8.33
Korea Ship Safety Technology Authority	84	1	0	1.19	0	0
Korean Register of Shipping	9,543	152	3	1.59	0.03	1.97
Libyan Surveyor Mr. Sif Ennasar Abdulhamid Giahmi	2	0	0	0	0	0
Lloyd's Register	14,297	291	9	2.04	0.06	3.09
M&P Surveyors, S. de R.L. de C.V.	3	0	0	0	0	0
Macosnar Corporation	131	6	0	4.58	0	0

Recognized organization (RO)	No. of overall inspections 2015-2017	No. of overall detentions 2015-2017	No. of RO responsible detentions 2015-2017	3-year average detention percentage%	3-year average RO responsible detention percentage%	3-year average percentage of RO responsible detentions%
Maritime Bureau of Africa	21	10	2	47.62	9.52	20.00
Maritime Technical Systems and Services	25	4	0	16.00	0	0
National Cargo Bureau Inc.	4	0	0	0.00	0	0
National Shipping Adjusters Inc	11	3	0	27.27	0	0
New United International Marine Services Ltd	152	11	0	7.24	0	0
Nippon Kaiji Kyokai	32,324	864	42	2.67	0.13	4.86
Novel Classification Society S.A.	5	1	0	20.00	0	0
Overseas Marine Certification Services	1,360	145	10	10.66	0.74	6.90
Panama Bureau of Shipping	105	7	0	6.67	0	0
Panama Marine Survey and Certification Services, Inc.	8	0	0	0	0	0
Panama Maritime Documentation Services	1,261	86	8	6.82	0.63	9.30
Panama Maritime Surveyors Bureau Inc	4	2	0	50.00	0	0
Panama Register Corporation	212	8	0	3.77	0	0
Panama Shipping Registrar Inc.	204	23	5	11.27	2.45	21.74
Phoenix Register of Shipping	14	3	0	21.43	0	0
Polski Rejestr Statkow	97	7	1	7.22	1.03	14.29
R.J. Del Pan	1	0	0	0	0	0
Register of Shipping (Albania)	2	0	0	0	0	0
Registro Cubano de Buques	2	0	0	0	0	0
RINA Services S.p.A.	2,843	84	1	2.95	0.04	1.19
RINAVE Portuguesa	25	3	0	12.00	0	0
Russian Maritime Register of Shipping	1,311	56	1	4.27	0.08	1.79
Russian River Register	4	1	0	25.00	0	0
Ship Classification Malaysia	78	2	1	2.56	1.28	50.00
Shipping Register of Ukraine	14	3	1	21.43	7.14	33.33
SingClass International Pte Ltd	224	35	5	15.63	2.23	14.29
Sing-Lloyd	392	60	11	15.31	2.81	18.33
Slovak Lloyd	2	1	0	50.00	0	0
Turkish Lloyd	2	0	0	0	0	0
Union Bureau of Shipping	2,036	280	27	13.75	1.33	9.64
Union Marine Classification Society	3	1	1	33.33	33.33	100.00
Universal Maritime Bureau	947	107	9	11.30	0.95	8.41
Universal Shipping Bureau	45	3	0	6.67	0	0
Venezuelan Register of Shipping	5	0	0	0	0	0
Vietnam Register	2,343	86	5	3.67	0.21	5.81
Other	136	22	2	16.18	1.47	9.09

See also the note in page 31.

Table 13: PERFORMANCE OF RECOGNIZED ORGANIZATION

Recognized organization (RO)	No. of overall inspections 2015-2017	No. of RO responsible detentions 2015-2017	Low/medium Limit	Medium/high Limit	Excess factor	Performance level
Sing-Lloyd	392	11	13	3	0.81	Medium
Cosmos Marine Bureau	241	7	9	1	0.77	
Panama Shipping Registrar Inc.	204	5	8	0	0.62	
SingClass International Pte Ltd	224	5	8	1	0.57	
Ship Classification Malaysia	78	1	4	0	0.39	
Polski Rejestr Statkow	97	1	5	0	0.33	
International Ship Classification	759	12	22	8	0.27	
Croatian Register of Shipping	129	1	6	0	0.25	
Dromon Bureau of Shipping	167	1	7	0	0.16	
Global Marine Bureau	321	2	11	2	0.02	
International Register of Shipping	471	4	15	4	0.01	
Union Bureau of Shipping	2,036	27	52	30	-0.16	High
Universal Maritime Bureau	947	9	27	11	-0.32	
Panama Register Corporation	212	0	8	0	-0.34	
Korea Classification Society (former Joson Classification Society)	807	7	23	9	-0.34	
Biro Klasifikasi Indonesia	315	1	11	2	-0.36	
Overseas Marine Certification Services	1,360	10	36	18	-0.74	
Indian Register of Shipping	283	0	10	1	-0.75	
Isthmus Bureau of Shipping	1,602	12	42	22	-0.77	
Panama Maritime Documentation Services	1,261	8	34	17	-0.83	
CR Classification Society	791	2	23	9	-1.24	
Intermaritime Certification Services, S.A.	1,943	8	50	28	-1.30	
Vietnam Register	2,343	5	59	35	-1.65	
Bureau Veritas	10,916	19	243	194	-1.79	
Russian Maritime Register of Shipping	1,311	1	35	17	-1.79	
Nippon Kaiji Kyokai	32,324	42	688	605	-1.86	
Lloyd's Register	14,297	9	314	258	-1.92	
RINA Services S.p.A.	2,843	1	70	44	-1.92	
American Bureau of Shipping	10,956	5	244	195	-1.94	
DNV GL AS	28,429	13	608	529	-1.95	

Recognized organization (RO)	No. of overall inspections 2015-2017	No. of RO responsible detentions 2015-2017	Low/medium Limit	Medium/high Limit	Excess factor	Performance level
Korean Register of Shipping	9,543	3	214	168	-1.96	
China Classification Society	7,594	0	172	131	-1.99	

- Note: 1) In this table, only recognized organizations (RO) that had more than 60 inspections are taken into account. The formula used is identical to the one used for the Black-Grey-White List. However, the values for P and Q are adjusted to P=2% and Q=1%.
- 2) ROs involving 60-179 inspections with zero detention are not included in this table.

Figure 18: COMPARISON OF NUMBER OF DEFICIENCIES BY MAIN CATEGORIES

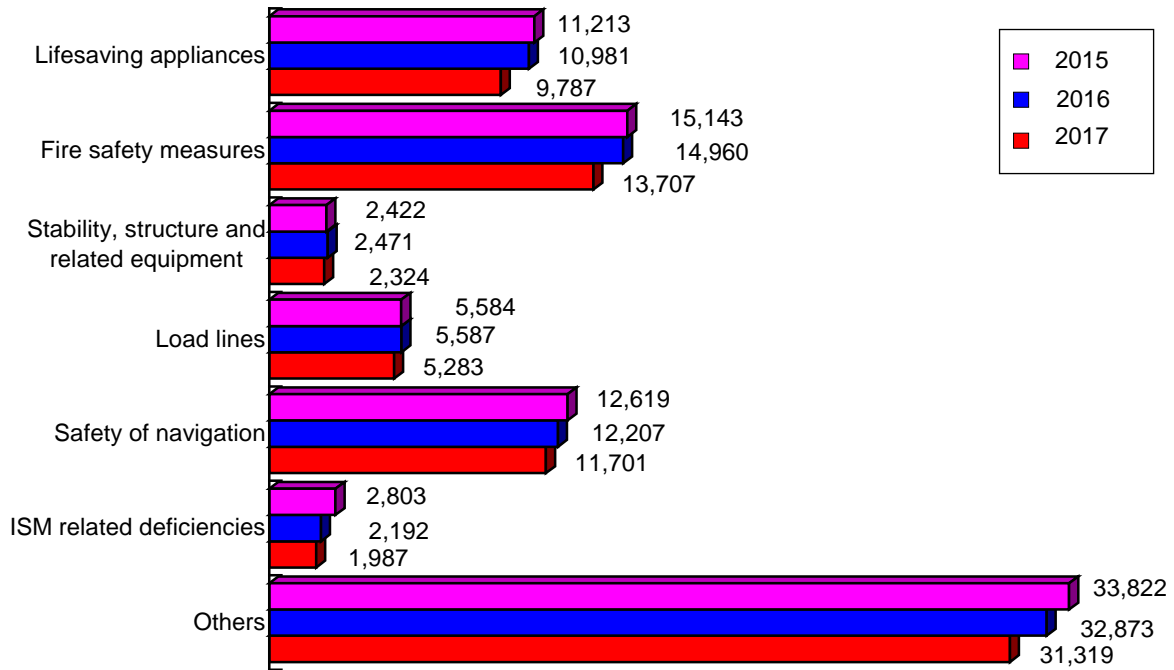


Table 14: COMPARISON OF DEFICIENCIES BY CATEGORIES

Nature of deficiency		Number of deficiencies		
		2015	2016	2017
	Crew Certificates	1,593	1,559	1,462
Certificate & Documentation	Documents	4,500	4,290	3,953
	Ship Certificates	1,910	1,874	1,937
	Structural Conditions	2,422	2,471	2,324
Water/Weathertight conditions		5,584	5,587	5,283
Emergency Systems		5,771	5,011	4,350
Radio Communications		2,231	2,062	1,798
Cargo operations including equipment		500	1,382	744
Fire safety		15,143	14,960	13,707
Alarms		577	573	455
Safety of Navigation		12,619	12,207	11,701
Life saving appliances		11,213	10,981	9,787
Dangerous goods		352	287	272
Propulsion and auxiliary machinery		4,137	3,817	3,731
Working and Living Conditions	Living Conditions	349	403	383
	Working Conditions	2,866	2,501	2,288
Labour Conditions	Minimum requirements for seafarers	35	38	73
	Conditions of employment	515	483	631
	Accommodation, recreational facilities, food and catering	998	1,025	1,354
	Health protection, medical care, social security	1,699	2,172	2,504
Pollution prevention	Anti Fouling	13	7	22
	Ballast Water	-	-	261
	MARPOL Annex I	1,607	1,609	1,468
	MARPOL Annex II	17	25	30
	MARPOL Annex III	30	12	10
	MARPOL Annex IV	1,301	1,199	1,131
	MARPOL Annex V	1,252	1,162	1,014
	MARPOL Annex VI	847	845	886
ISM		2,803	2,192	1,987
Other		722	537	562
Total		83,606	81,271	76,108
ISPS		1,389	1,624	1,345
Grand total		84,995	82,895	77,453

Figure 19: COMPARISON OF MOST FREQUENT DETAINABLE DEFICIENCIES

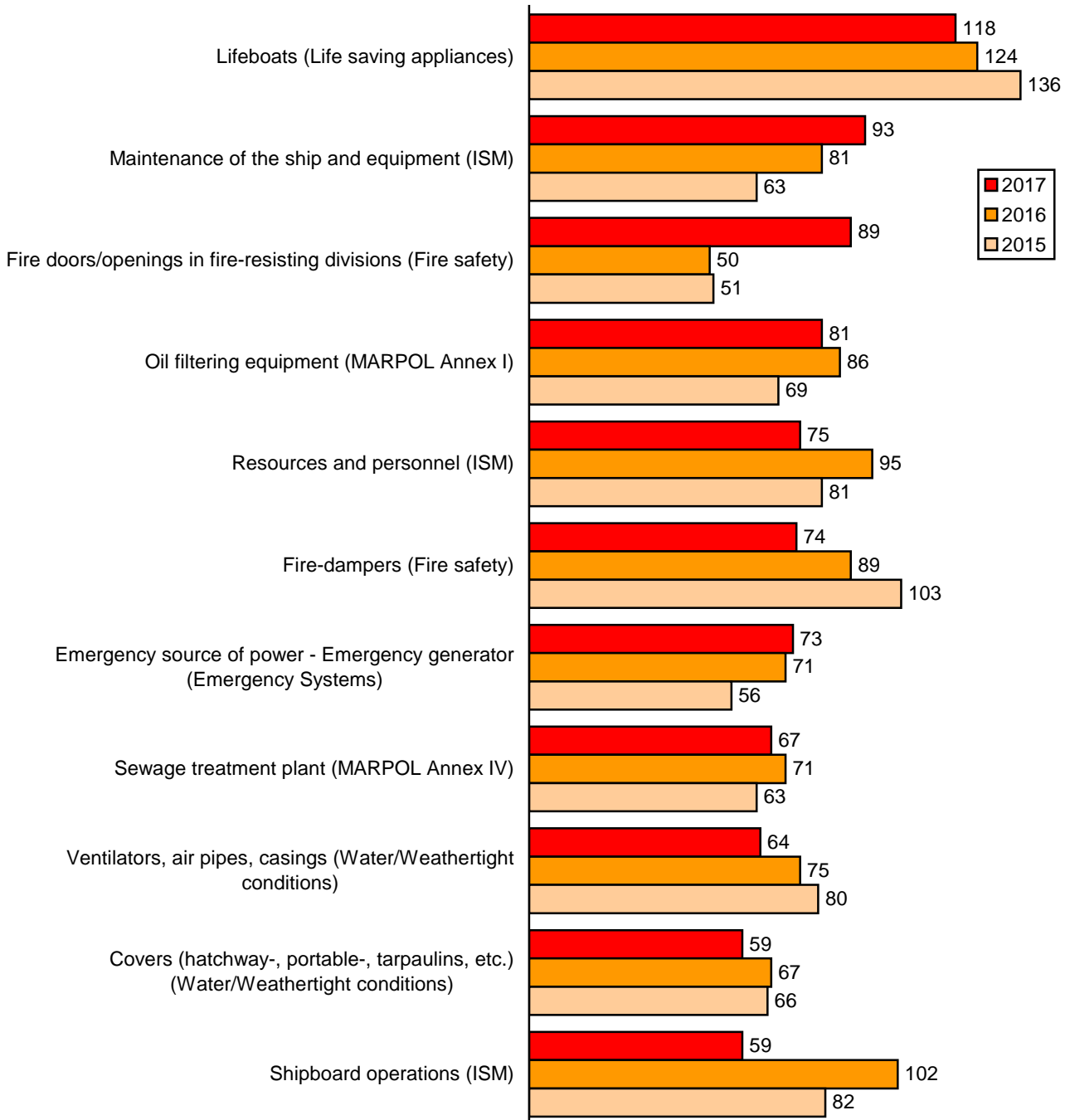


Table 15: COMPARISON OF MOST FREQUENT DETAINABLE DEFICIENCIES

No.	Most frequent deficiencies	Year		
		2015	2016	2017
1	Lifeboats (Life saving appliances)	136	124	118
2	Maintenance of the ship and equipment (ISM)	63	81	93
3	Fire doors/openings in fire-resisting divisions (Fire safety)	51	50	89
4	Oil filtering equipment (MARPOL Annex I)	69	86	81
5	Resources and personnel (ISM)	81	95	75
6	Fire-dampers (Fire safety)	103	89	74
7	Emergency source of power - Emergency generator (Emergency Systems)	56	71	73
8	Sewage treatment plant (MARPOL Annex IV)	63	71	67
9	Ventilators, air pipes, casings (Water/Weathertight conditions)	80	75	64
10	Covers (hatchway-, portable-, tarpaulins, etc.) (Water/Weathertight conditions)	66	67	59
10	Shipboard operations (ISM)	82	102	59

Table 16: LIST OF UNDER-PERFORMING SHIPS

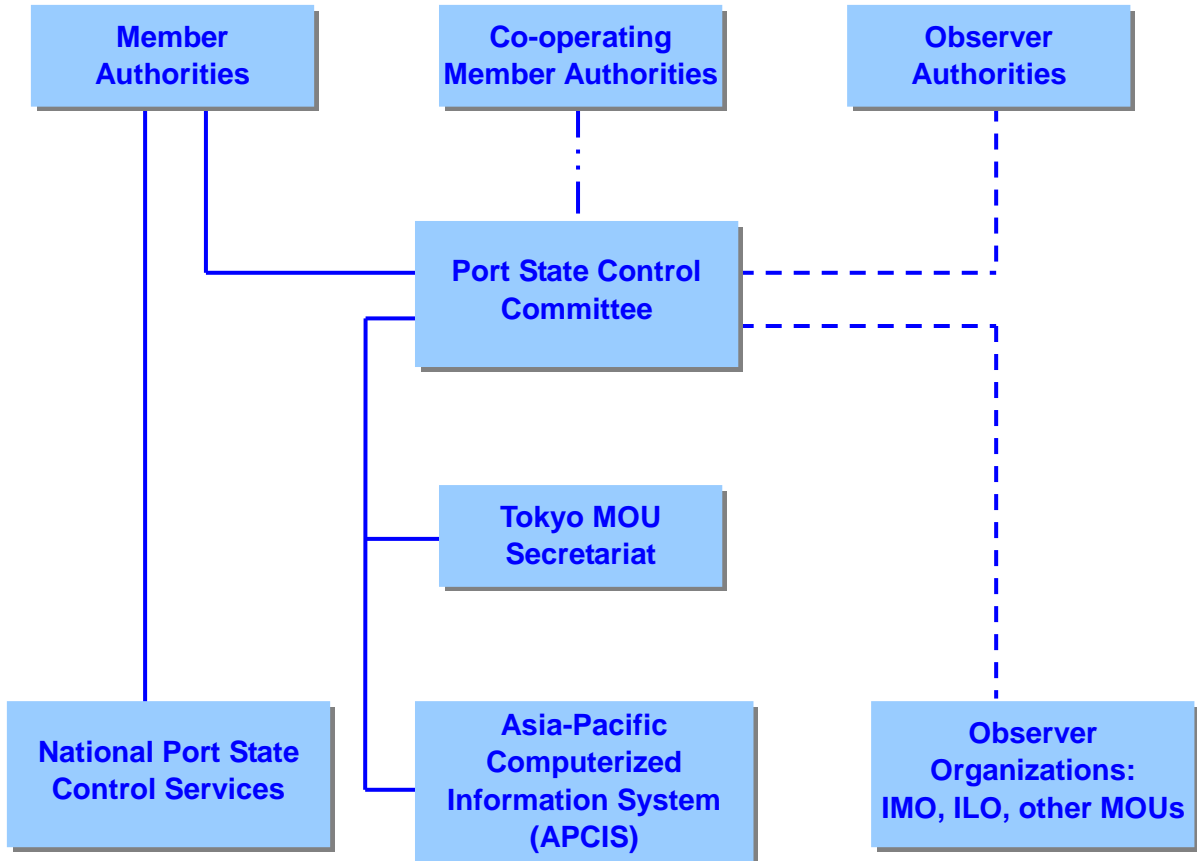
IMO No.	Ship name (at the day of detention)	Flag	IMO company No.	No. of times on the list
7610050	ALFA	Togo	5412362	6
8421585 ¹	SEA ALEXA	Togo	5234981	8
8421585 ¹	ALEXANDRA K	Cambodia	5234981	8
8421585 ¹	SEA ALEXA	Tanzania	5234981	8
8510128 ¹	SHUN FA 19	Togo	5724783	1
8510128 ¹	SHUN FA 19	Cambodia	5724783	1
8510142 ²	HAO FENG	Togo	5298893	1
8510142 ²	TONG XING	Sierra Leone	5679543	1
8631491 ²	UNION FORTUNE	Micronesia, Federated States of	5276293	1
8631491 ²	UNION FORTUNE	Cambodia	5272256	1
8706806 ¹	LAN HAI	Togo	5173144	6
8706806 ¹	HONG HAI	Cambodia	5173144	6
8718483 ¹	TRAWIND GLORY	Togo	5640161	3
8718483 ¹	TRAWIND GLORY	Sierra Leone	5640161	3
8736576 ³	TONG MAO 11	Belize	4171525	5
8736576 ³	TONG MAO 11	Belize	5159826	5
8745486	LAO CHUAN ZHANG 17	Belize	5321091	3
8801371	HAN LI	Panama	5536107	2
8839770	YU LING	Panama	1867053	4
8840054	GUANG YUAN	Togo	5639432	5
8858996 ²	DOREEN	Micronesia, Federated States of	5598407	1
8858996 ²	BAI HONG	Cambodia	5680811	1
8907254 ¹	RYOFU	Mongolia	5519245	7
8907254 ¹	ELDUGA	Togo	5519245	7
9036882 ¹	ORIENT SUNSHINE	Togo	5290972	10
9036882 ¹	ORIENT SUNSHINE	Cambodia	5290972	10
9042116	STAS	Panama	1952299	4
9140190 ¹	SKY HARMONY	Micronesia, Federated States of	5468010	2
9140190 ¹	SKY HARMONY	Cambodia	5468010	2
9152351	BUENA GRACIA	Panama	5592969	5
9175638	OCEAN PHOENIX	Singapore	5307019	6
9249910	HO FONG	Panama	1728136	1
9342944 ¹	CAPTAIN KANG	Togo	5173250	1
9342944 ¹	CAPTAIN KANG	Cambodia	5070940	1
9366847	RICH MOUNTAIN	Panama	4102603	3

IMO No.	Ship name (at the day of detention)	Flag	IMO company No.	No. of times on the list
9373802²	TAI RONG 16	Micronesia, Federated States of	5912935	8
9373802²	TAI RONG 16	Cambodia	5866793	8
9373802²	TAI RONG 16	Togo	5912935	8
9496654	BUNGO PRINCESS	Panama	1954321	3

1. The ship changed flag.
2. The ship changed company and flag.

ANNEX 3

ORGANIZATIONAL STRUCTURE OF THE TOKYO MOU



EXPLANATORY NOTE ON THE BLACK – GREY – WHITE LISTS

The Port State Control Committee adopted the same method as used by the Paris MOU for assessment of performance of flags. Compared to the calculation method of previous year, this system has the advantage of providing an excess percentage that is significant and also reviewing the number of inspections and detentions over a 3-year period at the same time, based on binomial calculus.

The performance of each flag State is calculated using a standard formula for statistical calculations in which certain values have been fixed in accordance with the agreement of the Port State Control Committee. Two limits have been included in the new system, the 'black to grey' and the 'grey to white' limit, each with its own specific formula:

$$u_{black - to - grey} = N \cdot p + 0.5 + z \cdot \sqrt{N \cdot p \cdot (1 - p)}$$

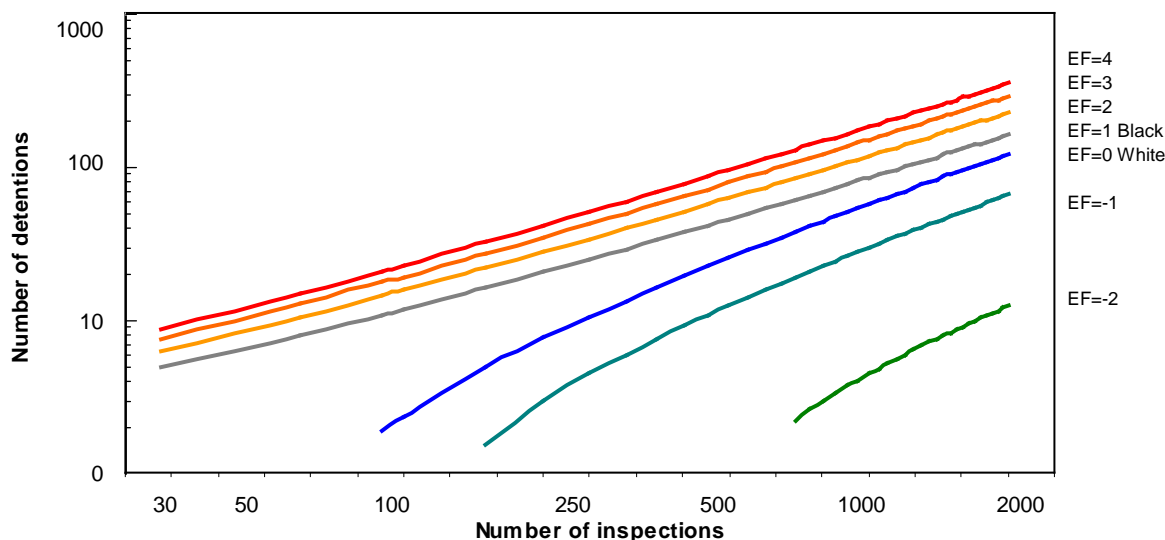
$$u_{white - to - grey} = N \cdot p - 0.5 - z \cdot \sqrt{N \cdot p \cdot (1 - p)}$$

In the formula "N" is the number of inspections, "p" is the allowable detention limit (yardstick), set to 7% by the Tokyo MOU Port State Control Committee, and "z" is the significance requested (z=1.645 for a statistically acceptable certainty level of 95%). The result "u" is the allowed number of detentions for either the black or white list. The "u" results can be found in the table as the 'black to grey' or the 'grey to white' limit. A number of detentions above this 'black to grey' limit means significantly worse than average, where a number of detentions below the

'grey to white' limit means significantly better than average. When the amount of detentions for a particular flag State is positioned between the two, the flag State will find itself on the grey list. The formula is applicable for sample sizes of 30 or more inspections over a 3-year period.

To sort results on the black or white list, simply alter the target and repeat the calculation. Flags which are still significantly above this second target are worse than the flags which are not. This process can be repeated, to create as many refinements as desired. (Of course the maximum detention rate remains 100%!) To make the flags' performance comparable, the excess factor (EF) is introduced. Each incremental or decremental step corresponds with one whole EF-point of difference. Thus the excess factor EF is an indication for the number of times the yardstick has to be altered and recalculated. Once the excess factor is determined for all flags, the flags can be ordered by EF. The excess factor can be found in the last column the black, grey or white list. The target (yardstick) has been set on 7% and the size of the increment and decrement on 3%. The Black – Grey – White lists have been calculated in accordance with the above principles.

The graphical representation of the system, below, is showing the direct relations between the number of inspected ships and the number of detentions. Both axis have a logarithmic character.



TOKYO MOU SECRETARIAT

The Secretariat (Tokyo MOU Secretariat) of the Memorandum of Understanding on Port State Control in the Asia-Pacific Region is located in Tokyo, Japan. The Secretariat may be approached for further information or inquiries on the operation of the Memorandum.

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