

**ANNUAL REPORT**

**ON**

**PORT STATE CONTROL**

**IN THE ASIA-PACIFIC REGION**

**2006**



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## FOREWORD

We are pleased to present the **Annual Report on Port State Control in the Asia-Pacific Region 2006**.

Tokyo MOU makes continuous endeavours and takes concerted measures to enhance and improve port State control activities in the region. In order to tackle on important areas relating to safety of navigation, safe operation of ships, ship security and prevention of pollution from ships and to facilitate and promote compliance of newly introduced convention regulations, Tokyo MOU embarks on concentrated inspection campaigns (CICs) periodically. A series of CICs have been conducted during the past and several further ones have been put on schedule for the coming years.

This annual report covers the port State control developments and activities of the Tokyo MOU in 2006. Furthermore, the report also presents port State control statistics and analysis which provides the results of inspections carried out by member Authorities during the year.

Successful and effective operation of the Tokyo MOU demonstrates the dedicated commitment of the eighteen member Authorities to combat against substandard shipping. Tokyo MOU will continue to apply increasing pressure and implement more stringent measures on unsafe and substandard ships so as to promote, to the maximum extent, maritime safety, security and protection of the marine environment in the region.

Young-sun Park  
Chairman  
Port State Control Committee

Mitsutoyo Okada  
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 twelfth issue and covers port State control activities and developments in the year 2006.

The Memorandum was concluded in Tokyo on 1 December 1993. The following maritime Authorities in the Asia-Pacific region are the signatories to the Memorandum: Australia, Canada, Chile, China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, the Philippines, the Russian Federation, Singapore, Solomon Islands, Thailand, Vanuatu and Vietnam. The Memorandum came into effect on 1 April 1994.

In accordance with the provisions of the Memorandum, the Authorities which have signed and formally accepted the Memorandum or which have been accepted with unanimous consent of the Port State Control Committee would become full members. Currently, the Memorandum has 18 full members, namely: Australia, Canada, Chile, China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, the Philippines, the Russian Federation, Singapore, Thailand, Vanuatu and Vietnam.

The main objective of the Memorandum is to establish an effective port State control regime in the Asia-Pacific region through co-operation of its members and harmonization of their activities, to eliminate substandard shipping so as to promote maritime safety, to protect the marine environment and to safeguard 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 of the member Authorities and also observers from the maritime Authorities and the inter-governmental organizations which have been granted observer status by the Committee, namely: Democratic People's Republic of Korea, Macao (China), Solomon Islands, 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 and the Black Sea MOU. The Secretariat of the Memorandum is located in Tokyo, Japan.

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; and
  - the Merchant Shipping (Minimum Standards) Convention, 1976 (ILO Convention No. 147).

## REVIEW OF YEAR 2006

Tokyo MOU continued its efforts and commitment to improve and enhance port State control development and activities.

At the Second Joint Ministerial Conference of the Paris and Tokyo Memoranda on Port State Control two years ago, the Ministers stressed that the conduct of PSC officers is of utmost importance and should be maintained at the highest level. The Ministers encouraged the both Memoranda to develop and implement a code of good practice for PSC officers. Pursuing the decision made by the Ministers, Tokyo MOU adopted the Code of Good Practice for PSC Officers which was developed in the similar manner as the Paris MOU. Integrity, professionalism and transparency are the three fundamental principles and the core of the Code. All PSC officers in the region had been requested to bring their conduct and behaviour in line with the Code. The Code of Good Practice has been incorporated in the PSC Manual for ready reference by PSC officers and published on the Tokyo MOU web-site (<http://www.tokyo-mou.org>) for supervision from outside.

For the purpose of verifying whether the oil filtering equipment is installed, maintained and operated appropriately and whether pollution prevention procedures are properly followed on board ships, Tokyo MOU carried out a concentrated inspection campaign (CIC) on MARPOL Annex I from 1 February to 30 April 2006. The campaign was conducted concurrently with the Paris MOU. During the campaign period, a total of 4,824 inspections, involving 4,603 ships, were conducted by the member Authorities. There were in total 2,148 deficiencies relating to MARPOL Annex I recorded, of which the top three categories of defects recorded were Oil Record Book (551 in number or 25.7% in percentage), Shipboard Oil Pollution Emergency Plan (SOPEP) (509 or 23.7%) and Oil Filtering Equipment (504 or 23.5%). There were 96 ships that were

detained on MARPOL Annex I related detainable deficiencies. The CIC detention rate is about 1.99%, much lower than the overall detention rate of 6.52% for the same period.

Tokyo MOU has developed the computer based ship targeting system for facilitating and supporting selection of ships for inspection by PSC officers. The ship targeting system was formally implemented three years ago. In response to the request by the industry and for the purpose of providing more transparent information on its PSC activities, Tokyo MOU decided to publish ship targeting factors on the MOU web-site. As from 1 October 2006, the targeting factor value for a specific ship can be found upon ship search. The breakdown of ship targeting factor calculation by elements is also provided. The ship targeting factor value is only indication of possibility/priority for a ship to be subject to PSC inspection and is not considered as the practical condition of the ship. Positive feedback on publication of ship targeting factors had been received from the industry.

### THE PORT STATE CONTROL COMMITTEE

The Port State Control Committee held its sixteenth meeting from 25 to 28 September 2006 in Victoria, British Columbia, Canada. The meeting was hosted by the Transport Canada. Mr. Park Young-sun, Director of Maritime Technology Division, Maritime Safety Management Bureau, Ministry of Maritime Affairs and Fisheries of Republic of Korea, chaired the meeting.



The sixteenth Committee meeting, Victoria, September 2006.

The sixteenth meeting was attended by representatives of the member Authorities of Australia, Canada, Chile, China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, the Philippines, the Russian Federation, Singapore, Thailand, Vanuatu and Viet Nam, and observers from DPR Korea, Macao (China), Solomon Islands, the United States Coast Guard, ILO, IMO, and the Secretariats of Black Sea MOU, Indian Ocean MOU, Paris MOU and the Viña del Mar Agreement. This is the meeting attended by all members and observers since the first meeting of the Committee.

The Committee reviewed and updated the list of follow-up actions emanating from the Second Joint Ministerial Conference of the Paris and Tokyo Memoranda on Port State Control Canada in 2004. The Committee considered and adopted the Code of Good Practice for Port State Control Officers. The Committee further decided that the Code of Good Practice should be included in the PSC Manual and published on the Tokyo MOU web-site.



The Committee considered the results of the CIC on MARPOL Annex I conducted during period of February – April 2006. The Committee discussed preparation and arrangement for the joint CIC on the ISM Code which was rescheduled to take place from 1 September to 30 November 2007. Moreover, the Committee accepted the proposal by the Paris MOU to carry out a concentrated inspection campaign on safety of navigation (SOLAS Chapter V) in 2008 together. The Committee decided to take up lifeboat for a CIC in 2009 and agreed to send an invitation to the Paris MOU for organizing it jointly.

The Committee approved the arrangement made for publication of ship targeting factors. The publication of ship targeting factor has been implemented on the Tokyo MOU web-site from 1 October 2006. For purpose of providing more timely information on PSC detentions, the Committee gave its permission to the on-line publication of detention list. As from 1 January 2007, the monthly detention list is published in a on-line mode based on the real time PSC data.

The Committee considered the preliminary work done and progress made by the intersessional working groups on the coding system and statistics. The Committee requested the groups to continue their work on the important tasks assigned in order to obtain further outcome and progress. The Committee received summaries of the four cases dealt with by the detention review panel during the intersessional period.

In addition, the Committee also discussed and made decisions on matters relating to:

- procedural guidance for application, assessment and acceptance of co-operating member Authority;
- further consideration on publication of ship black list;
- amendments to the guidelines for the responsibility assessment of RO; and
- possible improvement of structure and arrangement of future meetings.

The seventeenth meeting of the Port State Control Committee will be held in Hong Kong, China in September 2007.

#### **ASIA-PACIFIC COMPUTERIZED INFORMATION SYSTEM (APCIS)**

For reporting and storing port State inspection results and facilitating exchange of information in the region, a computerized database system, the Asia-Pacific Computerized Information System (APCIS), was established. The computer center of the APCIS is located in Vladivostok, under the auspices of the Ministry of Transport of the Russian Federation.

The fifteenth meeting of the Regional Database Managers (DBM) was convened on 22 September 2006 in Victoria, Canada, in conjunction with the sixteenth meeting of the Committee. The DBM15 meeting was conducted under the chairmanship of Mr. Christopher Lindesay, Principal System Officer, Australian Maritime Safety Authority.

The DBM meeting considered the matters concerning the following and put recommendations thereon to the Committee:

- training material on APCIS usage;
- revision of APCIS data validation rules;
- correct usage of code for recording classification society and organizations issuing ships' certificate;
- improvement of detailed statistics on PSC; and
- status and progress regarding information exchange with other MOUs.



Training course for PSC officers

Mr. Christopher Lindesay of Australia was unanimously re-elected as the DBM chairman for further three meetings.

For the purpose of promotion of inter-regional information exchange, Tokyo MOU has established links with SIRENAC of the Paris MOU, BSIS of the Black Sea MOU and IOCIS of Indian Ocean MOU via APCIS. With this facility, PSC officers may view results of inspection conducted by other regions.

### TRAINING AND SEMINARS FOR PORT STATE CONTROL OFFICERS

Tokyo MOU has developed and implemented effectively various technical co-operation programmes for years. Such allowed Tokyo MOU to maintain sustained achievement and to keep good potential for improvement and enhancement of its activities. In 2006, there were a number of events under the scope of technical co-operation that were organized in the Tokyo MOU.

The sixteenth basic training course for PSC officers was carried out from 27 June to 14 July 2006 in Yokohama, Japan. PSC officers from each of the Authorities of Chile, China, Indonesia, Republic of Korea, Macao (China), Malaysia, Papua New Guinea, the Philippines, the Russian Federation, Thailand and Viet Nam attended this training course. The training course was co-organized with the Shipbuilding Research Center (SRC) of Japan.

The basic training course is designated for junior or newly recruited PSC officers to learn primary knowledge on port State control. During the training period, lectures and presentations relating to port State control provisions, convention requirements and regulations, PSC inspection procedures and reporting were provided. Experts from SRC, Nippon Kaiji Kyokai, Ministry of Land, Infrastructure and Transport of Japan, the APCIS and the Secretariat gave lectures on the relevant subjects. In addition to classroom lectures, two-time on-board inspection



about the information system for the participants during the seminar. The major topics covered by the experts include hardware and software requirements, APCIS system structure, data flow, APCIS main functions, reporting procedures, on-line user interface, data processing and validation and APCIS administrative procedures. Moreover, participants were also guided to practice and test various functions provided by the on-line interface.

On-the-job training

exercises and one technical visit to a liferaft service station were also arranged for trainees.

For the purpose of promotion of more effective and efficient usage of the information system, the thirteenth seminar/national database managers training seminar was organized on 1 – 3 March 2006 in Nadi, Fiji. The seminar was hosted by the Fiji Islands Maritime Safety Administration and attended by the national database managers from the Authorities of Chile, China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea, Macao (China), Malaysia, Papua New Guinea, the Philippines, the Solomon Islands, Thailand, Vanuatu and Viet Nam.

Experts from the APCIS made comprehensive introduction

From 20 to 22 June 2006, the fourteenth seminar for PSC officers was held in Tokyo, Japan. The seminar was organized by the Ministry of Land, Infrastructure and Transport of Japan. Participants from Authorities of Australia, Canada, China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea,



The thirteenth seminar/national database managers training seminar

Macao (China), Malaysia, the Philippines, the Russian Federation, Singapore, Thailand, United States Coast Guard, Vanuatu and Viet Nam and, as well as, representatives from the Black Sea MOU, the Caribbean MOU, the Indian Ocean MOU and the Riyadh MOU attended the seminar.

The fourteenth seminar concentrated on maritime security and was conducted in two separate parts, i.e. open forum and traditional session. The open forum on maritime security was performed with key note speeches on “Threats to Maritime Security” and “SOLAS Chapter XI-2 and the ISPS Code” and followed by a panel discussion session. During the usual seminar session, participants were informed of recent development and activities of the Tokyo MOU, detailed explanations regarding PSC on maritime security and PSC activity in Japan. Furthermore, a case study session was also arranged during the seminar.



Fellowship training for PSC officers

Fellowship training scheme was improved in 2006, with involvement of more Authorities to host the trainings. The fellowship training in Japan was conducted from 11 to 24 November 2006. Ten PSC officers from the Authorities of Chile, China, Indonesia, Republic of Korea, Papua New Guinea, the Philippines, Thailand and Viet Nam participated in the fellowship training in Japan. In addition to the fellowship training in Japan, two PSC officers from China and the Russian Federation attended the fellowship training from 31 October to 10 November 2006 in Pusan, Republic of Korea. Furthermore, four PSC officers from Indonesia, Republic of Korea, Malaysia and Thailand took part in the fellowship training in China, which was conducted on 21 November – 1 December 2006 in Dalian and Shanghai respectively. During fellowship training, participants attended actual inspections with local PSC officers



The fourteenth seminar for PSC officers



Fellowship training for PSC officers

from the host Authorities in order to learn practical knowledge and skills for conducting PSC inspections.

At the request by the Authority of Philippines, an extra expert mission training was organized in Manila in October 2006. The training was divided into two phases, i.e. in-house lectures and on-board inspections. Two experts nominated from the Authority of Japan conducted the practical on-board inspection training.

Participating Authorities in the PSC officers exchange programme have been expanded as from 2006. Now, the PSC officers exchange programme is implemented among Authorities of Australia, Canada, China, Hong Kong (China), Japan, Republic of Korea, New Zealand and Singapore. The following PSC officer exchanges were completed in 2006:

one PSC officer from Canada to Australia, one from Japan to Republic of Korea, one from Hong Kong to Japan and one from Australia to Singapore.

Tokyo MOU technical co-operation programmes have received full support from all Authorities and generous fund from the Nippon Foundation.

### CO-OPERATION WITH OTHER REGIONAL PORT STATE CONTROL AGREEMENTS

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 all together nine regional port State control agreements (MOUs) which have covered the major part of the world, namely:

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

As inter-regional collaboration on port State control, Tokyo MOU had obtained observer status from the Paris MOU, the Caribbean MOU and the Indian Ocean MOU. On the other hand, Tokyo MOU has granted observer status to the Paris MOU, the Indian Ocean MOU, the Viña del Mar Agreement and the Black Sea MOU.

For the purpose of more effective presentation and more positive involvement by PSC regimes at IMO forum, the inter-governmental

organization (IGO) status had been granted to eight regional PSC organizations by IMO, including the Tokyo MOU. With the IGO status, the MOU may make submission of documents and attend IMO meetings on its own right. Tokyo MOU was present at 14th session of FSI Sub-Committee as observer.

Tokyo MOU has established and maintained effective and close co-operation with the Paris MOU at both the administrative and the technical levels. Representatives of the two Secretariats present at Port State Control Committee meetings of each other on regular basis. During the period, the two Memoranda made joint efforts and took harmonized actions on the following matters:

- preparation of the CIC on ISM Code in 2007 and co-ordination of further joint CICs;
- joint submission of list of follow-up actions stemming from the ministerial conference to IMO;
- adoption of uniformed Code of Good Practice for PSC Officers;
- review of PSC coding system for further improvement and harmonization;
- co-ordination on development of PSC guidelines for implementation of the 2006 maritime labour convention; and
- submission of annual list of flags targeted by the Paris MOU, Tokyo MOU and the United States Coast Guard to IMO.

worldwide campaign because not only the Paris MOU, Tokyo MOU and the United States Coast Guard will carry out the CIC but also Black Sea MOU, Indian Ocean MOU, Mediterranean MOU and the Viña del Mar Agreement will join the campaign.

The CIC on the ISM Code in 2007 will be a

## PORT STATE CONTROL UNDER THE TOKYO MOU, 2006

### INSPECTIONS

In 2006, 21,686 inspections, involving 12,148 individual ships, were carried out on ships registered under 96 flags. The inspections increased by 628 in number and about 3% in percentage, comparing with the figures in 2005. Figure 2 and Table 2 show the number of inspections carried out by the member Authorities of the Tokyo MOU. Out of 21,686 inspections, there were 14,916 inspections found ships with deficiencies. Since the total number of individual ships operating in the region was estimated at 17,520\*, the inspection rate in the region was approximately 69%\*\* in 2006 (see Figure 1).

Information on inspections according to ships' flag is shown in Table 3.

Figures summarizing inspections according to ship type are set out in Figure 3 and Table 4.



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

\*\* New method for calculation of inspection rate (number of individual ships inspected/number of individual ships visited%) was introduced from 2004.



Inspection results regarding recognized organizations are shown in Table 5.

### DETENTIONS

Ships are detained 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.

In 2006, 1,171 ships registered under 58 flags were detained because of serious deficiencies found on board. The detention rate of ships inspected was about 5.40%. Compared with the last year, the detentions rose up slightly in 2006, with 74 in number or 7% in percentage.

Figure 4 shows the detention rate by flags where at least 20 port State inspections were involved and detention rate was above the average regional rate. Figure 5 gives the detention rate by ship type.



Black-grey-white list (Table 7) has been introduced since 2002, which provides a better assessment of performance of flags during three-year rolling period. The black-grey-white list for 2004-2006 is consisting of 58 flags, whose ships were involved in 30 or more inspections during the period. There are 13 flags appear in the black list. The new face in the black list is Comoros. Egypt, Myanmar, Papua New Guinea and Tonga quit from the black list while Bangladesh and Bolivia are not in the list because number of inspections involved is less than 30. The grey list comprises 17 flags. It is encouraging that more flags appear in the white list. This time, the white list includes 28 flags, 3 more than the last year.

## DEFICIENCIES

All conditions on board found not in compliance with the requirements of the relevant instruments by the port State control officers were recorded as deficiencies and requested to be rectified.

A total of 80,556 deficiencies were recorded in 2006. The deficiencies found are categorized and shown in Figure 6 and Table 6.

It is noted that life-saving appliances and fire safety measures remained as two major categories of deficiencies which were frequently discovered on ships. In 2006, 10,871 life-saving appliances related deficiencies and 13,154 fire safety measures related deficiencies were recorded, representing 30% of the total number of deficiencies.

In relation to the CIC on MARPOL Annex I, more deficiencies associated with MARPOL Annex I were discovered in 2006. The total number of MARPOL Annex I related deficiencies is 5,423, which is 1,119 (26%) higher than the figure of 4,304 last year.

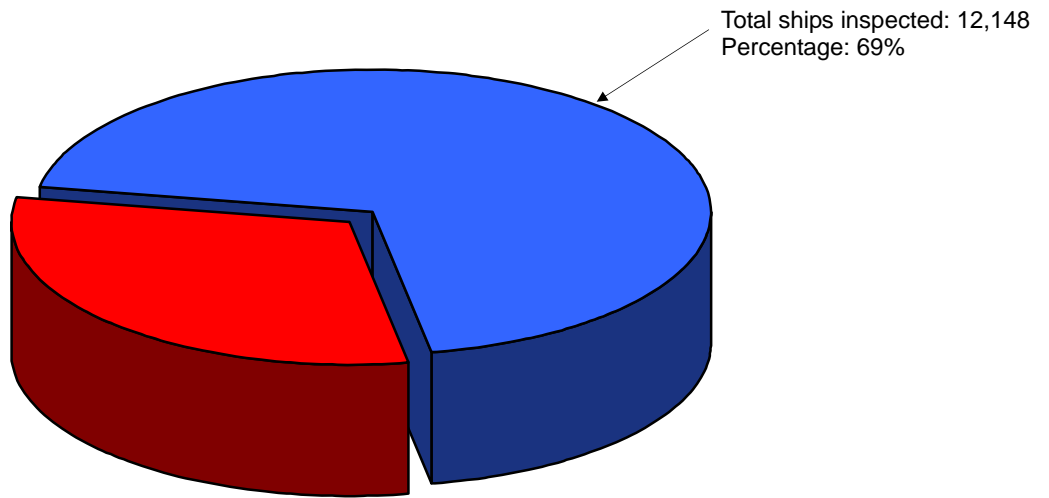




**OVERVIEW OF PORT STATE CONTROL  
RESULTS 1996 – 2006**

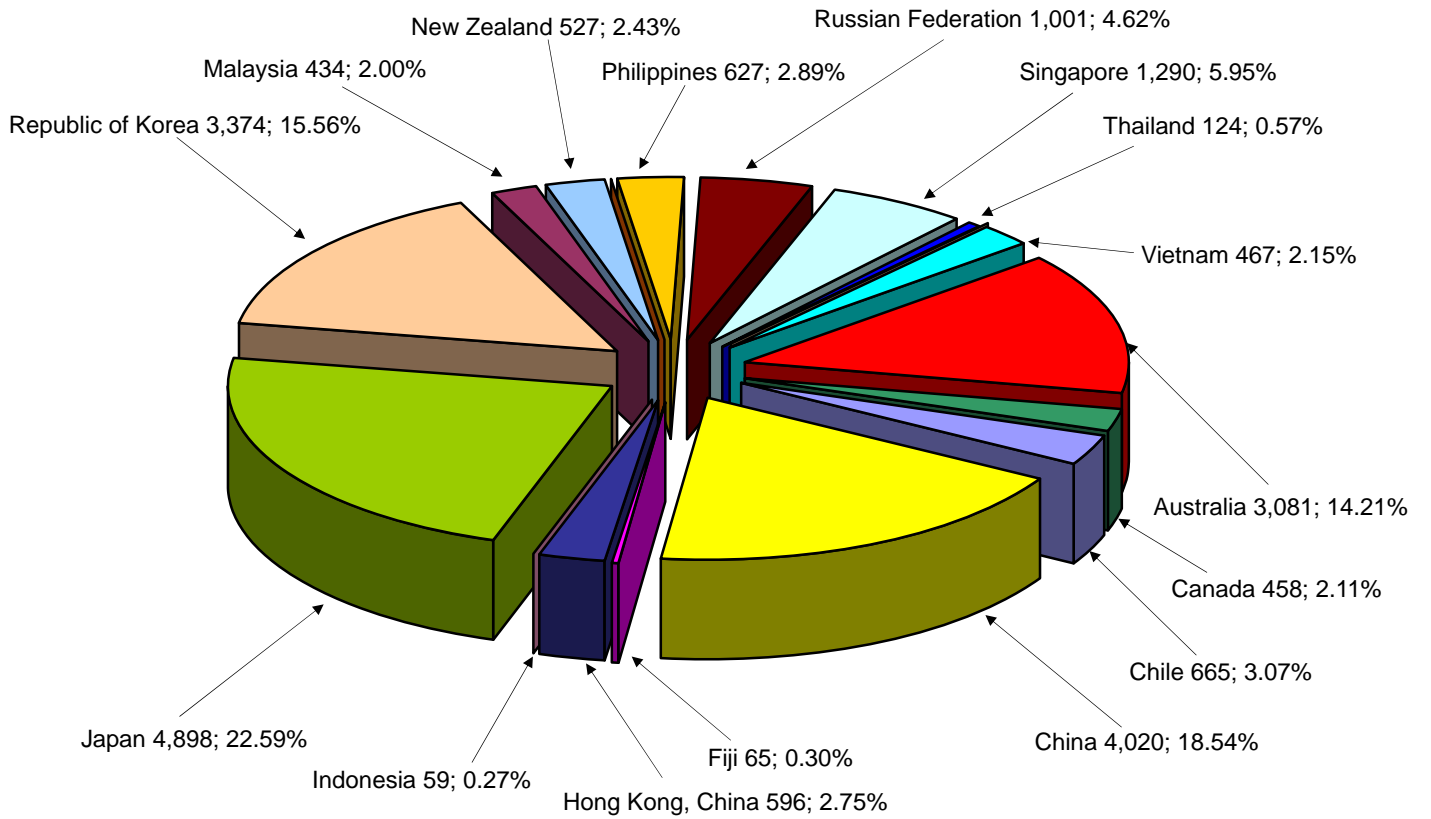
Figures 7-12 show the comparison of port State inspection results for 1996 - 2006. These figures indicate continuous improvements in the port State control activities in the region over the past nine years.

**Figure 1: INSPECTION PERCENTAGE**



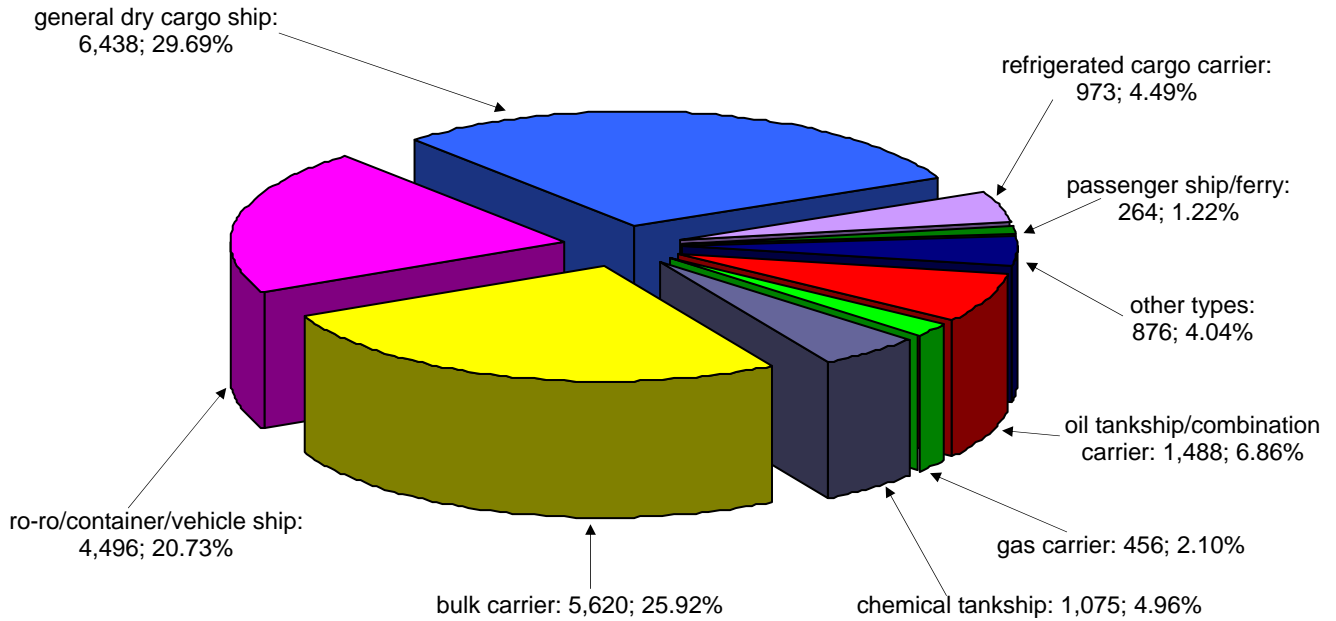
Total individual ship visited: 17,520

**Figure 2: PORT STATE INSPECTIONS - CONTRIBUTION BY AUTHORITIES**

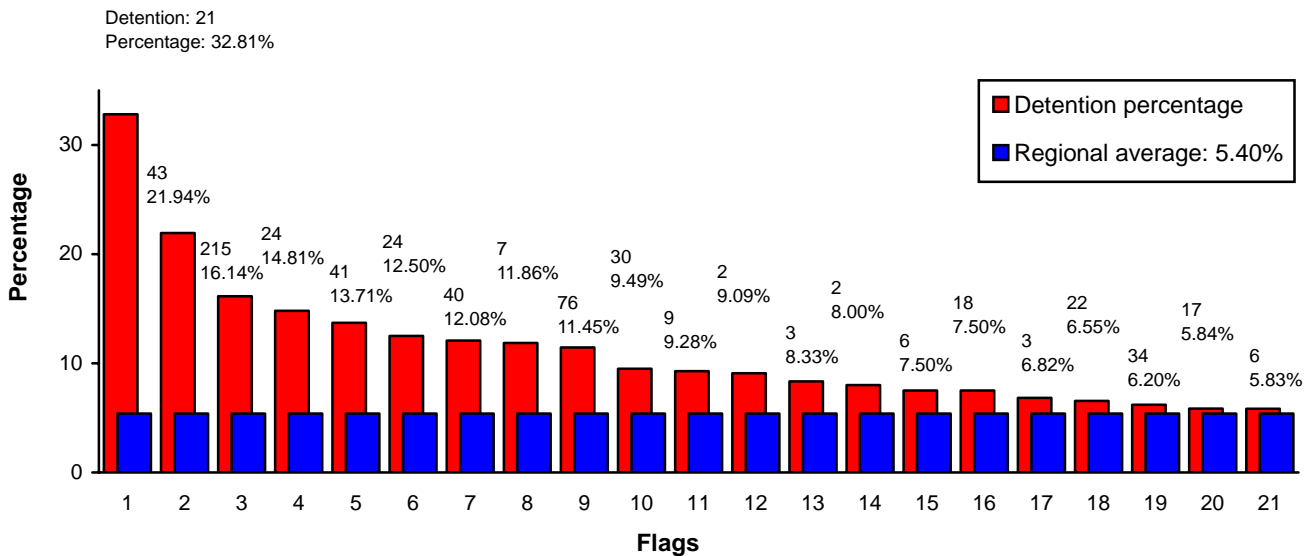


**Total inspections: 21,686**

**Figure 3: TYPE OF SHIP INSPECTED**



**Figure 4: DETENTIONS PER FLAG**

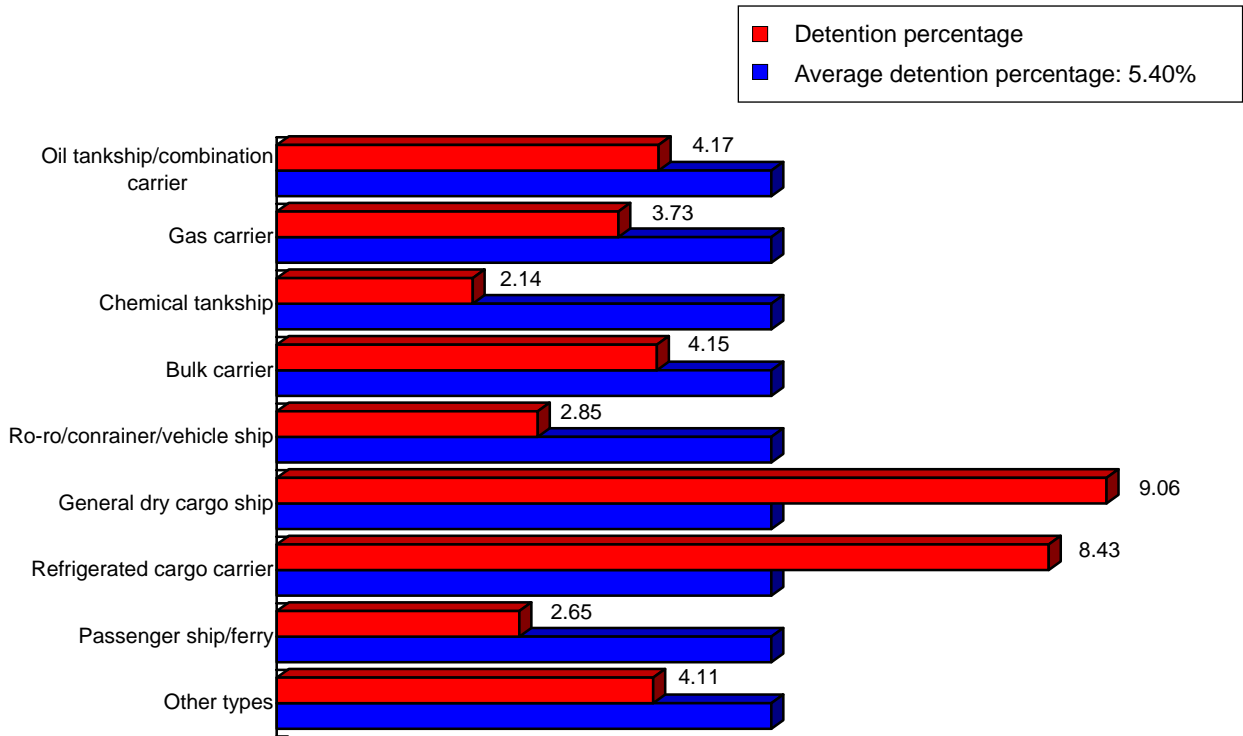


Flags:

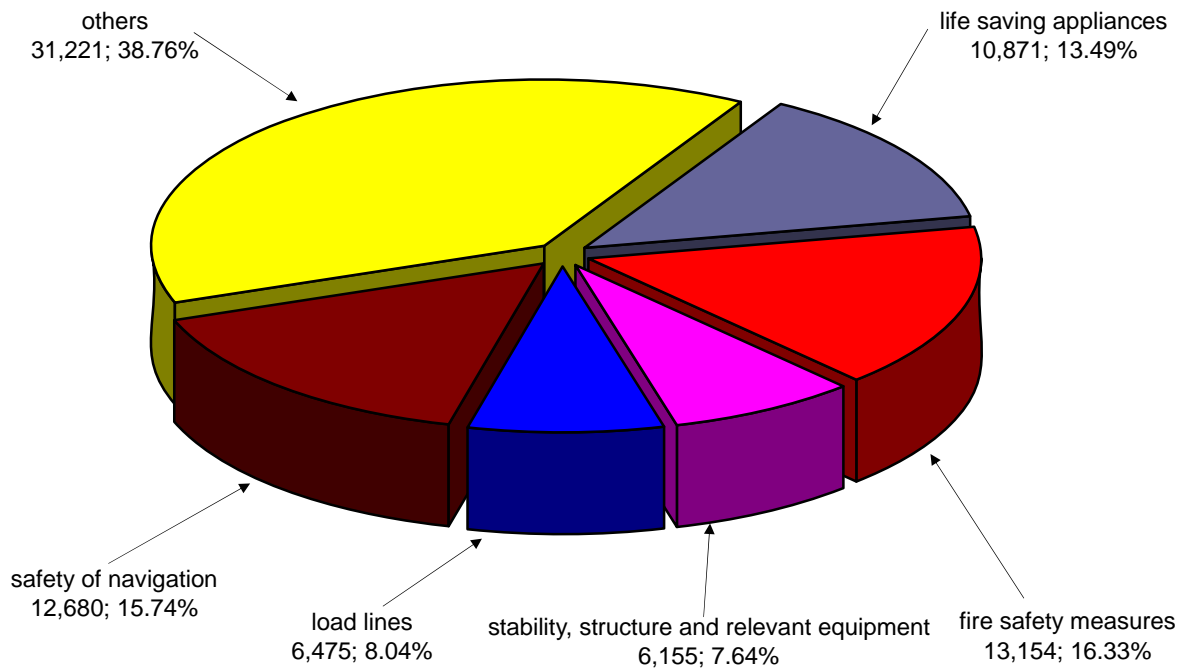
- |                              |                                      |                         |                  |
|------------------------------|--------------------------------------|-------------------------|------------------|
| 1. Georgia                   | 2. Indonesia                         | 3. Cambodia             | 4. Mongolia      |
| 5. Korea, Dem. People's Rep. | 6. Tuvalu                            | 7. Viet Nam             | 8. Turkey        |
| 9. Belize                    | 10. Thailand                         | 11. Taiwan, China       | 12. Sierra Leone |
| 13. Myanmar                  | 14. Israel                           | 15. Cayman Islands (UK) | 16. Malaysia     |
| 17. Dominica                 | 18. Saint Vincent and the Grenadines | 19. Cyprus              | 20. Greece       |
| 21. India                    |                                      |                         |                  |

Note: Flags listed above are those flags which ships 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 5: DETENTION PER SHIP TYPE**

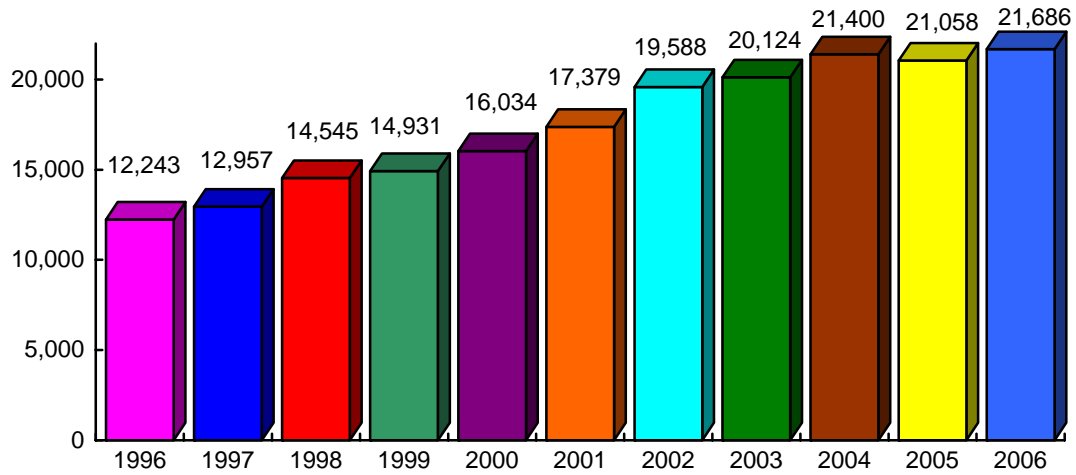


**Figure 6: DEFICIENCIES BY MAIN CATEGORIES**

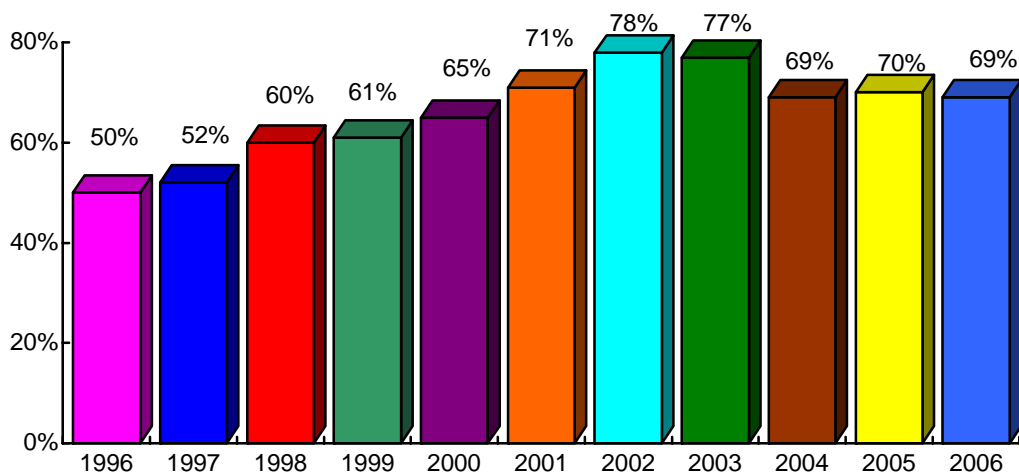


**OVERVIEW OF PORT STATE CONTROL RESULTS 1996 - 2006**

**Figure 7: NO. OF INSPECTIONS**

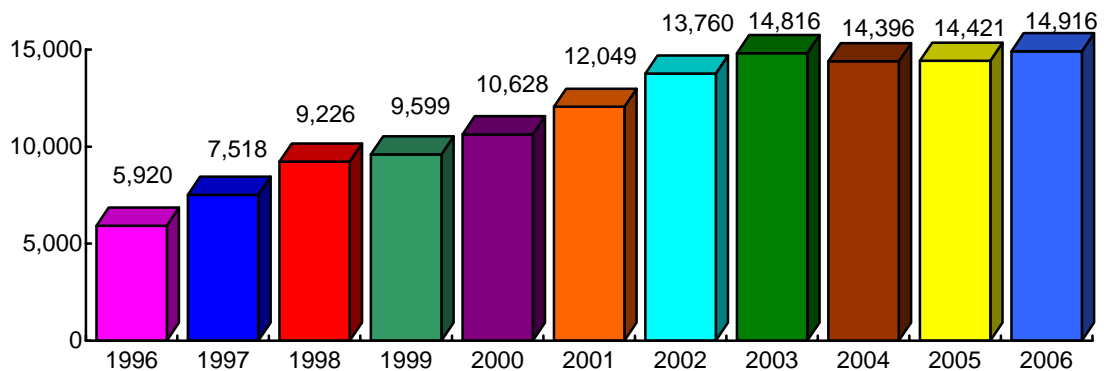


**Figure 8: INSPECTION PERCENTAGE\***

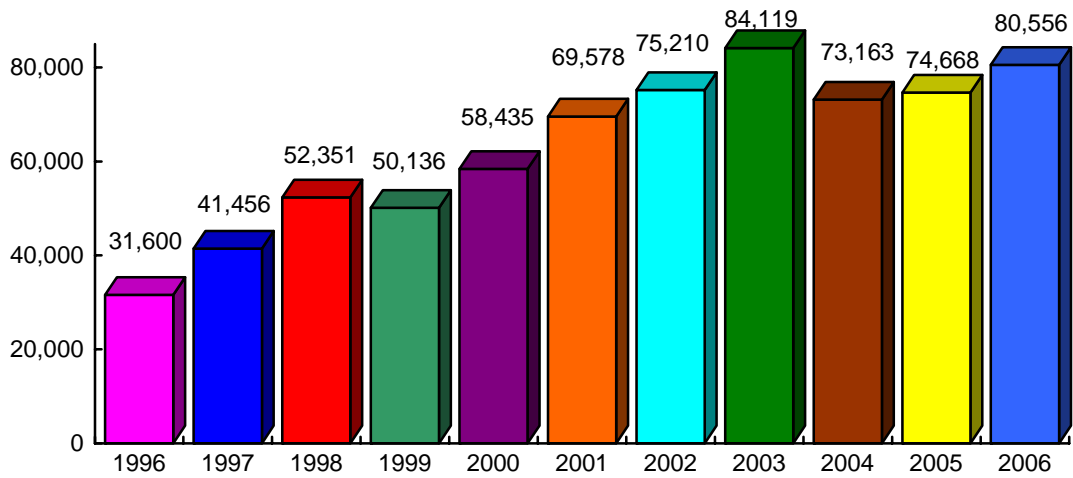


\* Method for calculation of inspection rate was changed from 2004. See also the footnote in page 10.

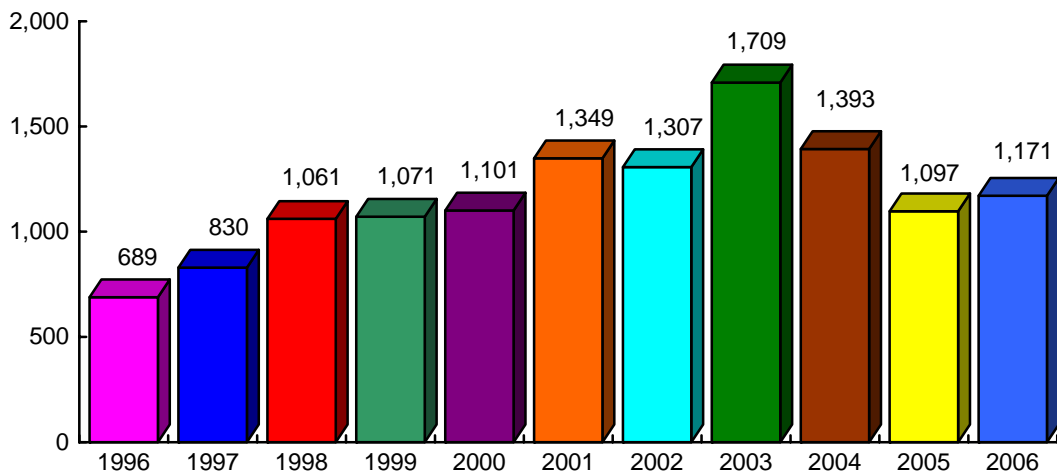
**Figure 9: NO. OF INSPECTIONS WITH DEFICIENCIES**



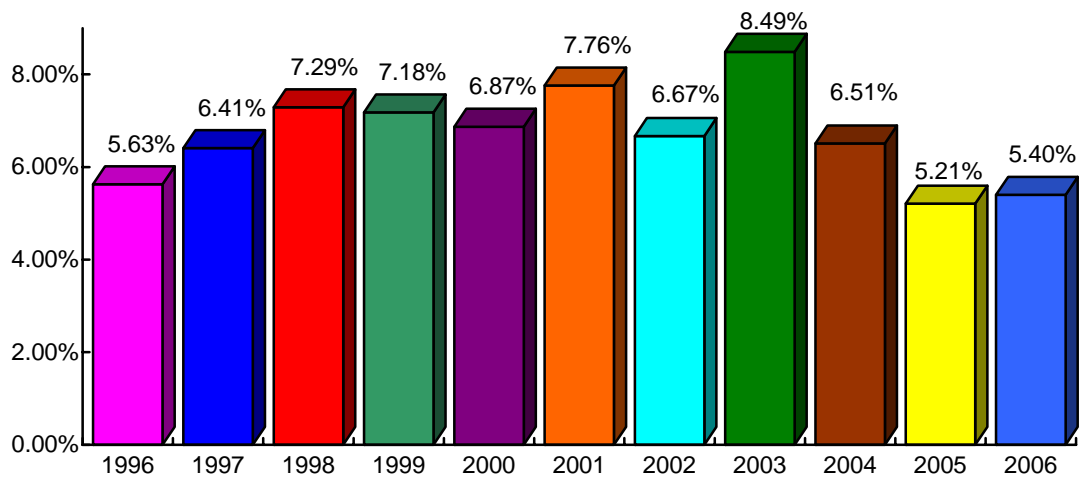
**Figure 10: NO. OF DEFICIENCIES**



**Figure 11: NO. OF DETENTIONS**



**Figure 12: 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 2006)

Authority	TONNAGE 69	LOAD LINE 66	LOAD LINE PROT 88	SOLAS 74	SOLAS PROT 78	SOLAS PROT 88	MARPOL 73/78	STCW 78	COLREG 72	ILO 147**
Australia	21/05/82	29/07/68	07/02/97	17/08/83	17/08/83	07/02/97	14/10/87	07/11/83	29/02/80	-
Canada	18/07/94	14/01/70	-	08/05/78	-	-	16/11/92	06/11/87	07/03/75	25/05/93
Chile	22/11/82	10/03/75	03/03/95	28/03/80	15/07/92	29/09/95	10/10/94	09/06/87	02/08/77	-
China	08/04/80	05/10/73	03/02/95	07/01/80	17/12/82	03/02/95	01/07/83	08/06/81	07/01/80	-
Fiji	29/11/72	29/11/72	28/07/04	04/03/83	28/07/04	28/07/04	-	27/03/91	04/03/83	-
Hong Kong, China*	18/07/82	16/08/72	23/10/02	25/05/80	14/11/81	23/10/02	11/04/85	03/11/84	15/07/77	28/11/80
Indonesia	14/03/89	17/01/77	-	17/02/81	23/08/88	-	21/10/86	27/01/87	13/11/79	-
Japan	17/07/80	15/05/68	24/06/97	15/05/80	15/05/80	24/06/97	09/06/83	27/05/82	21/06/77	31/05/83
Republic of Korea	18/01/80	10/07/69	14/11/94	31/12/80	02/12/82	14/11/94	23/07/84	04/04/85	29/07/77	-
Malaysia	24/04/84	12/01/71	-	19/10/83	19/10/83	-	31/01/97	31/01/92	23/12/80	-
New Zealand	06/01/78	05/02/70	03/06/01	23/02/90	23/02/90	03/06/01	25/09/98	30/07/86	26/11/76	-
Papua New Guinea	25/10/93	18/05/76	-	12/11/80	-	-	25/10/93	28/10/91	18/05/76	-
Philippines	06/09/78	04/03/69	-	15/12/81	-	-	15/06/01	22/02/84	-	-
Russian Federation	20/11/69	04/07/66	18/08/00	09/01/80	12/05/81	18/08/00	03/11/83	09/10/79	09/11/73	07/05/91
Singapore	06/06/85	21/09/71	18/08/99	16/03/81	01/06/84	10/08/99	01/11/90	01/05/88	29/04/77	-
Thailand	11/06/96	30/12/92	-	18/12/84	-	-	-	19/06/97	06/08/79	-
Vanuatu	13/01/89	28/07/82	26/11/90	28/07/82	28/07/82	14/09/92	13/04/89	22/04/91	28/07/82	-
Viet Nam	18/12/90	18/12/90	27/05/02	18/12/90	12/10/92	27/05/02	29/05/91	18/12/90	18/12/90	-
DPR Korea	18/10/89	18/10/89	08/08/01	01/05/85	01/05/85	08/08/01	01/05/85	01/05/85	01/05/85	-
Macao, China	18/07/05	18/07/05	-	20/12/99	20/12/99	24/06/05	20/12/99	18/07/05	20/12/99	-
Solomon Islands	30/06/04	30/06/04	-	30/06/04	-	-	30/06/04	01/06/94	12/03/82	-
Entry into force date	18/07/1982	21/07/1968	03/02/2000	25/05/1980	01/05/1981	03/02/2000	02/10/1983	28/04/1984	15/07/1977	28/11/1981

\* 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.

**Table 1a: STATUS OF MARPOL 73/78**

(Date of deposit of instruments)

(As at 31 December 2006)

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	-
Canada	16/11/92	08/08/02	-	-	-
Chile	10/10/94	10/10/94	10/10/94	-	-
China	01/07/83	13/09/94	02/11/06	21/11/88	23/05/06
Fiji	-	-	-	-	-
Hong Kong, China*	11/04/85	07/03/95	02/11/06	27/03/96	-
Indonesia	21/10/86	-	-	-	-
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	-	-	31/01/97	-
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	-
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	-
Singapore	01/11/90	02/03/94	01/05/05	27/05/99	08/10/00
Thailand	-	-	-	-	-
Vanuatu	13/04/89	22/04/91	15/03/04	22/04/91	15/03/04
Viet Nam	29/05/91	-	-	-	-
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
Solomon Islands	30/06/04	30/06/04	30/06/04	30/06/04	-
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 2006

Table 2: PORT STATE INSPECTIONS CARRIED OUT BY AUTHORITIES

Authority	No. of individual ships inspected	No. of inspections	No. of follow-up inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	No. of individual ships visited <sup>1)</sup>	Inspection rate (%) <sup>2)</sup>	Detention percentage (%)
Australia	2,541	3,081	419	1,783	8,970	138	3,645	69.71	4.48
Canada <sup>3)</sup>	443	458	0	251	852	7	1,528	28.99	1.53
Chile	569	665	132	313	661	18	1,306	43.57	2.71
China	3,164	4,020	1,094	3,550	24,036	319	9,481	33.37	7.94
Fiji	61	65	0	0	0	0	125	48.80	0
Hong Kong, China	587	596	145	546	3,505	62	4,209	13.95	10.40
Indonesia	59	59	0	16	70	1	3,984	1.48	1.69
Japan	3,513	4,898	1,087	3,537	19,633	292	7,102	49.46	5.96
Republic of Korea	2,688	3,374	245	1,933	6,631	158	6,965	38.59	4.68
Malaysia	410	434	49	212	995	3	4,109	9.98	0.69
New Zealand	416	527	328	299	1,006	14	711	58.51	2.66
Papua New Guinea	0	0	0	0	0	0	352	0	0
Philippines	547	627	108	300	1,267	2	1,721	31.78	0.32
Russian Federation <sup>3)</sup>	664	1,001	1,054	786	5,064	36	765	86.80	3.60
Singapore	1,107	1,290	126	958	5,252	99	9,216	12.01	7.67
Thailand	110	124	43	72	249	4	2,497	4.41	3.23
Vanuatu	0	0	0	0	0	0	30	0	0
Vietnam	422	467	83	360	2,365	18	1,366	30.89	3.85
<b>Total</b>	<b>12,148</b>	<b>21,686</b>	<b>4,913</b>	<b>14,916</b>	<b>80,556</b>	<b>1,171</b>	<b>Regional 17,520</b>	<b>Regional 69%</b>	<b>Regional 5.40%</b>

1) LMIU data for 2006.

2) Method for calculation of inspection rate was changed from 2004. See also the footnote in page 10.

3) 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	3,081	15	17	0	0
Canada	458	4	4	0	0
Chile	665	15	15	0	0
China	4,020	365	423	8	0.20
Fiji	65	0	0	0	0
Hong Kong, China	596	29	31	0	0
Indonesia	59	0	0	0	0
Japan	4,898	417	530	14	0.29
Republic of Korea	3,374	327	375	12	0.36
Malaysia	434	34	36	0	0
New Zealand	527	6	7	0	0
Papua New Guinea	0	0	0	0	0
Philippines	627	5	6	0	0
Russian Federation	1,001	36	40	2	0.20
Singapore	1,290	298	312	6	0.47
Thailand	124	22	24	1	0.81
Vanuatu	0	0	0	0	0
Vietnam	467	15	15	1	0.21
<b>Total</b>	<b>21,686</b>	<b>1,588</b>	<b>1,835</b>	<b>44</b>	<b>Regional 0.20%</b>

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

Table 3: 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	347	200	779	13	3.75
Australia	11	4	19	0	0
Austria	3	2	13	1	33.33
Bahamas	673	366	1,429	16	2.38
Bahrain	3	0	0	0	0
Bangladesh	7	7	56	1	14.29
Barbados	9	7	18	0	0
Belgium	26	14	31	0	0
Belize	664	631	4,321	76	11.45
Bermuda (UK)	49	24	65	0	0
Bolivia	5	4	40	1	20.00
Brunei Darussalam	3	1	1	0	0
Bulgaria	4	1	3	0	0
Cambodia	1,332	1,270	9,619	215	16.14
Cayman Islands (UK)	80	46	284	6	7.50
Chile	3	3	7	0	0
China	804	495	1,966	6	0.75
Comoros	14	14	106	4	28.57
Cook Islands	2	1	7	0	0
Croatia	22	13	47	0	0
Cyprus	548	317	1,432	34	6.20
Denmark	119	58	230	0	0
Dominica	44	36	251	3	6.82
Egypt	19	13	55	1	5.26
Ethiopia	3	2	9	0	0
Fiji	1	1	16	1	100.00
France	49	31	79	0	0
Georgia	64	62	502	21	32.81
Germany	229	136	483	8	3.49
Gibraltar (UK)	24	18	74	0	0
Greece	291	153	674	17	5.84
Honduras	5	5	37	3	60.00
Hong Kong, China	1,213	741	3,094	12	0.99
India	103	71	358	6	5.83
Indonesia	196	185	1,814	43	21.94
Iran	58	44	216	1	1.72
Isle of Man (UK)	148	65	264	4	2.70
Israel	25	17	88	2	8.00
Italy	93	53	180	3	3.23

Flag	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	Detention percentage %
Jamaica	2	1	15	0	0
Japan	126	82	279	2	1.59
Jordan	2	1	7	1	50.00
Kiribati	3	2	23	0	0
Korea, Democratic People's Republic	299	293	2,675	41	13.71
Korea, Republic of	1,007	801	4,203	17	1.69
Kuwait	12	8	19	0	0
Latvia	1	0	0	0	0
Lebanon	1	1	1	0	0
Liberia	1,171	707	2,827	35	2.99
Lithuania	1	1	5	0	0
Luxemburg	12	7	27	0	0
Malaysia	240	171	1,059	18	7.50
Maldives	11	9	60	2	18.18
Malta	459	298	1,454	21	4.58
Marshall Islands	490	289	1,196	13	2.65
Mauritius	2	2	8	0	0
Mongolia	162	149	1,315	24	14.81
Myanmar	36	22	114	3	8.33
Netherlands	122	82	265	1	0.82
Netherlands Antilles	42	18	53	1	2.38
New Zealand	5	2	2	0	0
Norway	215	119	407	6	2.79
Pakistan	13	12	66	1	7.69
Panama	6,609	4,300	22,079	302	4.57
Papua New Guinea	18	18	163	1	5.56
Philippines	207	136	597	11	5.31
Poland	1	0	0	0	0
Portugal	6	3	10	0	0
Qatar	3	1	6	0	0
Romania	1	1	3	0	0
Russian Federation	450	372	1,618	11	2.44
Saint Vincent and the Grenadines	336	306	1,827	22	6.55
Samoa	3	2	2	0	0
Saudi Arabia	5	3	8	0	0
Seychelles	1	1	1	0	0
Sierra Leone	22	18	180	2	9.09
Singapore	883	515	2,279	17	1.93
Slovakia	4	4	24	2	50.00
Spain	4	1	6	0	0

Flag	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	Detention percentage %
Sri Lanka	1	1	7	1	100.00
St. Kitts & Nevis (UK)	6	5	41	2	33.33
Sweden	30	11	26	1	3.33
Switzerland	18	9	35	0	0
Taiwan, China	97	75	443	9	9.28
Tanzania	2	2	23	0	0
Thailand	316	247	1,662	30	9.49
Tonga	14	10	36	0	0
Tunisia	2	1	9	0	0
Turkey	59	40	200	7	11.86
Tuvalu	192	179	1,409	24	12.50
Ukraine	4	3	13	0	0
United Arab Emirates (UAE)	7	5	24	2	28.57
United Kingdom (UK)	185	94	368	1	0.54
United States of America	62	34	112	0	0
Vanuatu	78	38	131	0	0
Viet Nam	331	291	2,420	40	12.08
Ship's registration withdrawn	2	2	47	2	100.00
<b>Total</b>	<b>21,686</b>	<b>14,916</b>	<b>80,556</b>	<b>1,171</b>	<b>Regional 5.40</b>

Table 4: 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 %
Tanker, not otherwise specified	43	23	150	3	6.98
Combination carrier	53	33	174	0	0
Oil tanker	1,392	807	4,237	59	4.24
Gas carrier	456	266	1,088	17	3.73
Chemical tanker	1,075	709	3,194	23	2.14
Bulk carrier	5,620	3,456	16,488	233	4.15
Vehicle carrier	658	316	1,196	17	2.58
Container ship	3,598	2,161	9,110	100	2.78
Ro-Ro cargo ship	240	167	768	11	4.58
General cargo/multi-purpose ship	6,438	5,394	35,936	583	9.06
Refrigerated cargo carrier	973	792	4,599	82	8.43
Woodchip carrier	224	129	395	4	1.79
Livestock carrier	43	24	90	2	4.65
Ro-Ro passenger ship	70	58	279	3	4.29
Passenger ship	194	105	465	4	2.06
Heavy load carrier	54	32	130	1	1.85
Offshore service vessel	78	60	341	1	1.28
MODU & FPSO	7	5	34	0	0
High speed passenger craft	39	38	167	0	0
Special purpose ship	39	26	96	1	2.56
High speed cargo craft	1	0	0	0	0
Tugboat	179	149	743	10	5.59
Others	212	166	876	17	8.02
<b>Total</b>	<b>21,686</b>	<b>14,916</b>	<b>80,556</b>	<b>1,171</b>	<b>5.40</b>

Table 5: 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%
Alfa Register of Shipping	3	0	0	0	0	0
American Bureau of Shipping	1,907	53	3	2.78	0.16	5.66
Belize Maritime Bureau Inc.	272	35	6	12.87	2.21	17.14
Belize Register Corporation	5	1	0	20.00	0	0
Biro Klasifikasi Indonesia	129	33	2	25.58	1.55	6.06
Bulgarski Koraben Registar	4	1	0	25.00	0	0
Bureau Securitas	3	0	0	0	0	0
Bureau Veritas	1,789	91	8	5.09	0.45	8.79
Ceskoslovensky Lodin Register	4	0	0	0	0	0
China Classification Society	2,104	30	5	1.43	0.24	16.67
China Corporation Register of Shipping	414	44	4	10.63	0.97	9.09
Compania Nacional de Registro e Inspeccion de Naves	1	1	1	100.00	100.00	100.00
Croatian Register of Shipping	34	0	0	0	0	0
Cyprus Bureau of Shipping	4	0	0	0	0	0
Det Norske Veritas	2,437	84	6	3.45	0.25	7.14
Fidenavis SA	17	0	0	0	0	0
Germanischer Lloyd	2,103	73	5	3.47	0.24	6.85
Global Marine Bureau	995	155	26	15.58	2.61	16.77
Hellenic Register of Shipping	25	5	0	20.00	0	0
Honduras Bureau of Shipping	3	0	0	0	0	0
Honduras International Surveying and Inspection Bureau	4	1	1	25.00	25.00	100.00
INCLAMAR	191	38	13	19.90	6.81	34.21
Indian Register of Shipping	104	8	0	7.69	0	0
Inspeccion y Clasificacion Maritime, S. de. R.L.	14	4	2	28.57	14.29	50.00
International Merchant Marine Registry of Belize	39	2	0	5.13	0	0
International Naval Surveys Bureau	38	8	1	21.05	2.63	12.50
International Register of Shipping	193	24	3	12.44	1.55	12.50
International Ship Classification	105	12	4	11.43	3.81	33.33
Isthmus Bureau of Shipping	579	64	7	11.05	1.21	10.94
Korea Classification Society (former Joson Classification Society)	300	40	12	13.33	4.00	30.00
Korean Register of Shipping	1,871	41	4	2.19	0.21	9.76
Lloyd's Register	2,776	104	14	3.75	0.50	13.46
Maritime Technical Systems and Services	117	15	5	12.82	4.27	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%
Mongolia Ship Registry	26	7	1	26.92	3.85	14.29
National Cargo Bureau Inc.	5	1	0	20.00	0	0
National Shipping Adjusters Inc	3	0	0	0	0	0
Nippon Kaiji Kyokai	6,958	217	21	3.12	0.30	9.68
Overseas Marine Certification Services	13	1	0	7.69	0	0
Panama Bureau of Shipping	125	6	0	4.80	0	0
Panama Maritime Documentation Services	213	33	4	15.49	1.88	12.12
Panama Maritime Surveyors Bureau Inc	156	21	6	13.46	3.85	28.57
Panama Register Corporation	119	13	1	10.92	0.84	7.69
Panama Shipping Certificate Inc.	3	1	0	33.33	0	0
Panama Shipping Registrar Inc.	150	30	7	20.00	4.67	23.33
Poliski Rejestr Statkow	32	2	0	6.25	0	0
R.J. Del Pan	2	0	0	0	0	0
Register of Shipping (Albania)	1	0	0	0	0	0
Register of Shipping (DPR Korea)	10	2	0	20.00	0	0
Registro Cubano de Buques	1	0	0	0	0	0
Registro Internacional Naval S.A.	8	0	0	0	0	0
Registro Italiano Navale	276	18	3	6.52	1.09	16.67
Regjistri Laknori Shqiptar	3	1	0	33.33	0	0
RINAVE Portuguesa	3	0	0	0	0	0
Russian Maritime Register of Shipping	752	33	2	4.39	0.27	6.06
Russian River Register	1	0	0	0	0	0
Shipping Register of Ukraine	3	0	0	0	0	0
Sociedad Clasificadora de Colombia	2	0	0	0	0	0
Turkish Lloyd	3	0	0	0	0	0
Union Bureau of Shipping	132	20	4	15.15	3.03	20.00
Universal Maritime Bureau	45	8	1	17.78	2.22	12.50
Viet Nam Register of Shipping	342	41	10	11.99	2.92	24.39
Class withdrawn	4	0	0	0	0	0
No class	114	20	0	17.54	0	0
Other	1,201	190	45	15.82	3.75	23.68

Note: The number of overall inspections and 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 6: DEFICIENCIES BY CATEGORIES

Nature of deficiencies	No. of deficiencies
Ship's certificates and documents	2,700
Stability, structure and related equipment	6,155
Propulsion and auxiliary machinery	3,801
Alarm signals	358
Fire safety measures	13,154
Oil, chemical tankers and gas carriers	236
Lifesaving appliances	10,871
Radiocommunications	3,066
Safety of navigation	12,680
Carriage of cargo and dangerous goods	555
ISM related deficiencies	2,830
SOLAS related operational deficiencies	3,186
Additional measures to enhance maritime safety	819
Bulk carriers-additional safety measures	319
Load lines	6,475
MARPOL-Annex I	5,423
MARPOL-Annex II	48
MARPOL-Annex IV	136
MARPOL-Annex V	1,931
MARPOL-Annex III	13
MARPOL-Annex VI	383
MARPOL related operational deficiencies	379
Certification and watchkeeping for seafarers	2,237
Crew and accommodation (ILO 147)	417
Food and catering (ILO 147)	220
Working spaces (ILO 147)	731
Accident prevention (ILO 147)	636
Mooring arrangements (ILO 147)	709
Other deficiencies	88
<b>Total</b>	<b>80,556</b>

## SUMMARY OF PORT STATE INSPECTION DATA 2004 – 2006

Table 7: BLACK – GREY – WHITE LISTS \*

Flag	Inspections 2004-2006	Detentions 2004-2006	Black to Grey Limit	Grey to White Limit	Excess Factor
<b>BLACK LIST</b>					
Honduras	36	14	6		7.18
Korea, Democratic People's Republic	983	241	82		6.09
Indonesia	639	153	56		5.74
Georgia	93	26	11		5.51
Mongolia	468	102	42		4.91
Cambodia	3,513	573	271		3.77
Viet Nam	882	134	75		3.09
Belize	2,104	268	167		2.52
Tuvalu	385	52	36		2.26
Dominica	76	13	9		2.21
Comoros	30	6	5		1.84
Taiwan, China	336	36	32		1.37
Thailand	949	90	80		1.33
<b>GREY LIST</b>					
Papua New Guinea	47	6	7	0	0.90
Myanmar	122	12	14	3	0.84
Turkey	222	20	22	9	0.83
Egypt	46	4	7	0	0.62
Malaysia	876	60	74	48	0.45
Pakistan	34	2	5	0	0.44
Saint Vincent and the Grenadines	1,155	76	96	66	0.34
Tonga	61	3	8	0	0.33
Gibraltar (UK)	68	3	9	1	0.28
India	299	17	29	13	0.25
Cayman Islands (UK)	191	9	20	7	0.15
Belgium	69	2	9	1	0.15
Croatia	74	2	9	1	0.11
Italy	225	10	23	9	0.08
Netherlands Antilles	122	4	14	3	0.06
Iran	213	9	22	8	0.05
Israel	93	2	11	2	0.00

Flag	Inspections 2004-2006	Detentions 2004-2006	Black to Grey Limit	Grey to White Limit	Excess Factor
<b>WHITE LIST</b>					
Malta	1,432	79		84	-0.12
Kuwait	52	0		0	-0.13
Sweden	84	1		2	-0.33
Cyprus	1,845	93		111	-0.34
Isle of Man (UK)	416	16		20	-0.39
Bermuda (UK)	143	3		4	-0.48
Russian Federation	1,479	67		87	-0.49
Antigua and Barbuda	965	40		54	-0.54
Vanuatu	230	6		9	-0.60
Switzerland	67	0		1	-0.62
Philippines	705	25		38	-0.68
Panama	19,589	868		1,312	-0.77
France	146	2		5	-0.83
Bahamas	1,958	65		118	-0.97
Netherlands	392	9		19	-0.98
Greece	992	29		56	-1.00
Marshall Islands	1,175	35		67	-1.02
Liberia	3,461	111		217	-1.08
Norway	715	18		38	-1.09
Japan	420	8		20	-1.18
Singapore	2,450	68		150	-1.21
Germany	592	12		31	-1.24
United States of America	168	1		6	-1.35
Denmark	334	4		15	-1.42
United Kingdom (UK)	532	6		27	-1.60
Hong Kong, China	3,565	46		224	-1.79
China	2,554	28		157	-1.84
Korea, Republic of	2,812	24		174	-1.93

Note: Flags listed above are those of ships which were involved in 30 or more port State inspections over the 3-year period.

\* See explanatory note on page 44.

$p=7\%$

$z_{95\%}=1.645$

$q=3\%$

Table 8: INSPECTIONS AND DETENTIONS PER FLAG

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2004	2005	2006	Total	2004	2005	2006	Total	
Algeria	4	3	0	7	1	0	0	1	14.29
Antigua and Barbuda	317	301	347	965	15	12	13	40	4.15
Australia	10	12	11	33	0	0	0	0	0
Austria	5	6	3	14	2	0	1	3	21.43
Bahamas	644	641	673	1,958	21	28	16	65	3.32
Bahrain	2	1	3	6	0	0	0	0	0
Bangladesh	12	9	7	28	2	2	1	5	17.86
Barbados	4	8	9	21	0	1	0	1	4.76
Belgium	14	29	26	69	1	1	0	2	2.90
Belize	753	687	664	2,104	118	74	76	268	12.74
Bermuda (UK)	50	44	49	143	1	2	0	3	2.10
Bolivia	18	5	5	28	5	0	1	6	21.43
Brazil	15	2	0	17	2	0	0	2	11.76
Brunei Darussalam	3	2	3	8	0	0	0	0	0
Bulgaria	0	2	4	6	0	0	0	0	0
Cambodia	1,033	1,148	1,332	3,513	189	169	215	573	16.31
Canada	0	3	0	3	0	0	0	0	0
Cayman Islands (UK)	58	53	80	191	2	1	6	9	4.71
Chile	2	3	3	8	0	0	0	0	0
China	899	851	804	2,554	15	7	6	28	1.10
Colombia	0	1	0	1	0	0	0	0	0
Comoros	9	7	14	30	2	0	4	6	20.00
Cook Islands	0	0	2	2	0	0	0	0	0
Croatia	29	23	22	74	1	1	0	2	2.70
Cyprus	722	575	548	1,845	38	21	34	93	5.04
Denmark	120	95	119	334	3	1	0	4	1.20
Dominica	16	16	44	76	7	3	3	13	17.11
Dominican Republic	0	1	0	1	0	0	0	0	0
Ecuador	0	1	0	1	0	0	0	0	0
Egypt	14	13	19	46	2	1	1	4	8.70
Equatorial Guinea	0	1	0	1	0	0	0	0	0
Eritrea	1	0	0	1	0	0	0	0	0
Ethiopia	3	5	3	11	0	0	0	0	0
Fiji	0	0	1	1	0	0	1	1	100.00
France	50	47	49	146	1	1	0	2	1.37

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2004	2005	2006	Total	2004	2005	2006	Total	
Georgia	6	23	64	93	2	3	21	26	27.96
Germany	157	206	229	592	3	1	8	12	2.03
Gibraltar (UK)	19	25	24	68	2	1	0	3	4.41
Greece	387	314	291	992	9	3	17	29	2.92
Honduras	19	12	5	36	7	4	3	14	38.89
Hong Kong, China	1,156	1,196	1,213	3,565	13	21	12	46	1.29
Hungary	1	0	0	1	0	0	0	0	0
India	111	85	103	299	5	6	6	17	5.69
Indonesia	225	218	196	639	63	47	43	153	23.94
Iran	75	80	58	213	5	3	1	9	4.23
Ireland	2	2	0	4	0	0	0	0	0
Isle of Man (UK)	133	135	148	416	4	8	4	16	3.85
Israel	33	35	25	93	0	0	2	2	2.15
Italy	57	75	93	225	3	4	3	10	4.44
Jamaica	1	2	2	5	0	1	0	1	20.00
Japan	153	141	126	420	6	0	2	8	1.90
Jordan	0	3	2	5	0	1	1	2	40.00
Kiribati	1	0	3	4	0	0	0	0	0
Korea, Democratic People's Republic	362	322	299	983	135	65	41	241	24.52
Korea, Republic of	852	953	1,007	2,812	2	5	17	24	0.85
Kuwait	24	16	12	52	0	0	0	0	0
Kyrgyzstan	1	0	0	1	0	0	0	0	0
Latvia	0	1	1	2	0	0	0	0	0
Lebanon	4	0	1	5	2	0	0	2	40.00
Liberia	1,217	1,073	1,171	3,461	44	32	35	111	3.21
Lithuania	0	1	1	2	0	0	0	0	0
Luxemburg	4	3	12	19	0	0	0	0	0
Malaysia	357	279	240	876	21	21	18	60	6.85
Maldives	5	11	11	27	1	1	2	4	14.81
Malta	552	421	459	1,432	44	14	21	79	5.52
Marshall Islands	317	368	490	1,175	12	10	13	35	2.98
Mauritius	0	0	2	2	0	0	0	0	0
Micronesia	1	0	0	1	1	0	0	1	100.00
Mongolia	156	150	162	468	44	34	24	102	21.79
Morocco	0	1	0	1	0	0	0	0	0
Myanmar	49	37	36	122	5	4	3	12	9.84

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2004	2005	2006	Total	2004	2005	2006	Total	
Netherlands	127	143	122	392	4	4	1	9	2.30
Netherlands Antilles	39	41	42	122	1	2	1	4	3.28
New Zealand	6	4	5	15	0	0	0	0	0
Norway	253	247	215	715	5	7	6	18	2.52
Pakistan	12	9	13	34	0	1	1	2	5.88
Panama	6,496	6,484	6,609	19,589	292	274	302	868	4.43
Papua New Guinea	14	15	18	47	4	1	1	6	12.77
Philippines	279	219	207	705	9	5	11	25	3.55
Poland	0	0	1	1	0	0	0	0	0
Portugal	5	2	6	13	1	0	0	1	7.69
Qatar	4	9	3	16	0	0	0	0	0
Romania	0	0	1	1	0	0	0	0	0
Russian Federation	521	508	450	1,479	39	17	11	67	4.53
Saint Vincent and the Grenadines	421	398	336	1,155	29	25	22	76	6.58
Samoa	1	2	3	6	0	1	0	1	16.67
Saudi Arabia	11	12	5	28	0	0	0	0	0
Seychelles	1	1	1	3	0	0	0	0	0
Sierra Leone	2	1	22	25	1	0	2	3	12.00
Singapore	761	806	883	2,450	31	20	17	68	2.78
Slovakia	0	0	4	4	0	0	2	2	50.00
Solomon Islands	0	1	0	1	0	0	0	0	0
South Africa	1	0	0	1	0	0	0	0	0
Spain	3	3	4	10	0	0	0	0	0
Sri Lanka	5	5	1	11	2	1	1	4	36.36
St. Kitts & Nevis (UK)	0	2	6	8	0	0	2	2	25.00
Sweden	26	28	30	84	0	0	1	1	1.19
Switzerland	24	25	18	67	0	0	0	0	0
Taiwan, China	123	116	97	336	12	15	9	36	10.71
Tanzania	2	1	2	5	0	0	0	0	0
Thailand	294	339	316	949	33	27	30	90	9.48
Tonga	28	19	14	61	2	1	0	3	4.92
Trinidad and Tobago	1	0	0	1	0	0	0	0	0
Tunisia	0	1	2	3	0	0	0	0	0
Turkey	91	72	59	222	8	5	7	20	9.01
Tuvalu	51	142	192	385	12	16	24	52	13.51
Ukraine	4	3	4	11	0	0	0	0	0

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2004	2005	2006	Total	2004	2005	2006	Total	
United Arab Emirates (UAE)	6	3	7	16	1	0	2	3	18.75
United Kingdom (UK)	175	172	185	532	3	2	1	6	1.13
United States of America	53	53	62	168	1	0	0	1	0.60
Vanuatu	72	80	78	230	4	2	0	6	2.61
Viet Nam	244	307	331	882	38	56	40	134	15.19
Yemen	0	1	0	1	0	0	0	0	0
Ship's registration withdrawn	0	1	2	3	0	1	2	3	100.00
<b>Total</b>	<b>21,400</b>	<b>21,058</b>	<b>21,686</b>	<b>64,144</b>	<b>1,393</b>	<b>1,097</b>	<b>1,171</b>	<b>3,661</b>	<b>5.71</b>

Figure 13: COMPARISON OF INSPECTIONS PER SHIP TYPE

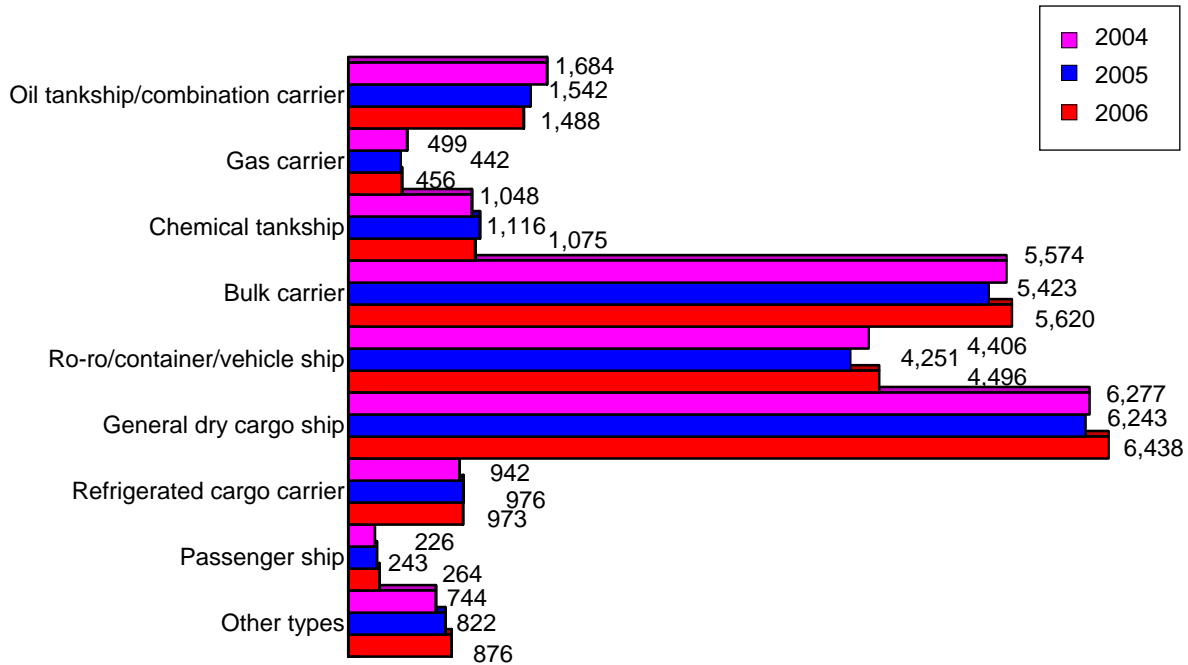


Figure 14: COMPARISON OF DETENTIONS PER SHIP TYPE

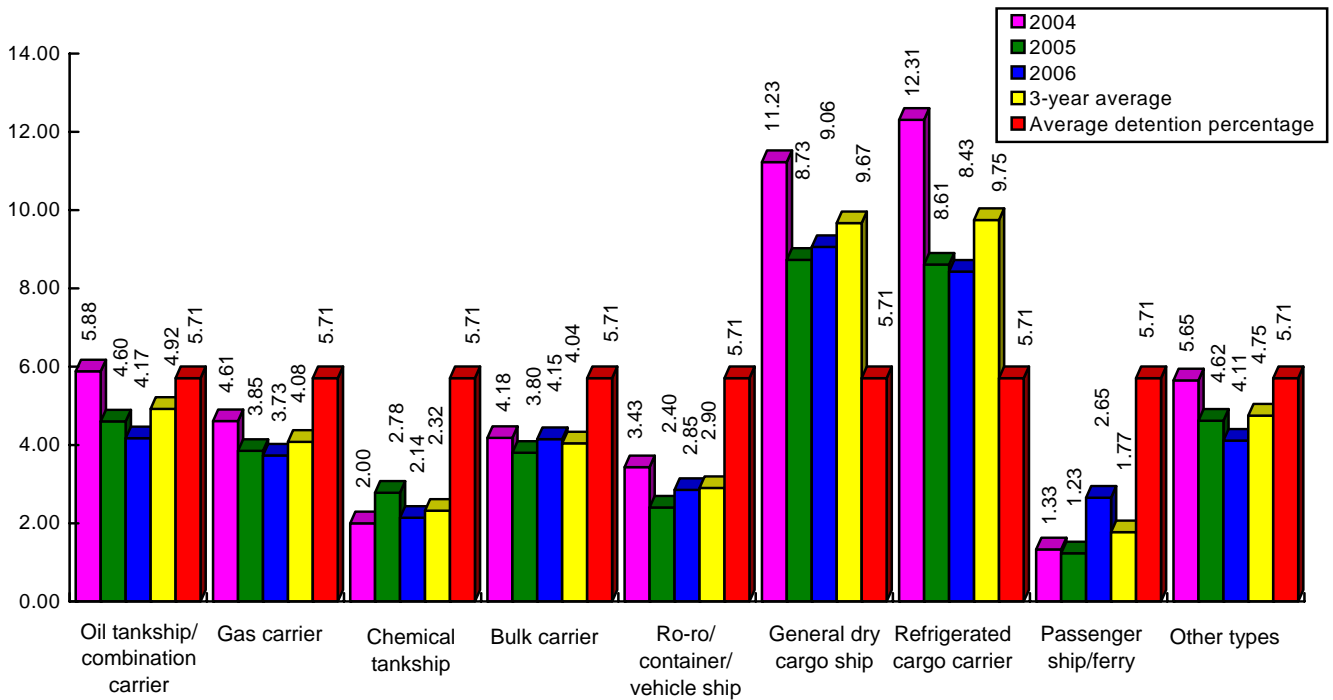
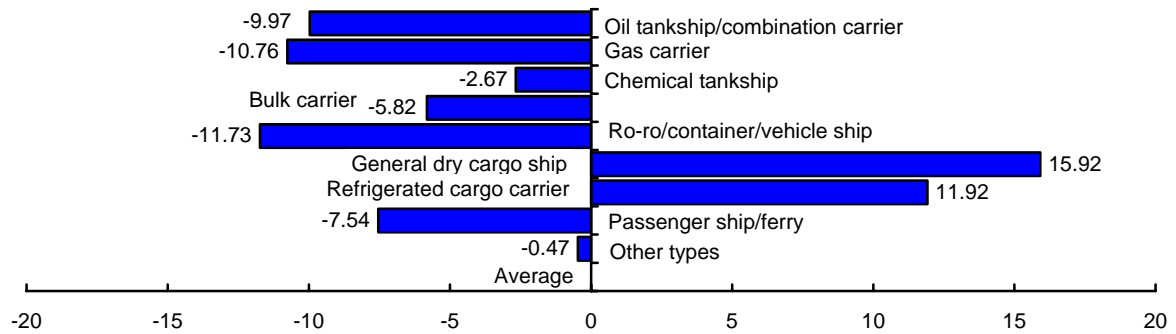




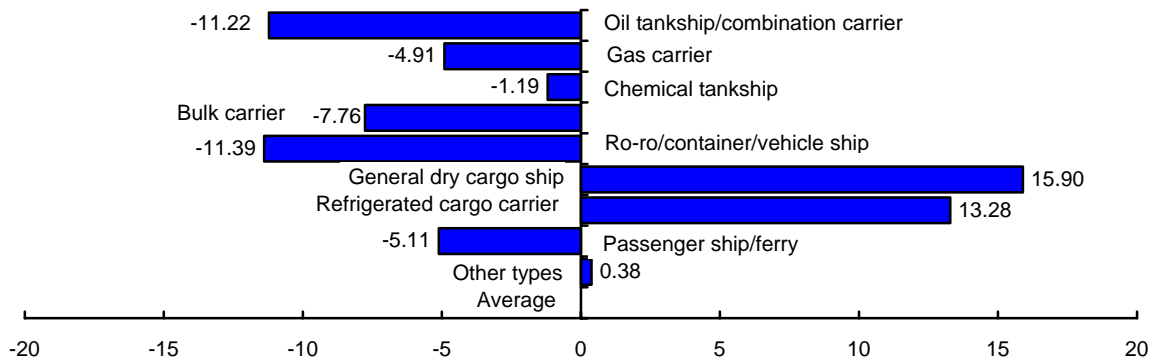
Table 9: INSPECTIONS AND DETENTIONS PER SHIP TYPE

Type of ship	Number of inspections				Number of detentions				Average detention percentage %
	2004	2005	2006	Total	2004	2005	2006	Total	
Tanker, not otherwise specified	43	36	43	122	2	0	3	5	4.10
Combination carrier	116	74	53	243	10	0	0	10	4.12
Oil tanker	1,525	1,432	1,392	4,349	87	71	59	217	4.99
Gas carrier	499	442	456	1,397	23	17	17	57	4.08
Chemical tanker	1,048	1,116	1,075	3,239	21	31	23	75	2.32
Bulk carrier	5,574	5,423	5,620	16,617	233	206	233	672	4.04
Vehicle carrier	561	650	658	1,869	14	9	17	40	2.14
Container ship	3,624	3,373	3,598	10,595	127	88	100	315	2.97
Ro-Ro cargo ship	221	228	240	689	10	5	11	26	3.77
General cargo/multi-purpose ship	6,277	6,243	6,438	18,958	705	545	583	1,833	9.67
Refrigerated cargo carrier	942	976	973	2,891	116	84	82	282	9.75
Woodchip carrier	213	220	224	657	6	3	4	13	1.98
Livestock carrier	66	50	43	159	4	0	2	6	3.77
Ro-Ro Passenger ship	55	47	70	172	0	0	3	3	1.74
Passenger ship	171	196	194	561	3	3	4	10	1.78
Factory ship	3	0	0	3	0	0	0	0	0
Heavy load carrier	47	43	54	144	4	2	1	7	4.86
Offshore service vessel	73	97	78	248	3	3	1	7	2.82
MODU & FPSO	1	8	7	16	0	0	0	0	0
High speed passenger craft	25	32	39	96	2	0	0	2	2.08
Special purpose ship	43	46	39	128	1	0	1	2	1.56
High speed cargo craft	0	0	1	1	0	0	0	0	0
Tugboat	116	144	179	439	7	8	10	25	5.69
Others	157	182	212	551	15	22	17	54	9.80
<b>Total</b>	<b>21,400</b>	<b>21,058</b>	<b>21,686</b>	<b>64,144</b>	<b>1,393</b>	<b>1,097</b>	<b>1,171</b>	<b>3,661</b>	<b>5.71</b>

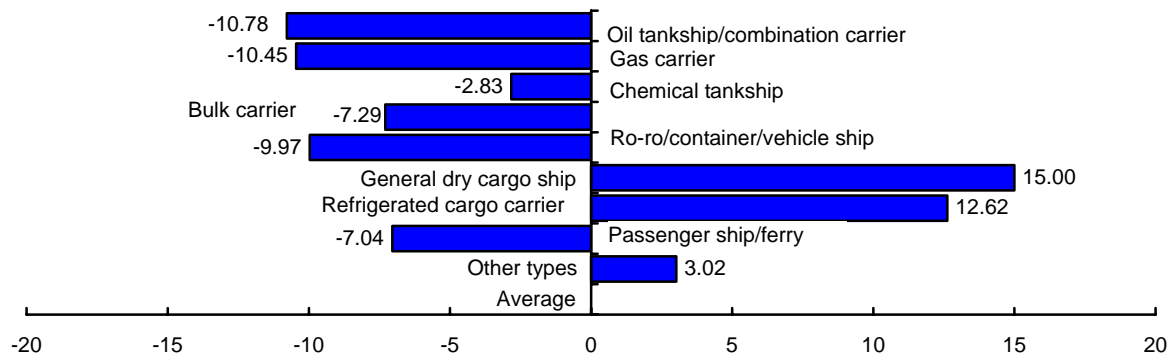
Figure 15: COMPARISON OF INSPECTIONS WITH DEFICIENCIES PER SHIP TYPE



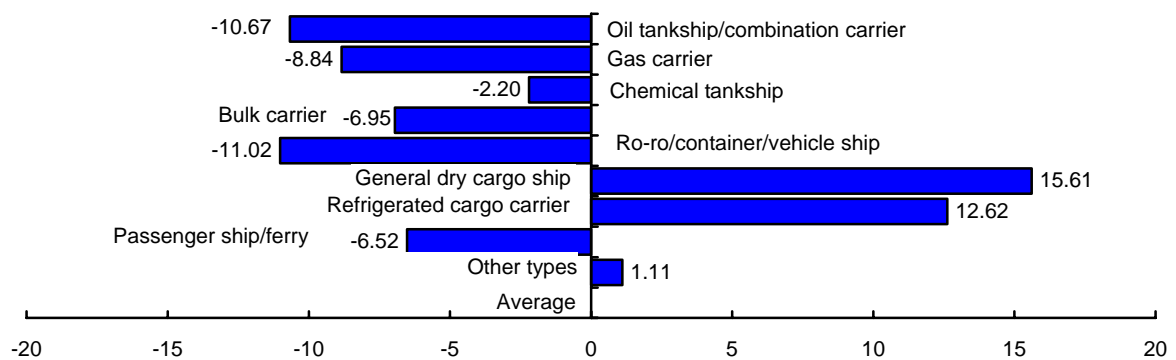
(a) Year 2004



(b) Year 2005



(c) Year 2006



(d) 3-year summary

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

Table 10: INSPECTIONS WITH DEFICIENCIES PER SHIP TYPE

Type of ship	Number of inspections				Number of inspections with deficiencies				3-year average percentage %
	2004	2005	2006	Total	2004	2005	2006	Total	
Oil tankship/combination carrier	1,684	1,542	1,488	4,714	965	883	863	2,711	57.51
Gas carrier	499	442	456	1,397	282	281	266	829	59.34
Chemical tankship	1,048	1,116	1,075	3,239	677	751	709	2,137	65.98
Bulk carrier	5,574	5,423	5,620	16,617	3,425	3,293	3,456	10,174	61.23
Ro-ro/container/vehicle ship	4,406	4,251	4,496	13,153	2,447	2,427	2,644	7,518	57.16
General dry cargo ship	6,277	6,243	6,438	18,958	5,222	5,268	5,394	15,884	83.79
Refrigerated cargo carrier	942	976	973	2,891	746	798	792	2,336	80.80
Passenger ship	226	243	264	733	135	154	163	452	61.66
Other types	744	822	876	2,442	497	566	629	1,692	69.29
<b>Total</b>	<b>21,400</b>	<b>21,058</b>	<b>21,686</b>	<b>64,144</b>	<b>14,396</b>	<b>14,421</b>	<b>14,916</b>	<b>43,733</b>	<b>68.18</b>

Table 11: INSPECTIONS AND DETENTIONS PER RECOGNIZED ORGANIZATION

Recognized organization (RO)	No. of overall inspections 2004-2006	No. of overall detentions 2004-2006	No. of RO responsible detentions 2004-2006	3-year average detention percentage%	3-year average RO responsible detention percentage%	3-year average percentage of RO responsible detentions%
Alfa Register of Shipping	4	0	0	0	0	0
American Bureau of Shipping	5,676	186	16	3.28	0.28	8.60
Belize Maritime Bureau Inc.	534	60	12	11.24	2.25	20.00
Belize Register Corporation	7	1	0	14.29	0	0
Biro Klasifikasi Indonesia	442	116	19	26.24	4.30	16.38
Bulgarski Koraben Registar	13	2	0	15.38	0	0
Bureau Securitas	14	0	0	0	0	0
Bureau Veritas	5,181	290	39	5.60	0.75	13.45
Ceskoslovensky Lodin Register	9	0	0	0	0	0
China Classification Society	6,419	113	19	1.76	0.30	16.81
China Corporation Register of Shipping	1,249	149	28	11.93	2.24	18.79
Compania Nacional de Registro e Inspeccion de Naves	1	1	1	100.00	100.00	100.00
Croatian Register of Shipping	117	7	1	5.98	0.85	14.29
Cyprus Bureau of Shipping	12	0	0	0	0	0
Det Norske Veritas	7,537	242	18	3.21	0.24	7.44
Fidenavis SA	21	0	0	0	0	0
Germanischer Lloyd	6,111	231	20	3.78	0.33	8.66
Global Marine Bureau	1,681	265	51	15.76	3.03	19.25
Hellenic Register of Shipping	71	10	0	14.08	0	0
Honduras Bureau of Shipping	4	0	0	0	0	0
Honduras International Surveying and Inspection Bureau	31	7	4	22.58	12.90	57.14
INCLAMAR	476	77	24	16.18	5.04	31.17
Indian Register of Shipping	284	19	4	6.69	1.41	21.05
Inspection y Classification Maritime, S. de. R.L.	19	5	2	26.32	10.53	40.00
International Merchant Marine Registry of Belize	51	4	0	7.84	0	0
International Naval Surveys Bureau	89	18	2	20.22	2.25	11.11
International Register of Shipping	475	78	9	16.42	1.89	11.54
International Ship Classification	105	12	4	11.43	3.81	33.33
Isthmus Bureau of Shipping	1,624	192	24	11.82	1.48	12.50
Korea Classification Society (former Josen Classification Society)	553	91	37	16.46	6.69	40.66
Korean Register of Shipping	5,676	129	19	2.27	0.33	14.73
Lloyd's Register	8,551	376	56	4.40	0.65	14.89
Marconi International Marine Company Ltd.	1	0	0	0	0	0
Maritime Technical Systems and Services	190	23	9	12.11	4.74	39.13
Mongolia Ship Registry	58	14	4	24.14	6.90	28.57
National Cargo Bureau Inc.	29	2	0	6.90	0	0
National Shipping Adjusters Inc	5	0	0	0	0	0
Nippon Kaiji Kyokai	21,250	702	97	3.30	0.46	13.82
NV Unitas	1	0	0	0	0	0
Overseas Marine Certification Services	13	1	0	7.69	0	0
Panama Bureau of Shipping	558	33	7	5.91	1.25	21.21
Panama Maritime Documentation Services	327	50	9	15.29	2.75	18.00
Panama Maritime Surveyors Bureau Inc	347	48	11	13.83	3.17	22.92
Panama Register Corporation	322	38	6	11.80	1.86	15.79

Recognized organization (RO)	No. of overall inspections 2004-2006	No. of overall detentions 2004-2006	No. of RO responsible detentions 2004-2006	3-year average detention percentage%	3-year average RO responsible detention percentage%	3-year average percentage of RO responsible detentions%
Panama Shipping Certificate Inc.	6	1	0	16.67	0	0
Panama Shipping Registrar Inc.	238	53	14	22.27	5.88	26.42
Polski Rejestr Statkow	110	13	5	11.82	4.55	38.46
R.J. Del Pan	12	2	0	16.67	0	0
Register of Shipping (Albania)	17	6	0	35.29	0	0
Register of Shipping (DPR Korea)	111	42	26	37.84	23.42	61.90
Registro Cubano de Buques	4	0	0	0	0	0
Registro Internacional Naval S.A.	13	0	0	0	0	0
Registro Italiano Navale	717	53	9	7.39	1.26	16.98
Regjistri Laknori Shqiptar	4	1	0	25.00	0	0
RINAVE Portuguesa	11	0	0	0	0	0
Romanian Naval Register	3	0	0	0	0	0
Russian Maritime Register of Shipping	2,374	150	8	6.32	0.34	5.33
Russian River Register	5	0	0	0	0	0
Seefartsaht Helsinki	3	0	0	0	0	0
Shipping Register of Ukraine	11	0	0	0	0	0
Sociedad Clasificadora de Colombia	3	0	0	0	0	0
Societe Generale de Surveillance	4	0	0	0	0	0
Turkish Lloyd	35	8	1	22.86	2.86	12.50
Union Bureau of Shipping	132	20	4	15.15	3.03	20.00
Universal Maritime Bureau	45	8	1	17.78	2.22	12.50
Viet Nam Register of Shipping	895	132	55	14.75	6.15	41.67
Class withdrawn	8	1	0	12.50	0	0
No class	114	20	0	17.54	0	0
Other	6,406	975	186	15.22	2.90	19.08

See also the note in page 27.

**Figure 16: COMPARISON OF NUMBER OF DEFICIENCIES BY MAIN CATEGORIES**

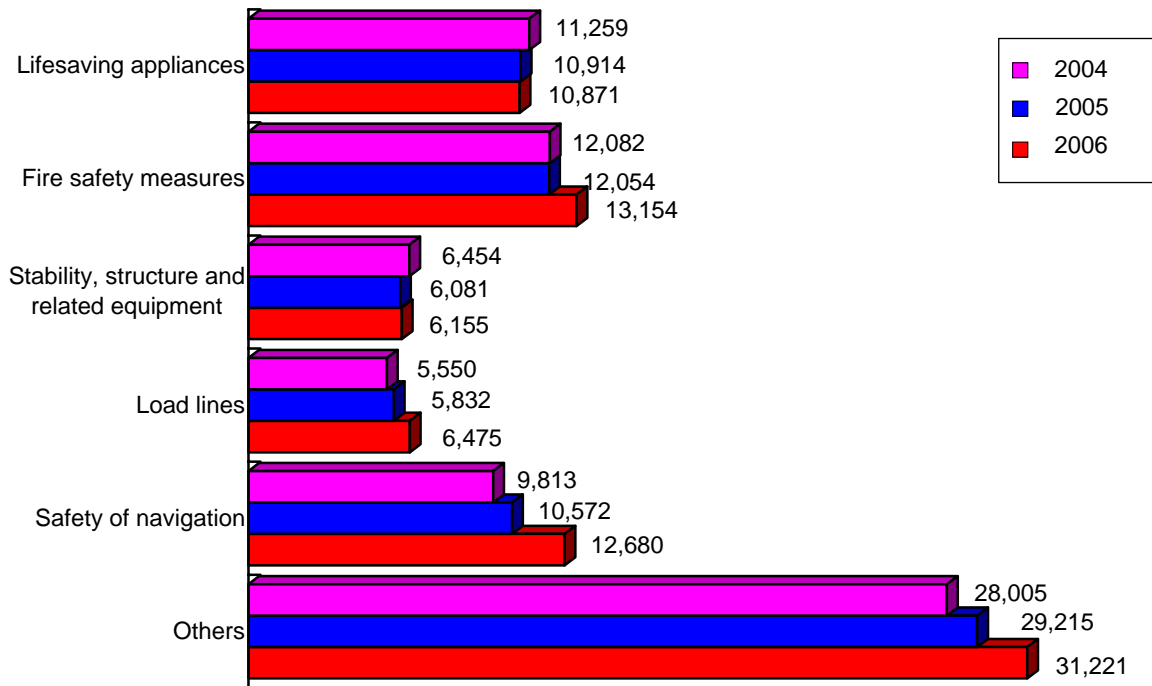
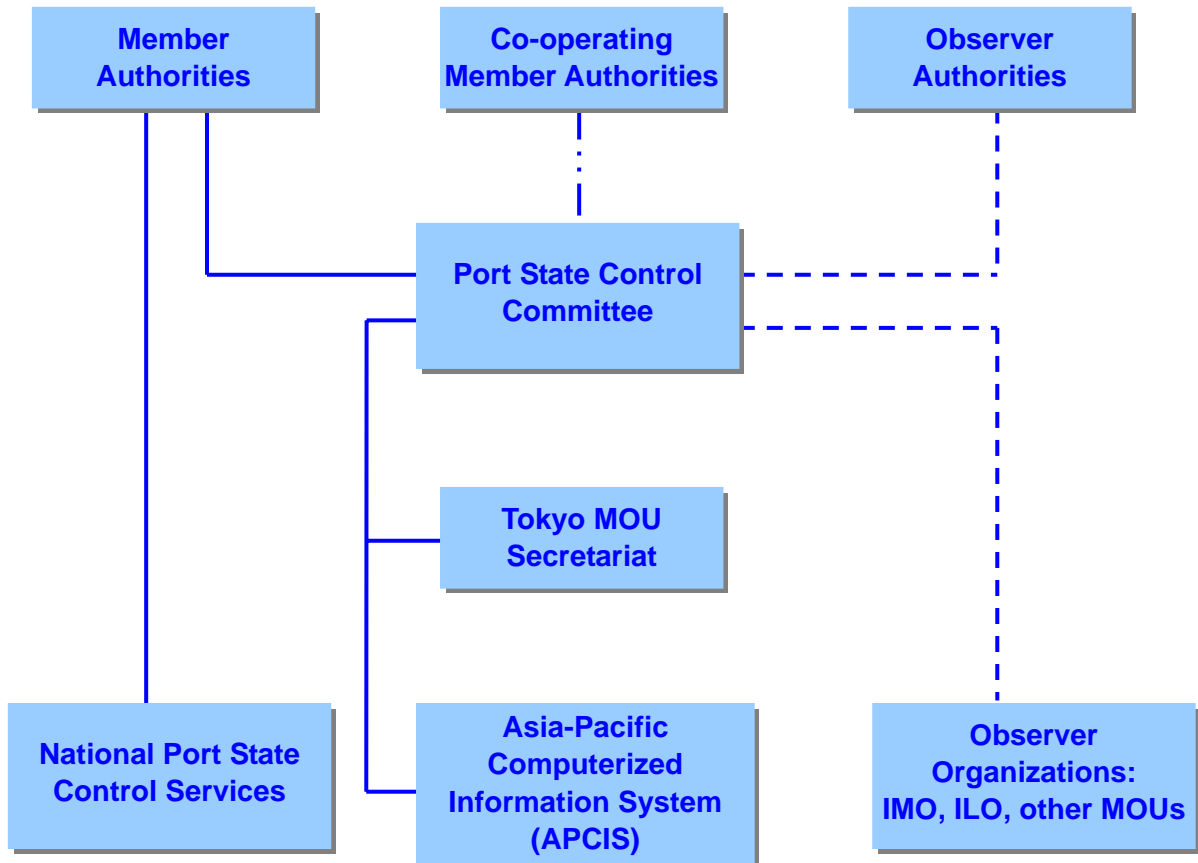


Table 12: COMPARISON OF DEFICIENCIES BY CATEGORIES

Nature of deficiency	Number of deficiencies		
	2004	2005	2006
Ship's certificates and documents	2,504	2,197	2,700
Stability, structure and related equipment	6,454	6,081	6,155
Propulsion and auxiliary machinery	3,124	3,352	3,801
Alarm signals	276	355	358
Fire safety measures	12,082	12,054	13,154
Oil, chemical tankers and gas carriers	309	210	236
Lifesaving appliances	11,259	10,914	10,871
Radiocommunications	3,053	3,123	3,066
Safety of navigation	9,813	10,572	12,680
Carriage of cargo and dangerous goods	550	459	555
ISM related deficiencies	2,803	2,930	2,830
SOLAS related operational deficiencies	2,673	4,048	3,186
Additional measures to enhance maritime safety	325	530	819
Bulk carriers-additional safety measures	54	130	319
Load lines	5,550	5,832	6,475
MARPOL-Annex I	5,056	4,304	5,423
MARPOL-Annex II	58	42	48
MARPOL-Annex III	11	10	13
MARPOL-Annex IV	0	46	136
MARPOL-Annex V	2,039	2,251	1,931
MARPOL-Annex VI	-	274	383
MARPOL related operational deficiencies	509	581	379
Certification and watchkeeping for seafarers	2,185	1,825	2,237
Crew and accommodation (ILO 147)	481	362	417
Food and catering (ILO 147)	137	173	220
Working spaces (ILO 147)	366	550	731
Accident prevention (ILO 147)	587	580	636
Mooring arrangements (ILO 147)	802	793	709
Other deficiencies	103	90	88
<b>Total</b>	<b>73,163</b>	<b>74,668</b>	<b>80,556</b>

### ANNEX 3

## ORGANIZATIONAL STRUCTURE OF THE TOKYO MOU





## EXPLANATORY NOTE ON THE BLACK – GREY – WHITE LISTS

The Port State Control Committee adopted the new method for assessment of performance of flags which is the same as that is used by the Paris MOU. 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:

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

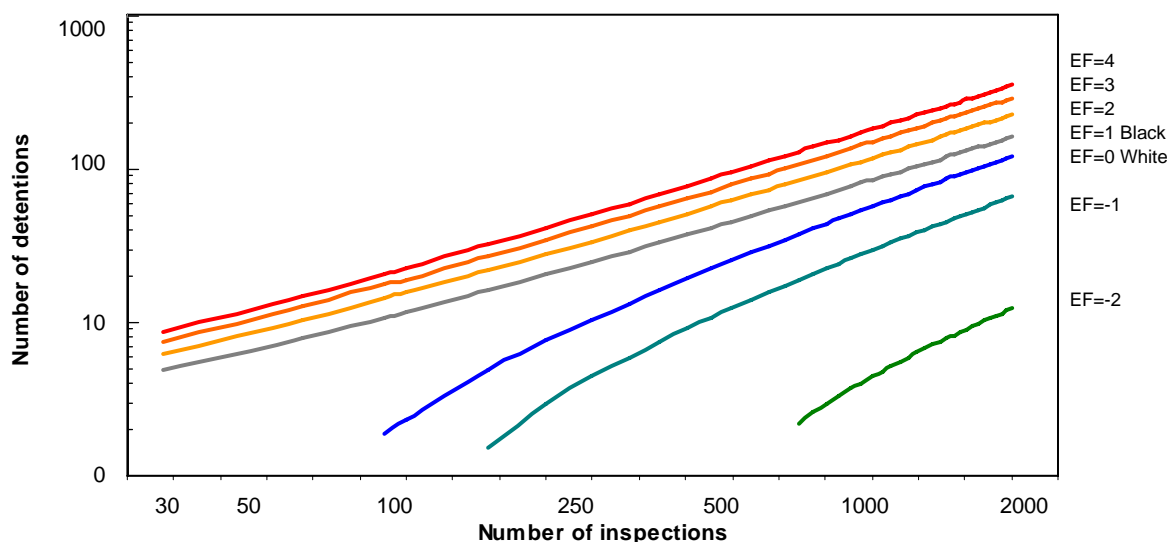
$$U_{white - to - grey} = N \cdot p - 0.5 - z \cdot \sqrt{N \cdot p \cdot (1 - p)}$$

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.



**Example flag on Black list:**

Ships of Georgia were subject to 93 inspections of which 26 resulted in a detention. The "black to grey limit" is 11 detentions. The excess factor is 5.51.

$N$  = total inspections

$P$  = 7%

$Q$  = 3%

$Z$  = 1.645

How to determine the black to grey limit:

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

$$u_{black-to-grey} = 93 \cdot 0.07 + 0.5 + 1.645 \cdot \sqrt{93 \cdot 0.07 \cdot 0.93}$$

$$u = 11$$

The excess factor is 5.51. This means that 'p' has to be adjusted in the formula. The black to grey limit has an excess factor of 1, so to determine the new value for 'p', 'q' has to be multiplied with 4.51, and the outcome has to be added to the normal value for 'p':

$$p + 4.51q = 0.07 + (4.51 \cdot 0.03) = 0.2053$$

$$u_{excessfactor} = 93 \cdot 0.2053 + 0.5 + 1.645 \cdot \sqrt{93 \cdot 0.2053 \cdot 0.7947}$$

$$u_{excessfactor} = 26$$

**Example flag on Grey list:**

Ships of Turkey were subject to 222 inspections, of which 20 resulted in a detention. The "black to grey limit" is 22 and the "grey to white limit" is 9. The excess factor is 0.83.

How to determine the black to grey limit:

$$u_{black-to-grey} = 222 \cdot 0.07 + 0.5 + 1.645 \cdot \sqrt{222 \cdot 0.07 \cdot 0.93}$$

$$u_{black-to-grey} = 22$$

How to determine the grey to white limit:

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

$$u_{white-to-grey} = 222 \cdot 0.07 - 0.5 - 1.645 \cdot \sqrt{222 \cdot 0.07 \cdot 0.93}$$

$$u_{white-to-grey} = 9$$

To determine the excess factor the following formula is used:

$$ef = (\text{Detentions} - \text{white to grey limit}) / (\text{grey to black limit} - \text{white to grey limit})$$

$$ef = (20 - 8.79) / (22.29 - 8.79)$$

$$ef = 0.83$$

#### Example flag on White list:

Ships of Bahamas were subject to 1,958 inspections of which 65 resulted in detention. The "grey to white limit" is 118 detentions. The excess factor is -0.97.

How to determine the grey to white limit:

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

$$u_{\text{white-to-grey}} = 1,958 \cdot 0.07 - 0.5 - 1.645 \cdot \sqrt{1,958 \cdot 0.07 \cdot 0.93}$$

$$u_{\text{white-to-grey}} = 118$$

The excess factor is -0.97. This means that 'p' has to be adjusted in the formula. The grey to white limit has an excess factor of 0, so to determine the new value for 'p', 'q' has to be multiplied with -0.97, and the outcome has to be added to the normal value for 'p':

$$p + (-0.97q) = 0.07 + (-0.97 \cdot 0.03) = 0.0409$$

$$u_{\text{excessfactor}} = 1,958 \cdot 0.0409 - 0.5 - 1.645 \cdot \sqrt{1,958 \cdot 0.0409 \cdot 0.9591}$$

$$u_{\text{excessfactor}} = 65$$

## 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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