ANNUAL REPORT

ON
PORT STATE CONTROL
IN THE ASIA-PACIFIC REGION

2002

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This Report will be soon available at Tokyo MOU web-site (http://www.tokyo-mou.org) on Internet.

FOREWORD

We are pleased to present the **Annual Report on Port State Control in the Asia-Pacific Region 2002**.

Port State control activities in the Asia-Pacific region have achieved significant progress and development ever since the commencement of operation of the Tokyo MOU in 1994. Now, the Tokyo MOU has attracted more and more attention and gained wider recognition from the shipping industry and the general public on its activities and become one of the most active regional port State control regimes in the world.

This annual report provides a general overview of the developments and activities of port State control in the Asia-Pacific region as well as various statistics and analysis on the results of port State inspections conducted by member Authorities of the Tokyo MOU during the year 2002.

We welcome the Authority of Chile which became a full member of the Tokyo MOU in June 2002, thus bringing the total number of the Tokyo MOU to eighteen. We sincerely hope that participation of Chile will enhance the performance of the Tokyo MOU and make a significant contribution to the reduction of sub-standard ships operating in the Asia-Pacific region.

Looking to the years ahead, the Port State Control Committee and the member Authorities of the Tokyo MOU will continue to make dedicated efforts to enhance and improve port State control activities and to promote harmonization of port State control procedures throughout the region so as to achieve the ultimate objective of the elimination of operation of substandard ships.

J.N.K Mansell
Chairman
Port State Control Committee

Yoshio Sasamura
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 eighth issue and covers port State control activities and developments in the year 2002.

The Memorandum was concluded in Tokyo on 1 December 1993 and has been signed by the following 18 maritime Authorities in the Asia-Pacific region: Australia, Canada, China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, Philippines, 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, Philippines, 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: Brunei Darussalam, Solomon Islands, United States Coast Guard, the International Maritime Organization (IMO), the International Labour Organization (ILO), the Economic and Social Commission for Asia and the Pacific (ESCAP), the Paris MOU and the Indian Ocean 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;

- 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;
- 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 2002

Ever since its establishment, the Tokyo MOU has made continuous efforts and implemented rigorous measures to enhance port State control activities and to combat the operation of substandard ships in the region. In 2002, several further developments and initiatives have taken place.

For the purpose of evaluation of performance of the recognized organizations (RO), the Tokyo MOU developed the guidelines for the responsibility assessment of the recognized organization and started to implement them from January 2002. The guideline implemented is basically identical to that used by the United States Coast Guard and the Paris MOU. In cases of detention of a ship, whether the RO which carried out the survey should be responsible for the detainable deficiency found is assessed in accordance with the guidelines. Information about RO responsibility has been incorporated in the monthly detention list published on the web-site.

On 1 July 2002, the International Safety Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code) became fully effective. For promotion of compliance of the ISM Code, the Tokyo MOU carried out the second concentrated inspection campaign (CIC) on the ISM Code compliance. The campaign was conducted coincidently with the Paris MOU and lasted from July to September 2002. During the campaign period, the Tokyo MOU member Authorities carried out 4,193 inspections during which a total of 620 ISM related non-conformities were recorded and 100 detentions were made to ships that were found not complied with the ISM Code requirements. The average detention percentage is about 2.4%. The Tokyo MOU will continue to verify compliance with the ISM Code during port State control inspections so as to ensure effective implementation of the ISM Code.

Other important development made included acceptance of the Authority of Chile as a full member of the Tokyo MOU, implementation of STCW 95 and adoption of targeting system. These are described under the activity of the Port State Control Committee.

THE PORT STATE CONTROL COMMITTEE

The Port State Control Committee held its eleventh meeting from 10 to 13 June 2002 in Manila, Philippines. The meeting was hosted by the Philippine Coast Guard. Mr. K. M. Varghese, Assistant Director, Marine Department of Hong Kong (China) chaired this meeting.

The eleventh meeting was attended by representatives of the member Authorities of Australia, Canada, China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, Philippines, Russian Federation, Singapore, Vanuatu and Vietnam, and observers from Chile, the United States Coast Guard, the International Labour Organization, the International Maritime Organization and the Secretariat of the Paris MOU.

The Port State Control Committee considered the application for membership by the Authority of Chile. In accordance with the provisions of the Memorandum and the qualitative membership criteria, the Committee unanimously agreed to accept the Authority of Chile as a full member of the Tokyo MOU with immediate effect. The Committee welcomed the Authority of Chile as the eighteenth member of the MOU and wished Chile every success in their contribution to the activities,

The eleventh Committee meeting, Manila, June 2002

and enhancement of performance of the Tokyo MOU.

The Committee discussed and confirmed the arrangements and preparation for the concentrated inspection campaign on the ISM Code compliance. The Committee further considered a proposal for organizing a concentrated inspection campaign on bulk carrier safety. The Committee agreed that the campaign on bulk carrier safety would be conducted from September to November 2003. The Authority of Canada will take the role as the campaign co-ordinator.

The Committee considered the proposed ship targeting system prepared by the inter-sessional working group. As a result, the Committee approved the targeting system and decided to implement the targeting factors in the APCIS on-line interface from the beginning of year 2003 on a trial basis. Based on the outcome of the trial, the targeting factors would be reviewed and adjusted as appropriate for formal implementation.

The Committee discussed the procedures regarding implementation of the STCW 95 requirements. The Committee reached the agreement that the Tokyo MOU would enforce the STCW 95 requirements rigorously after the 6-month period of grace extended by IMO. The Committee further decided to develop the guidelines for port State control on STCW 95 requirements for the purpose of uniform implementation in this area.

The Committee considered the matter of publishing the Tokyo MOU PSC inspection data on the internet. The Committee approved the format of inspection data to be displayed and decided to publish the data on the MOU web-site from 1 January 2003.

Moreover, the Committee also gave consideration and made decisions on the following issues:

- review of the list of follow-up actions stemming from the Joint Ministerial Declaration;
- amendments and proposals on the new format of the Port State Control Manual;
- new format of monthly detention for inclusion of RO responsibility information; and
- procedures regarding control of operational requirements.

After chairing three meetings, the terms of office of the Chairman of the Committee, Mr. K. M. Varghese (Hong Kong), was terminated at the end of the meeting. The Committee, in accordance with its Rules of Procedure, elected Mr. John Mansell, Divisional Manager, Maritime Operations, Maritime Safety Authority of New Zealand, as the Chairman for the next three meetings.

The twelfth session of the Committee is scheduled to be held in Chile in March 2003.

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), has been established. The computer center of the APCIS is located in Vladivostok, under the auspices of the Maritime Department, Ministry

of Transport of the Russian Federation.

Prior to the eleventh meeting of the Committee, the Database Managers met on 7 - 8 June 2002 in Manila for the tenth meeting of the Regional Database Managers (DBM). The meeting was chaired by Dr. Vitali Kliuev, Manager, Asia-Pacific Maritime Information and Advisory Services.

Training course for PSC officers

The Database Managers' meeting considered the status of connection and operation of the APCIS system. The meeting discussed matters for dealing with follow-up inspection reports in the inspection statistics. The meeting reviewed and made recommendations on the coding system. The meeting considered issues relating to batch protocol data transmission and the enhancement of the APCIS system.

Furthermore, the meeting discussed the arrangement for information supporting of the concentrated inspection campaign. The meeting also considered the format of detailed statistics to be produced in future. In addition, the meeting reviewed the APCIS Basic Document and put recommendations to the Committee for consideration.

TRAINING AND SEMINARS FOR PORT STATE CONTROL OFFICERS

As a measure for enhancing port State control activities and promotion of harmonization on port State control procedures in the region, the Tokyo MOU has made great endeavours to develop and implement comprehensive technical co-operation programmes for training and exchange of port State control officers. The successful implementation of the technical co-operation programmes has not only improved the profile and expertise of individual port State control officers but also contributed to the enhancement of port State control activities and effective operation of the MOU significantly.

From 24 September to 11 October 2002, a regional training course on port State control, in conjunction with the twelfth basic training course, was organized jointly by IMO and the Tokyo MOU Secretariats. The course was conducted at the Overseas Shipbuilding Cooperation Centre (OSCC) in Yokohama, Japan. A total of 18 officers from 10 Authorities of the Tokyo MOU and 4 maritime Administrations in the Asia region attended the training course.

During the three-week intensive classroom training period, the trainees received extensive lectures on port State control provisions, convention requirements and port

On-the-job training

State control inspection procedures. Experts from OSCC, Hong Kong Marine Department, Nippon Kaiji Kyokai, Ministry of Land, Infrastructure and Transport of Japan and the Secretariat delivered the lectures and presentations on the related subjects and topics. In addition to the classroom lectures, trainees were also provided the opportunity to conduct on-board inspection exercises and to undertake a technical visit to a life raft service station during the training period.

The ninth seminar for port State control officers was held from 11 to 13 September 2002 in Brisbane, Australia. The seminar was hosted by the Australian Maritime Safety Authority (AMSA). Port State control officers from the Authorities of Australia, Canada, Chile, China, Fiji, Hong Kong (China), Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, Philippines, Russian Federation, Solomon Islands, United States Coast Guard, Vanuatu and Vietnam attended the seminar.

The major subjects picked up at this seminar were bulk carrier safety, responsibility assessment of the recognized organization, electronic charts and port State control on STCW 95 requirements. Experts from the Authorities of Australia and Canada and the Australian Hydrographic Services were invited to make presentations on those subjects. During the seminar, case study sessions were conducted for discussion and exchange of views on responsibility assessment of the recognized organization, control on STCW 95 requirements and the ISM Code. In addition, the participants of the seminar also received information about recent developments in IMO on regulations relating to maritime safety and pollution prevention, activities of the Tokyo

On-the-job training

The ninth seminar for PSC officers

MOU and port State control activities in Australia.

In 2002, a total of 43 port State control officers from 13 Authorities obtained training under the fellowship training programme. The Authority of Japan hosted two fellowship training courses during the year. Port State control officers from the Authorities of Chile, China, Hong Kong (China), Republic of Korea, Malaysia, Philippines, Russian Federation, Singapore, Thailand and Vietnam attended the two courses. The Authorities of Australia and New Zealand accepted port State control officers from the Authorities of Fiji, Indonesia and Solomon Islands for fellowship training in 2002. During the fellowship training periods, trainees attended the district or local offices of the receiving Authorities for practical training through port State control inspections with the local port State control officers.

In addition to the basic training course and fellowship training, three expert mission training courses were conducted in Seoul, Pusan (Republic of Korea), Manila (Philippines) and Nhatrang (Vietnam) in 2002. Experts from the Authorities of Australia, Hong Kong (China) and Japan conducted these training courses respectively.

For the purpose of promoting harmonization of port State control procedures, four port State control officers completed the port State control exchange missions among the Authorities of Australia, Canada, Hong Kong (China), Japan and New Zealand during the year.

Implementation of the technical co-operation programmes has obtained the full support and co-operation from the Port State Control Committee and the Authorities of the Tokyo MOU and the generous provision of funds by the Nippon foundation.

Fellowship training for PSC officers

PORT STATE CONTROL IN OTHER REGIONS

In addition to the Tokyo MOU in the

Asia-Pacific region, there are seven regional port State control regimes (MOUs) operating in other areas of the world, namely: Paris MOU, Acuerdo de Viña del Mar Agreement, Caribbean MOU, Mediterranean MOU, Indian Ocean MOU, the West and Central Africa MOU and the Black Sea MOU.

The Paris MOU Port State Control Committee held its thirty-fifth meeting from 6 to 9 May 2002 in Halifax, Canada. The Tokyo MOU Secretariat attended the meeting as observer. At the meeting, the Paris MOU Committee considered the tentative results of the concentrated inspection campaigns (CIC) on the STCW 95 and decided to strictly enforce the STCW 95 requirements after the six-month period of grace. Further, the Committee confirmed the arrangement for the CIC on the ISM Code compliance. The Paris MOU Committee adopted a new set of amendments to its Memorandum to reflect the provisions stemming from the recent EC Directive and agreed to include the 1996 Protocol to the ILO Convention No.147 as a relevant instrument. The Committee considered and approved the guidelines and training arrangements for the CIC on operational control of passenger ships. Moreover, the Committee also made decisions on the trial period of the review panel and provision of more transparent information on the web-site.

The ninth meeting of the Port State Control Committee of the Latin American Agreement, Acuerdo de Viña del Mar, was held on 19 - 21 August 2002 in Guayaquil, Ecuador. The meeting gave consideration and made decisions on amendments to the Agreement, concentrated inspection campaign on the ISM Code, training of PSC officers and re-structuring of the PSC Manual.

The Port State Control Committee of the Mediterranean MOU held its fifth meeting on 26 - 28 March 2002 in Limassol, Cyprus. Among other matters, the Committee considered and made decisions on implementation of port State control procedures, strengthening regional maritime administrations, establishment of an information system and administrative issues.

The Indian Ocean MOU held the fifth meeting of the Port State Control Committee from 28 to 31 October 2002 in Tehran, Iran. The important agenda items considered during the meeting were amendments to the MOU and the PSC Manual, development of the information system and implementation plans for training of port State control officers.

The second meeting of the Port State Control Committee of the West and Central Africa MOU was held on 11 - 13 February 2002 in Dakar, Senegal. The issues discussed at the meeting concerned operation of the MOU, development of the port State control Manual, establishment of the information system and arrangements for training of port State control officers.

The Port State Control Committee of the Black Sea MOU held its third meeting from 24 - 26 April 2002 in Constanza, Romania. During the meeting, the Committee considered and made decisions on PSC inspection format and procedures, training arrangements, draft PSC Manual, documentation of the information system and financial rules for the Secretariat.

RECENT DEVELOPMENT WITHIN IMO

Aiming at promotion of co-operation and harmonization on port State control among

regional port State control regimes (MOUs), the second workshop for regional port State control (PSC) agreement Secretaries and Directors of information centres was held from 3 to 5 July 2002 at the headquarters of IMO, within the framework of an IMO technical assistance programme. Representatives of the Paris MOU, Viña del Mar Agreement, Tokyo MOU, Caribbean MOU, Mediterranean MOU, Indian Ocean MOU, the West and Central African MOU and the Black Sea MOU as well as the United States Coast Guard attended the workshop. Among others, the important issues discussed at the workshop were a review of follow-up actions on recommendations stemming from the 2000 workshop, harmonization and co-operation of port State control procedures, electronic template for reporting detentions to IMO, principles for a global harmonization of PSC coding system and IMO's integrated technical co-operation programme.

After a five year transitional period, the 1995 STCW Convention came into effect on 1 February 2002. Noting the regretted fact that a large number of seafarers were unable to obtain STCW 95 certificate and/or appropriate endorsement in time, IMO urged flag State Administrations to do their utmost to ensure that seafarers were issued with the appropriate certificates and necessary endorsements with the minimum of delay. In the meantime, IMO issued a circular to advise port State control officers to issue a letter of warning instead of detention in case a seafarer on board could not provide STCW 95 certificate and/or necessary endorsement during the six-month period (1 February - 31 July 2002). With the expiry of the six-month period of grace, the STCW 95 requirements were implemented in full effect.

1 July 2002 became a memorable date for the shipping industry as the International Safety Management (ISM) Code entered into force fully from that date. The ISM Code was applied to passenger ships, oil tankers, gas carriers, bulk carriers and high-speed craft of 500 gross tonnage and above from 1 July 1998 for the first phase implementation. As of 1 July 2002, under the second phase implementation, other cargo ships, including offshore drilling units, of 500 gross tonnage and above must comply with the ISM Code. The ISM Code provides a mandatory international standard for safe management and operation of ships and for pollution prevention. IMO had called for complete and effective implementation of the ISM Code so as to promote the establishment of the safety culture in long term.

For improving bulk carrier safety, IMO adopted a set of amendments to Chapter XII of the SOLAS Convention. In accordance with the amendments, all bulk carriers would be required to fit high level alarms and level monitoring systems for detecting water ingress. Moreover, a number of recommendations on bulk carrier safety, based on comprehensive formal safety assessment studies, had also been agreed at IMO preliminarily.

For the purpose of ensuring maritime security and preventing terrorism acts against shipping, IMO adopted a series of amendments to Chapters V and XI of the SOLAS Convention at a week-long Diplomatic Conference on Maritime Security in December 2002. The most important aspect of the amendments is to provide the mandatory requirement for ships to comply with the new International Ship and Port Facility Security (ISPS) Code. The ISPS Code includes a mandatory section

(Part A) which contains detailed security related requirements and a non-mandatory section (Part B) which provides the guidelines on how to apply the requirements. The amendments will be expected to enter into force on 1 July 2004.

In addition, IMO is preparing to develop a new international convention for the control and management of ballast water. The proposed convention will be put for consideration and adoption by a diplomatic conference scheduled in early 2004.

Furthermore, the initiative has been taken by IMO to establish a model audit scheme for promotion of maritime safety and environmental protection through assessing effectiveness of implementation and enforcement of relevant IMO convention standards by flag States.

PORT STATE CONTROL UNDER THE TOKYO MOU, 2002

INSPECTIONS

In 2002, 19,588 inspections were carried out on ships registered in 93 countries. Figure 2 and Table 2 show the number of inspections carried out by the member Authorities of the Tokyo MOU. During the inspections, 13,760 ships were found with deficiencies. Since the total number of individual ships operating in the region was estimated at 25,202*, the inspection rate in the region was approximately 78% in 2002 (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.

Details of ships inspected and their classification societies 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 2002, 1,307 ships registered in 60 countries were detained because of serious deficiencies found on board. The detention rate of ships inspected was about 6.67%. Figure 4 shows the detention rate by flags where at least 20 port State inspections were involved and where detention rate was above the average regional rate. Figure 5 gives the detention rate by ship type.

DEFICIENCIES

All conditions on board found not in

* Sum of the numbers of individual ships which visited the ports of the region during the first and second half of the year (the figure was provided by LMIS).

compliance with the requirements of the relevant instruments by the port State control officers were recorded as deficiencies and requested to be rectified.

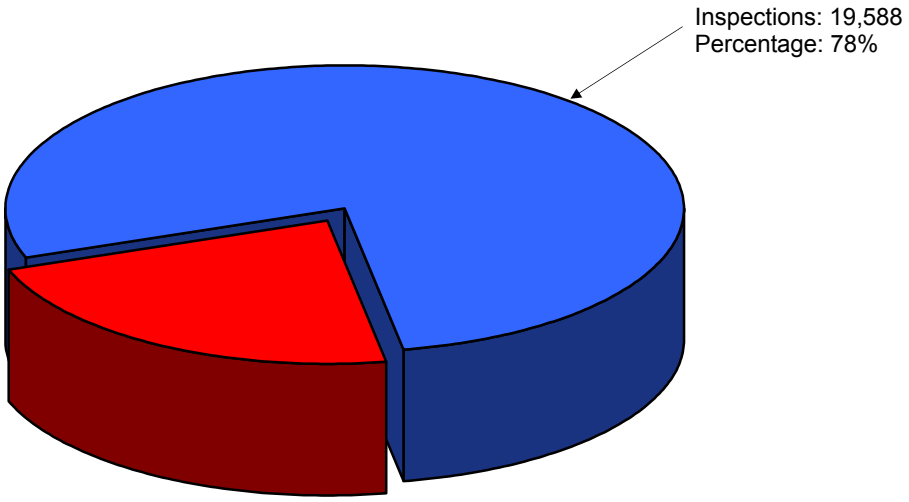
A total of 75,210 deficiencies were recorded in 2002. The deficiencies found are categorized and shown in Figure 6 and Table 6.

It is noted that 13,013 deficiencies were found in life-saving appliances and 11,838 deficiencies in fire safety measures. Deficiencies of these two categories were about 33% of the total number of deficiencies.

OVERVIEW OF PORT STATE CONTROL RESULTS 1994 – 2002

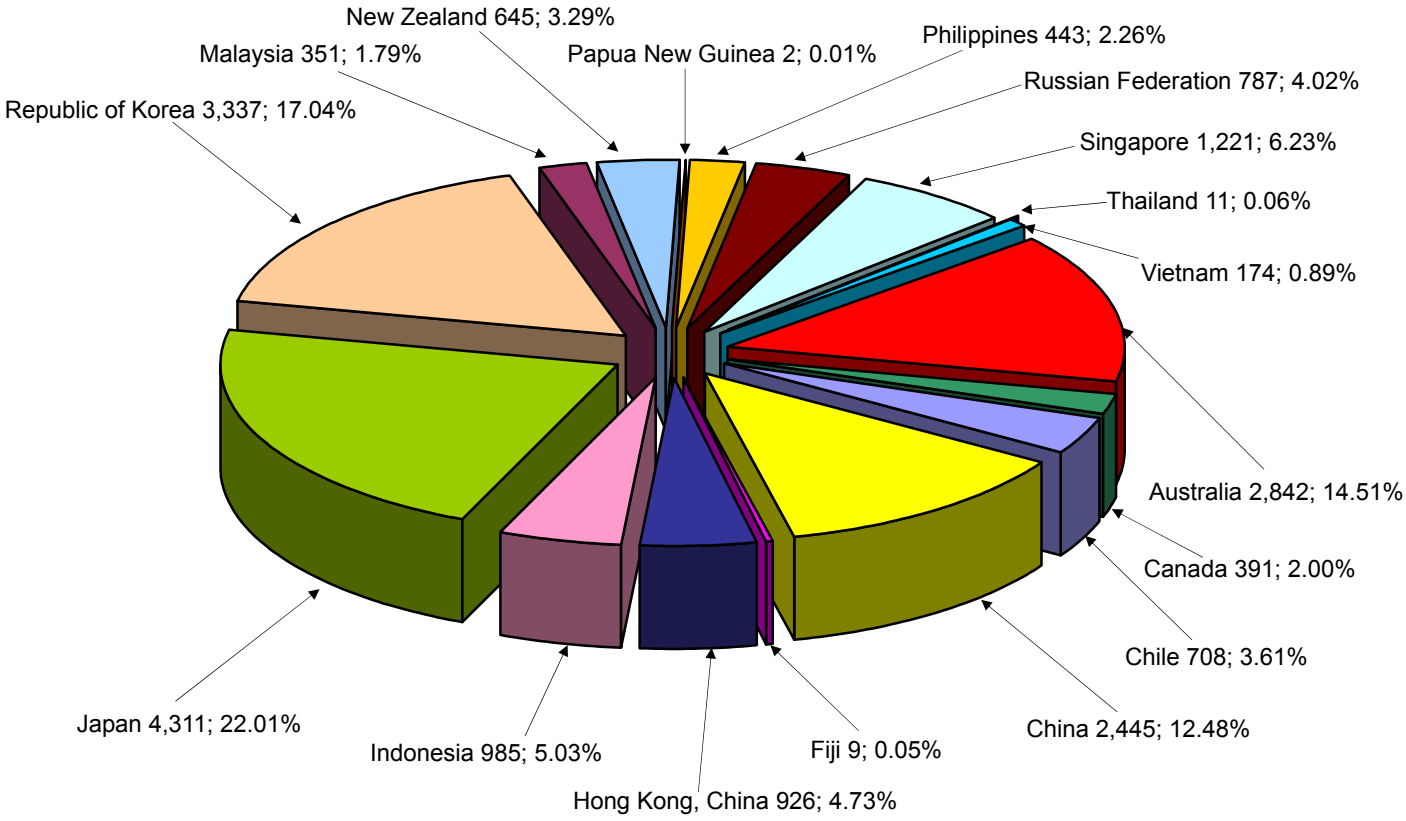
Figures 7-12 show the comparison of port State inspection results for 1994 - 2002. These figures indicate continuous improvements in the port State control activities in the region over the past eight years.

Figure 1: INSPECTION PERCENTAGE



Total individual ship visits: 25,202

Figure 2: PORT STATE INSPECTIONS - CONTRIBUTION BY AUTHORITIES



Total inspections: 19,588

Figure 3: TYPE OF SHIP INSPECTED

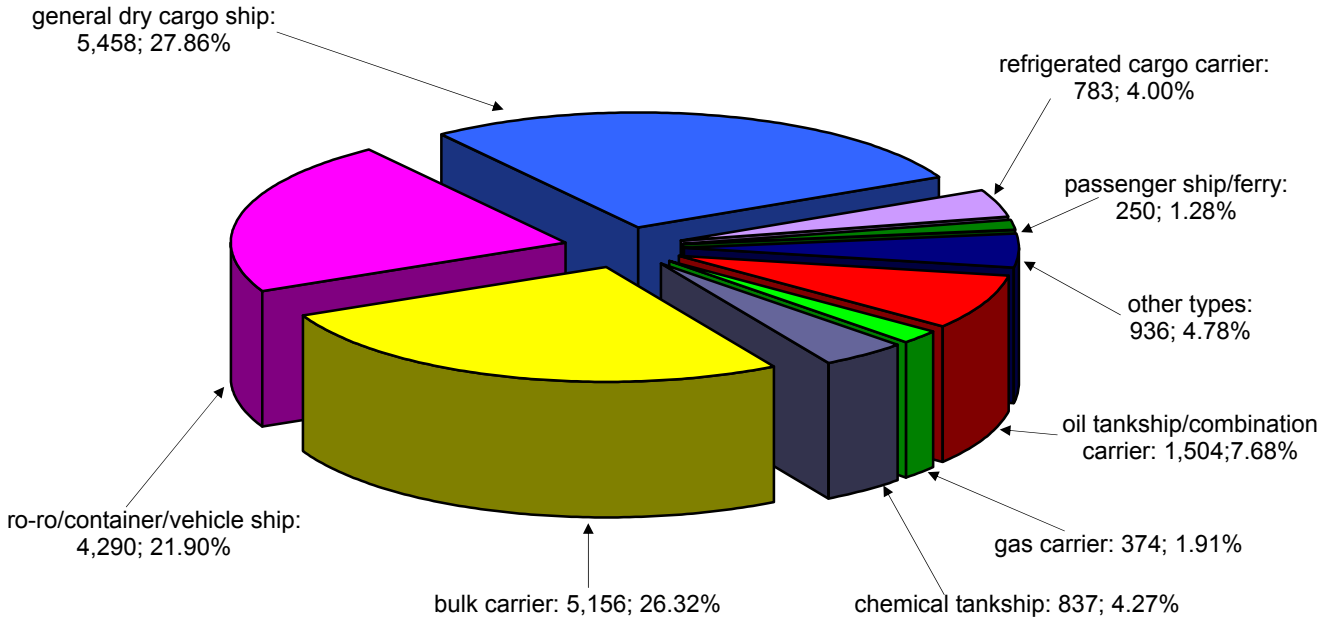
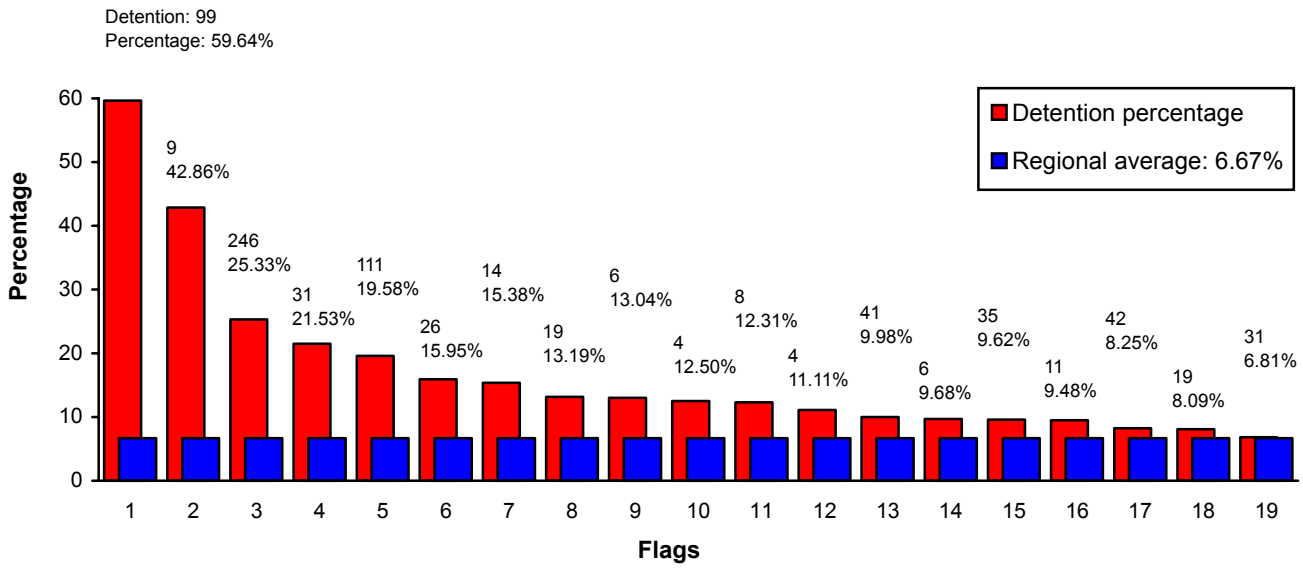


Figure 4: DETENTIONS PER FLAG



Flags:

1. Korea, Dem. People's Rep.	2. Bolivia	3. Cambodia	4. Indonesia
5. Belize	6. Honduras	7. Egypt	8. Viet Nam
9. Cayman Islands	10. Tonga	11. Turkey	12. Netherlands Antilles
13. Saint Vincent and the Grenadines	14. Iran	15. Malaysia	16. India
17. Russia	18. Thailand	19. Malta	

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

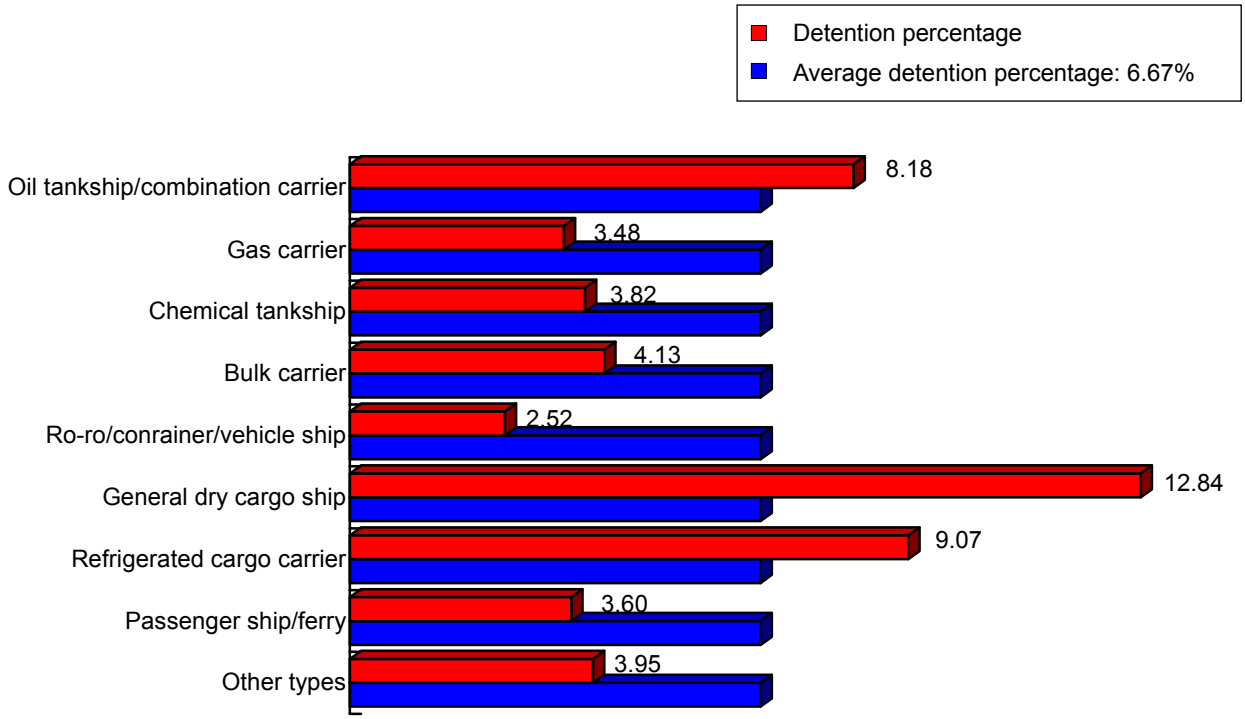
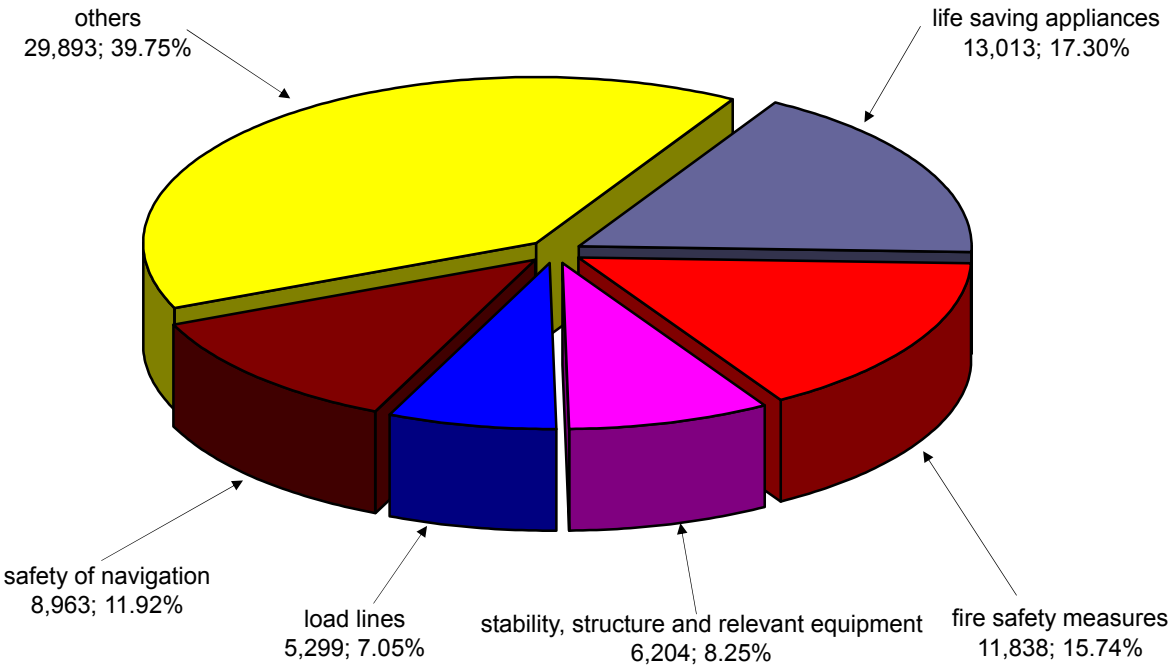


Figure 6: DEFICIENCIES BY MAIN CATEGORIES



OVERVIEW OF PORT STATE CONTROL RESULTS 1994 - 2002

Figure 7: NO. OF INSPECTIONS

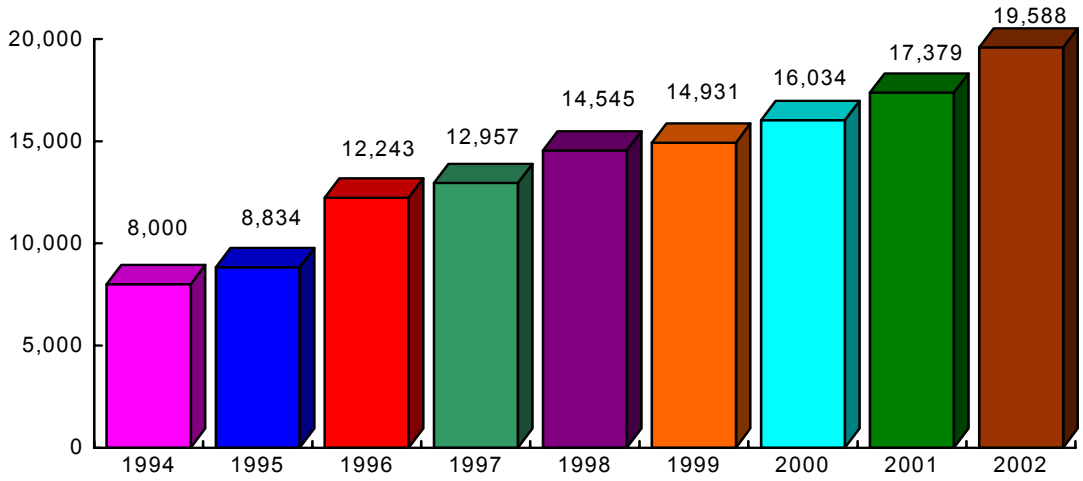


Figure 8: INSPECTION PERCENTAGE

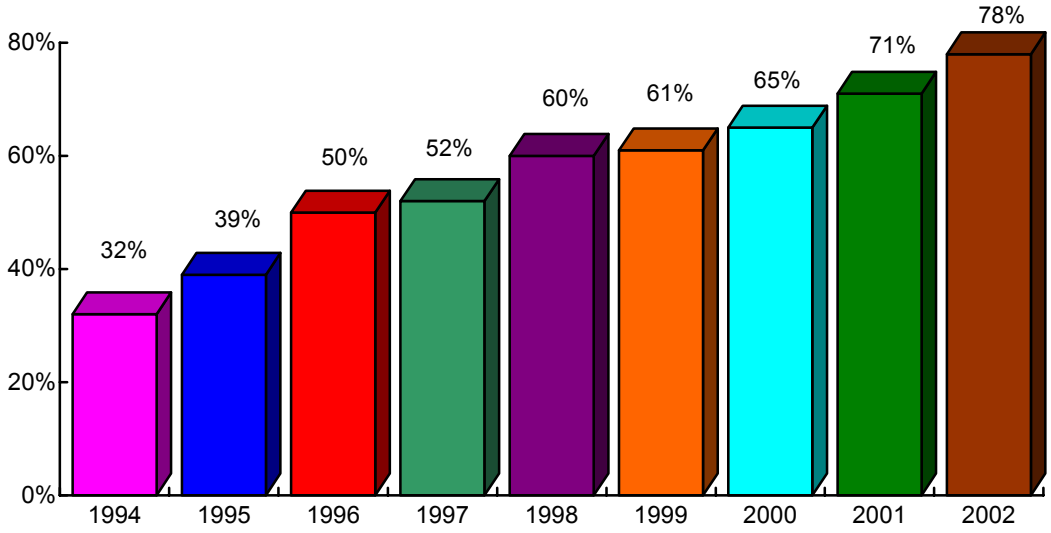


Figure 9: NO. OF INSPECTIONS WITH DEFICIENCIES

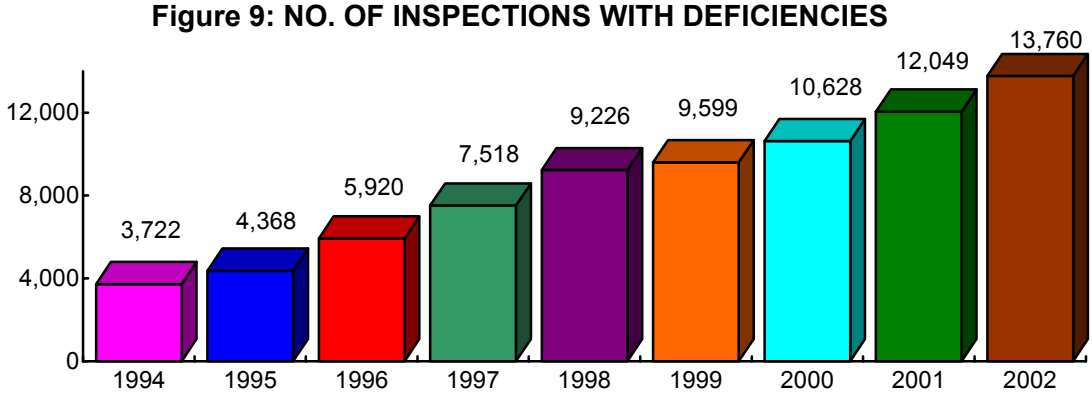


Figure 10: NO. OF DEFICIENCIES

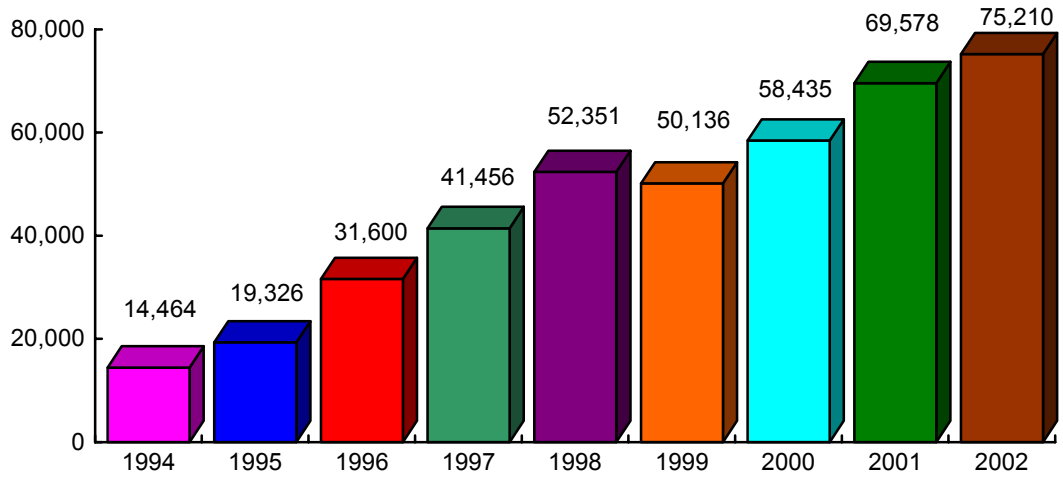


Figure 11: NO. OF DETENTIONS

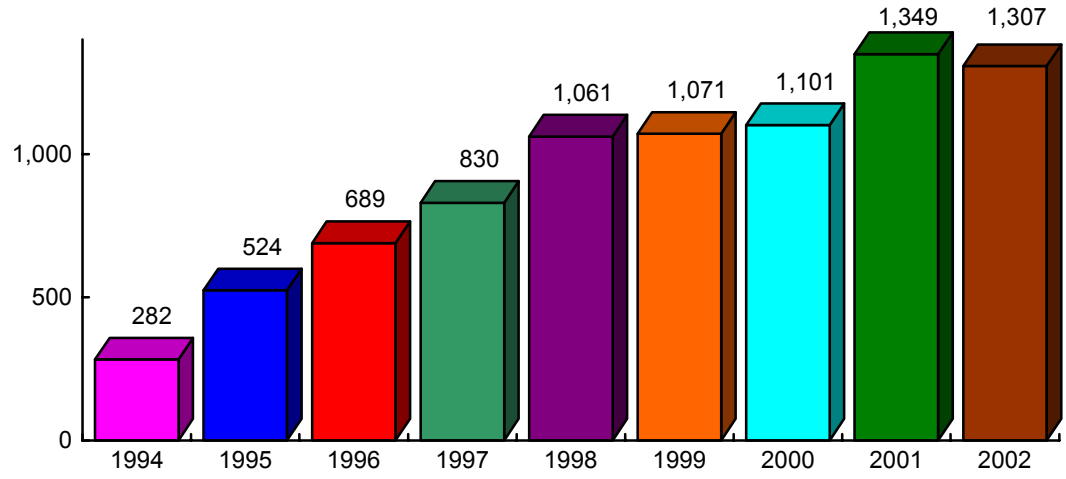
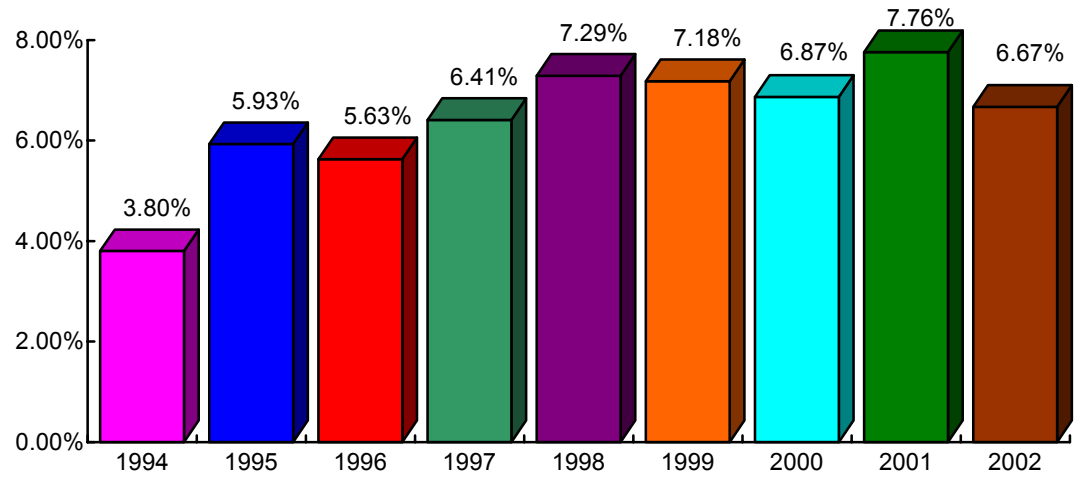


Figure 12: DETENTION PERCENTAGE



ANNEX 1

STATUS OF THE RELEVANT INSTRUMENTS

Table 1: STATUS OF THE RELEVANT INSTRUMENTS

(Date of deposit of instruments)

(As at 31 December 2002)

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	-	04/03/83	-	-	-	27/03/91	04/03/83	-
Hong Kong, China*	18/07/82	16/08/72	-	25/05/80	14/11/81	-	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	-
Brunei Darussalam	23/10/86	06/03/87	-	23/10/86	23/10/86	-	23/10/86	23/10/86	05/02/87	-
Solomon Islands	-	-	-	-	-	-	-	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 2002)

Authority	Annexes I & II	Annex III	Annex IV	Annex V	Annex VI
Australia	14/10/87	10/10/94	-	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	-	21/11/88	-
Fiji	-	-	-	-	-
Hong Kong, China*	11/04/85	07/03/95	-	27/03/96	-
Indonesia	21/10/86	-	-	-	-
Japan	09/06/83	09/06/83	09/06/83	09/06/83	-
Republic of Korea	23/07/84	28/02/96	-	28/02/96	-
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	-	27/05/99	08/10/00
Thailand	-	-	-	-	-
Vanuatu	13/04/89	22/04/91	-	22/04/91	-
Viet Nam	29/05/91	-	-	-	-
Brunei Darussalam	23/10/86	-	-	-	-
Solomon Islands	-	-	-	-	-
Entry into force date	02/10/1983	01/07/1992	27/09/2003	31/12/1988	-

* Effective date of extension of instruments.

ANNEX 2

PORT STATE INSPECTION STATISTICS

STATISTICS FOR 2002

Table 2: PORT STATE INSPECTIONS CARRIED OUT BY AUTHORITIES

Authority	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	No. of individual ships [1]	Inspection rate (%)	Detention percentage (%)
Australia[2]	2,842	1,660	7,460	166	4,443	63.97	5.84
Canada[3]	391	257	1,134	23	1,659	23.57	5.88
Chile[2]	708	356	881	48	1,525	46.43	6.78
China	2,445	1,838	10,382	149	9,361	26.12	6.09
Fiji	9	1	2	0	188	4.79	0
Hong Kong, China	926	748	4,498	90	5,230	17.71	9.72
Indonesia	985	378	947	1	4,178	23.58	0.10
Japan	4,311	3,536	23,239	455	10,735	40.16	10.55
Republic of Korea	3,337	2,403	9,738	97	9,275	35.98	2.91
Malaysia	351	189	834	5	5,027	6.98	1.42
New Zealand	645	302	972	14	1,119	57.64	2.17
Papua New Guinea	2	0	0	0	380	0.53	0
Philippines	443	320	2,071	19	2,331	19.00	4.29
Russian Federation[3]	787	635	5,155	156	1,020	77.16	19.82
Singapore	1,221	1,019	6,897	66	11,282	10.82	5.41
Thailand	11	0	0	0	3,418	0.32	0
Vanuatu	0	0	0	0	35		
Vietnam	174	118	1,000	18	1,309	13.29	10.34
Total	**19,588**	**13,760**	**75,210**	**1,307**	**Regional 25,202**	**Regional approx. 78%**	**Regional 6.67%**

1) LMIS data for 2002. (Sum of the number of individual ships visits during the first and second half of the year 2002)
2) Data are for all ports of the Authority.
3) Data are only for the Pacific ports.

Table 3: PORT STATE INSPECTIONS PER FLAG

Flag	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	Detention percentage %
Afghanistan	1	0	0	0	0
Antigua and Barbuda	220	136	471	8	3.64
Argentina	2	2	18	1	50.00
Australia	10	7	20	0	0
Austria	3	3	9	0	0
Bahamas	576	339	1,297	15	2.60
Bahrain	6	5	19	0	0
Bangladesh	14	14	147	1	7.14
Barbados	8	5	29	1	12.50
Belgium	2	1	15	0	0
Belize	567	532	4,026	111	19.58
Bermuda	41	19	57	0	0
Bolivia	21	21	243	9	42.86
Brazil	5	3	39	1	20.00
Bulgaria	7	5	24	1	14.29
Cambodia	971	925	8,235	246	25.33
Canada	1	1	4	0	0
Cayman Islands	46	26	99	6	13.04
Chile	5	4	20	0	0
China	861	608	2,969	15	1.74
Comores	2	2	11	0	0
Cook Islands	3	3	27	0	0
Croatia	35	14	41	1	2.86
Cyprus	772	538	2,661	49	6.35
Denmark	90	40	115	0	0
Egypt	26	20	147	4	15.38
Ethiopia	3	3	16	0	0
Fiji	4	3	18	1	25.00
France	45	28	79	0	0
French Guiana	1	1	2	0	0
Georgia	6	6	59	2	33.33
Germany	181	89	278	3	1.66
Gibraltar	12	4	9	0	0
Greece	371	210	694	12	3.23
Honduras	163	105	859	26	15.95
Hong Kong, China	651	380	1,680	11	1.69
India	116	89	626	11	9.48
Indonesia	144	137	1,510	31	21.53
Iran	62	52	330	6	9.68

Flag	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	Detention percentage %
Isle of Man	101	61	262	2	1.98
Israel	23	10	24	0	0
Italy	66	36	139	2	3.03
Japan	172	114	415	4	2.33
Korea, Democratic People's Republic	166	164	2,329	99	59.64
Korea, Republic of	736	559	3,059	17	2.31
Kuwait	19	12	42	1	5.26
Lao, People's Democratic Republic	2	2	31	1	50.00
Lebanon	1	1	2	0	0
Liberia	1,158	679	2,516	37	3.20
Lithuania	5	5	34	3	60.00
Luxemburg	5	4	14	0	0
Malaysia	364	286	2,047	35	9.62
Maldives	7	7	64	1	14.29
Malta	455	334	1,731	31	6.81
Marshall Islands	190	98	371	4	2.11
Mauritius	2	2	2	0	0
Morocco	1	0	0	0	0
Myanmar	48	33	209	0	0
Netherlands	148	77	247	7	4.73
Netherlands Antilles	36	25	91	4	11.11
New Zealand	4	1	1	0	0
Norway	267	135	457	6	2.25
Pakistan	15	14	67	0	0
Panama	6,329	4,360	21,212	276	4.36
Papua New Guinea	15	11	105	3	20.00
Peru	1	0	0	0	0
Philippines	373	256	1,250	15	4.02
Portugal	5	5	20	0	0
Qatar	15	9	60	1	6.67
Russia	509	424	2,043	42	8.25
Saint Vincent and the Grenadines	411	361	2,477	41	9.98
Samoa	2	2	4	0	0
Sao Tome and Principe	5	5	41	1	20.00
Saudi Arabia	17	13	42	0	0
Seychelles	1	1	18	0	0
Singapore	807	520	2,496	30	3.72
South Africa	1	1	1	0	0
Spain	2	2	10	0	0

Flag	No. of inspections	No. of inspections with deficiencies	No. of deficiencies	No. of detentions	Detention percentage %
Sri Lanka	2	0	0	0	0
Sweden	19	9	23	1	5.26
Switzerland	28	11	39	0	0
Taiwan, China	227	180	1,011	13	5.73
Thailand	235	183	1,150	19	8.09
Tonga	32	23	92	4	12.50
Trinidad and Tobago	1	1	6	1	100.00
Turkey	65	54	346	8	12.31
Tuvalu	5	5	28	1	20.00
Ukraine	11	9	29	1	9.09
United Arab Emirates (UAE)	3	1	4	0	0
United Kingdom (UK)	119	53	166	2	1.68
United States of America	65	39	144	2	3.08
Vanuatu	85	61	266	1	1.18
Viet Nam	144	114	1,055	19	13.19
Other	9	8	15	0	0
Total	**19,588**	**13,760**	**75,210**	**1,307**	**Regional 6.67**

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	134	84	224	5	3.73
Combination carrier	153	97	404	3	1.96
Oil tanker	1,217	791	4,281	115	9.45
Gas carrier	374	219	813	13	3.48
Chemical tanker	837	581	2,615	32	3.82
Bulk carrier	5,156	3,332	15,159	213	4.13
Vehicle carrier	448	248	839	14	3.13
Container ship	3,563	2,293	9,817	84	2.36
Ro-Ro cargo ship	279	164	857	10	3.58
General cargo/multi-purpose ship	5,458	4,666	33,854	701	12.84
Refrigerated cargo carrier	783	597	3,126	71	9.07
Woodchip carrier	198	121	376	5	2.53
Livestock carrier	81	55	382	3	3.70
Ro-Ro Passenger ship	45	37	242	3	6.67
Passenger ship	205	123	535	6	2.93
Factory ship	9	5	24	5	55.56
Heavy load carrier	43	25	74	3	6.98
Offshore service vessel	150	78	348	0	0
MODU & FPSO	5	4	29	0	0
High speed passenger craft	14	13	41	0	0
Special purpose ship	39	26	158	4	10.26
Tugboat	290	111	472	3	1.03
Fishing vessel	6	6	63	0	0
Others	101	84	477	14	13.86
Total	**19,588**	**13,760**	**75,210**	**1,307**	**6.67**

Table 5: PORT STATE INSPECTIONS PER CLASSIFICATION SOCIETY

Classification society	No. of inspections	No. of inspections with deficiencies	No. of detentions*	Detention percentage %
American Bureau of Shipping	1,361	854	61	4.48
Biro Klasifikasi Indonesia	96	72	13	13.54
Bulgarski Koraben Registar	3	1	0	0
Bureau Securitas	1	0	0	0
Bureau Veritas	933	639	53	5.68
China Classification Society	1,423	1,056	37	2.60
China Corporation Register of Shipping	306	270	36	11.76
Croatian Register of Shipping	78	37	1	1.28
Cyprus Bureau of Shipping	78	38	0	0
Det Norske Veritas	1,255	690	46	3.67
Germanischer Lloyd	1,378	821	55	3.99
Hellenic Register of Shipping	1	0	0	0
Honduras International Surveying and Inspection Bureau	71	21	8	11.27
INCLAMAR	38	36	3	7.89
Indian Register of Shipping	61	46	3	4.92
International Naval Surveys Bureau	9	9	2	22.22
International Register of Shipping	25	24	8	32.00
Isthmus Bureau of Shipping	127	123	36	28.35
Korean Register of Shipping	1,535	1,085	41	2.67
Lloyd's Register of Shipping	1,660	1,043	74	4.46
NV Unitas	1	1	0	0
Nippon Kaiji Kyokai	6,307	4,409	247	3.92
Panama Bureau of Shipping	44	41	8	18.18
Panama Maritime Surveyors Bureau Inc	136	70	8	5.88
Panama Register Corporation	36	35	6	16.67
Polski Rejestr Statkow	24	22	3	12.50
R.J. Del Pan	3	3	1	33.33
RINAVE Portuguesa	3	1	0	0
Register of Shipping (Albania)	1	1	0	0
Register of Shipping (DPR Korea)	82	82	61	74.39
Registro Cubano de Buques	1	0	0	0
Registro Italiano Navale	126	79	7	5.56
Romanian Naval Register	1	1	0	0
Russian Maritime Register of Shipping	673	547	60	8.92
Russian River Register	1	0	0	0
Turkish Lloyd	4	4	2	50.00
Viet Nam Register of Shipping	107	83	13	12.15
Other	1,599	1,516	414	25.89
Total	**19,588**	**13,760**	**1,307**	**6.67**

* Note: Deficiencies for which a ship is detained may not necessarily be related to the matters covered by the certificates issued by the classification society.

Table 6: DEFICIENCIES BY CATEGORIES

Nature of deficiencies	No. of deficiencies
Ship's certificates and documents	2,379
Stability, structure and related equipment	6,204
Propulsion and auxiliary machinery	3,001
Alarm signals	274
Fire safety measures	11,838
Oil, chemical tankers and gas carriers	225
Lifesaving appliances	13,013
Radiocommunications	2,875
Safety of navigation	8,963
Carriage of cargo and dangerous goods	772
SOLAS related operational deficiencies	2,788
ISM related deficiencies	2,762
Bulk carriers-additional safety measures	41
Load lines	5,299
MARPOL-Annex I	5,175
MARPOL-Annex II	71
MARPOL-Annex III	11
MARPOL-Annex V	2,337
MARPOL related operational deficiencies	528
Certification and watchkeeping for seafarers	4,065
Crew and accommodation (ILO 147)	606
Food and catering (ILO 147)	194
Working spaces (ILO 147)	374
Accident prevention (ILO 147)	572
Mooring arrangements (ILO 147)	752
Other deficiencies	91
Total	**75,210**

SUMMARY OF PORT STATE INSPECTION DATA 2000 – 2002

Table 7: BLACK – GREY – WHITE LISTS *

Flag	Inspections 2000-2002	Detentions 2000-2002	Black to Grey Limit	Grey to White Limit	Excess Factor
BLACK LIST					
Korea, Democratic People's Republic	426	207	38		13.51
Bolivia	49	21	6		8.99
Indonesia	415	125	38		7.48
Cambodia	2,285	590	180		6.77
Belize	1,521	334	123		5.41
Viet Nam	340	73	32		4.64
Honduras	621	101	54		3.30
Bangladesh	38	9	5		3.10
Malaysia	1,085	117	90		1.76
Russia	1,295	136	106		1.72
Thailand	648	63	56		1.30
Saint Vincent and the Grenadines	1,051	93	87		1.16
Papua New Guinea	39	6	5		1.09
GREY LIST					
Turkey	229	22	22	10	0.94
Taiwan, China	622	53	54	33	0.93
Egypt	78	7	9	2	0.68
Kuwait	55	5	7	1	0.66
India	294	23	28	13	0.66
Tonga	73	6	9	2	0.61
Iran	185	13	19	7	0.50
Malta	1,271	88	104	74	0.47
Pakistan	47	3	6	0	0.46
Cayman Islands	110	7	12	3	0.43
Myanmar	129	7	14	4	0.31
Italy	135	7	14	5	0.27
Netherlands Antilles	86	4	10	2	0.27
Saudi Arabia	45	1	6	0	0.18
Sweden	57	1	7	1	0.09
United States of America	125	4	13	4	0.04

Flag	Inspections 2000-2002	Detentions 2000-2002	Black to Grey Limit	Grey to White Limit	Excess Factor
Croatia	67	1	8	1	0.03
Israel	44	0	6	0	0.03
WHITE LIST					
Cyprus	2,086	125		127	-0.02
Korea, Republic of	1,978	110		120	-0.17
Antigua and Barbuda	490	21		25	-0.28
Switzerland	61	0		1	-0.46
Bermuda	128	2		4	-0.62
Philippines	1,214	49		70	-0.63
Panama	17,542	844		1,172	-0.64
Denmark	320	9		15	-0.69
Netherlands	383	11		19	-0.74
Greece	983	35		56	-0.76
France	109	1		3	-0.78
Vanuatu	231	5		10	-0.79
Singapore	2,263	83		138	-0.87
Marshall Islands	369	9		18	-0.90
Germany	462	12		23	-0.92
Norway	757	19		41	-1.10
Liberia	3,081	96		192	-1.11
Bahamas	1,536	42		91	-1.16
Japan	523	11		27	-1.17
United Kingdom (UK)	259	3		11	-1.32
China	2,539	61		157	-1.35
Isle of Man	221	2		9	-1.36
Hong Kong, China	1,557	29		92	-1.50

* *See explanatory note on page 40.*

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 %
	2000	2001	2002	Total	2000	2001	2002	Total	
Afghanistan	5	0	1	6	1	0	0	1	16.67
Algeria	4	3	0	7	1	2	0	3	42.86
American Samoa	0	1	0	1	0	0	0	0	0
Anquilla	1	0	0	1	0	0	0	0	0
Antigua and Barbuda	135	135	220	490	5	8	8	21	4.29
Argentina	0	0	2	2	0	0	1	1	50.00
Australia	8	10	10	28	0	0	0	0	0
Austria	2	3	3	8	0	0	0	0	0
Bahamas	484	476	576	1,536	12	15	15	42	2.73
Bahrain	0	3	6	9	0	0	0	0	0
Bangladesh	11	13	14	38	2	6	1	9	23.68
Barbados	7	5	8	20	1	0	1	2	10.00
Belgium	2	0	2	4	0	0	0	0	0
Belize	452	502	567	1,521	85	138	111	334	21.96
Bermuda	44	43	41	128	0	2	0	2	1.56
Bolivia	4	24	21	49	2	10	9	21	42.86
Brazil	2	3	5	10	1	1	1	3	30.00
Brunei Darussalam	2	0	0	2	0	0	0	0	0
Bulgaria	6	4	7	17	0	1	1	2	11.76
Cambodia	527	787	971	2,285	112	232	246	590	25.82
Cameroon	0	1	0	1	0	0	0	0	0
Canada	0	0	1	1	0	0	0	0	0
Cayman Islands	26	38	46	110	0	1	6	7	6.36
Channel Islands	0	3	0	3	0	0	0	0	0
Chile	1	2	5	8	0	1	0	1	12.50
China	809	869	861	2,539	24	22	15	61	2.40
Colombia	1	1	0	2	1	0	0	1	50.00
Comores	0	1	2	3	0	0	0	0	0
Cook Islands	4	2	3	9	0	0	0	0	0
Croatia	11	21	35	67	0	0	1	1	1.49
Cyprus	621	693	772	2,086	31	45	49	125	5.99
Denmark	112	118	90	320	3	6	0	9	2.81
Egypt	24	28	26	78	2	1	4	7	8.97
Ethiopia	2	1	3	6	0	0	0	0	0
Fiji	3	4	4	11	0	0	1	1	9.09

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2000	2001	2002	Total	2000	2001	2002	Total	
Finland	0	1	0	1	0	0	0	0	0
France	27	37	45	109	0	1	0	1	0.92
French Guiana	0	0	1	1	0	0	0	0	0
Georgia	1	4	6	11	0	0	2	2	18.18
Germany	143	138	181	462	1	8	3	12	2.60
Gibraltar	1	2	12	15	0	0	0	0	0
Greece	306	306	371	983	14	9	12	35	3.56
Honduras	256	202	163	621	42	33	26	101	16.26
Hong Kong, China	404	502	651	1,557	8	10	11	29	1.86
India	78	100	116	294	7	5	11	23	7.82
Indonesia	123	148	144	415	47	47	31	125	30.12
Iran	50	73	62	185	2	5	6	13	7.03
Isle of Man	45	75	101	221	0	0	2	2	0.90
Israel	9	12	23	44	0	0	0	0	0
Italy	36	33	66	135	2	3	2	7	5.19
Japan	174	177	172	523	2	5	4	11	2.10
Korea, Democratic People's Republic	109	151	166	426	43	65	99	207	48.59
Korea, Republic of	584	658	736	1,978	52	41	17	110	5.56
Kuwait	18	18	19	55	1	3	1	5	9.09
Kyrgyzstan	2	1	0	3	0	0	0	0	0
Lao, People's Democratic Republic	0	1	2	3	0	0	1	1	33.33
Latvia	10	3	0	13	0	0	0	0	0
Lebanon	1	1	1	3	0	0	0	0	0
Liberia	939	984	1,158	3,081	29	30	37	96	3.12
Lithuania	2	1	5	8	0	0	3	3	37.50
Luxemburg	4	3	5	12	0	0	0	0	0.00
Malaysia	302	419	364	1,085	46	36	35	117	10.78
Maldives	6	8	7	21	1	1	1	3	14.29
Malta	408	408	455	1,271	29	28	31	88	6.92
Marshall Islands	61	118	190	369	2	3	4	9	2.44
Mauritius	3	1	2	6	0	0	0	0	0
Morocco	0	0	1	1	0	0	0	0	0
Myanmar	38	43	48	129	2	5	0	7	5.43
Netherlands	117	118	148	383	3	1	7	11	2.87
Netherlands Antilles	26	24	36	86	0	0	4	4	4.65
New Zealand	6	2	4	12	0	0	0	0	0

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2000	2001	2002	Total	2000	2001	2002	Total	
Nigeria	2	1	0	3	0	1	0	1	33.33
Norway	253	237	267	757	9	4	6	19	2.51
Pakistan	22	10	15	47	1	2	0	3	6.38
Panama	5,508	5,705	6,329	17,542	254	314	276	844	4.81
Papua New Guinea	5	19	15	39	1	2	3	6	15.38
Peru	0	0	1	1	0	0	0	0	0
Philippines	418	423	373	1,214	22	12	15	49	4.04
Poland	2	4	0	6	1	0	0	1	16.67
Portugal	3	1	5	9	0	0	0	0	0
Qatar	8	7	15	30	0	1	1	2	6.67
Romania	2	0	0	2	1	0	0	1	50.00
Russia	400	386	509	1,295	49	45	42	136	10.50
Saint Helena	0	1	0	1	0	0	0	0	0
Saint Vincent and the Grenadines	290	350	411	1,051	28	24	41	93	8.85
Samoa	0	2	2	4	0	0	0	0	0
Sao Tome and Principe	0	13	5	18	0	3	1	4	22.22
Saudi Arabia	15	13	17	45	0	1	0	1	2.22
Seychelles	0	0	1	1	0	0	0	0	0
Sierra Leone	6	0	0	6	6	0	0	6	100.00
Singapore	693	763	807	2,263	34	19	30	83	3.67
Slovakia	3	2	0	5	0	0	0	0	0
South Africa	6	1	1	8	0	0	0	0	0
Spain	1	1	2	4	0	0	0	0	0
Sri Lanka	4	2	2	8	0	0	0	0	0
Sweden	22	16	19	57	0	0	1	1	1.75
Switzerland	21	12	28	61	0	0	0	0	0
Taiwan, China	182	213	227	622	20	20	13	53	8.52
Tanzania	0	1	0	1	0	0	0	0	0
Thailand	191	222	235	648	21	23	19	63	9.72
Tonga	17	24	32	73	1	1	4	6	8.22
Trinidad and Tobago	0	0	1	1	0	0	1	1	100.00
Turkey	87	77	65	229	7	7	8	22	9.61
Tuvalu	0	2	5	7	0	1	1	2	28.57
Ukraine	7	2	11	20	2	0	1	3	15.00
United Arab Emirates (UAE)	10	5	3	18	0	1	0	1	5.56
United Kingdom (UK)	64	76	119	259	0	1	2	3	1.16

Flag	Number of inspections				Number of detentions				3-year rolling average detention %
	2000	2001	2002	Total	2000	2001	2002	Total	
United States of America	25	35	65	125	0	2	2	4	3.20
Uzbekistan	1	0	0	1	0	0	0	0	0
Vanuatu	77	69	85	231	2	2	1	5	2.16
Venezuela	7	0	0	7	1	0	0	1	14.29
Viet Nam	79	117	144	340	22	32	19	73	21.47
Other	4	1	9	14	3	1	0	4	28.57
Total	**16,034**	**17,379**	**19,588**	**53,001**	**1,101**	**1,349**	**1,307**	**3,757**	**7.09**

Figure 13: COMPARISON OF INSPECTIONS PER SHIP TYPE

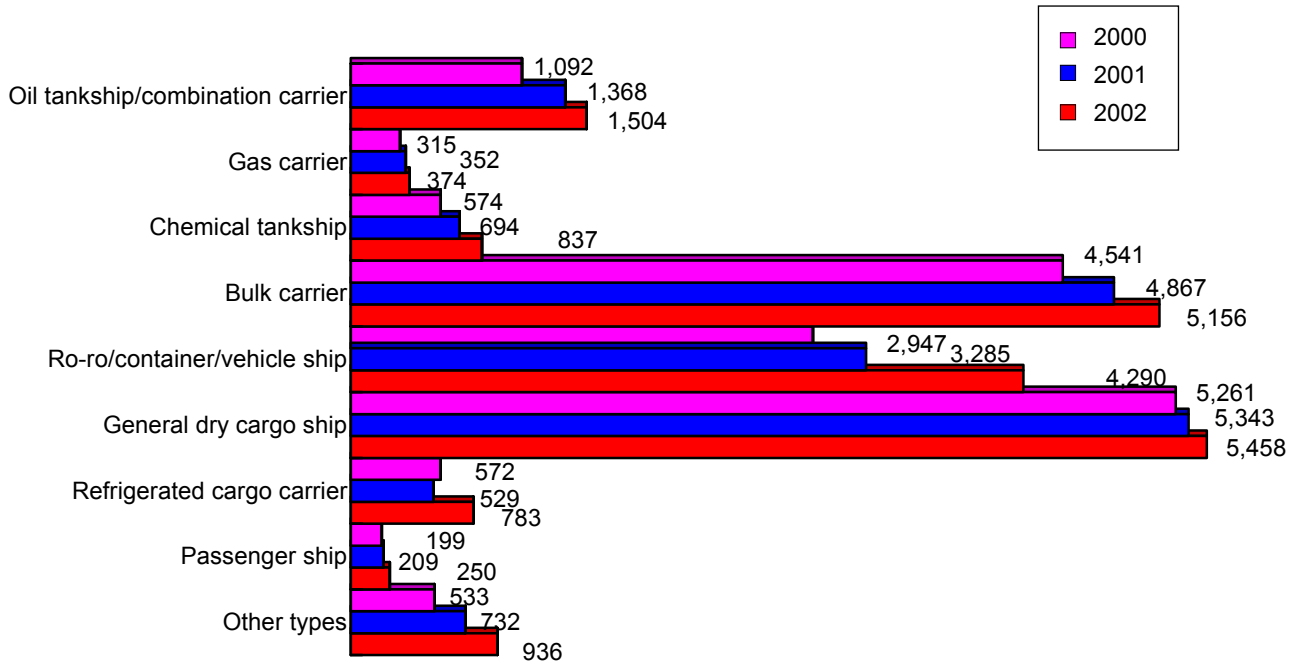


Figure 14: COMPARISON OF DETENTIONS PER SHIP TYPE

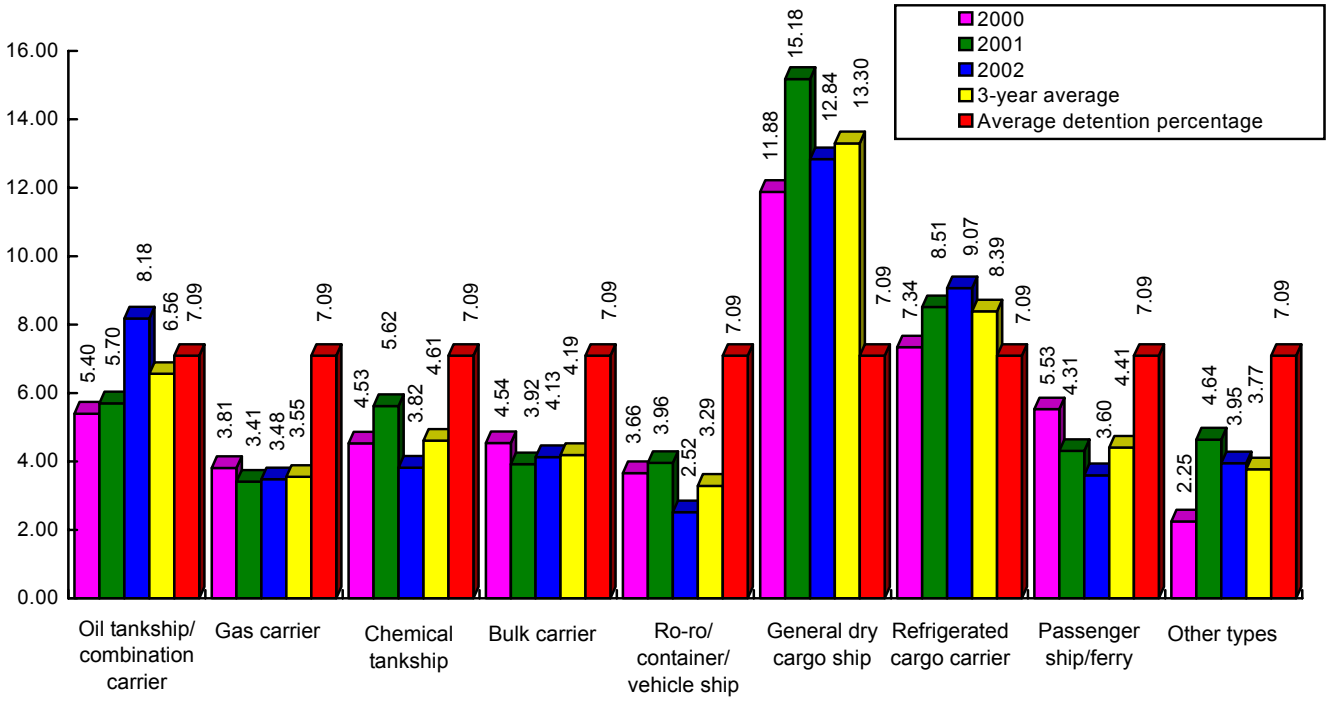
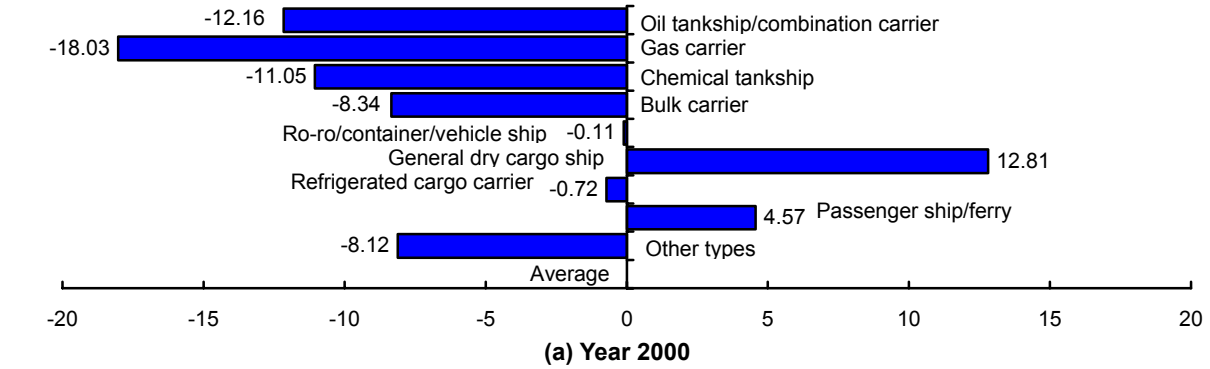


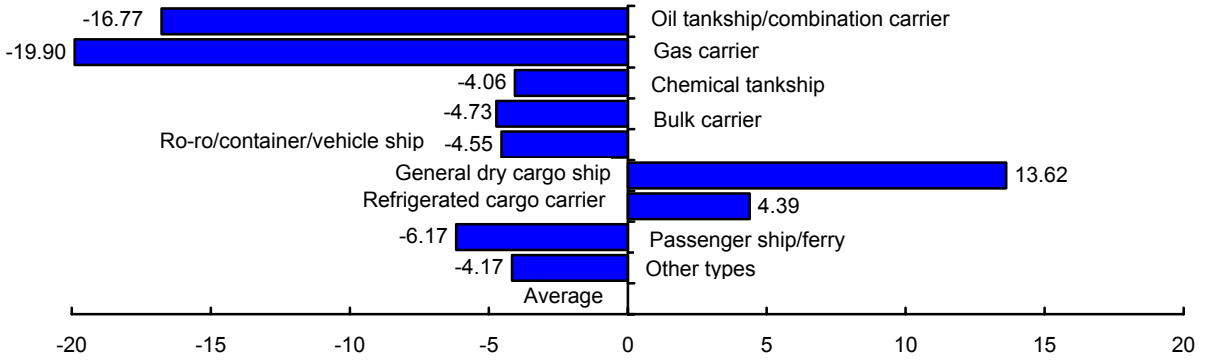
Table 9: INSPECTIONS AND DETENTIONS PER SHIP TYPE

Type of ship	Number of inspections				Number of detentions				Average detention percentage %
	2000	2001	2002	Total	2000	2001	2002	Total	
Tanker, not otherwise specified	102	177	134	413	6	3	5	14	3.39
Combination carrier	159	155	153	467	7	3	3	13	2.78
Oil tanker	831	1,036	1,217	3,084	46	72	115	233	7.56
Gas carrier	315	352	374	1,041	12	12	13	37	3.55
Chemical tanker	574	694	837	2,105	26	39	32	97	4.61
Bulk carrier	4,541	4,867	5,156	14,564	206	191	213	610	4.19
Vehicle carrier	463	405	448	1,316	12	4	14	30	2.28
Container ship	2,274	2,627	3,563	8,464	85	117	84	286	3.38
Ro-Ro cargo ship	210	253	279	742	11	9	10	30	4.04
General cargo/multi-purpose ship	5,261	5,343	5,458	16,062	625	811	701	2,137	13.30
Refrigerated cargo carrier	572	529	783	1,884	42	45	71	158	8.39
Woodchip carrier	119	167	198	484	1	3	5	9	1.86
Livestock carrier	78	74	81	233	0	5	3	8	3.43
Ro-Ro Passenger ship	23	26	45	94	1	2	3	6	6.38
Passenger ship	176	183	205	564	10	7	6	23	4.08
Heavy load carrier	28	28	43	99	0	2	3	5	5.05
Offshore service vessel	87	120	150	357	3	3	0	6	1.68
High speed passenger craft	11	9	14	34	1	0	0	1	2.94
Factory ship	1	2	9	12	0	0	5	5	41.67
Special purpose ship	39	39	39	117	0	6	4	10	8.55
MODU & FPSO	1	1	5	7	0	0	0	0	0
Tugboat	85	209	290	584	4	9	3	16	2.74
Fishing vessel	4	4	6	14	0	0	0	0	0
Others	80	79	101	260	3	6	14	23	8.85
Total	**16,034**	**17,379**	**19,588**	**53,001**	**1,101**	**1,349**	**1,307**	**3,757**	**7.09**

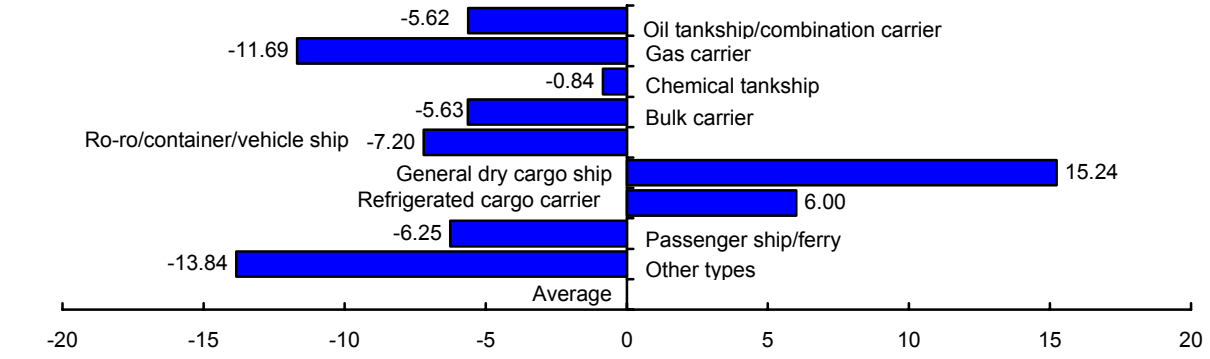
Figure 15: COMPARISON OF INSPECTIONS WITH DEFICIENCIES PER SHIP TYPE



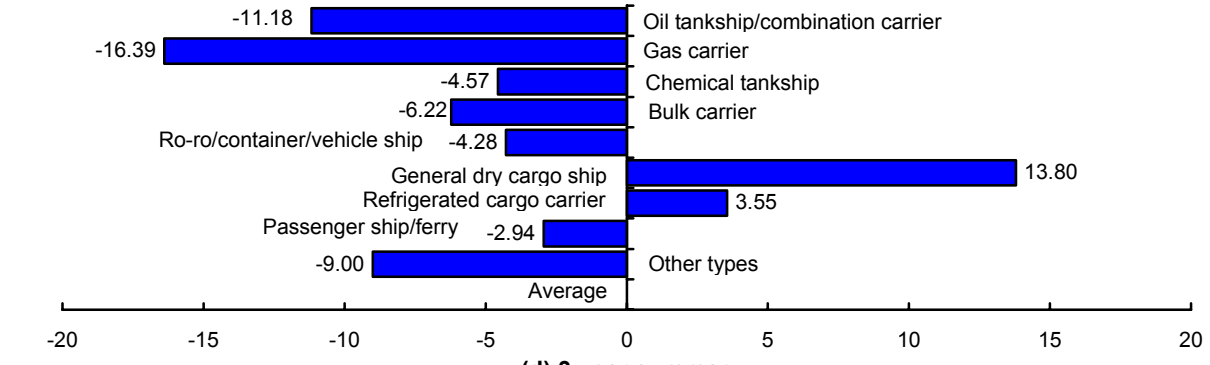
(a) Year 2000



(b) Year 2001



(c) Year 2002



(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 %
	2000	2001	2002	Total	2000	2001	2002	Total	
Oil tankship/combination carrier	1,092	1,368	1,504	3,964	591	719	972	2,282	57.57
Gas carrier	315	352	374	1,041	152	174	219	545	52.35
Chemical tankship	574	694	837	2,105	317	453	581	1,351	64.18
Bulk carrier	4,541	4,867	5,156	14,564	2,631	3,144	3,332	9,107	62.53
Ro-ro/container/vehicle ship	2,947	3,285	4,290	10,522	1,950	2,128	2,705	6,783	64.46
General dry cargo ship	5,261	5,343	5,458	16,062	4,161	4,432	4,666	13,259	82.55
Refrigerated cargo carrier	572	529	783	1,884	375	390	597	1,362	72.29
Passenger ship	199	209	250	658	141	132	160	433	65.81
Other types	533	732	936	2,201	310	477	528	1,315	59.75
Total	**16,034**	**17,379**	**19,588**	**53,001**	**10,628**	**12,049**	**13,760**	**36,437**	**68.75**

Figure 16: COMPARISON OF NUMBER OF DEFICIENCIES BY MAIN CATEGORIES

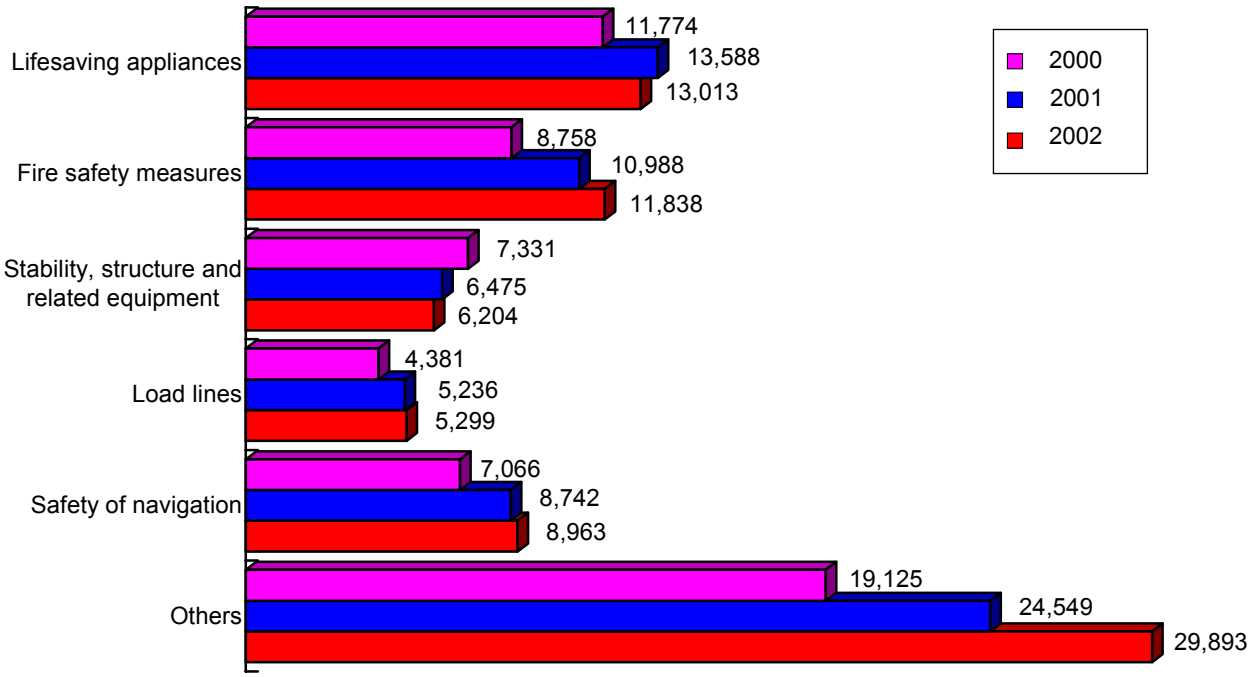
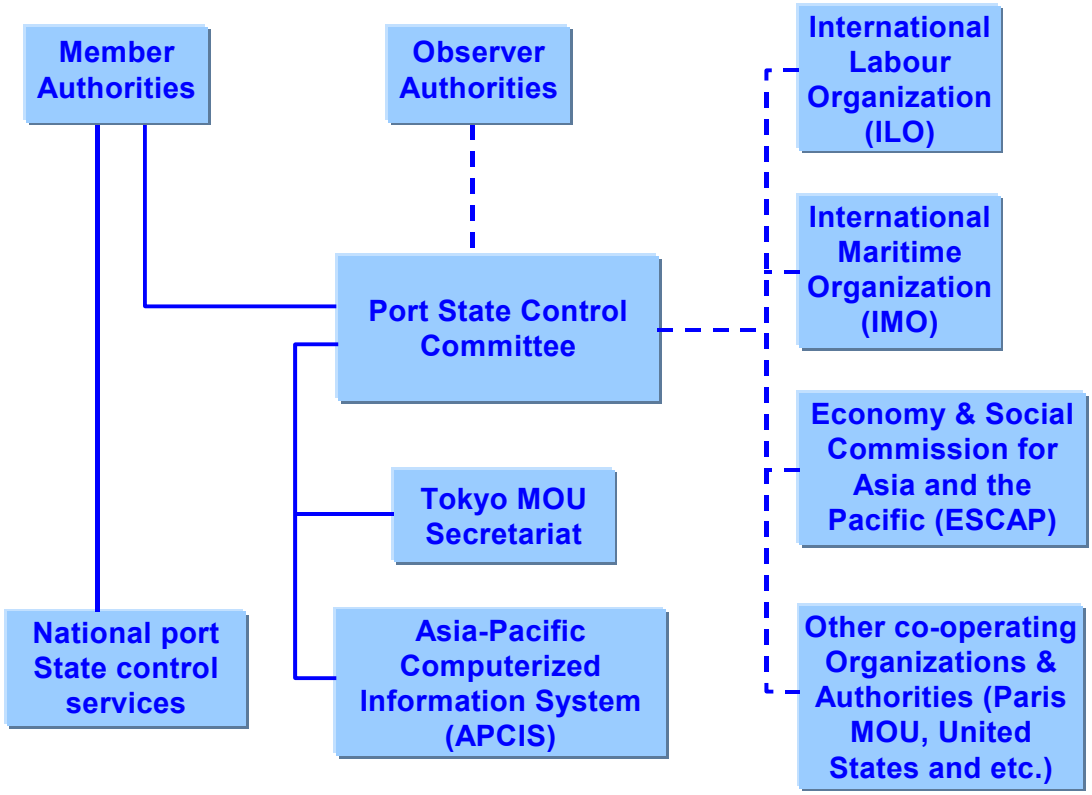


Table 11: COMPARISON OF DEFICIENCIES BY CATEGORIES

Nature of deficiency	Number of deficiencies		
	2000	2001	2002
Ship's certificates and documents	2,602	2,643	2,379
Stability, structure and related equipment	7,331	6,475	6,204
Propulsion and auxiliary machinery	1,602	2,694	3,001
Alarm signals	179	203	274
Fire safety measures	8,758	10,988	11,838
Oil, chemical tankers and gas carriers	119	157	225
Lifesaving appliances	11,774	13,588	13,013
Radiocommunications	2,573	3,300	2,875
Safety of navigation	7,066	8,742	8,963
Carriage of cargo and dangerous goods	523	590	772
SOLAS related operational deficiencies	1,991	2,833	2,788
ISM related deficiencies	719	792	2,762
Bulk carriers-additional safety measures	0	17	41
Load lines	4,381	5,236	5,299
MARPOL-Annex I	3,784	4,916	5,175
MARPOL-Annex II	35	73	71
MARPOL-Annex III	15	21	11
MARPOL-Annex V	75	1,542	2,337
MARPOL related operational deficiencies	967	804	528
Certification and watchkeeping for seafarers	739	860	4,065
Crew and accommodation (ILO 147)	695	939	606
Food and catering (ILO 147)	410	419	194
Working spaces (ILO 147)	251	330	374
Accident prevention (ILO 147)	472	649	572
Mooring arrangements (ILO 147)	603	639	752
Other deficiencies	771	128	91
Total	**58,435**	**69,578**	**75,210**

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:

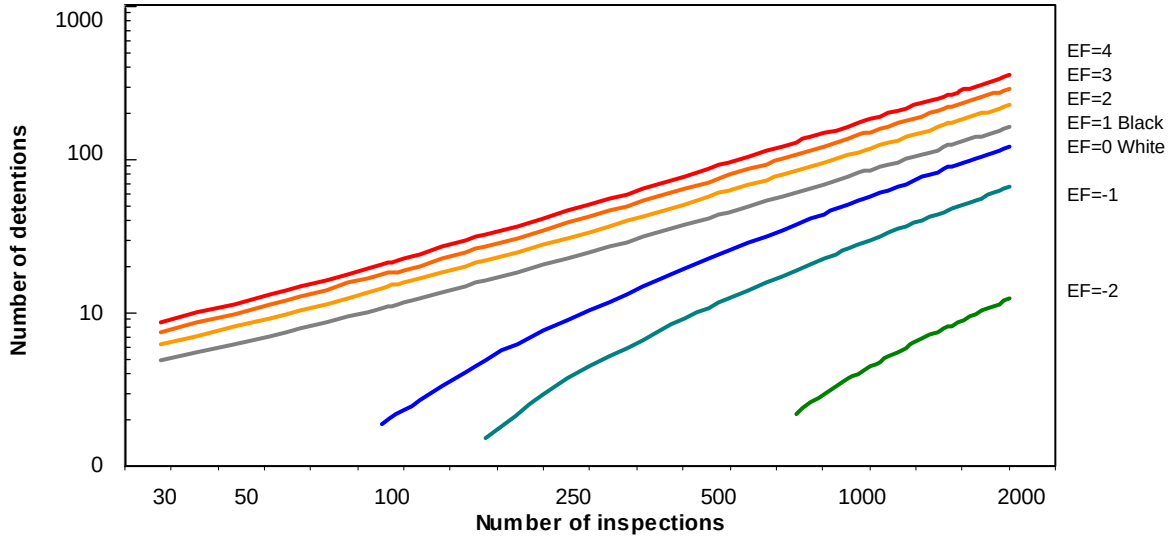
$$u_{black\ -\ to\ -\ grey} = N \cdot p + 0.5 + z \cdot \sqrt{N \cdot p \cdot (1-p)}$$

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

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 Cambodia were subject to 2,285 inspections of which 590 resulted in a detention. The "black to grey limit" is 180 detentions. The excess factor is 6.77.

N = total inspections
P = 7%
Q= 3%
Z = 1.645

How to determine the black to grey limit:

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

$$u_{black-to-grey} = 2{,}285 \cdot 0.07 + 0.5 + 1.645 \cdot \sqrt{2{,}285 \cdot 0.07 \cdot 0.93}$$

$$u = 180$$

The excess factor is 6.77. 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 5.77, and the outcome has to be added to the normal value for 'p':

$$p + 5.77q = 0.07 + (5.77 \cdot 0.03) = 0.2431$$

$$u_{excessfactor} = 2{,}285 \cdot 0.2431 + 0.5 + 1.645 \cdot \sqrt{2{,}285 \cdot 0.2431 \cdot 0.7569}$$

$$u_{excessfactor} = 590$$

Example flag on Grey list:

Ships of Malta were subject to 1,271 inspections, of which 88 resulted in a detention. The "black to grey limit" is 104 and the "grey to white limit" is 74. The excess factor is 0.47.

How to determine the black to grey limit:

$$u_{black-to-grey} = 1{,}271 \cdot 0.07 + 0.5 + 1.645 \cdot \sqrt{1{,}271 \cdot 0.07 \cdot 0.93}$$

$$u_{black\text{-}to\text{-}grey} = 104$$

How to determine the grey to white limit:

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

$$u_{white-to-grey} = 1{,}271 \cdot 0.07 - 0.5 - 1.645 \cdot \sqrt{1{,}271 \cdot 0.07 \cdot 0.93}$$

$$u_{white\text{-}to\text{-}grey} = 74$$

To determine the excess factor the following formula is used:

ef = (Detentions – white to grey limit)/(grey to black limit – white to grey limit)

ef = (88-73.51)/(104.43-73.51)

ef = 0.47

Example flag on White list:

Ships of Japan were subject to 523 inspections of which 11 resulted in detention. The "grey to white limit" is 27 detentions. The excess factor is -1.17.

How to determine the grey to white limit:

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

$$u_{white-to-grey} = 523 \cdot 0.07 - 0.5 - 1.645 \cdot \sqrt{523 \cdot 0.07 \cdot 0.93}$$

$$u_{white\text{-}to\text{-}grey} = 27$$

The excess factor is -1.17. 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 -1.17, and the outcome has to be added to the normal value for ‘p’:

$$p + (-1.17q) = 0.07 + (-1.17 \cdot 0.03) = 0.0349$$

$$u_{excessfactor} = 523 \cdot 0.0349 - 0.5 - 1.645 \cdot \sqrt{523 \cdot 0.0349 \cdot 0.9651}$$

$$u_{excessfactor} = 11$$

TOKYO MOU SECRETARIAT

The permanent 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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