



Annual Report 2001



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1. Executive summary

After nearly 20 years of operation the Paris MOU has set its course for the years ahead. Determined targeting of substandard ships, greater transparency to the outside world and a higher level of harmonization and quality are goals for the future. At the same time ship owners, flag States, classification societies and charterers will be held accountable for their performance and involvement with sub-standard ships. While on the other hand, companies, ships and flags with a good safety record will be rewarded for investing in quality shipping.

The overall figures for 2001 are very similar to those of 2000. The total numbers of inspections, individual ships and ships detained do not show substantial change and therefore provide a platform for comparing other aspects which indicate trends in the safety of shipping.

When looking at the chain of responsibility in the shipping industry it is evident that many companies operating older tonnage do not show a great interest in proper safety standards. Recognizing that not every old ship is necessarily a bad ship, the figures indicate that in areas related to safety, the marine environment, operational standards and implementation of a safety management system in particular, such owners pose a great risk.

Apparently a number of flag States which are responsible for certifying these ships have more concern for their revenues than safety standards. "Fine examples" of new flags of convenience are Sao Tome and Principe, Cambodia and Tonga. These registers have managed to find their way to the top of the Black List in a single year.

Other notorious flags seem to be comfortable with their position on the Black List and have not shown any sign of improvement over the years. Several other flags have fortunately taken positive steps to improve their record and are no longer considered a "risk flag".

To take account of the important role of classification societies when acting on behalf of a flag State, their responsibility has been closely monitored over the past 3 years. In 22% of 1,699 detentions the classification society was held responsible (380).

From these 380 class related detentions 78% (297) were attributed to class societies acting on behalf of flags on the Black List.

Does this indicate that safety is or can be measured

by double standards or should classification societies become more discriminating in whom they represent?

The number of deficiencies recorded during port State control inspections in 2001 (68,756) showed a slight increase and is only 1.5% higher when compared with last year. The increasing trend in operational deficiencies related to safety procedures is still continuing at an alarming rate. Since 1999 there has been an increase of 29%. Ships older than 15 years show over 11 times as many operational deficiencies as ships less than 5 years old.

Of even greater concern is a steep increase in safety management defects which over 3 years have increased by 150%. Again ships older than 15 years show 14 times as many non-conformities as ships less than 5 year old.

Since all ISM compliant ships have been subject to several audits by the company and flag or classification society since they were certified in 1998, the standard of non-compliance should be cause for concern. At the same time questions are raised as to how the companies of these ships managed to obtain a Document of Compliance.

It is widely recognized that there is a close correlation between safety and working and living conditions (ILO Convention No. 147). Deficiency rates have increased over many years. In particular older bulk carriers and general dry cargo ships are sometimes found in an appalling condition for the crew. Combined with contracts of long service on board and extensive working hours there is no room for a safety culture on board these ships. Unfortunately many flag States and classification societies take no interest or deny their competence and leave it to port States to pick up the pieces.



2. Paris MOU developments

General

Once a year the Port State Control Committee which is the executive body of the Paris MOU meets in one of the Member States. The Committee considers policy matters concerning regional enforcement of port State control, reviews the work of the Technical Evaluation Group and task forces and decides on administrative procedures.

The task forces, of which 12 were active in 2001, are each assigned a specific work programme to investigate improvement of operational, technical and administrative port State control procedures. Reports of the task forces are submitted to the Technical Evaluation Group (TEG) at which all Paris MOU members and observers are represented. The evaluation of the TEG is submitted to the Committee for final consideration and decision making.

The MOU Advisory Board advises the Port State Control Committee on matters of a political and strategic nature, and provides direction to the task forces and Secretariat between meetings of the Committee. The board meets several times a year and in 2001 was composed of participants from Canada, Denmark, Norway, the United Kingdom and the European Commission.

Port State Control Committee

The Port State Control Committee (PSCC) held its 34th meeting in Bruges, Belgium on 8-11 May 2001.

The Committee revealed that every ship flying a black listed flag which entered the region in 2000 was subject to at least one inspection.

While this is not a target for the Paris MOU it does demonstrate that any ship flying one of these flags will be subjected to an inspection. It is also an indication that the new targeting system is starting to achieve its aims.

Across the whole of the MOU there was a swing of 9% towards the inspection of higher target factor ships.

Discussions continued on the introduction of a system which rewards quality ships. The system will aim to reflect the one recently introduced by the USCG.

During the meeting the Committee decided to carry out a Concentrated Inspection Campaign (CIC) on all

ships subject to the ISM Code from 1 July 2002, not just those ships which become ISM eligible after that date.

The CIC for 2003 will focus on operational aspects of passenger ships and it was agreed that living and working conditions should be the theme for 2004. This last campaign will inform the review of major crew conventions being carried out by ILO. In conjunction, a task force will investigate improvements to information available in the database on manning, training, certification and living and working conditions.

With the introduction of STCW95 in February 2002, the Committee confirmed that Port State Control Officers would focus on the new requirements from that date and provide feedback on the level of compliance.

The Committee reviewed data on class performance and agreed to more detailed information being gathered and presented to the next meeting. The Committee also agreed to review the present system for dealing with requests for information on detentions from flag States and owners.

As part of the development of a new inspection database it was agreed that the possibility of recording details of charterers should be investigated. Close liaison will be maintained with the USCG who are recording such information.

The Committee also decided to investigate the possibility of using a system complementary to SIRENaC for checking the convention requirements for all ships.

In a move to encourage flag State improvement, members of the Paris MOU who had not already done so agreed to submit their Self Assessment Forms as soon as possible, and many will be made public.

Following a pilot course of training material held earlier this year, the Paris MOU is to review the package with a view to establishing a comprehensive training programme from next year.

Noting the increasing use of electronic charts on ships the Committee approved new guidance for Port State Control Officers.

The Committee welcomed Estonia as its newest co-operating member.

The initiative to invite representatives of the industry was repeated. Representatives of OCIMF, INTERTANKO and INTERCARGO attended a half-day session during which areas of mutual interest were discussed.

Technical Evaluation Group

The Technical Evaluation Group (TEG) convened once during 2001. Several task forces submitted reports to the TEG for evaluation before submission to the Port State Control Committee.

Issues considered by TEG included:

- development of a new SIRENaC information system
- preparations for an inspection campaign on STCW compliance starting February 2002
- preparations for a Concentrated Inspection Campaign on ISM implementation in 2002
- preparations for a Concentrated Inspection Campaign on operational safety of passenger ships in 2003
- improvement of the reporting system for PSC inspections, including recording of charterers
- development of a Paris MOU reward system
- evaluation of statistics
- enforcement of the human element related to working and resting hours on board

Port State Control Seminars

32nd PSC Seminar

The 32nd Port State Control Seminar of the Paris MOU was held in St.Petersburg, Russian Federation on 26-28 June 2001. The Seminar was attended by Port State Control Officers from the Paris MOU, as well as participants from the Viña del Mar Agreement, Estonia, Latvia, Lithuania and Slovenia.

The seminar covered the latest developments in the Paris MOU and provisions under MARPOL 73/78 Annex I, II and V, focussing on recent changes and developments including PSC enforcement provisions.

33rd PSC Seminar

The 33rd PSC Seminar was held on 24-26 October 2001, in Athens, Greece. It was attended by Port State Control Officers from the Paris MOU, as well as participants from the Tokyo MOU, Viña del Mar Agreement, Estonia, Latvia, Lithuania, Slovenia and South-Africa.

The seminar was dedicated to human element issues: STCW95 and ISM, and their correlation, in preparation for the (Concentrated) Inspection Campaigns which are scheduled to take place between February and April 2002 and from July until September 2002 respectively.

New Information System

Fast developing database and internet technology have made it necessary to replace the current version of the SIRENaC F information system, which has been in operation since 1998.

In addition, several amendments in port State control policy such as targeting of ships, new inspection procedures and measuring performance of classification societies have made it necessary to develop a new database/information system. Last year the Committee agreed the financial basis for a new system which will be designed by the French Departement des Systèmes d'Information (DSI).

The new system will make full use of internet technology and an ORACLE database architecture. Port State Control Officers will be able to access the system for interrogation and updating by means of portable PC's and cellular phones. It will also provide more accurate descriptions of inspection results and include a range of new data.

A Task Force was instructed to oversee the development of the new system which is expected to become operational in January 2003.

Paris MOU on the Internet

The Paris MOU Internet site has undergone a major face-lift. The new lay-out guarantees easier and faster access and the advanced search options of the database have been in increasing demand from a variety of visitors. In particular from flag and port States, government agencies, charterers, insurers and classification societies who are able to monitor their performance and the performance of others on a continuous basis.

The internal web site has also undergone a major re-development. Most documents, manuals, guidelines and meeting papers are now available on line for consultation by the port State authorities. They may also make use of the discussion forum to exchange messages and views.

The regular publication of the "Rustbucket" has highlighted particularly serious detentions. These are described in detail and supported with photographic material to make the general public aware of unsafe ships that have been caught by port State control. During 2001 the motor vessels M Trans (Cambodia), Shiva (Cambodia) and Isparta (Turkey) were "named and shamed".

Other information of interest such as the monthly list of detentions, the annual report, the statistics of the "Blue Book" and news items can be downloaded from the website, which can be found at "www.parismou.org".

3. Looking ahead

Although the overall situation appears to be stable, Port State control results for 2001 indicate that efforts need to be enhanced to substantially reduce the number of substandard ships visiting the region. The Port State Control Committee is already looking ahead in order to anticipate new developments and to take concerted harmonised actions. Such actions need to enhance the effectiveness of the region in combating substandard shipping.

The Paris MOU Advisory Board (MAB) has considered several policy issues of a political or strategic nature and will submit proposals to the Committee for consideration.

Actions agreed by the Committee during its 34th session (2001) and 35th session (2002) are in the process of being implemented.

Concentrated Inspection Campaigns

- On 1 July 2002 the Paris MOU will launch a campaign on ISM compliance. All ships will be subject to this control, which is carried out in co-operation with the Tokyo MOU. There will be no excuses accepted for non-compliance. Ships without proper certification will be banned from all MOU ports until appropriate corrective measures have been taken.
- A number of recent incidents on passenger ships together with longer term statistics have underlined the need for strict compliance with operational standards on board ship. New guidelines have been adopted by the Committee and will provide a useful tool to establish whether the crew is able to respond effectively to emergency situations on large passenger ships. The Committee has adopted a CIC for Operational Safety on cruise ships starting in May 2003.

Compliance with STCW requirements

From 1 February 2002 all ships will be inspected under the new STCW95 requirements. Until 31 July letters of warning will be issued to ships with crew members without proper certification.

These ships are published on the web site and will be considered an overriding priority for inspection starting 1 August 2002. If the certification of the crew is not in order after this date the ship will be subject to detention.

Performance of classification societies

The Committee will continue to monitor closely the performance of classification societies.

Ships of Quality

The Committee will consider the introduction of a reward system for a trial period for ships which have a good safety and port State control history. Other criteria will take account of the flag of the ship, which should not appear on the Black List, and the performance record of its classification society. The potential reward for operators of quality ships is a reduction in the inspection burden, while at the same time enabling port State control Authorities to direct their resources more effectively.

A Task Force will be reporting to the next meeting of the Committee in 2003.

Recording of charterers

It has been recognized that charterers also play a role in the chain of responsibility in maritime transport. If the only ships chartered are ships with a good safety record there will be no market for sub-standard ships. The Paris MOU has decided therefore to record the charterer of ships engaged in the transport of liquid or solid bulk cargoes. As a next step the Committee may consider publishing the names of charterers of detained ships.

Review Panel

A trial of the Review Panel will continue during 2002. Flag States or classification societies that cannot resolve a dispute concerning a detention with the port State may submit their case for review.

The Review Panel is composed of representatives of 3 different MOU Authorities on a rotating basis plus the Secretariat.

New amendments to the MOU

New amendments have been adopted to bring the Paris MOU in line with the latest changes of the EC Directive on Port State Control (Erika 1 Package). Ships which fly the flag of a state on the Black List may be banned from the region after multiple detentions. The amendments will enter into force on 22 July 2003.

Training of Port State Control Officers

The Paris MOU has agreed to establish a comprehensive training programme starting in the fall of 2002. In order to establish a higher degree of harmonisation and expertise the Authorities have invested substantial resources in regional training. This programme will be additional to the regular biannual seminars for Port State Control Officers.

4. Concentrated Inspection Campaigns

Several concentrated inspection campaigns have been held in the Paris MOU region over the past years. The campaigns focus on a particular area of compliance with international regulations with the aim of gathering information on, and enforcing the level of compliance. Each campaign is prepared by experts and focuses on a number of specific items for inspection. Experience shows that they serve to draw attention to the chosen area of compliance.

The concentrated Inspection Campaign in 2001 was dedicated to cargo securing which has been a growing cause for concern following a number of incidents. The results highlight the poor quality of the lashing material in use, lashing not carried out according to the lashing plan, or a lashing plan that does not conform to the Cargo Securing Manual.

The Concentrated Inspection Campaign on Cargo Securing which took place in ports across the Paris MOU region from 1 March to 31 May 2001 was carried out on board all ships subject to PSC inspection and carrying cargo which required securing. The lashing was checked for compliance with SOLAS Chapter VI/5.6 and/or SOLAS Chapter VII/6.6.

In addition to regular port State control inspection, checks were made on the Cargo Securing Manual (CSM), the lashing plan, the cargo deck area, cargo stowing and securing and the quality of the lashing material in use.

A total of 1,072 inspections were carried out. Sixteen ships were detained for deficiencies related to cargo securing. The results indicate that:

- In 31% the quality of the lashing material in use was moderate to poor, and especially the quality of twistlocks which was often very poor.
- In 1 out of 10 ships either the lashing plan was not in accordance with the Cargo Securing Manual (CSM) and/or the cargo was actually not secured in accordance with the CSM/lashing plan.
- Only 2% of the inspected ships did not carry an approved Cargo Securing Manual.
- Authorities approving the CSM do not always ensure that all cargoes (e.g. timber deck cargo, steel coils) which can be carried by the ship are included in the CSM.

The campaign showed that poorly maintained and poor quality lashing material is in use or ready for use on board ship in many cases. In all cases found, the PSC Officer took measures to correct the defects. Considering the potential consequences of poor securing of cargo, the figure of 31% is cause for great concern.

The Paris MOU will continue to check ships carrying cargo requiring securing during routine inspection; the inspection will check:

- the quality of the lashing material
- and whether the lashing plan is in accordance with the CSM.

As a further check on operational safety, such cargo ships will be included in the next Concentrated Inspection Campaign on compliance with the ISM code in 2002.

The particular issue will be whether the control and maintenance of the lashing material is integrated in the Safety Management System on board.



5. Membership of the Paris MOU

In preparation for prospective new members of the Paris MOU, the Port State Control Committee has adopted provisional criteria for co-operating status for non-member States and observer status for newly developed PSC regions.

Specific criteria, including a self-evaluation exercise, have to be met before co-operating status can be granted.

Regional agreements seeking observer status must demonstrate that their member Authorities have an acceptable overall flag State record and have a similar approach in terms of commitment and goals to that of the Paris MOU.

In 2000 the Committee considered a detailed self evaluation prepared by the maritime Authorities of Slovenia and decided unanimously that Slovenia should be granted co-operating status. In April 2001 a Monitoring Team composed of representatives from Greece, the United Kingdom and the Secretariat visited Slovenia to determine whether the existing maritime safety system is adequate and in line with the information provided on the questionnaire. The results of the visit, including recommendations, have been

considered and adopted by the Committee. It is anticipated that Slovenia will join the Memorandum as a full member in 2003.

The Committee has also considered a self evaluation by the maritime Authorities of Estonia and decided unanimously to accept Estonia as a co-operating member. A Monitoring Team will visit Estonia in April 2002.



6. Co-operation with other organisations

The strength of regional regimes of port State control bound by geographical circum-stances and interest is widely recognised. Seven regional MOU's have been established. The Committee has expressed concern that some of these MOU's are dominated by Members who have not made efforts to exercise effective control over their own fleet. Many flag States of some regional MOUs appear on the Black List of the Paris MOU.

Two regional agreements have obtained official observer status with the Paris MOU: The Tokyo MOU and the Caribbean MOU. The United States Coast Guard is also an observer at Paris MOU meetings. This co-operation on an administrative level will help to ensure that port State control efforts remain compatible as far as is practicable.

The other regions have not applied for observer status and would need to meet Paris MOU criteria (see section 5).

The International Labour Organization and the International Maritime Organization have participated in the meetings of the Paris MOU on a regular basis. The IMO took the initiative in June 2000 of organising a workshop for the Secretariats and database

managers of regional agreements on port State control. Participants from all 7 agreements attended the workshop as well as representatives from their Members.

The workshop agreed a set of "Recommendations", to be submitted for consideration by the Committee of each region.

The Paris MOU will consider ways in which to give assistance to other new regional agreements on port State control. Assistance could include technical exchange of expertise and support on an administrative level. The Committee meeting in 2002 will decide on the arrangements.

The 2000 Annual Report including inspection data has been submitted to the Sub-Committee on Flag State Implementation (FSI) by the United Kingdom. Although the submission was considered of great value, the sub-committee commented that future reports of regional port State control agreements would be of more benefit if they followed a similar format. The Committee supported this view and the 2001 report will be submitted to FSI in a format comparable to the USCG.



7. Facts and figures

Introduction

During 2001, 18,681 inspections were carried out in the Paris MOU region on 11,658 foreign ships registered in 107 different flag States. The number of inspections is slightly higher than the inspection figure for 2000 (18,559), and overall the figures appear to have stabilized.

The number of individual ships inspected in 2001, 11,658, shows a moderate increase of 300 compared with the number inspected in 2000 (11,358). Over a 3 year period this number has also levelled off, indicating that the Paris Memorandum has probably reached the ceiling of ships qualifying for an inspection.

The overall inspection rate in the region was 27.3% in 2001, compared with 28.6% in 2000, 27.6% in 1999 and 26.5% in 1998. France, Germany, Ireland, the Netherlands and Sweden did not reach the 25% inspection commitment of the Memorandum. A chart showing the individual efforts of Paris MOU members is included in the statistical annexes to this Annual Report.

Detentions

Detention rates are expressed as a percentage of the number of inspections, rather than the number of individual ships inspected. The change was introduced in 1999 to take account of the fact that many ships have been detained more than once during any one year.

The number of ships detained in 2001 for deficiencies clearly hazardous to safety, health or the environment amounted to 1,699. It compares with the number of 1,764 detained in 2000, 1,684 in 1999, and 1,598 in 1998. The slight decrease of 65 ships compared to 2000, has reduced the average detention percentage to 9.09% in 2001, compared with 9.50% in 2000, 9.15% in 1999 and 9.06% in 1998.

"Black, Grey and White List"

In the 1999 Annual Report the traditional "black list" of flags was replaced by a "Black, Grey and White List". The tables are still based on performance over a 3-year rolling period but now indicate the full spectrum between quality flags and flags with a poor performance which are considered a high or very high risk.

Again, a "hard core" of flag States appear on the "Black List". Most flags which were considered "very



high risk" in 2000 remain so in 2001. The poorest performing flags are still Albania, Bolivia, Sao Tome & Principe and Honduras.

"Newcomer" in the category of very high risk is Tonga. Flags which have moved from the "Grey List" to the "Black List" are India, Azerbaijan and Bulgaria.

On a more positive note: Thailand, Croatia, Latvia, Lithuania and the Faeroe Islands have moved down from the "Black List" to the upper levels of the "Grey List" and will hopefully continue this trend.

The "White List" represents quality flags with a consistently low detention record. The Paris MOU flags of the United Kingdom, Finland, Sweden, Denmark and Germany are placed highest in terms of performance. The Republic of Korea and the United States of America have moved down to the "Grey List".

New to the "White List" are Poland, Greece, the Bahamas, Hong Kong and Israel.

Flag States with an average performance are shown on the "Grey List". Their appearance on this list may act as an incentive to improve and move to the "White List". At the same time flags at the lower end of the "Grey List" should be careful not to neglect control over their ships and risk ending up on the "Black List" next year.

There are signs that several flags appearing on the "White List" now use their ranking to advertise themselves as quality registers and are making efforts to reach a higher ranking the following year.

Ship Types

Looking at detentions by ship type over several years, it is noted that general dry cargo ships and bulk carriers still account for over 80% of all detentions, a trend which is still rising.

This year's detention percentage showed a significant rise in detentions of passenger ships.

During 2001 a total of 680 inspections took place on passenger ships, of which 54% showed deficiencies. Since 1998 the detention percentage has more than doubled from 3.2% to 7.5% (51 detentions in 2001). Statistical annexes to this report show the detention percentage for each ship type in 2001, 2000 and 1999.

Banning of Ships

At the end of 2001 a total of 19 ships were banned from the Paris MOU region, because they failed to call at an agreed repair yard (9), jumped detentions (8) or were not certified in accordance with the ISM Code (2). During the year 6 ships were placed under the banning measures, the remaining ships were banned in previous years.

By the end of 2001 the ban had been lifted on 3 ships after verification that all deficiencies had been rectified. An up-to-date list of banned ships can be found on the internet site of the Paris MOU on Port State Control.

Performance of Classification Societies

Details of the responsibility of classification societies for detainable deficiencies have been published since 1999. When one or more detainable deficiencies are attributed to a classification society in accordance with the criteria it is recorded and class is informed. Out of 1,699 detentions recorded in 2001, 22% (380) were considered class related, the same percentage as in 2000.

When considering the rate of class related detentions as a percentage of inspections in 2001, the International Register of Shipping (U.S.A.) 43.8%,

Register of Shipping (Albania) 36.4%, Honduras International Naval Survey and Inspection Bureau 23.5%, Panama Register Corporation 18.2% and Romanian Naval Register 14.5% scored highest as indicated in Model 2 in the Statistical Annex.

Deficiencies

A total of 68,756 deficiencies were recorded during port State control inspections in 2001, only a slight increase (1.5%) on the number of 67,735 recorded in 2000 (60,670 in 1999).

With some exceptions, ships older than 15 years show



substantially more deficiencies than ships of less than 5 years.

The trends in key safety areas are shown below. More detailed information may be found in the statistical publication of the Paris MOU, the 2001 Blue Book.

Safety

In 2001, deficiencies in vital safety areas such as life saving appliances, fire fighting equipment, safety in general and navigation accounted for 53% of the total number of deficiencies.

Deficiencies in these areas increased by 8% from 33,542 in 1999 to 36,329 in 2001.

Older ships (≥ 15 years) show 29,592 deficiencies, compared to younger ships (< 5 years) with 1,549 deficiencies, a rate 19 times higher.

Marine environment

MARPOL73/78 Annex I, II, III and V deficiencies have increased by 18%, from 5,011 in 1999 to 5,930 in 2001.

In 2001 older ships (≥ 15 years) show 4,564 deficiencies, compared to younger ships (< 5 years) with 404 deficiencies, a deficiency rate 11 times higher.

Working and living conditions

Major categories related to working and living conditions are "crew and accommodation", "food and catering", "working places" and "accident prevention". Deficiencies in these areas increased by 13%, from 4,686 in 1999 to 5,278 in 2001.

In 2001 older ships (≥ 15 years) show 4,555 deficiencies, compared to younger ships (< 5 years) with 138 deficiencies, a deficiency rate 33 times higher.

Certification of crew

Compliance with the standards for training, certification and watch keeping for seafarers indicated an increase of 6%, from 1,232 in 1999 to 1,302 in 2001.

Older ships (≥ 15 years) show 1,069 deficiencies in 2001, compared to younger ships (< 5 years) with 81 deficiencies, a deficiency rate 13 times higher.

Operational

Although MARPOL operational deficiencies have dropped substantially, SOLAS related operational

deficiencies have steadily increased from 975 in 1999 to 1262 deficiencies in 2001 (29%). A trend that was observed last year with concern.

In 2001 older ships (≥ 15 years) show 1,307 deficiencies, compared to younger ships (< 5 years) with 114 deficiencies, a rate 11 times higher.

Management

The International Safety Management Code came into force for certain categories of ships from 1 July 1998.

In the year under review 1,239 (major) non-conformities were recorded, an increase of nearly 150% when compared with the 1999 results.

These figures are alarming, since they provide a clear indication that management systems are not working for certain ships.

Older ships (≥ 15 years) show 994 (major) non-conformities, compared to younger ships (< 5 years) with 73 (major) non-conformities, a rate 14 times higher.

Most prominent are older bulk carriers (≥ 15 years), which score a non-conformity rate 37 times higher than younger ships (< 5 years). Other ship types of over 15 years show lower rates, although ISM compliance of older tankers and passenger ships should be closely monitored.

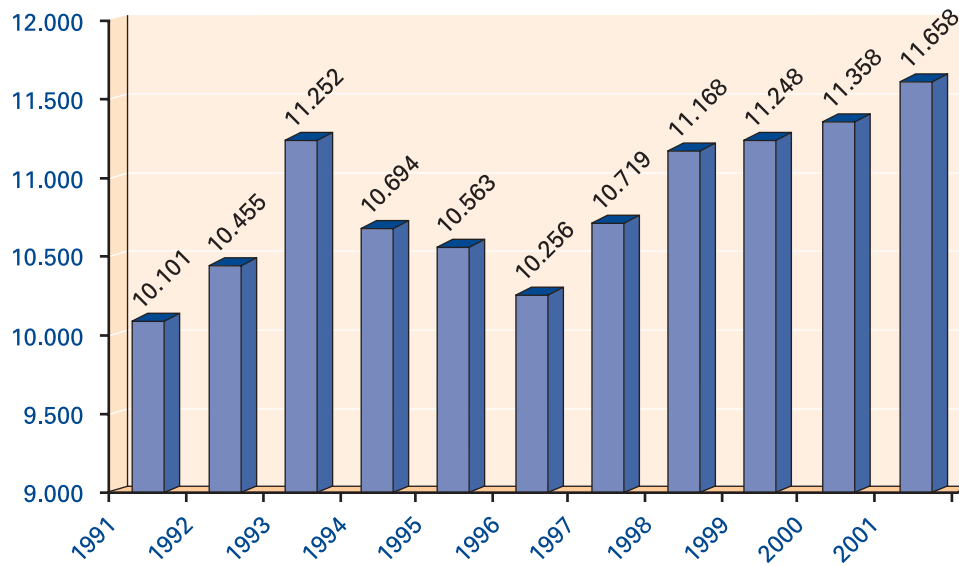


Statistical Annexes to the Annual Report 2001

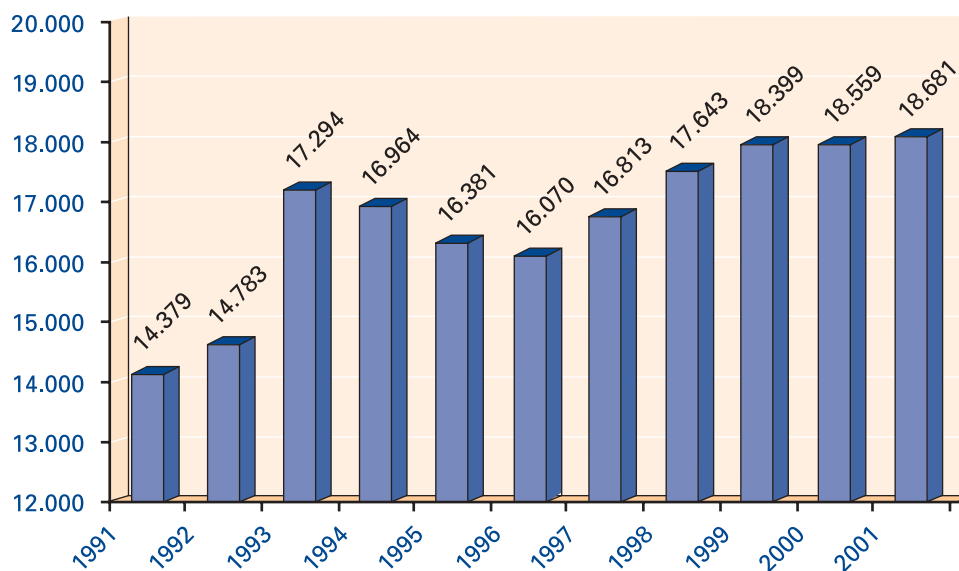


Basic port State control figures 2001 - 1

number of individual ships inspected

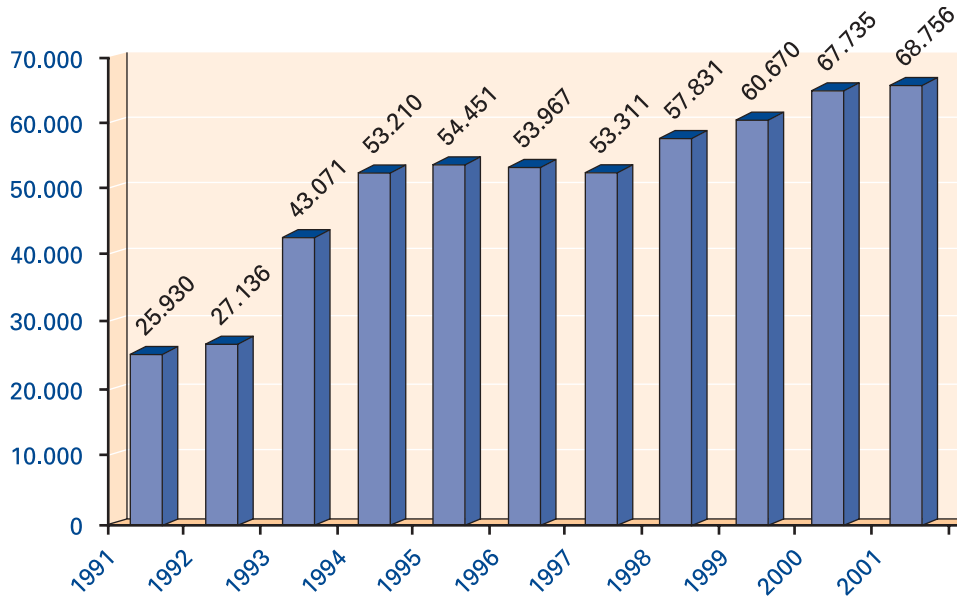


number of inspections

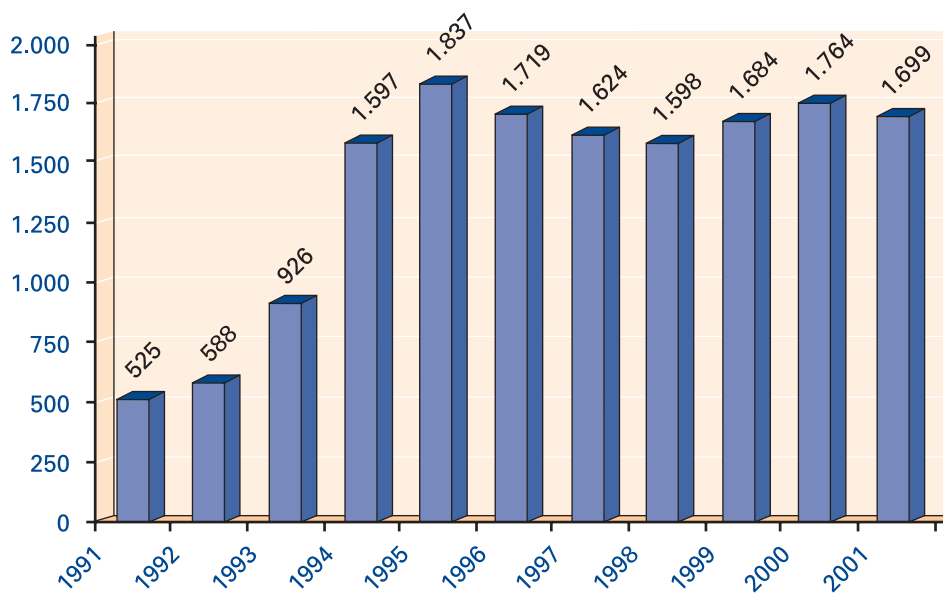


Basic port State control figures 2001 - 2

number of deficiencies observed

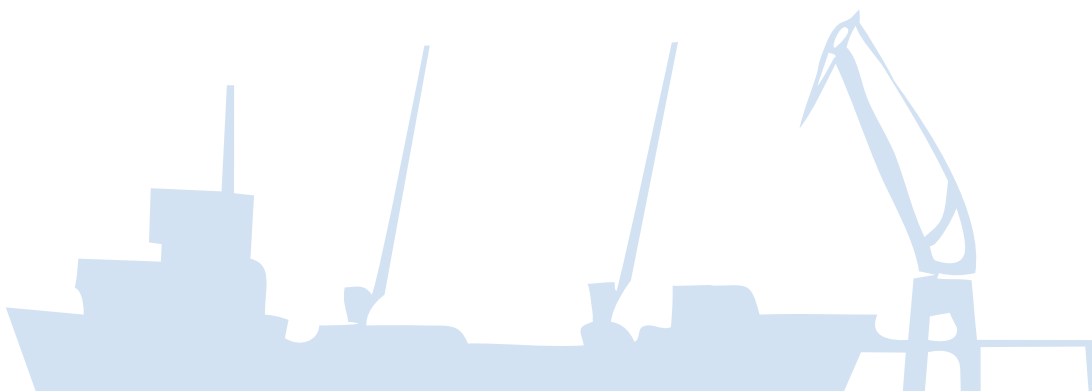
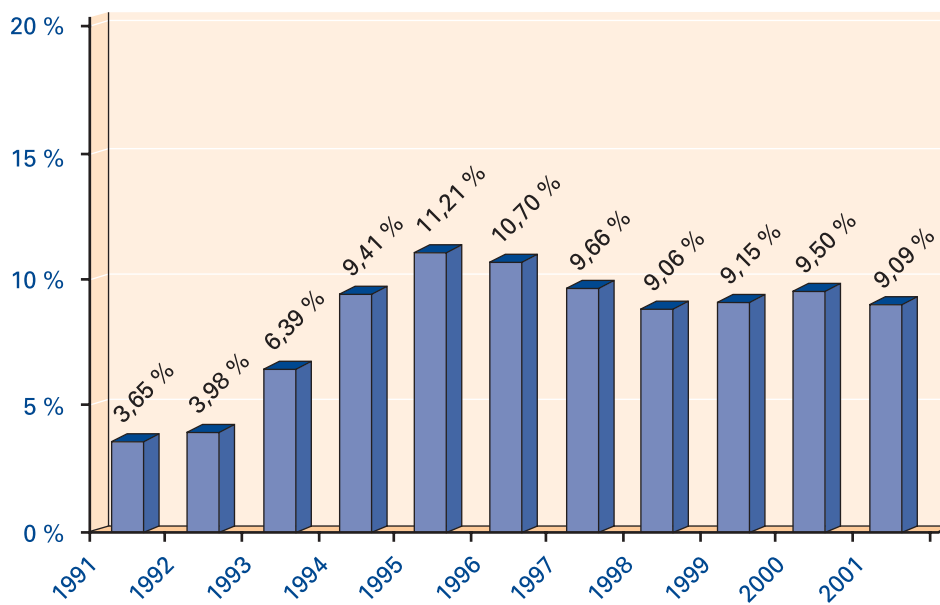


number of ships detained



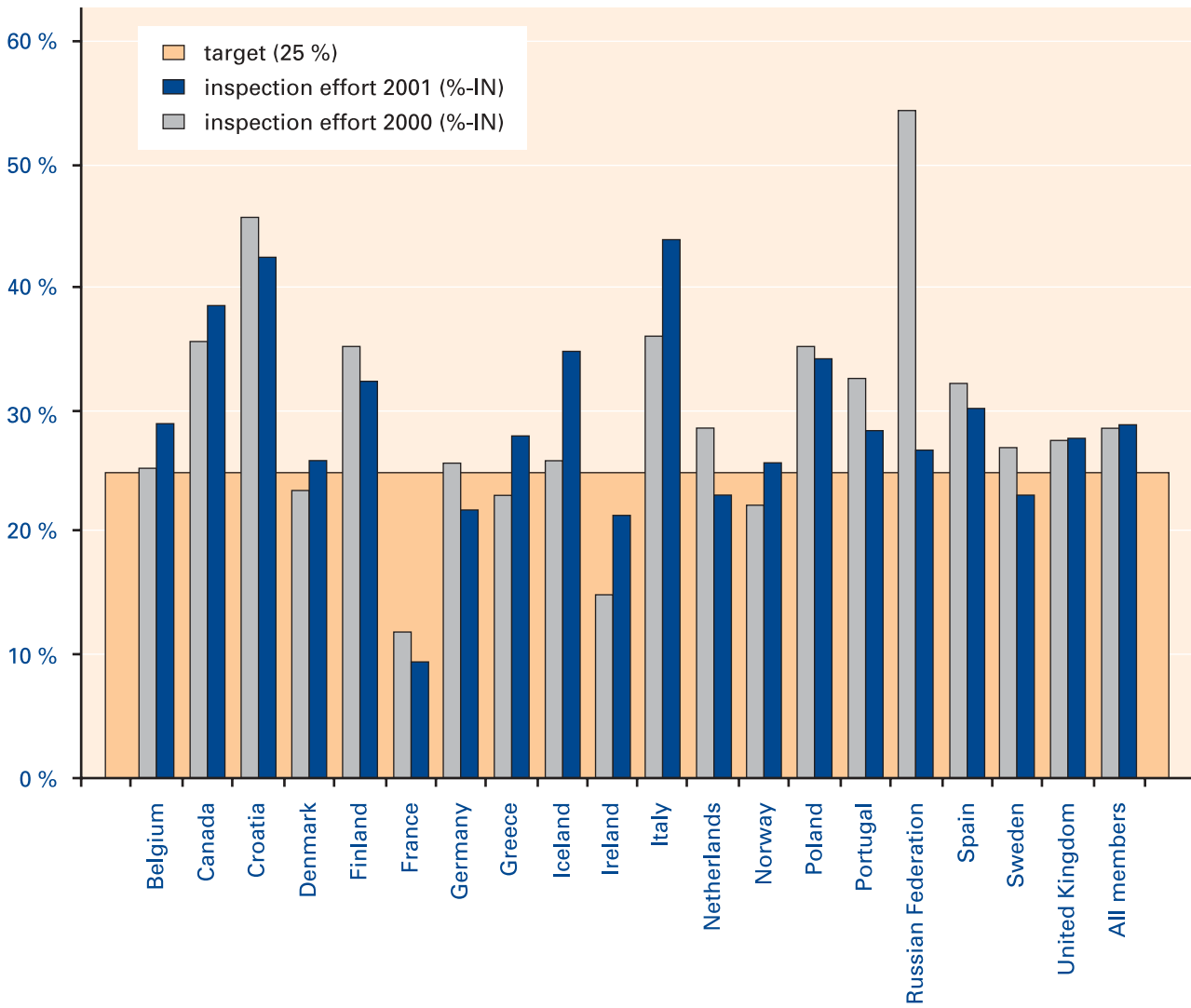
Basic port State control figures 2001 - 3

detentions in % of inspections

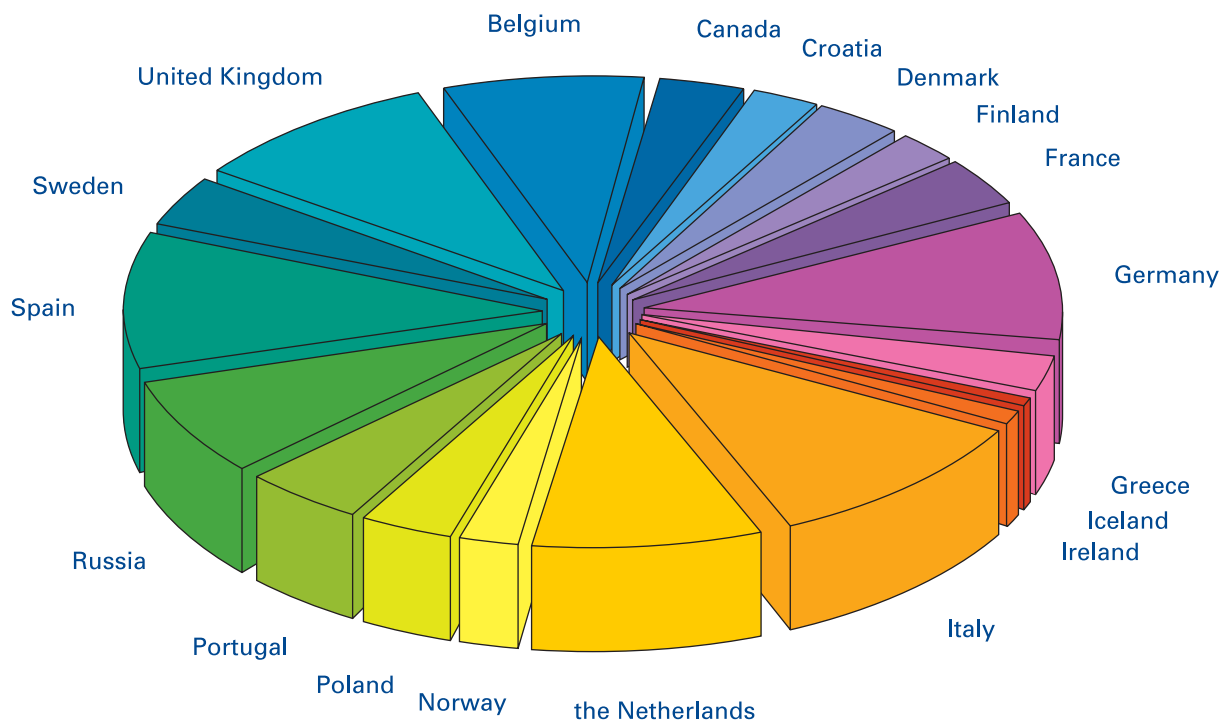


Inspection efforts - 1

Inspection efforts of members compared to target



Inspection efforts - 2



MOU port States' individual contribution to the total amount of inspections

MOU port State	Estimated Ship calls	Inspections	Inspections with deficiencies	Detentions	Detents with Class related deficiencies	%-Insp. With deficiencies	% Detained	% Inspected Ship calls (25% commitment)	% Inspection of MOU total
Belgium	5789	1679	849	102	37	50,57	6,08	29,00	8,99
Canada	1760	673	263	34	18	39,08	5,05	38,24	3,60
Croatia	964	410	213	37	7	51,95	9,02	42,53	2,19
Denmark	2400	612	230	29	5	37,58	4,74	25,50	3,28
Finland	1311	426	174	15	3	40,85	3,52	32,49	2,28
France	5792	558	359	69	7	64,34	12,37	9,63	2,99
Germany	6745	1469	845	111	32	57,52	7,56	21,78	7,86
Greece	2670	751	377	80	12	50,20	10,65	28,13	4,02
Iceland	323	114	60	5	0	52,63	4,39	35,29	0,61
Ireland	1330	280	170	15	6	60,71	5,36	21,05	1,50
Italy	5850	2547	1502	404	88	58,97	15,86	43,54	13,63
Netherlands, the	5645	1325	622	99	17	46,94	7,47	23,47	7,09
Norway	1800	464	210	28	6	45,26	6,03	25,78	2,48
Poland	1914	665	383	31	2	57,59	4,66	34,74	3,56
Portugal	2830	805	628	164	43	78,01	20,37	28,45	4,31
Russia	6527	1750	1263	143	5	72,17	8,17	26,81	9,37
Spain	5594	1694	1113	208	56	65,70	12,28	30,28	9,07
Sweden	2850	658	285	12	2	43,31	1,82	23,09	3,52
United Kingdom	6457	1801	1213	113	34	67,35	6,27	27,89	9,64
	68551	18681	10759	1699	380	57,59	9,09	27,25	100

Black - Grey - White Lists

Flag State	Inspections 1999-2001	Detentions 1999-2001	Black to Grey Limit	Grey to White Limit	Excess Factor	
BLACK LIST						
Albania	85	44	10	very high risk	12,79	
Bolivia	63	33	8		12,46	
Sao Tome and Principe	98	46	12		11,45	
Honduras	283	101	27		9,00	
Algeria	201	68	21		8,12	
Lebanon	251	83	25		8,07	
Georgia	114	37	13		7,11	
Cambodia	698	196	60		7,10	
Syrian Arab Republic	407	108	37		6,33	
Turkey	2253	548	178		6,28	
Belize	433	104	40		5,57	
Libyan Arab Jama	87	24	11		5,32	
Tonga	30	10	5		5,24	
Romania	186	46	19		5,22	
Morocco	194	43	20	4,48		
St. Vincent & Grenadines	2213	378	175	high	3,93	
Egypt	228	40	23	risk	3,20	
Ukrainia	790	116	68	mthr*	2,89	
Malta	4934	527	375	medium risk	1,99	
Panama	5004	526	380		1,94	
India	239	31	24		1,88	
Cyprus	4167	397	319		1,60	
Azerbaijan	124	15	14		1,25	
Bulgaria	310	32	30		1,23	
Russia	2668	212	209		1,04	
GREY LIST						
Kuwait	54	7	7		0	0,95
Portugal	661	56	58		35	0,93
Thailand	127	13	14	4	0,89	
Croatia	176	17	18	6	0,89	
Latvia	87	9	11	2	0,83	
Lithuania	378	32	35	18	0,82	
Cayman Islands	251	22	25	10	0,81	
Qatar	44	5	6	0	0,79	
Malaysia	130	12	14	4	0,77	
Faeroe Islands	35	4	5	-1	0,76	
Brazil	39	4	6	0	0,70	
Iran	192	16	20	7	0,70	
United Arab Emirates	35	3	5	-1	0,59	
Tunisia	53	4	7	0	0,54	
Tuvalu	68	5	9	1	0,53	
Taiwan	76	5	9	1	0,46	
Ethiopia	34	2	5	-1	0,44	
Estonia	373	25	35	18	0,44	
Italy	737	50	63	40	0,43	

Flag State	Inspections 1999-2001	Detentions 1999-2001	Black to Grey Limit	Grey to White Limit	Excess Factor
GREY LIST					
Gibraltar	126	8	14	4	0,42
Saudi Arabia	81	4	10	1	0,30
Antilles, Netherlands	322	18	31	15	0,22
Korea, Republic of	95	4	11	2	0,21
Vanuatu	120	5	13	3	0,17
Philippines	250	12	25	10	0,11
Spain	150	6	16	5	0,10
U.S.A.	141	5	15	4	0,06
WHITE LIST					
Barbados	266	11		11	-0,04
Poland	285	12		12	-0,05
Greece	1409	77		82	-0,14
Bahamas	3164	184		197	-0,15
Marshall Islands	413	18		20	-0,18
Hong Kong, China	382	16		18	-0,21
Antigua and Barbuda	3005	161		187	-0,30
Austria	134	3		4	-0,35
Japan	86	1		2	-0,37
Bermuda	203	6		8	-0,37
Luxemburg	162	4		5	-0,41
Singapore	652	27		34	-0,43
China, People's Republic	319	10		14	-0,55
Man, Isle of	465	15		23	-0,68
Liberia	2659	108		164	-0,75
Israel	75	0		1	-0,79
Norway	2665	97		164	-0,90
France	289	6		13	-0,94
Ireland	198	3		7	-0,97
Netherlands, the	2617	84		161	-1,05
Germany	1609	48		95	-1,07
Denmark	1327	38		77	-1,08
Sweden	821	16		45	-1,35
Finland	506	6		25	-1,56
United Kingdom	644	6		34	-1,72

* mthr = medium to high risk

* Explanatory note on page 32

Inspections, detentions and deficiencies 2001

Flag State	Inspections	Detentions	Inspections with deficiencies	Detention- %	Inspection- % with deficiencies
Albania	35	16	29	45,71	82,86
Algeria	65	18	57	27,69	87,69
Antigua & Barbuda	1115	65	640	5,83	57,40
Antilles, Netherlands	132	5	64	3,79	48,48
Argentina	2	1	2	50,00	100,00
Austria	38	2	16	5,26	42,11
Azerbaijan	47	5	37	10,64	78,72
Bahamas	1047	57	563	5,44	53,77
Bahrain	5	0	3	0,00	60,00
Bangladesh	6	2	6	33,33	100,00
Barbados	95	5	43	5,26	45,26
Belgium	5	0	3	0,00	60,00
Belize	112	15	84	13,39	75,00
Bermuda	73	4	39	5,48	53,42
Bolivia	17	8	14	47,06	82,35
Brazil	12	2	9	16,67	75,00
Bulgaria	102	16	71	15,69	69,61
Cambodia	307	72	251	23,45	81,76
Canada	5	0	4	0,00	80,00
Cape Verde	7	2	7	28,57	100,00
Cayman Islands	98	8	49	8,16	50,00
China, People's Republic	84	3	41	3,57	48,81
Comoros	3	2	3	66,67	100,00
Croatia	55	5	39	9,09	70,91
Cuba	3	0	2	0,00	66,67
Cyprus	1311	116	795	8,85	60,64
Denmark	404	13	174	3,22	43,07
Egypt	62	11	46	17,74	74,19
Equatorial Guinea	7	4	6	57,14	85,71
Estonia	101	8	56	7,92	55,45
Ethiopia	11	0	11	0,00	100,00
Faeroe Islands	15	1	12	6,67	80,00
Finland	160	2	69	1,25	43,13
France	82	2	42	2,44	51,22
Georgia	76	26	62	34,21	81,58
Germany	448	15	180	3,35	40,18
Gibraltar	76	2	38	2,63	50,00
Greece	470	23	230	4,89	48,94
Guinea	1	0	1	0,00	100,00
Honduras	83	23	63	27,71	75,90
Hong Kong, China	157	5	61	3,18	38,85
India	79	13	55	16,46	69,62
Indonesia	1	1	1	100,00	100,00
Iran	80	12	44	15,00	55,00
Ireland	57	0	27	0,00	47,37
Israel	23	0	2	0,00	8,70

Inspections, detentions and deficiencies 2001

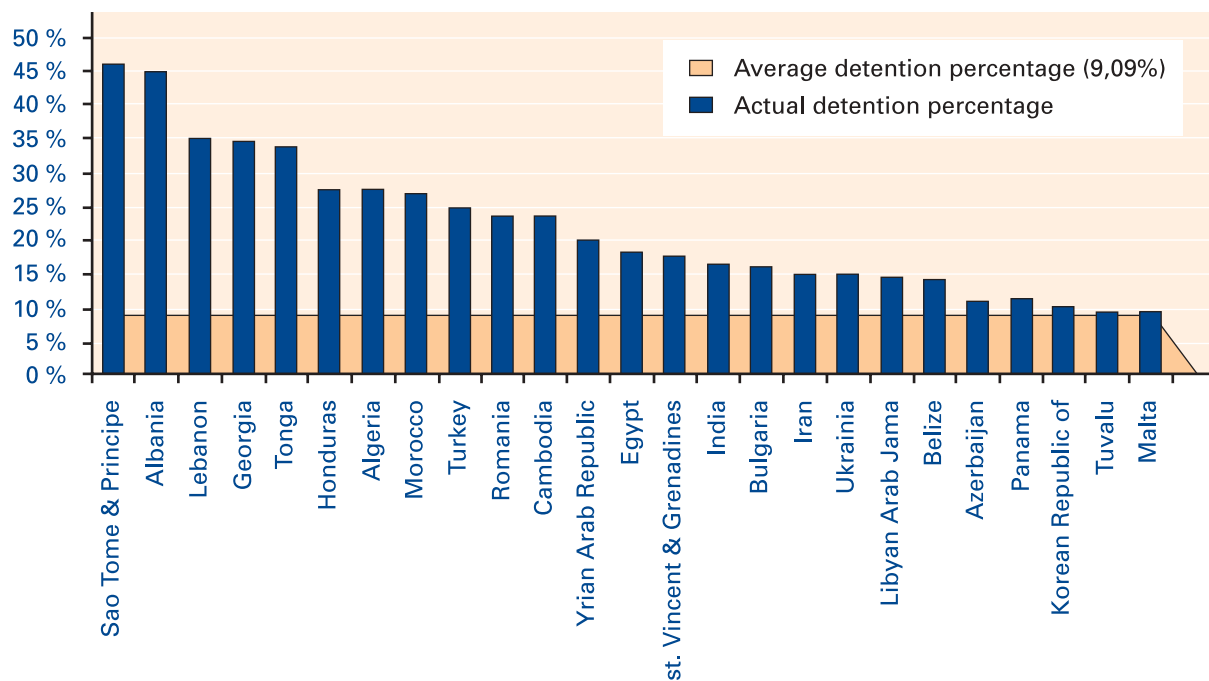
Flag State	Inspections	Detentions	Inspections with deficiencies	Detention- %	Inspection- % with deficiencies
Italy	243	13	105	5,35	43,21
Japan	27	0	7	0,00	25,93
Kampuchea, Republic of	2	1	2	50,00	100,00
Kazakhstan	1	0	1	0,00	100,00
Korea, Republic of	31	3	17	9,68	54,84
Korea, Democratic People's Rep.	5	3	4	60,00	80,00
Kuwait	15	2	9	13,33	60,00
Latvia	20	1	10	5,00	50,00
Lebanon	91	32	81	35,16	89,01
Liberia	842	25	378	2,97	44,89
Libyan Arab Jama	21	3	15	14,29	71,43
Lithuania	135	10	101	7,41	74,81
Luxemburg	61	2	26	3,28	42,62
Malaysia	45	3	30	6,67	66,67
Malta	1603	152	985	9,48	61,45
Man, Isle of	162	4	70	2,47	43,21
Marshall Islands	176	9	79	5,11	44,89
Mauritius	4	0	2	0,00	50,00
Mexico	1	0	1	0,00	100,00
Moldavia	1	0	1	0,00	100,00
Morocco	80	22	71	27,50	88,75
Myanmar, Union of	12	0	7	0,00	58,33
Netherlands	945	23	443	2,43	46,88
Nigeria	3	3	3	100,00	100,00
Norway	823	32	384	3,89	46,66
Pakistan	8	2	6	25,00	75,00
Panama	1714	177	1016	10,33	59,28
Philippines	63	1	42	1,59	66,67
Poland	63	1	30	1,59	47,62
Portugal	218	15	127	6,88	58,26
Qatar	11	1	9	9,09	81,82
Register Withdrawn	4	2	3	50,00	75,00
Romania	68	16	52	23,53	76,47
Russia	865	65	475	7,51	54,91
Sao Tome and Principe	65	30	63	46,15	96,92
Saudi Arabia	26	0	15	0,00	57,69
Singapore	193	12	91	6,22	47,15
South Africa	2	0	1	0,00	50,00
Spain	56	1	29	1,79	51,79
St. Vincent & Grenadines	786	136	560	17,30	71,25
Sudan	1	0	1	0,00	100,00
Sweden	258	5	101	1,94	39,15
Switzerland	19	0	3	0,00	15,79
Syrian Arab Republic	149	30	132	20,13	88,59
Taiwan	18	1	10	5,56	55,56
Tanzania, United Republic	1	1	1	100,00	100,00

Inspections, detentions and deficiencies 2001

Flag State	Inspections	Detentions	Inspections with deficiencies	Detention- %	Inspection- % with deficiencies
Thailand	36	0	25	0,00	69,44
Togo	1	1	1	100,00	100,00
Tonga	30	10	23	33,33	76,67
Tunisia	10	1	8	10,00	80,00
Turkey	862	212	694	24,59	80,51
Turkmenistan	5	2	5	40,00	100,00
Tuvalu	21	2	16	9,52	76,19
U.S.A.	32	1	18	3,13	56,25
Ukraine	256	38	187	14,84	73,05
United Arab Emirates	14	1	6	7,14	42,86
United Kingdom	248	0	97	0,00	39,11
Vanuatu	49	2	24	4,08	48,98
Viet Nam	3	0	2	0,00	66,67
Yugoslavia	3	0	3	0,00	100,00
Totals and averages	18681	1699	10759	9,09%	57,59%

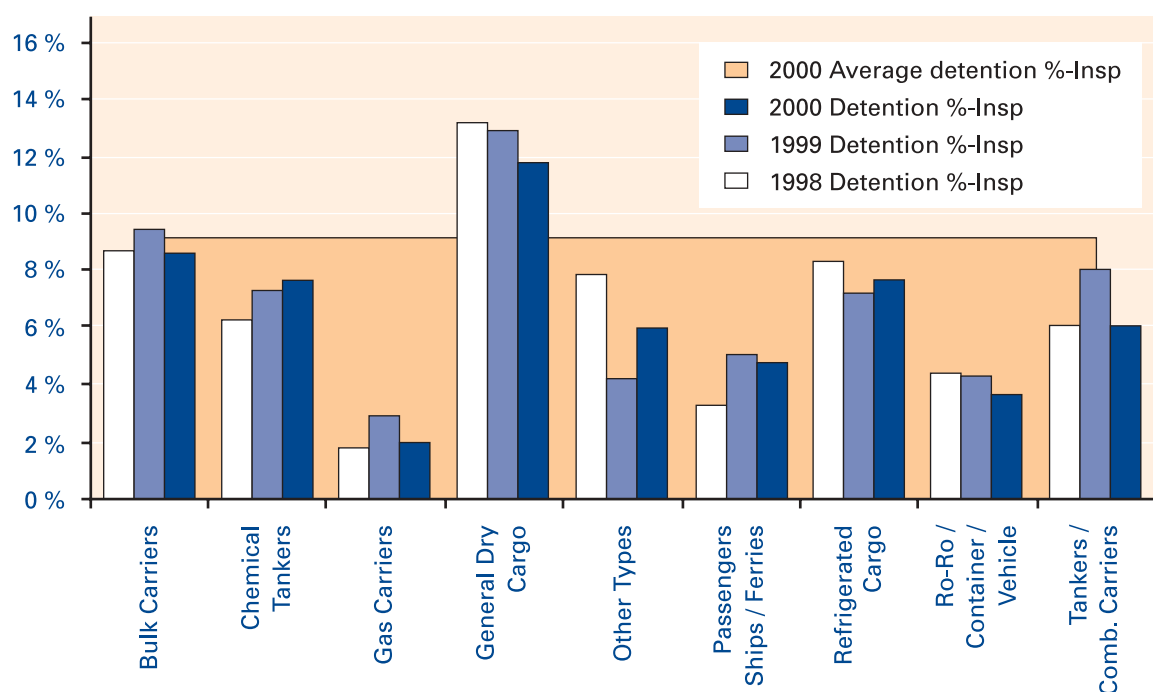
2001 detentions per flag State, exceeding average percentage

- Only flags with more than 20 port State control inspections in 2001 are recorded in this table and the graph on the next page
- The light area at the bottom of the graph represents the 2001 average detention percentage (9,09%)



Flag	Inspections	Detentions	Detentions %	Excess of average
Sao Tome and Principe	65	30	46,15	37,06
Albania	35	16	45,71	36,62
Lebanon	91	32	35,16	26,07
Georgia	76	26	34,21	25,12
Tonga	30	10	33,33	24,24
Honduras	83	23	27,71	18,62
Algeria	65	18	27,69	18,60
Morocco	80	22	27,50	18,41
Turkey	862	212	24,59	15,50
Romania	68	16	23,53	14,44
Cambodia	307	72	23,45	14,36
Syrian Arab Republic	149	30	20,13	11,04
Egypt	62	11	17,74	8,65
St. Vincent & Grenadines	786	136	17,30	8,21
India	79	13	16,46	7,37
Bulgaria	102	16	15,69	6,60
Iran	80	12	15,00	5,91
Ukrainia	256	38	14,84	5,75
Libyan Arab Jama	21	3	14,29	5,20
Belize	112	15	13,39	4,30
Azerbaijan	47	5	10,64	1,55
Panama	1714	177	10,33	1,24
Korea, Republic of	31	3	9,68	0,59
Tuvalu	21	2	9,52	0,43
Malta	1603	152	9,48	0,39

2001 Detention % of Inspections per ship type



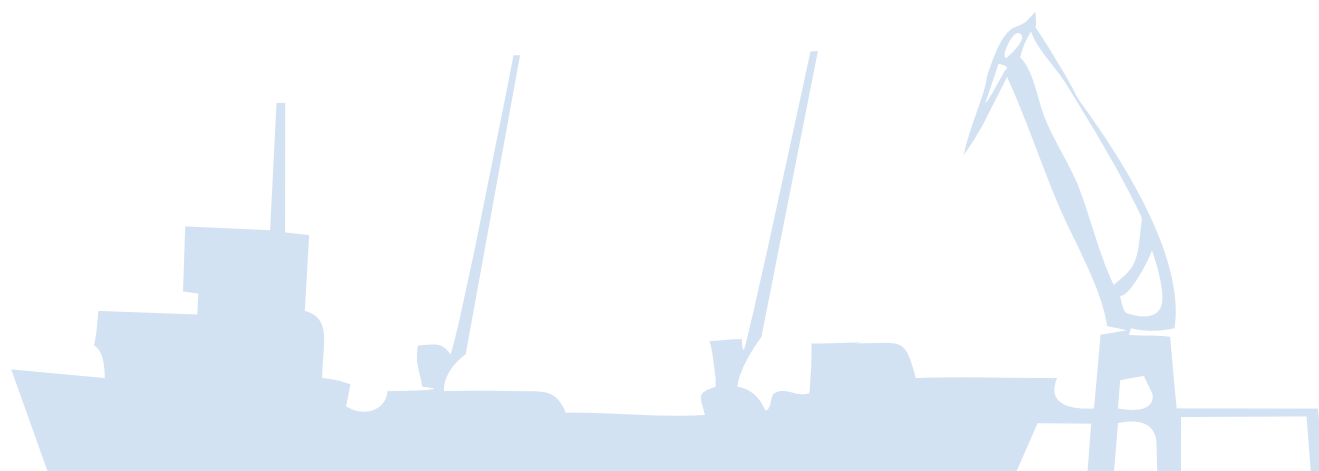
Inspections and detentions per ship type

Ship type	Inspections	Inspections with deficiencies	% of inspections. with deficiencies	Individual ships	Detentions	Detention. % 2001	Detention. % 2000	Detention. % 1999	+/- average detention %
Bulk Carriers	3150	1920	60,95	2191	273	8,67	9,26%	8,78%	-0,42
Chemical Tankers	509	258	50,69	327	39	7,66	7,28%	6,17%	-1,43
Gas Carriers	272	92	33,82	419	5	1,84	2,66%	1,64%	-7,25
General Dry Cargo	9313	5911	63,47	196	1096	11,77	12,85%	13,34%	2,68
Other Types	421	243	57,72	5016	25	5,94	4,32%	7,71%	-3,15
Passengers Ships/ Ferries	680	365	53,68	344	51	7,50	4,83%	5,09%	-1,59
Refrigerated Cargo	222	132	59,46	148	17	7,66	7,17%	8,31%	-1,43
Ro-Ro/Container/ Vehicle	2234	1015	45,43	1542	81	3,63	4,40%	4,43%	-5,46
Tankers/ Comb. Carriers	1880	823	43,78	1336	112	5,96	8,09%	5,93%	-3,13
All types	18681	10759	57,59%	11658	1699	9,09%	9,50%	9,15%	

Major categories of deficiencies in relation to inspections/ship

	NUMBER OF DEFICIENCIES			DEF. IN % OF TOTAL NUMBER			ratio of def. To inspections x 100			ratio of def. to indiv. ships x 100		
	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001
Ship's certificates and documents	3596	3465	3581	5,9%	5,1%	5,2%	19,5%	18,8%	19,2%	32,0%	30,8%	30,7%
Training certification and watchkeeping for seafarers	1232	1179	1302	2,0%	1,7%	1,9%	6,7%	6,4%	7,0%	11,0%	10,5%	11,2%
Crew and Accommodation (ILO 147)	1889	1963	2113	3,1%	2,9%	3,1%	10,3%	10,7%	11,3%	16,8%	17,5%	18,1%
Food and catering (ILO 147)	954	1031	876	1,6%	1,5%	1,3%	5,2%	5,6%	4,7%	8,5%	9,2%	7,5%
Working space (ILO 147)	507	678	703	0,8%	1,0%	1,0%	2,8%	3,7%	3,8%	4,5%	6,0%	6,0%
Life saving appliances	10882	10942	10516	17,9%	16,2%	15,3%	59,1%	59,5%	56,3%	96,7%	97,3%	90,2%
Fire Safety measures	8052	8789	8547	13,3%	13,0%	12,4%	43,8%	47,8%	45,8%	71,6%	78,1%	73,3%
Accident prevention (ILO147)	1336	1506	1586	2,2%	2,2%	2,3%	7,3%	8,2%	8,5%	11,9%	13,4%	13,6%
Safety in general	7965	9243	8951	13,1%	13,7%	13,0%	43,3%	50,2%	47,9%	70,8%	82,2%	76,8%
Alarm – signals	292	330	326	0,5%	0,5%	0,5%	1,6%	1,8%	1,7%	2,6%	2,9%	2,8%
Carriage of cargo and dangerous goods	722	836	1323	1,2%	1,2%	1,9%	3,9%	4,5%	7,1%	6,4%	7,4%	11,3%
Load lines	3308	3816	3906	5,5%	5,6%	5,7%	18,0%	20,7%	20,9%	29,4%	33,9%	33,5%
Mooring arrangements (ILO 147)	603	878	1109	1,0%	1,3%	1,6%	3,3%	4,8%	5,9%	5,4%	7,8%	9,5%
Propulsion & aux machinery	2966	3671	3713	4,9%	5,4%	5,4%	16,1%	20,0%	19,9%	26,4%	32,6%	31,8%
Safety of navigation	6643	8055	8315	10,9%	11,9%	12,1%	36,1%	43,8%	44,5%	59,1%	71,6%	71,3%
Radio communication	2439	2638	2703	4,0%	3,9%	3,9%	13,3%	14,3%	14,5%	21,7%	23,5%	23,2%
MARPOL - annex I	4276	4875	5116	7,0%	7,2%	7,4%	23,2%	26,5%	27,4%	38,0%	43,3%	43,9%
Oil tankers, chemical tankers and gas carriers	151	212	151	0,2%	0,3%	0,2%	0,8%	1,2%	0,8%	1,3%	1,9%	1,3%
MARPOL - annex II	67	71	43	0,1%	0,1%	0,1%	0,4%	0,4%	0,2%	0,6%	0,6%	0,4%
SOLAS related operational deficiencies	975	1132	1262	1,6%	1,7%	1,8%	5,3%	6,2%	6,8%	8,7%	10,1%	10,8%
MARPOL related operational deficiencies	558	618	456	0,9%	0,9%	0,7%	3,0%	3,4%	2,4% ⁵	5,0%	5,5%	3,9%
MARPOL - annex III	36	31	13	0,1%	0,0%	0,0%	0,2%	0,2%	0,1%	0,3%	0,3%	0,1%
MARPOL - annex V	632	742	758	1,0%	1,1%	1,1%	3,4%	4,0%	4,1%	5,6%	6,6%	6,5%

	NUMBER OF DEFICIENCIES			DEF. IN % OF TOTAL NUMBER			ratio of def. To inspections x 100			ratio of def. to indiv. ships x 100		
	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001
ISM	498	929	1239	0,8%	1,4%	1,8%	2,7%	5,0%	6,6%	4,4%	8,3%	10,6%
Bulks carriers - Additional safety measures		9	50		0,0%	0,1%		0,0%	0,3%		0,1%	0,4%
Other def. clearly hazardous safety	41	44	33	0,1%	0,1%	0,1%	0,2%	0,2%	0,2%	0,4%	0,4%	0,3%
Other def. not clearly hazardous	50	52	65	0,1%	0,1%	0,1%	0,3%	0,3%	0,3%	0,4%	0,5%	0,6%
TOTAL	60670	67735	68756									



Model 1 - Detentions with class related detainable deficiencies in % of total number of detentions (per classification society)

Classification Society		Total number of detentions	Detentions with class related deficiencies	Number of individual ships	Percentage Detentions with class related deficiencies	+/- Percentage Average
No Class Recorded		94	18	82	19,15 %	-3,22 %
Class Withdrawn		80	19	75	23,75 %	1,38 %
Class Not Specified		77	30	61	38,96 %	16,59 %
American Bureau of Shipping	ABS	106	23	90	21,70 %	-0,67 %
Biro Klasifikasi Indonesia	BKI	1	1	1	100,00 %	77,63 %
Bulgarski Koraben Registar	BKR	26	11	25	42,31 %	19,94 %
Bureau Veritas (France)	BV	199	32	175	16,08 %	-6,29 %
Ceskoslovensky Lodin Register (Czechosl.)	CS	-	-	-		
China Classification Society	CCS	8	3	8	37,50 %	15,13 %
China Corporation Register of Shipping	CCRS	1	0	1	0,00 %	-22,37 %
Croatian Register of Shipping	CRS	15	5	14	33,33 %	10,97 %
Cyprus Bureau of Shipping	CBS	-	-	-		
Det Norske Veritas (Norway)	DNVC	89	20	83	22,47 %	0,11 %
Fidenavis Sa (Spain)		1	0	1	0,00 %	-22,37 %
Germanischer Lloyd	GL	190	16	180	8,42 %	-13,95 %
Hellenic Register of Shipping (Greece)	HRS	44	8	36	18,18 %	-4,18 %
Honduras Inter. Naval Surve. And Insp. Bur.	HINSIB	6	4	4	66,67 %	44,30 %
Inclamar (Cyprus)	INC	12	5	9	41,67 %	19,30 %
Indian Register of Shipping	IRS	5	0	4	0,00 %	-22,37 %
International Naval Surveys Bureau (Greece)	INSB	40	11	25	27,50 %	5,13 %
International Register of Shipping (USA)	IS	10	7	8	70,00 %	47,63 %
Isthmus Bureau Shipping Classification Div (Panama)	IBS	5	4	5	80,00 %	57,63 %
Korean Register of Shipping (South Korea)	KRS	20	7	15	35,00 %	12,63 %
Lloyd's Register of Shipping (U.K.)	LRS	207	50	178	24,15 %	1,79 %
Nippon Kaiji Kyokai (Japan)	NKK	89	24	80	26,97 %	4,60 %
Panama Maritime Surveyors Bureau Inc	PMSB	4	2	2	50,00 %	27,63 %
Panama Register Corporation	PRC	3	2	2	66,67 %	44,30 %
Polski Rejestr Statkow (Poland)	PRS	40	9	34	22,50 %	0,13 %
Register of Shipping (Albania)	RS	6	4	6	66,67 %	44,30 %
Register of Shipping People's R.C. (China)		-	-	-		
Registri Laknori Shqiptar (Iceland)	RLS	1	1	1	100,00 %	77,63 %
Registro Cubano De Buques (Cuba)	RCB	2	1	1	50,00 %	27,63 %
Registro Italiano Navale	RINA	56	11	53	19,64 %	-2,72 %
RINAVE Portuguesa	RP	4	0	4	0,00 %	-22,37 %
Romanian Naval Register	RNR	18	10	14	55,56 %	33,19 %
Russian Maritime Register of Shipping	RMRS	143	24	127	16,78 %	-5,58 %
Russian River Register	RR	21	7	21	33,33 %	10,97 %
Turkisch Lloyd	TL	76	11	55	14,47 %	-7,89 %
Vietnam Register of Shipping	VRS	-	-	-		

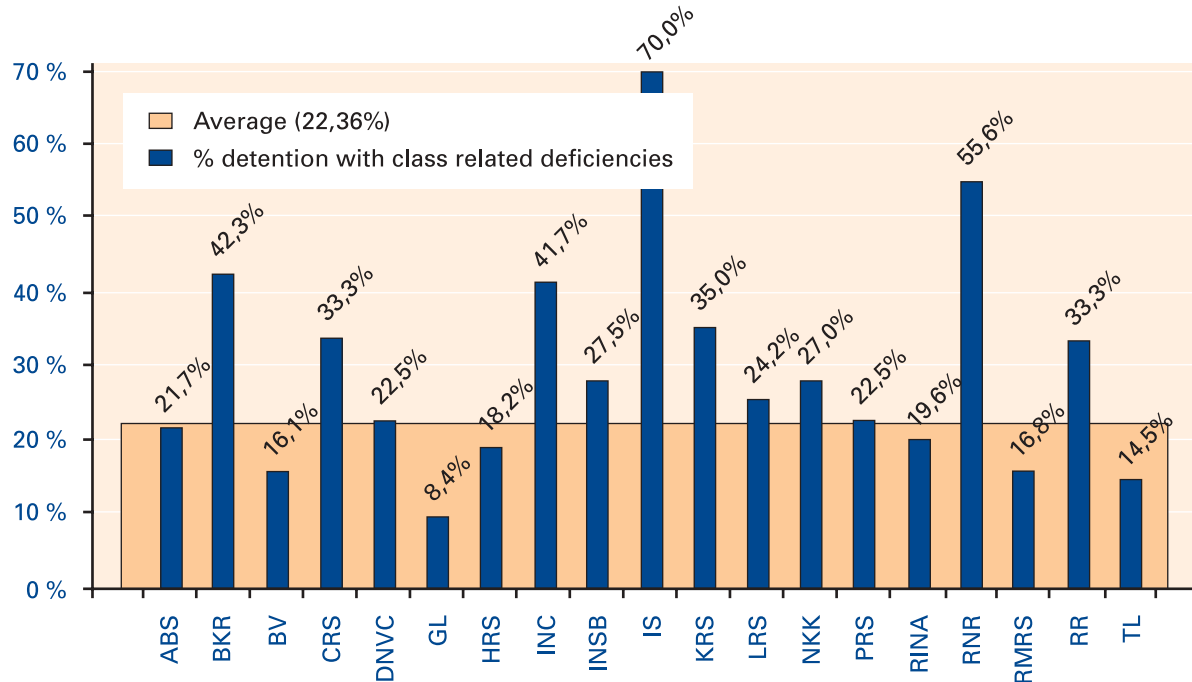
*) The information contained in the statistical material of Models 1-4 concerning classification societies were collected during the calendar year 2001 on the basis of provisional criteria for the assessment of class responsibility. Due to updating anomalies the figures may include a small margin of error. This margin is not greater than 1,5 percent to either side.

Model 2 - Detentions of ships with class related detainable deficiencies per Classification Society (Cases in which more than 10 inspections are involved)

Classification Society	Total number of inspections	Number of individual ships inspected	Total number of detentions	Detention-% of total number of inspections	+/- Percentage Average	Detention-% of individual ships inspected	+/- Percentage Average	
No Class Recorded	930	698	18	1,94 %	-0,05 %	2,58 %	-0,60 %	
Class Withdrawn	370	279	19	5,14 %	3,15 %	6,81 %	3,63 %	
Class Not Specified	219	136	30	13,70 %	11,71 %	22,06 %	18,88 %	
American Bureau of Shipping	ABS	1116	746	23	2,06 %	0,07 %	3,08 %	-0,10 %
Bulgarski Koraben Registar	BKR	133	74	11	8,27 %	6,28 %	14,86 %	11,68 %
Bureau Veritas (France)	BV	2222	1325	32	1,44 %	-0,55 %	2,42 %	-0,77 %
China Classification Society	CCS	134	105	3	2,24 %	0,25 %	2,86 %	-0,32 %
China Corporation Register of Shipping	CCRS	16	13	0	0,00 %	-1,99 %	0,00 %	-3,18 %
Croatian Register of Shipping	CRS	126	76	5	3,97 %	1,98 %	6,58 %	3,40 %
Det Norske Veritas (Norway)	DNV	2046	1390	20	0,98 %	-1,01 %	1,44 %	-1,74 %
Germanischer Lloyd	GL	3348	1859	16	0,48 %	-1,51 %	0,86 %	-2,32 %
Hellenic Register of Shipping (Greece)	HRS	167	92	8	4,79 %	2,80 %	8,70 %	5,51 %
Honduras Inter. Naval Surve. And Insp. Bur.	HINSIB	17	8	4	23,53 %	21,54 %	50,00 %	46,82 %
Inclamar (Cyprus)	INC	34	23	5	14,71 %	12,72 %	21,74 %	18,56 %
Indian Register of Shipping	IRS	27	17	0	0,00 %	-1,99 %	0,00 %	-3,18 %
International Naval Surveys Bureau (Greece)	INSB	90	43	11	12,22 %	10,23 %	25,58 %	22,40 %
International Register of Shipping (USA)	IS	16	10	7	43,75 %	41,76 %	70,00 %	66,82 %
Korean Register of Shipping (South Korea)	KRS	144	106	7	4,86 %	2,87 %	6,60 %	3,42 %
Lloyd's Register of Shipping (U.K.)	LRS	3081	1962	50	1,62 %	-0,37 %	2,55 %	-0,63 %
Nippon Kaiji Kyokai (Japan)	NKK	1309	961	24	1,83 %	-0,16 %	2,50 %	-0,68 %
Panama Register Corporation	PRC	11	5	2	18,18 %	16,19 %	40,00 %	36,82 %
Polski Rejestr Statkow (Poland)	PRS	326	166	9	2,76 %	0,77 %	5,42 %	2,24 %
Register of Shipping (Albania)	RS	11	8	4	36,36 %	34,37 %	50,00 %	46,82 %
Registro Italiano Navale	RINA	600	371	11	1,83 %	-0,16 %	2,96 %	-0,22 %
RINAVE Portuguesa (Portugal)	RP	37	19	0	0,00 %	-1,99 %	0,00 %	-3,18 %
Romanian Naval Register	RNR	69	34	10	14,49 %	12,50 %	29,41 %	26,23 %
Russian Maritime Register of Shipping	RMRS	1701	952	24	1,41 %	-0,58 %	2,52 %	-0,66 %
Russian River Register	RR	142	90	7	4,93 %	2,94 %	7,78 %	4,60 %
Turkisch Lloyd (Turkey)	TL	202	91	11	5,45 %	3,46 %	12,09 %	8,91 %

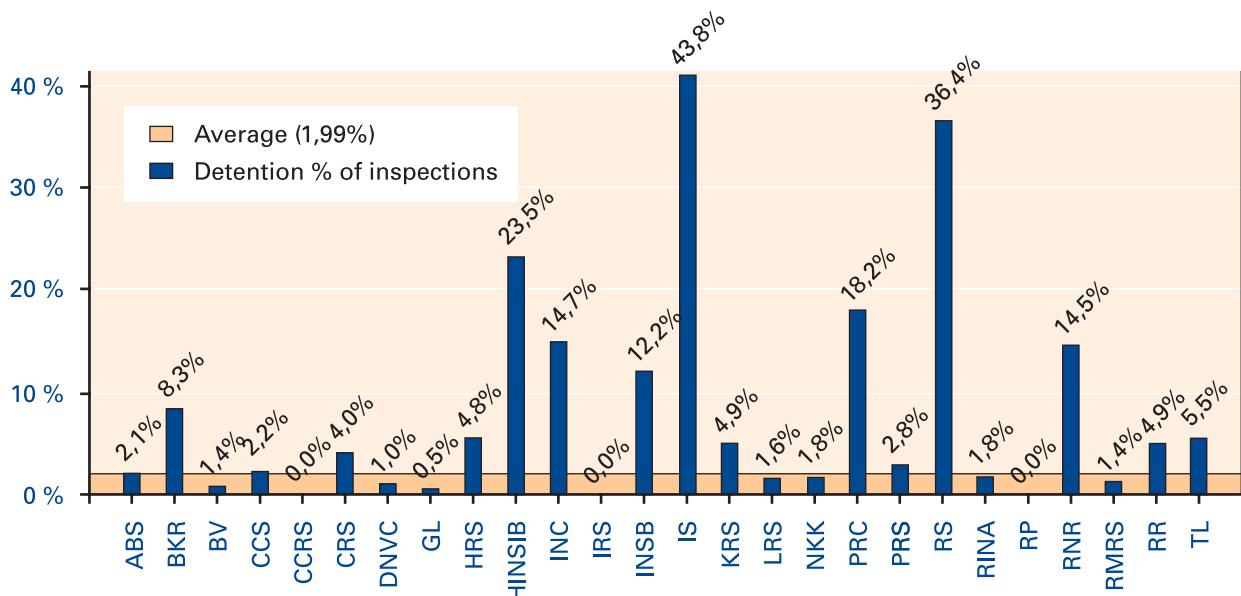
Model 1 - Detentions with class related detainable deficiencies in % of total number of detentions (per Classification Society)

(Cases in which more than 10 detentions are involved, see table on page 24)



Model 2 - Detentions of ships with class related detainable deficiencies per Classification Society

(Cases in which more than 10 inspections are involved, see table on page 25)



Model 3 – Number of detentions per Classification Society

(individual ships with class related detainable deficiencies)

Classification Society	Number of ships with class related detainable deficiencies, ³		
	<i>detained once</i>	<i>detained twice</i>	<i>detained thrice</i>
No Class Recorded	18	0	0
Class Withdrawn	17	1	0
Class Not Specified	24	3	0
American Bureau Of Shipping	21	1	0
Biro Klasifikasi Indonesia	1	0	0
Bulgarski Koraben Registar	11	0	0
Bureau Veritas (France)	32	0	0
China Classification Society (Ccs)	3	0	0
China Corporation Register of Shipping	-	-	-
Croatian Register of Shipping (Croatia)	5	0	0
Det Norske Veritas (Norway)	20	0	0
Fidenavis Sa (Spain)	-	-	-
Germanischer Lloyd (Germany)	16	0	0
Hellenic Register of Shipping (Greece)	8	0	0
Honduras Inter. Naval Surve. And Insp. Bur.	2	1	0
Inclamar	3	1	0
Indian Register of Shipping (India)	-	-	-
International Naval Surveys Bureau (Insb)	6	1	1
International Register of Shipping (IS)	3	2	0
Isthmus Bureau Shipping Classification Div	4	0	0
Korean Register of Shipping (South Korea)	3	2	0
Lloyd's Register of Shipping (U.K.)	42	4	0
Nippon Kaiji Kyokai (Japan)	18	3	0
Panama Maritime Surveyors Bureau Inc	2	0	0
Panama Register Corporation (Panama)	2	0	0
Polski Rejestr Statkow (Poland)	7	1	0
Register of Shipping (Albania)	4	0	0
Registri Laknori Shqiptar (Iceland)	1	0	0
Registro Cubano De Buques (Cuba)	1	0	0
Registro Italiano Navale (Italy)	11	0	0
RINAVE Portuguesa (Portugal)	-	-	-
Romanian Naval Register (Romania)	7	0	1
Russian Maritime Register of Shipping	24	0	0
Russian River Register	7	0	0
Turkisch Lloyd (Turkey)	11	0	0

³ No ship has been detained more than 3 times in 2001.

Model 4 - Detentions of ships with class related detainable deficiencies per flag state

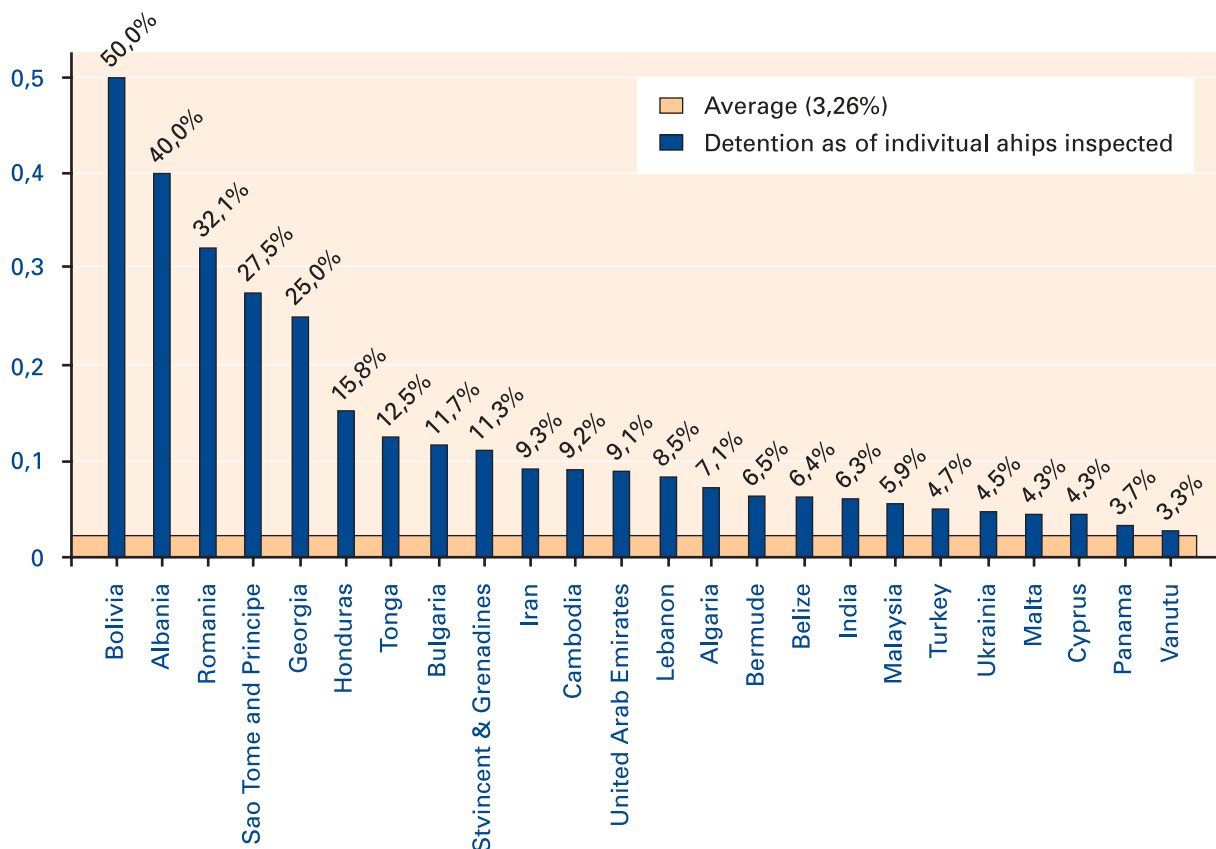
Flag state	Number of individual ships inspected	Number of ships detained (ships with class related deficiencies)	Detentions as % of individual ships inspected	+/- Percentage of average
Albania	25	10	40,00 %	36,74 %
Algeria	28	2	7,14 %	3,88 %
Antigua and Barbuda	581	7	1,20 %	-2,05 %
Antilles, Netherlands	82	1	1,22 %	-2,04 %
Argentina	2	1	50,00 %	46,74 %
Austria	21	0	0,00 %	-3,26 %
Azerbaijan	24	0	0,00 %	-3,26 %
Bahamas	652	8	1,23 %	-2,03 %
Bahrain	5	0		
Bangladesh	4	0	0,00 %	-3,26 %
Barbados	52	1	1,92 %	-1,34 %
Belgium	5	0		
Belize	63	4	6,35 %	3,09 %
Bermuda	46	3	6,52 %	3,26 %
Bolivia	10	5	50,00 %	46,74 %
Brazil	8	0	0,00 %	-3,26 %
Bulgaria	60	7	11,67 %	8,41 %
Cambodia	163	15	9,20 %	5,94 %
Canada	5	0		
Cape Verde	3	0	0,00 %	-3,26 %
Cayman Islands	68	2	2,94 %	-0,32 %
China, People's Republic	67	1	1,49 %	-1,77 %
Comoros	2	1	50,00 %	46,74 %
Croatia	38	1	2,63 %	-0,63 %
Cuba	2	0		
Cyprus	776	33	4,25 %	0,99 %
Denmark	278	2	0,72 %	-2,54 %
Egypt	35	1	2,86 %	-0,40 %
Equatorial Guinea	6	3	50,00 %	46,74 %
Estonia	58	1	1,72 %	-1,54 %
Ethiopia	6	0		
Faeroe Islands	9	0	0,00 %	-3,26 %
Finland	107	0	0,00 %	-3,26 %
France	66	0	0,00 %	-3,26 %
Georgia	40	10	25,00 %	21,74 %
Germany	293	1	0,34 %	-2,92 %
Gibraltar	43	0	0,00 %	-3,26 %
Greece	348	8	2,30 %	-0,96 %
Guinea	1	0		
Honduras	38	6	15,79 %	12,53 %
Hong Kong, China	128	1	0,78 %	-2,48 %
India	48	3	6,25 %	2,99 %
Indonesia	1	1	100,00 %	96,74 %
Iran	54	5	9,26 %	6,00 %
Ireland	33	0	0,00 %	-3,26 %

Flag state	Number of individual ships inspected	Number of ships detained (ships with class related deficiencies)	Detentions as % of individual ships inspected	+/- Percentage of average
Israel	15	0	0,00 %	-3,26 %
Italy	189	2	1,06 %	-2,20 %
Japan	21	0	0,00 %	-3,26 %
Kampuchea, Republic of	1	0	0,00 %	-3,26 %
Kazakhstan	1	0	0,00 %	-3,26 %
Korea Republic of	27	0	0,00 %	-3,26 %
Korea, Democratic People's Rep.	5	2	40,00 %	36,74 %
Kuwait	9	0	0,00 %	-3,26 %
Latvia	13	0	0,00 %	-3,26 %
Lebanon	47	4	8,51 %	5,25 %
Liberia	641	8	1,25 %	-2,01 %
Libyan Arab Jama	9	1	11,11 %	7,85 %
Lithuania	65	1	1,54 %	-1,72 %
Luxemburg	39	0	0,00 %	-3,26 %
Malaysia	34	2	5,88 %	2,62 %
Malta	977	42	4,30 %	1,04 %
Man, Isle of	117	0	0,00 %	-3,26 %
Marshall Islands	121	3	2,48 %	-0,78 %
Mauritius	3	0	0,00 %	-3,26 %
Mexico	1	0	0,00 %	-3,26 %
Moldovia	1	0	0,00 %	-3,26 %
Morocco	39	1	2,56 %	-0,70 %
Myanmar, Union of	6	0	0,00 %	-3,26 %
Netherlands, the	554	1	0,18 %	-3,08 %
Nigeria	2	0	0,00 %	-3,26 %
Norway	550	4	0,73 %	-2,53 %
Pakistan	5	1	20,00 %	16,74 %
Panama	1175	43	3,66 %	0,40 %
Philippines	53	0	0,00 %	-3,26 %
Poland	42	0	0,00 %	-3,26 %
Portugal	118	3	2,54 %	-0,72 %
Qatar	8	1	12,50 %	9,24 %
Register Withdrawn	4	0	0,00 %	-3,26 %
Romania	28	9	32,14 %	28,88 %
Russia	531	16	3,01 %	-0,25 %
Sao Tome and Principe	40	11	27,50 %	24,24 %
Saudi Arabia	16	0	0,00 %	-3,26 %
Singapore	139	3	2,16 %	-1,10 %
South Africa	2	0	0,00 %	-3,26 %
Spain	39	0	0,00 %	-3,26 %
St. Vincent & Grenadines	373	42	11,26 %	8,00 %
Sudan	1	0	0,00 %	-3,26 %
Sweden	178	0	0,00 %	-3,26 %
Switzerland	13	0	0,00 %	-3,26 %
Syrian Arab Republic	88	2	2,27 %	-0,99 %

Flag state	Number of individual ships inspected	Number of ships detained (ships with class related deficiencies)	Detentions as % of individual ships inspected	+/- Percentage of average
Taiwan	15	0	0,00 %	-3,26 %
Tanzania United Republic	1	0	0,00 %	-3,26 %
Thailand	25	0	0,00 %	-3,26 %
Togo	1	1	100,00 %	96,74 %
Tonga	24	3	12,50 %	9,24 %
Tunisia	7	0	0,00 %	-3,26 %
Turkey	450	21	4,67 %	1,41 %
Turkmenistan	3	0	0,00 %	-3,26 %
Tuvalu	11	0	0,00 %	-3,26 %
U.S.A.	26	0	0,00 %	-3,26 %
Ukraine	155	7	4,52 %	1,26 %
United Arab Emirates	11	1	9,09 %	5,83 %
United Kingdom	172	0	0,00 %	-3,26 %
Vanuatu	30	1	3,33 %	0,07 %
Viet Nam	2	0	0,00 %	-3,26 %
Yugoslavia	1	0	0,00 %	-3,26 %

Model 4 - Detentions of ships with class related detainable deficiencies per flag state above average

(cases in which more than 10 individual ships are inspected)





Explanatory note – Black, Grey and White lists

The new normative listing of flag States provides an independent categorization that has been prepared on the basis of Paris MOU port State inspection results. 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 agreed Paris MOU policy. 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:

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

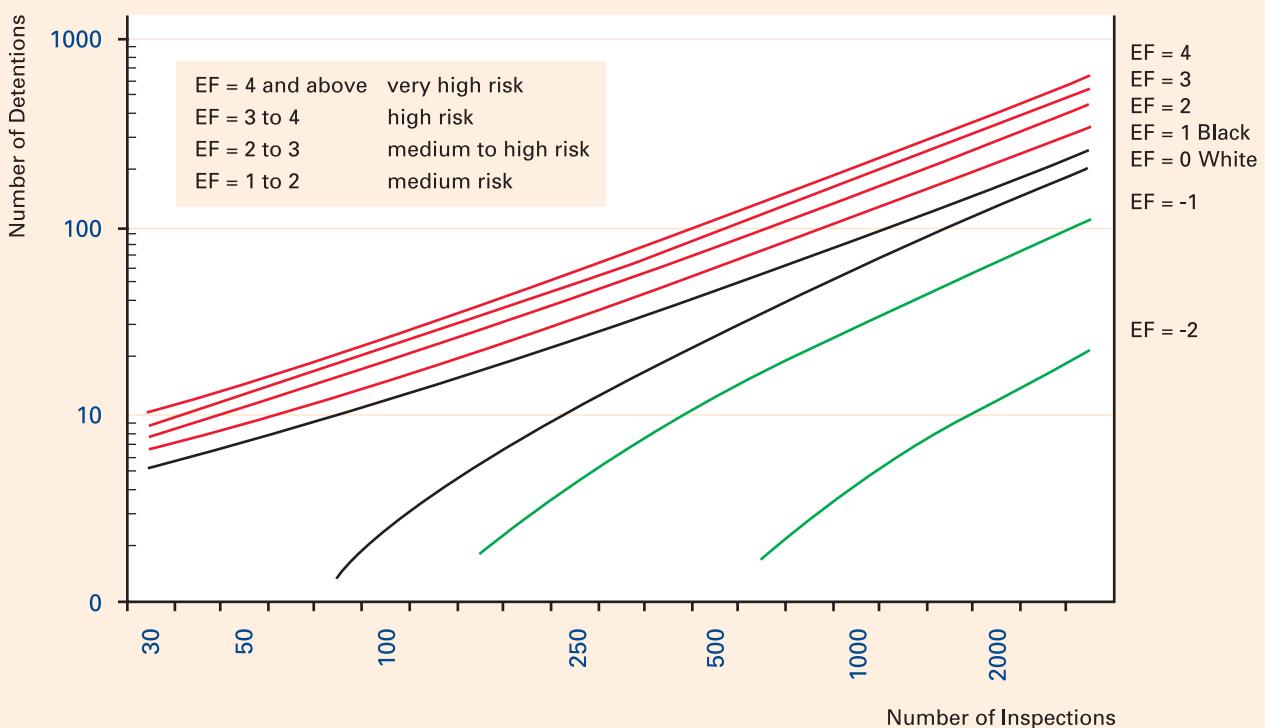
$$u_{white-to-grey} = N \cdot p - 0.5 - z\sqrt{N \cdot p \cdot (1-p)}$$

In the formula "N" is the number of inspections, "p" is the allowable detention limit (yardstick), set to 7% by the Paris 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 St Vincent & Grenadines were subject to 2213 inspections of which 378 resulted in a detention. The "black to grey limit" is 175 detentions. The excess factor is 3,93

N = total inspections

P = 7%

Q = 3%

Z = 1.645

How to determine the black to grey limit:

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

$$u_{blackto\ grey} = 2213 \cdot 0.07 + 0.5 + 1.645 \sqrt{2213 \cdot 0.07 \cdot 0.93}$$

$$u_{blackto\ grey} = 175$$

The excess factor is 3,93. 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 2,93, and the outcome has to be added to the normal value for 'p':

$$p + 2.93q = 0,07 + (2,93 \cdot 0,03) = 0,1579$$

$$u_{excessfactor} = 2213 \cdot 0.1579 + 0.5 + 1.645 \sqrt{2213 \cdot 0.1579 \cdot 0.8421}$$

$$u_{excessfactor} = 378$$

Example flag on Grey list:

Ships of Estonia were subject to 373 inspections, of which 25 resulted in a detention. The 'black to grey limit' is 35 and the "grey to white limit" is 18. The excess factor is 0,44.

How to determine the black to grey limit:

$$u_{blackto\ grey} = 373 \cdot 0.07 + 0.5 + 1.645 \sqrt{373 \cdot 0.07 \cdot 0.93}$$

$$u_{blackto\ grey} = 35$$

How to determine the grey to white limit:

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

$$u_{greyto\ white} = 373 \cdot 0.07 - 0.5 + 1.645 \sqrt{373 \cdot 0.07 \cdot 0.93}$$

$$u_{greyto\ white} = 18$$

To determine the excess factor the following formula is used:

$$ef = \frac{\text{Detentions} - \text{grey to white limit}}{\text{grey to black limit} - \text{grey to white limit}}$$

$$ef = (25-18 / (35-18))$$

$$ef = 0,44$$

Example flag on White list:

Ships of Singapore were subject to 652 inspections of which 27 resulted in detention. The "grey to white limit" is 34 detentions. The excess factor is -0,43.

How to determine the grey to white limit:

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

$$u_{greyto\ white} = 652 \cdot 0.07 - 0.5 - 1.645 \sqrt{652 \cdot 0.07 \cdot 0.93}$$

$$u_{greyto\ white} = 34$$

The excess factor is -0,43 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 -0,43, and the outcome has to be added to the normal value for 'p':

$$p + (-0.43q) = 0.07 + (-0.43 \cdot 0.03) = 0,0571$$

$$u_{excessfactor} = 652 \cdot 0.0571 - 0.5 - 1.645 \sqrt{652 \cdot 0.0571 \cdot 0.9429}$$

$$u_{excessfactor} = 27$$

Secretariat Paris Memorandum of Understanding on Port State Control



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inspection results.

Paris MOU fact sheet - organizational structure

