





### 2015

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During 2015 the Paris MoU continued with its work of inspecting ships in accordance with the relevant instruments of The Memorandum. This annual report contains details of the main work and developments within the Paris MoU for the year. The annexes and tables contain details of the outcomes of the inspections carried out by our Member Authorities. The Paris MoU website has been enhanced to provide greater details and tools which assist in providing inspection details to its users.

# Statement by the

## Paris MoU chairman

In 2015 the Paris MoU carried out a Concentrated Inspection Campaign, CIC, on Crew Familiarisation For Enclosed Space Entry. This is a very important area for the safety of seafarers and the Paris MoU considered that it was important to focus on this area due to the tragic fatalities which continue to occur. It is hoped that by carrying out this CIC that this will raise awareness of the importance of this issue. The Paris MoU in publicising the results of this CIC believes that safety in this area can be improved.

The Paris MoU held its annual 48th Port State Control Committee Meeting in Noordwijkerhout, The Netherlands,



in May 2015. The meeting adopted several significant matters improving the port State control regime, many of which you can read about in this Annual Report. The meeting itself was a success and strengthens the Paris MoU for the future. The Netherlands is to be complimented on the hosting and organisation for our meeting.

The Paris MoU relationship with other regional port State control agreements and with the United States Coast Guard continues to develop. This year we welcomed the Abuja MoU who attended our committee meeting for the first time. We place great importance on the role played by all of the observers to the Paris MoU

including the ILO and the industry partners, as well as the IMO and we look forward to growing co-operation in this area.

The Paris MoU Secretariat again continued to serve its members well during the year and I would like to thank them for their contribution.

I also wish to thank the Member Authorities for their contributions to all of the different fora of the Paris MoU, including: the Technical Evaluation Group (TEG) and its Chairman; all of the contributors to our Task Forces; and finally to the members of the MoU Advisory Board (MAB), all of whom have made a tremendous contribution during the year.

I would also like to thank the European Commission and the European Maritime Safety Agency (EMSA) for the excellent co-operation and strong working relationship with the Paris MoU. In conclusion, the Port State Control Officers (PSCOs) and administrators in the Member Authorities of the Paris MoU are the people who ensure the success of our endeavours. They are the ones who are the core of the Paris MoU and continue to deliver on our common objectives. They deserve our special thanks and appreciation.

Brian Hogan

The end of 2015 marked the end of a 5 year period after the introduction of a new inspection regime (NIR) in the Paris Memorandum. A good moment to reflect on what impact has been made by the changes introduced and also where the system may need some adjustments to be sustainable for the future.

# Statement by the

# Secretary General

Safer Entry of Enclosed Spaces The main goal of the NIR was to introduce a more risk based approach to targeting ships for inspection. This approach was chosen to give credit to quality shipping and to reward good ships with less frequent inspections. At the same time ships with a high risk profile should be subject to more frequent and thorough inspections. Also, sanctions for poor performance were strengthened and the refusal of access was applied to all ships after multiple detentions flying a flag on the "Black" or "Grey" list.

The reduction of inspections on good ships was well received by the industry. The first few years of the NIR resulted



in a significant increase of ships banned after multiple detentions. In the last 2 years the trend in banning has reversed and this may indicate that these ships have either disappeared to other areas in the world or have been decommissioned and recycled.

The NIR has also been an inspiration for some other PSC agreements.

Tokyo MoU and Black Sea MoU have effectively introduced similar systems.

Hopefully other regions will follow this route which will be to the benefit of global shipping and will be more effective against sub-standard ships.

Unfortunately sub-standard ships are still a reality of today's world. Unscrupulous owners even use them to smuggle refugees and send ships on a course towards the European coastline.

Equally concerning is that there are still a few flags and recognized organizations around that are willing to provide a "legal shelter" to these ships by providing them with a registry and certificates. This practice needs our attention and Paris and Tokyo MoU have submitted papers to the IMO to expose these poor performing flags and the ROs that serve them.

Although there has been a very close and effective co-operation between Paris and Tokyo MoUs, sub-standard ships will always find a new trading area unless they are stopped for good. It is therefore imperative that other regions enhance their PSC activities, training of Port State Control Officers and implement more stringent enforcement measures. Fortunately some progress can already be

reported in the area of training where with the assistance of the IMO exchange programs and training activities have been implemented. Closer collaboration between regional agreements will be the only way to put a stop to sub-standard ships on a global scale.

Richard W.J. Schiferli

Refusal of access (banning) has been used 60 times since 2013. 2015 shows a large decrease to 11 bans from 20 bans in 2014. The detention percentage has remained stable, related to 2014 at 3.33%. The number of deficiencies has decreased 10% related to 2014. The number of inspections carried out was 17,858, slightly less than 2014 (18,430).

## Executive

# summary

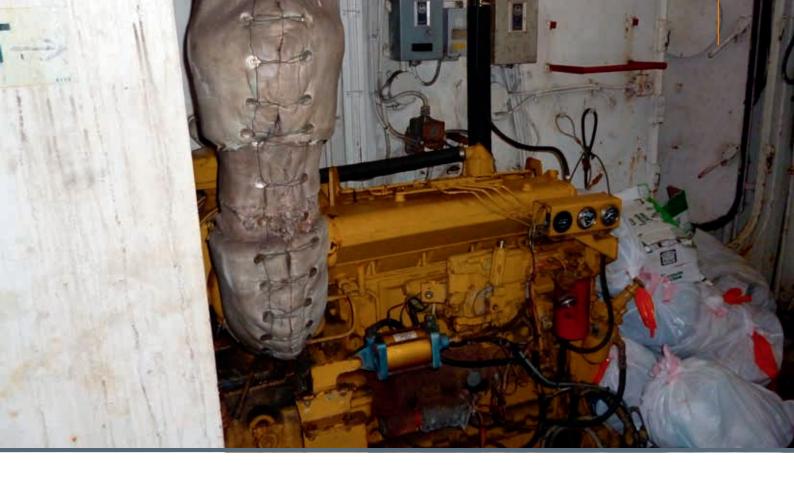


Regarding banning, most cases involved ships which have been banned for multiple detentions (45). 5 ships have been banned a second time.

A number (12) were banned for failing to call at an indicated repair yard. The remaining 3 cases involved ships which "jumped the detention", by sailing without authorization. Over a 3 year period the flags of the United Republic of Tanzania, the Republic of Moldova, Saint Vincent and the Grenadines and Togo have recorded the highest number of bannings.

Looking at the Paris MoU "White, Grey and Black Lists" the overall situation regarding the quality of shipping seems to be stabilizing. Although individual flag states have changed lists, the total amount of 43 flag states on the "White list" equals 2014.

Sweden is leading this year's list, followed by the United Kingdom and France. Belgium has made a move upwards on the "White List". The United States of America has made a move downwards.



This year Portugal and Spain have moved from the "Grey List" to the "White List". India and Switzerland moved from the "White List" to the "Grey List". Saint Kitts and Nevis moved from the "Grey List" to the "Black List". As 2014, in 2015 there are again 11 flags on the "Black List", with the United Republic of Tanzania having the worst performance again.

Recognized Organizations (ROs) are delegated by flag States to carry out statutory surveys on their behalf. For this very reason, it is important to monitor their performance. The best performing RO over the period 2013-2015 was DNV GL, followed by Det Norske Veritas (DNV) and American Bureau of Shipping (ABS).

International Register of Shipping is bottom of the list in 2015, in terms of poor performance, followed by Universal Shipping Bureau Inc and Bulgarian Register of Shipping. For several years a joint submission with the Tokyo MoU to IMO has addressed the correlation between flags and ROs working on their behalf. The results are published in the Annual Report as well. Useful information for the industry that would like to stay clear of the risk of sub standard shipping.

After an increase of the total number of inspections in 2014, the number has slightly decreased. Since 2011 (the start of the NIR) the average detention percentage had slightly increased annually until 2013 (3.78%), after which a significant decrease has been recorded for 2014 (3.32%). 2015 is at the same level; 3.33%.

Spain, Italy, the Netherlands, France, Germany, Greece and the United Kingdom contributed most to the overall inspection efforts in terms of percentage, together over 51%. High Risk Ships have been operating mostly in the southern part of the region, while Low Risk Ships have been calling in the north-western part of the region.

With 1,166 inspections and 131 detentions the ships flying a "black listed flag" score a detention rate of 11.23%, which is similar to 2014 and 2013. For ships flying a "grey listed flag" the detention rate is 8.58%, which is significantly higher than 2014 (6.27%). For ships flying a "white listed flag" the detention rate is 2.50% which is at the same level as 2014.

The 5 most frequently recorded deficiencies in 2015 were "ISM" (4.3%, #1797), "fire doors/openings in fireresisting divisions" (2.5%, #1044), "nautical publication" (2.5%, #1016), "charts" (2.4%, #996) and "oil record book" (1.6%, #645).

<sup>&</sup>lt;sup>1</sup> Performance of recognized organizations is measured over a 3-year rolling period. In 2014 DNV GL was included for the first year, while DNV and GL issued certificates were still recorded as separate entities. In the 2016 report DNV and GL will no longer be listed separately (as all those certificates will have been superseded / expired / renewed).

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.

## Paris MoU

# developments

The task forces, of which 11 were active in 2015, 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 was composed of participants from Germany, Estonia, Norway, Russian Federation and the European Commission in 2015.

#### **Port State Control Committee**

The Port State Control Committee held its 48th meeting in Noordwijkerhout, the Netherlands from 18-22 May 2015. The MoU is comprised of 27 member States.

The Committee agreed to work on a plan to elaborate the guidelines on MARPOL Annex VI, which deals with air pollution from ships.

High importance was given to the Concentrated Inspection Campaigns (CICs). Jointly with the Tokyo MoU a CIC on Crew Familiarisation for Enclosed Space Entry was scheduled from September to November 2015.

After the entry into force of the Maritime Labour Convention, 2006 (MLC,2006) in 2013, the Committee decided to carry out a CIC in 2016 to verify compliance with the Convention. The questionnaire and guidelines for this CIC have been

completed and will be adopted by the Paris MoU Committee at its next meeting in Norway. This decision demonstrates the importance to the Paris MoU of decent working and living conditions onboard ships, as well as ensuring that seafarers' rights are respected.

The report of the CIC on STCW hours of rest, carried out in September to November of 2014, was presented to PSCC48. The Committee expressed concern that during the CIC, which was publicised in advance, 912 deficiencies were recorded related specifically to STCW hours of rest and that 16 ships were detained as a result of the CIC. The results will be published and submitted to the IMO.

Montenegro has entered into the final stage towards full membership and a decision will be taken in 2016, when the Committee meets in Norway.



The Committee adopted the 2014 Annual Report, including the new White, Grey and Black List and the performance list of Recognized Organizations.

#### **Technical Evaluation Group**

The TEG convened in Riga, Latvia in December 2015. Eleven Task Forces submitted reports to the TEG for evaluation before submission to the Port State Control Committee.

Issues considered by the TEG included:

- ISM Implementation;
- Information System Developments;
- Operational control;
- Evaluation of Paris MOU Statistics;
- New Inspection Policy within the Paris MoU;
- Training Policy;
- International Working Group on ILO Consolidated Convention Guidelines:
- CIC Crew familiarisation & Entry into Enclosed Spaces 2015;
- Inspection Campaign on MARPOL ANNEX VI;
- ECDIS;
- IMO Polar Code.

#### **Port State Control training initiatives**

The Paris MoU will continue to invest in the training and development of Port State Control Officers in order to establish a higher degree of harmonisation and standardisation in inspections throughout the region.

The Secretariat organises three different training programmes for Port State Control Officers:

- Seminars (twice a year)
- Expert Training (twice a year)
- Specialized Training (once a year)

The Seminars are open to members, co-operating members and observers. The agenda is more topical than Expert and Specialised Training and deals with current issues such as inspection campaigns and new requirements.

Expert and Specialized Training aim to promote a higher degree of professional knowledge and harmonisation of more complex port State control issues and procedures. Since 2012 the IMO has been sponsoring PSCOs from other PSC agreements to attend the Paris MoU

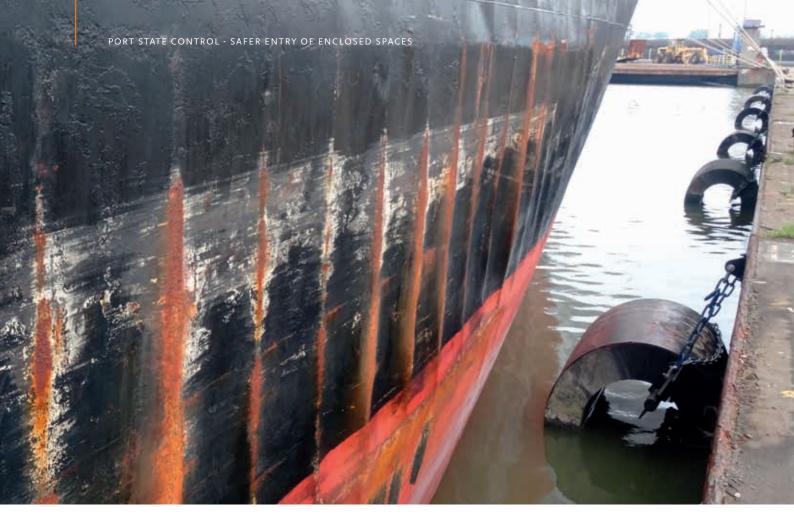
Expert training programmes. In 2015 12 PSCOs from other MoUs attended Paris MoU training programmes and PSC seminars.

#### **PSC Seminar 59**

The 59th Port State Control Seminar was held in June 2015 in The Hague, the Netherlands. The main topic of discussion was the train the trainer course for the CIC on Crew Familiarity for Enclosed Space Entry. Furthermore there were several case studies on Paris MoU procedures and specific inspection issues. The Secretariat presented an overview of developments in the Paris MoU.

#### PSC Seminar 60

The 6oth Port State Control Seminar was held in November 2015 in The Hague, the Netherlands. PSCOs from the Paris MoU member States and the United States Coast Guard attended the Seminar. The main topics of discussion were an update on the requirement regarding "Ship specific plans for the recovery of persons from the water" and an update on the Ballast Water Management Convention, with



an introduction into the approved Paris MoU Inspection Guidelines. Participants mentioned the new requirements of the convention will be challenging.

The Secretariat presented an overview of developments in the Paris MoU and presented cases on several subjects for discussion.

#### **Expert and Specialized Training**

For the Expert Training, the central themes are "The Human Element" and "Safety and Environment". The theme of the Specialized Training changes every year. The training programmes are intended for experienced PSCOs. Using that experience, the participants can work together to establish a higher degree of harmonisation and standardisation of their inspection practice. Lecturers for the training programmes are invited from the Paris MoU Authorities and the maritime industry.

### The 11th Expert Training "Safety and Environment"

The eleventh Expert Training programme was held in The Hague, the Netherlands, in February 2015. Important issues during this training were MARPOL, SOLAS, Load Lines, life saving appliances and oil filtering equipment. Participants from the Abuja MoU, Black Sea MoU, Caribbean MoU, Indian Ocean MoU, Mediterranean MoU, Vina del Mar agreement and EMSA took part in the training.

### The 6th Specialized Training on the Inspection of Bulk Carriers

The sixth Specialized Training programme on the inspection of Bulk Carriers was held in The Hague, the Netherlands, in April 2015. Participants from the Paris MoU members States as well as the Riyadh MoU and EMSA took part in the training. During the training, the construction and certification, and the procedures for more detailed and expanded

inspections, of different types of bulk carriers were discussed. Particularly the expanded inspection on bulk carriers and gassing were highlighted.

### The 15th Expert Training "The Human Element"

The fifteenth Expert Training programme on the Human Element was held in The Hague, the Netherlands in October 2015. The programme was dedicated to the MLC,2006 and STCW Conventions. As an introduction to the program the participants were asked to complete a questionnaire that would give insight into to their personal "enforcement style". At the end of the program a communication and interaction exercise was conducted. Participants from member States as well as from Riyadh MoU took part in the training.

#### Training in cooperation with EMSA

The Paris MoU also assists EMSA in the "PSC Seminar for Port State

Control Officers". The PSC Seminars are delivered to PSCO's from all Member States. In 2015 the fully established Professional Development Scheme (PDS) of the Paris MoU encompassed 4 EMSA/Paris MoU Seminars for PSCOs.

The Paris MoU inspection regime focuses on eradication of substandard shipping and on rewarding good performing ships in terms of the inspection frequency. It translates to "less, but better inspections". The regime is underpinned by an elaborate set of procedures, all aimed at providing more guidance for better inspections.

Ongoing improvements and performance measurement through inspection results require strict adherence to the established procedures. For the seminars organised for PSCOs during 2015 the earlier adopted approach was followed in order to maximise familiarisation with the procedures governing port State control inspections.

The overarching goal for the seminars remained the establishment of a harmonised approach towards Port State Control in the geographical working area of the Paris MoU. Feedback sessions with participants during the seminars indicated that indeed a wider understanding of the procedures and the available tools such as the Paris MoU manual, RuleCheck and the distance learning modules, had been achieved. The constantly evolving methodology of delivering the lectures during the seminars is deemed effective in achieving the objectives set for the seminars.

All seminars were organised by EMSA and held at its premises in Lisbon, Portugal. Lecturers were provided both by EMSA and the Paris MoU Secretariat. The 158 participants attending these seminars during 2015 originated from all Paris MoU Member States.

#### **Detention Review Panel**

Flag States or ROs which cannot resolve a dispute concerning a detention with the port State may submit their case for review. The detention review panel is comprised of representatives of four different MoU Authorities, on a rotating basis, and the Secretariat.

In 2015 the Secretariat received eight requests for review. Three cases did not comply with the requirements for detention review. These cases were either submitted beyond the 120 days limit, were handled at national courts, challenged only RO responsibility or originated from ship owners instead of flag States or ROs.

Five cases met the criteria and were submitted to MoU members for review. In one case the detention review panel concluded that the port State's decision to detain was not justified. The panel requested the port State to reconsider the detention. In four cases the panel concluded that the detaining port State would not have to reconsider the decision to detain.

#### Quality management

Since 15 March 2011 the Paris MoU
Secretariat has been ISO9001:2008
certified for its services and products.
During 2015, the Secretariat continued
the improvement of the Quality
Management System and was
successfully audited. The customer
survey demonstrated a high level of
customer satisfaction.
In September 2015 the renewed
requirements for ISO9001:2015 have
been presented. A start has been made
to see what impact these renewed
requirements have on the current

QMS. The main focal point of the renewed requirements is the risk based planning and maintenance. The amendments to the new requirements have to take effect first quarter of 2017.

#### Paris MoU on the Internet

Last year several new statistical instruments and tools have been published on the website. Especially the "inspection results" and "KPI's" have raised quite a lot of attention. Flag and port States, government agencies, charterers, insurers and classification societies are continuously looking for data and information. They were able to monitor their performance and the performance of others on a continuous basis. The port State enters ships that are currently under detention, which are published on the website. Validated port State control data can be accessed and offered visitors more detailed information.

The latest addition to the website is the flag State performance calculator. This tool can be used by flag States for an indication on the outcome for the yearly ranking on the flag State performance.

To increase public awareness of unsafe ships, particularly serious port State control detentions are published under the heading 'Caught in the Net'. These detentions are described in detail and illustrated with photographs. In 2015 details were published of m/v "Simone", flag Republic of Sierra Leone (IMO 8035104).

Other information of interest such as the current detentions and bannings, monthly detention lists, the Annual Report, the performance lists and | news items can be downloaded from the website, which is found at www.parismou.org

#### **Concentrated Inspection Campaigns**

Concentrated Inspection Campaigns (CICs) have been held annually in the Paris MoU region over the past years. These campaigns focus on a particular area of compliance with international regulations with the aim of raising awareness, gathering information and enforcing the level of compliance. Each campaign is prepared by experts and identifies a number of specific items for inspection.

### CIC 2015 Crew Familiarity on Enclosed Space Entry

PSCOs in the Tokyo MoU and Paris MoU regions have performed a Joint Concentrated Inspection Campaign (CIC) on Crew Familiarization for Enclosed Space Entry, from 1 September through 30 November 2015.

In general the results of the CIC indicate that the subject of Enclosed Space Entry is taken seriously by the

industry. The CIC did not lead to an increase in the rate of detentions however the actual compliance, shown in drills, could be better. 7.9% of drills were found to be unsatisfactory.

Results on Enclosed Space Entry show that 3776 inspections have been performed using the CIC questionnaire. Of those inspections 54 detentions have CIC topic related deficiencies. The total number of detentions in the 3-month period was 160.

#### **Co-operation with other Organizations**

The strength of regional regimes of port State control, which are bound by geographical circumstances and interests, is widely recognised. Nine regional MoUs have been established.

In order to provide co-operation to these MoUs, they may apply for observer status at the Paris MoU. Regional agreements seeking observer status must demonstrate that their member Authorities invest demonstrably in training of PSCOs, publish inspection data, have a code of good practice, have been granted official IGO-status at IMO and have a similar approach in terms of commitment and goals to that of the Paris MoU.

All regional agreements have obtained official observer status to the Paris MoU: the Tokyo MoU, Caribbean MoU, Mediterranean MoU, Black Sea MoU, Riyadh MoU, Acuerdo de Viña del Mar, Abuja MoU and Indian Ocean MoU. The United States Coast Guard is also an observer at Paris MoU meetings.

The International Labour Organization and the International Maritime Organization have participated in the meetings of the Paris MoU on a regular basis since 1982. In 2006 the



Paris MoU obtained official status at the IMO as an Inter Governmental Organization. A delegation of the MoU participated in the 2nd session of the Sub-Committee on Implementation of IMO Instruments (III-2) in July 2015.

The 2013 Annual Report including inspection data, the performance of flag Administrations and Recognized Organizations, a combined list of flags targeted by the Paris MoU, Tokyo MoU and USCG, the results of the 2013 CIC on Propulsion and Auxiliary Machinery, the results of the 2013 Harmonized Verification Programme on Passenger Ships and information on the improvement of flag performance were submitted to III-2.

#### Membership of the Paris MoU

In preparation for prospective new members of the Paris MoU, the Port State Control Committee has adopted criteria for co-operating status for non-member States and observer/associate status for other PSC regions.

Specific criteria, including a selfevaluation exercise, have to be made before co-operating status can be granted.

In 2011 the maritime Authority of Montenegro joined the MoU as a cooperating member with the prospect of becoming a full member in the future.

The Paris MoU currently has 8 members with dual or even triple membership: Canada and the Russian Federation with the Tokyo MoU, while the Russian Federation is also a member of the Black Sea MoU. With Bulgaria and Romania there are further ties with the Black Sea MoU. Malta and Cyprus are also members of the Mediterranean MoU. France and the Netherlands are members of the Caribbean MoU, whilst France is also a member of the Indian Ocean MoU.



In the following pages the facts and figures of 2015 are listed. The detention percentage stabilizes at 3.33% and refusal of access plunges from 20 in 2014 to 11 this year.

# Facts & Figures

# 2015

#### Inspections

With a total number of 17,858 inspections performed in 2015 the inspection figures show a decrease of 3.1% compared with the figures of 2014. Each individual ship was inspected an average of 1.17 times per year, a rate which is slightly lower to that of 2014.

After a drop in the number of inspections that started with the introduction of the New Inspection Regime in January 2011, and continued in 2012 and 2013, the 2014 figures showed an increase of 4%. 2015 shows a decrease of 3.1% again.

#### **Deficiencies**

In 2013 the number of deficiencies recorded was 49,074. In 2014 the

number of deficiencies was 45,979. In 2015 the number of deficiencies decreased significantly to 41,436.

During 53% of all inspections performed, one or more deficiencies were recorded. In 2014 this figure was 55%.

The average number of deficiencies per inspection also decreased from 2.5 in 2014 to 2.3 in 2015.

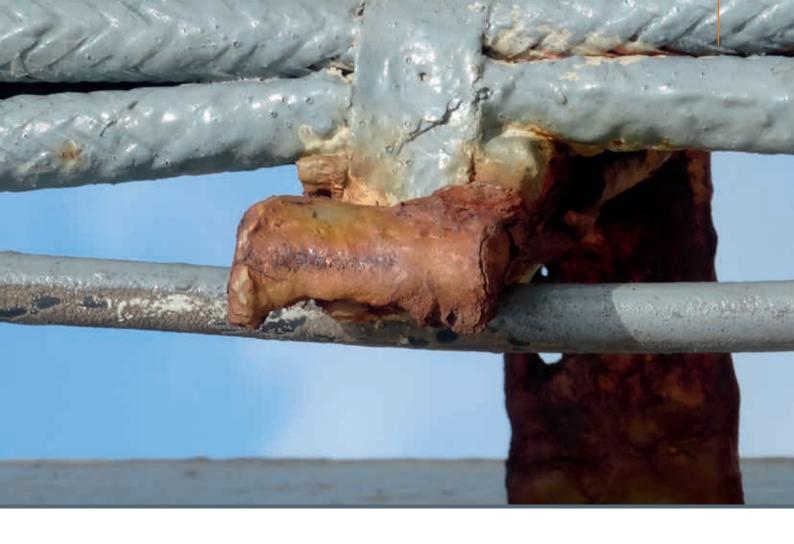
#### **Detentions**

Some deficiencies are clearly hazardous to safety, health or the environment and the ship is detained until they are rectified. Detention rates are expressed as a percentage of the number of inspections, rather than the number of individual ships inspected

to take account of the fact that some ships are detained more than once a year.

Compared with 2014, the number of detentions has decreased from 612 to 595 detentions. The average detention rate in 2015 is 3.33%. In 2014 the detention rate was 3.32%. In 2013 the detention rate was 3.78%. The detention rate has stabilized this year.

"White, Grey and Black List"
The "White, Grey and Black (WGB) List"
presents the full spectrum, from quality
flags to flags with a poor performance
that are considered high or very high
risk. It is based on the total number of
inspections and detentions over a 3-year
rolling period for flags with at least 30
inspections in the period.



#### On the "White, Grey and Black list"

for 2015, a total number of 73 flags are listed: 43 on the "White List", 19 on the "Grey List" and 11 on the "Black list". In 2014 the number of flags listed totalled 72 flags, namely 43 on the "White List", 19 on the "Grey List" and 10 on the "Black List".

The "White List" represents quality flags with a consistently low detention record. Compared with 2014, the number of flags on the "White List" remains the same. New on the "White List" are Portugal and Spain, which were on the "Grey List" last year.

Sweden has been placed highest on the list in terms of performance this year. The next in line of the best performing flags in 2015 are the United Kingdom, France, Denmark and Norway.

Flags 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.

On this year's "Grey List" a total number of 19 flags is recorded. Last year the "Grey List" also recorded 19 flags. New on the "Grey List" are India and Switzerland, which last year were on the "White List".

Saint Kitts and Nevis has fallen from the "Grey List" to the "Black List". The poorest performing flags are the United Republic of Tanzania, Republic of Moldova, Togo, Comoros and Cook Islands.

A graph of the distribution of listed and non listed flags indicates that only 0.7% of the ships inspected are from flags not listed on the WGB list.

#### Ship type

In 2015 the top 5 detention rates are for: general cargo/multipurpose ships at 5.7% (up from 5.5% in 2014); commercial yachts at 4.8% (up from 3.2% in 2014); tugs at 4.7% (down from 5.2% in 2014); refrigerated cargo ships at 4.6% (at the same level as 2014; and High Speed Passenger Craft (up from 2.7% to 3.6%). Although "other" is not a specific type, the detention rate is the highest at 7.1% (up from 6.1% in 2014). Best performing ship types are combination carriers and heavy load ships with a zero detention rate.

### Performance of Recognized Organizations

For several years the Committee has closely monitored the performance of classification societies acting as ROs for flags. To calculate the performance of the Recognized Organizations, the same formula to calculate the excess factor of the flags is used.

A minimum number of 60 inspections per RO is needed before the performance is taken into account for the list. In 2015 43 ROs are recorded on the performance list.

Among the best performing Recognized Organizations were:

- DNV GL AS (DNVGL),
- Det Norske Veritas (DNV),
- American Bureau of Shipping (ABS),
- Lloyd's Register (LR),
- Korean Register of Shipping (KRS).

The lowest performing Recognized Organizations were:

- International Register of Shipping (IS),
- Universal Shipping Bureau Inc (USB),
- Bulgarian Register of Shipping (BRS).

Compared with last year's performance level, a small shift in RO performance in 2015 can be noticed. This year even fewer organisations have been placed in the very low (1) and low performing parts (1) of the list and more ROs have been placed in the medium part of the list.

Details of the responsibility of Recognized Organizations for detainable deficiencies have been published since 1999. When one or more detainable deficiencies are attributed to a Recognized Organization in accordance with the criteria, it is recorded "RO responsible" and the RO is informed. Out of 595 detentions recorded in 2015, 73 or 12.2% were considered RO related.

#### Refusal of access of ships

In a total of 11 cases ships were refused access (banned) from the Paris MoU region in 2015 for reasons of multiple detentions (10), and failure to call at an indicated repair yard (1). A number of ships remain banned from previous years. Several ships have been banned a second time after multiple detentions, resulting in a minimum banning period of 12 months.

#### Deficiencies per major category

The number of deficiencies in the following areas accounted for approximately 66% of the total number of deficiencies. The trends in these areas are clarified below.





#### **Certificates & Documentation**

The number of deficiencies recorded as related to ships' certificates, crew certificates and documents show a significant decrease of 19% from 7,672 in 2014 to 6,238 in 2015. The relative part regarding the total deficiencies had decreased from 18.5% (in 2014) to 15.1% (in 2015).

#### Safety of navigation

In 2015, deficiencies in Safety of Navigation accounted for 12.4% of all deficiencies recorded (a decrease from 13.5% in 2014). The number of deficiencies in Safety of Navigation shows a decrease of 17% from 6,195 deficiencies in 2014 to 5,150 in 2015.

#### Fire safety

In 2015 deficiencies in fire safety accounted for 13.4% of all deficiencies recorded (equal to 2014). Although relatively the same percentage

regarding the total of deficiencies, the number of deficiencies decreased from 6176 (in 2014) to 5558 (in 2015)

#### **Pollution prevention**

Deficiencies in MARPOL Annex I show a decrease of 9% in 2015 (795), compared with 2014 (874). Deficiencies in MARPOL Annex IV show a slight decrease of 1% 2015 (338), compared with 2014 (344). Deficiencies in MARPOL Annex V show an increase of 2% 2015 (609), compared with 2014 (596). Deficiencies in MARPOL Annex VI show an increase of 2% in 2015 (470), compared with 2014 (458). The relative part regarding the total deficiencies remains similar at 5.4%.

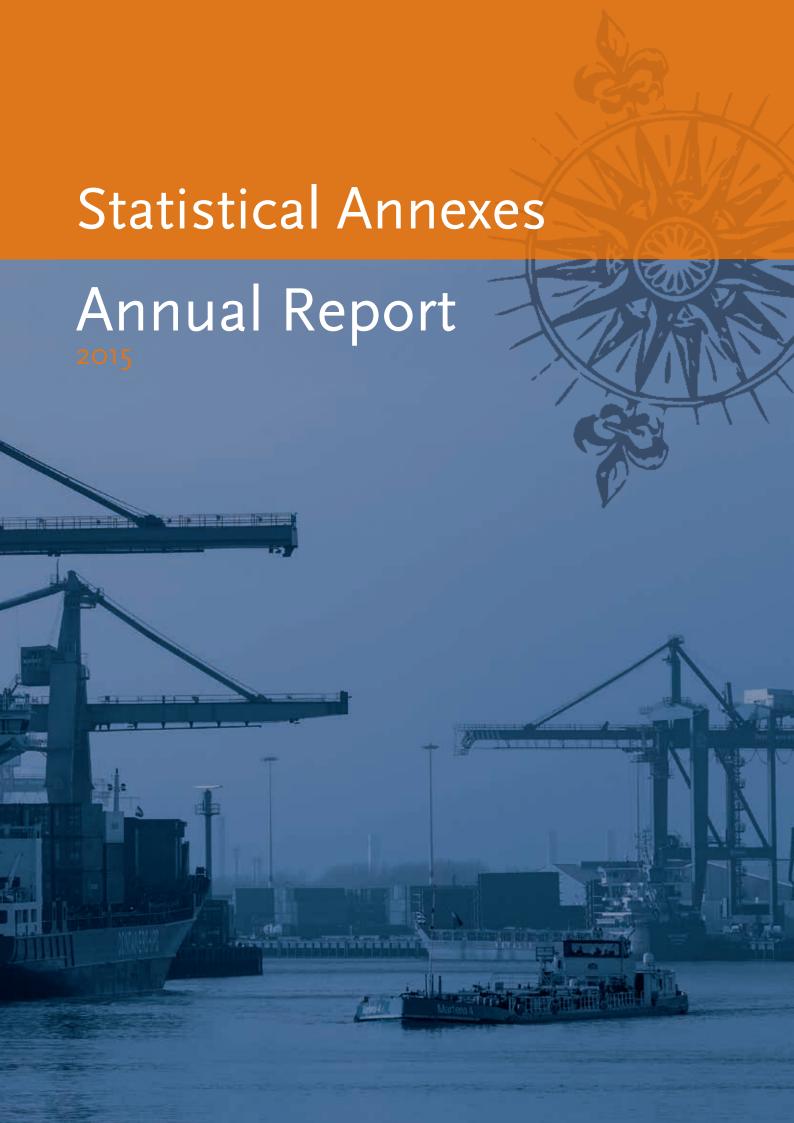
#### Working and living conditions

On 20 August 2013 the Maritime Labour Convention 2006 entered into force. In 2015, as expected, the number of ILO 147 deficiencies has decreased for the second year, while the number of MLC deficiencies has increased. Most deficiencies have been found in the following areas: Health and safety and accident prevention (area 11) 2,656 (41% of all MLC deficiencies), food and catering (area 10) 1,058 (17%), hours of work and rest (area 6) 730 (12%), accommodation (area 8) 583 (9%) and seafarer's employment agreements (area 4) 395 (6%) deficiencies. The percentage of deficiencies regarding working and living conditions, related to the total of deficiencies is 14.9%.

#### Management

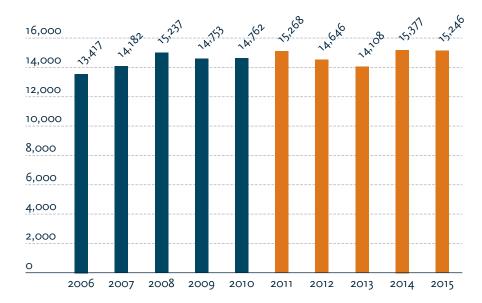
The number of ISM related deficiencies was similar in 2015 (1797) to 2014 (1801). The percentage regarding the total deficiencies increased, however, from 3.9% to 4.3%.



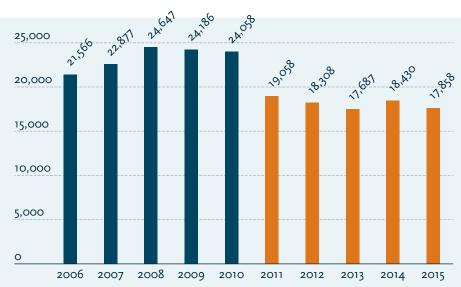


### Basic port State control figures 2015

### Number of individual ships inspected



### Number of inspections

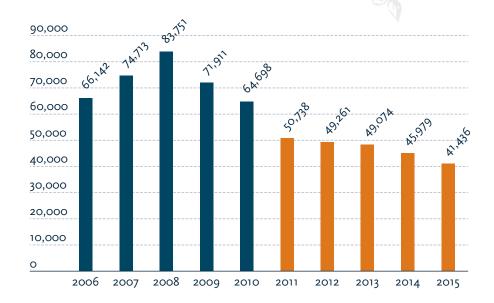


### Number of detentions



Note: The New Inspection Regime entered into force on the 1st of January 2011. Consequently the targeting of ships for inspection has changed; inspection figures from 2011 onwards should not be compared to the ones from 2010 and before.

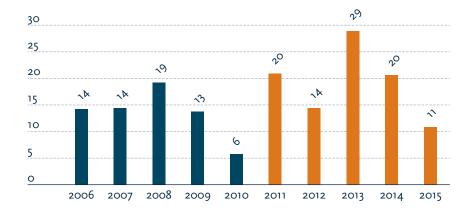
### Number of deficiencies



### Detentions in % of inspections



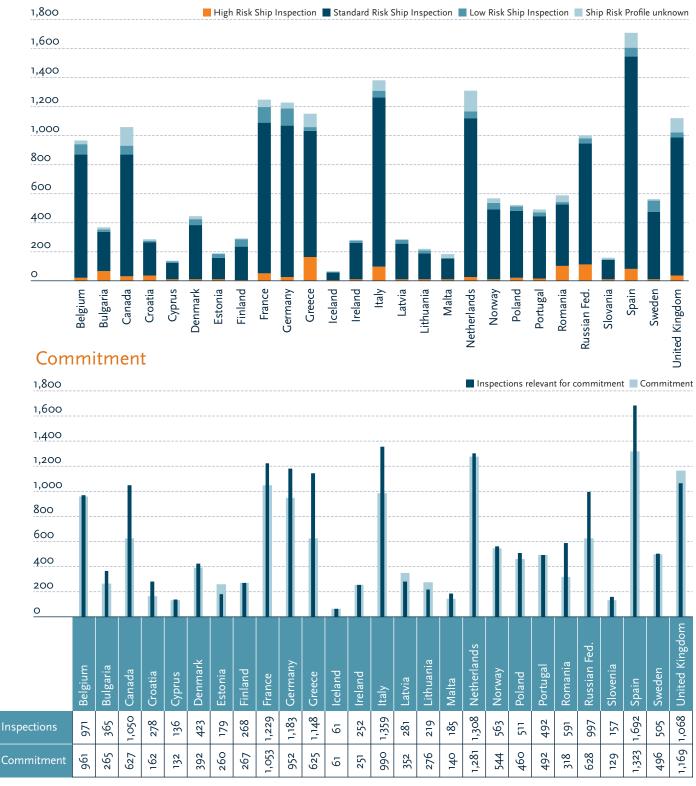
### Number of refusal of access



Note: The cut-off date for inspection data to be included in the Annual Report 2015 was 15 January 2016. Changes to inspection data after this date have as a rule not been taken into account.

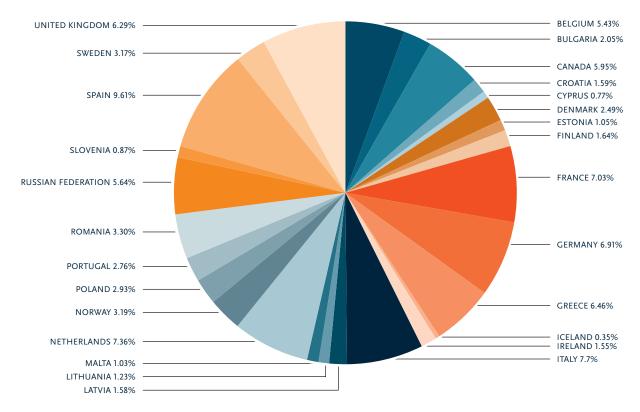
### Inspection efforts 2015

#### HRS, SRS and LRS inspections per member state



Note: The number of inspectons relevant for the commitment of MoU Port States differs from the total number of inspections used in other graphs and tables.see www.parismou.org/publications-category/annual-reports for explanatory notes.

### Inspection efforts of members as percentage of Paris MoU Total





# MoU port States's individual contributions to the total amount of inspections

MoU port State	Total nr of Inspections	Inspections with deficiencies	Inspections with detentions	Inspections with RO related detainable deficiencies	% Inspections with deficiencies	% Detentions	% Inspection of MoU total	% HRS	% SRS	% LSR	% SRP Unknown
Belgium	969	602	18	4	62.13	1.86	5.43	1.86	88.03	7.33	2.79
Bulgaria	366	223	8	2	60.93	2.19	2.05	17.21	74.59	4.37	3.83
Canada	1,063	542	32	4	50.99	3.01	5.95	2.54	79.59	5.93	11.95
Croatia	284	149	5	1	52.46	1.76	1.59	11.27	82.75	2.82	3.17
Cyprus	137	89	13	2	64.96	9.49	0.77	7.30	80.29	7.30	5.11
Denmark	445	141	0	0	31.69	0.00	2.49	2.02	84.27	9.21	4.49
Estonia	188	47	0	0	25.00	0.00	1.05	3.19	79.79	14.89	2.13
Finland	292	65	0	0	22.26	0.00	1.64	1.03	80.14	17.12	1.71
France	1,255	636	27	2	50.68	2.15	7.03	3.90	83.35	8.29	4.46
Germany	1,234	628	39	5	50.89	3.16	6.91	1.78	85.01	9.56	3.65
Greece	1,154	783	84	11	67.85	7.28	6.46	13.95	75.82	2.17	8.06
Iceland	63	29	3	0	46.03	4.76	0.35	4.76	82.54	9.52	3.17
Ireland	276	148	15	0	53.62	5.43	1.55	2.17	92.03	5.07	0.72
Italy	1,387	758	92	12	54.65	6.63	7.77	6.78	84.72	3.10	5.41
Latvia	282	44	0	0	15.60	0.00	1.58	3.19	86.52	9.22	1.06
Lithuania	220	101	1	0	45.91	0.45	1.23	4.55	80.00	9.55	5.91
Malta	184	86	7	0	46.74	3.80	1.03	3.80	78.26	1.63	16.30
Netherlands	1,315	735	21	0	55.89	1.60	7.36	1.98	83.65	3.35	11.03
Norway	570	194	8	0	34.04	1.40	3.19	1.05	85.26	7.72	5.96
Poland	524	343	32	6	65.46	6.11	2.93	3.82	88.36	5.73	2.10
Portugal	492	133	8	1	27.03	1.63	2.76	3.25	87.60	4.88	4.27
Romania	590	382	43	7	64.75	7.29	3.30	17.12	72.20	2.37	8.31
Russian Federation <sup>1</sup>	1,008	638	38	3	63.29	3.77	5.64	11.11	82.84	3.87	2.18
Slovenia	155	85	5	1	54.84	3.23	0.87	5.81	86.45	1.94	5.81
Spain	1,716	929	52	4	54.14	3.03	9.61	4.72	85.78	3.32	6.18
Sweden	566	153	3	0	27.03	0.53	3.17	1.06	83.39	13.25	2.30
United Kingdom	1,123	718	41	9	63.94	3.65	6.29	2.85	85.31	3.29	8.55
Total	17,858	9,381	595	74	52.53	3.33	100.00	5.25	83.26	5.68	5.81

<sup>&</sup>lt;sup>1</sup> Only inspections in the Russian ports of the Baltic, Azov, Caspian and Barents Seas are included.

# Current detentions as per 31-12-2015 per port State Authority since 2011

Excluded detentions Annual figures 2011-2015	Inte	rval
Detaining Authority	< 12 Months	> 12 Months
Belgium	2	1
Bulgaria	-	1
Canada	-	3
Cyprus	-	1
France	1	-
Germany	-	1
Greece	2	2
Ireland	-	1
Italy	1	5
Malta	-	1
Netherlands	2	2
Norway	1	-
Romania	1	-
Spain	6	3
United Kingdom	2	-
Grand Total	18	21

Flag	< 12 Months	> 12 Months
Antigua and Barbuda	1	-
Bahamas	1	-
Belize	1	-
Bolivia	2	2
Cambodia	-	1
Comoros	2	1
Cook Islands	1	1
Curacao	-	2
Cyprus	-	1
Honduras	-	1
Indonesia	1	-
Liberia	1	-
Lithuania	1	-
Malta	-	4
Moldova, Republic of	2	2
Panama	2	2
Russian Federation	-	1
Saint Vincent and the Grenadines	-	1
Sao Tome and Principe	1	-
Singapore	1	-
Togo	1	2
Grand Total	18	21

Full details on all currently detained ships in the Paris MoU region is available on the Paris MoU Website.



### White list

70

RANK  WHITI	FLAG	INCRECTIONS				22 /		
WHITI		INSPECTIONS 2013-2015	DETENTIONS 2013-2015	BLACK TO GREY LIMIT	GREY TO WHITE LIMIT	EXCESS FACTOR		
1	LIST							
'	Sweden	362	0	34	17	-2.0		
2	United Kingdom	1,315	9	108	76	-1.9		
3	France	262	0	26	11	-1.9		
3 4 5 6	Denmark	1,137	9	94	65	-1.3		
5	Norway	1,440	15	117	84	-1.3		
6	Belgium	207	0	21	8	-1.8		
7	Hong Kong, China	1,826	22	146	109	-1.		
8	Bahamas	2,268	30	179	138	-1.		
9	Italy	1,180	14	98	68	-1.		
10	Singapore	1,644	23	133	98	-1.6		
11	Marshall Islands	3,248	53	252	203	-1.6		
12	Netherlands	3,171	54	246	198	-1.0		
13	Isle of Man, UK	729	9	63	39	-1.0		
14	Finland	418	4	38	20	-1.		
15	Germany	698	9	60	37	-1.		
16	Cayman Islands, UK	363	4	34	17	-1.4		
17	Bermuda, UK	233	2	23	9	-1.		
18	China	222	2	22	9	-1.		
19	Greece	902	18	76	50	-1.		
20	Gibraltar, UK	814	17	69	45	-1.3		
21	Liberia	4,163	116	319	264	-1.3		
22	Philippines	149	1	16	5	-1.		
23	Malta	4,453	137	340	283	-1.		
24	Luxembourg	215	3	22	8	-1.0		
25	Cyprus	2,008	62	160	121	-1.0		
26	United States of America	206	3	21	8	-1.		
27	Croatia	125	1	14	4	-0.		
28	Barbados	348	8	33	16	-0.		
29	Iran, Islamic Republic of	83	0	10	1	-0.		
30	Kazakhstan	82	0	10	1	-0.		
31	Saudi Arabia	81	0	10	1	-0.		
32	Faroe Islands, DK	268	6	26	11	-0.		
33	Ireland	113	1	13	3	-0.		
34	Portugal	429	13	39	21	-0.		
35	Antigua and Barbuda	3,389	145	262	212	-0.		
36	Latvia	70	0	9	1	-0.		
37	Estonia	68	0	9	1			
38	Turkey	1,324	59	108	77	-0.		
39	Panama	6,105	313	461	394	-0.		
40	Russian Federation	1,322	63	108	77	-0.		
41	Spain	193	7	20	7			
42	Korea, Republic of	95	2	11	2			
43	Japan 113 429 3,389	72	5	9	0	0.		

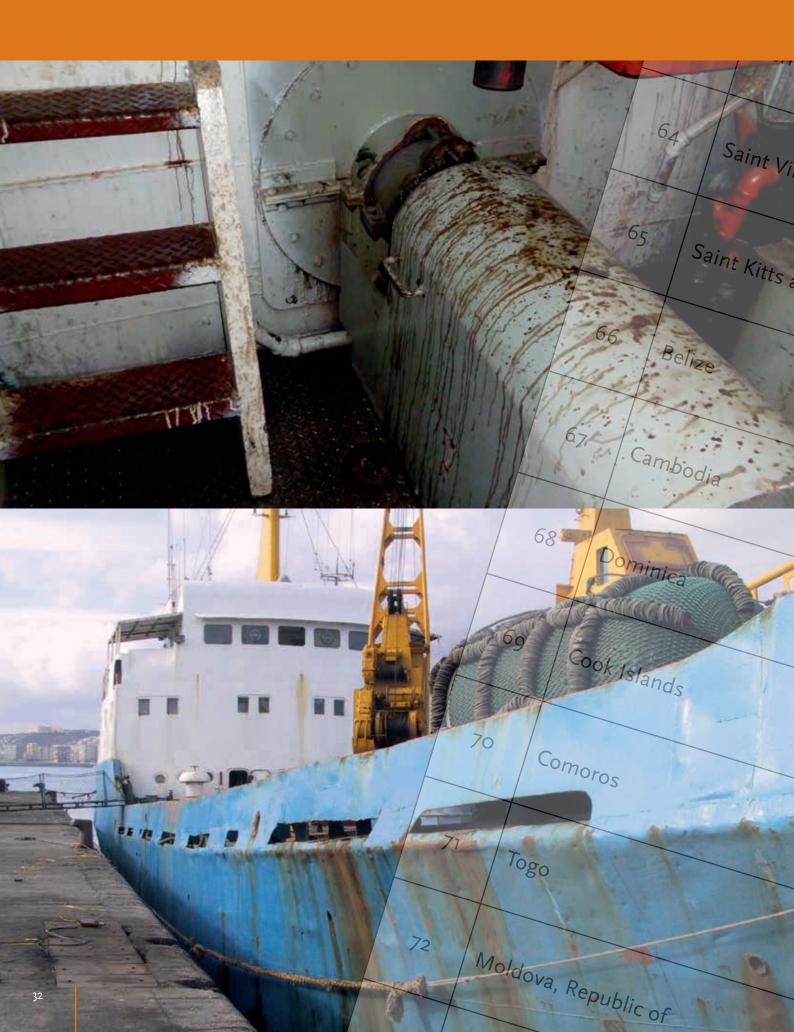


### Grey list

Wait

and

_			1	7.	50 /			
	RANK	FLAG	INSPECTIONS 2013-2015	DETENTIONS 2013-2015	BLACK TO GREY LIMIT	GREY TO WHITE LIMIT	EXCESS FACTOR	
_	GREY I	IST						
	44	Poland	147	5	16	5	0.03	
	45	Switzerland	120	4	13	3	0.07	
	46	India	74	2	9	1	0.11	
	47	Lithuania	150	7	16	5	0.19	
\	48	Morocco	35	1	5	0	0.26	
	49	Kuwait	33	1	5	0	0.27	( )
\	50	Thailand	75	4	9	1	0.35	
	51	Bulgaria	40	2	6	0	0.37	
\	52	Lebanon	70	4	9	1	0.39	
	53	Ukraine	161	11	17	5	0.48	
\	54	Libya	41	3	6	0	0.52	
	55	Egypt	53	4	7	0	0.54	
_	56	Tunisia	40	4	6	0	0.69	
	57	Curacao	178	15	19	6	0.71	
_	58	Algeria	74	7	9	1	0.72	
	59	Albania	76	8	9	1	0.82	
7	60	Tuvalu	30	4	5	0	0.84	
	61	Vanuatu	292	26	28	13	0.86	
_	62	Palau	75	9	9	1	0.95	
					/			_



### Black list

n <sub>e</sub>						
RANI	( FLAG	INSPECTIONS 2013-2015	DETENTIONS 2013-2015	BLACK TO GREY LIMIT	GREY TO WHITE LIMIT	EXCESS FACTOR
BLAC	CK LIST					
and 63	Sierra Leone	267	27	26		1.10
64	Saint Vincent and the Grenadine	s 746	68	64		1.16
evis 65	Saint Kitts and Nevis	299	31	29		1.23
66	Belize	546	55	49	Medium	1.36
67	Cambodia	384	41	36	Risk	1.42
68	Dominica	41	7	6		1.55
69	Cook Islands	352	41	33		1.67
70	Comoros	216	28	22		1.82
71	Тодо	382	55	35	Medium to High Risk	2.53
72	Moldova, Republic of	553	80	49	Medium to High Risk	2.70
73	Tanzania United Rep.	253	45	25	High Risk	3.34
	35 <sub>2</sub> 2 <sub>16</sub>		17	33	6	
	382	28		22	ANNUAL RE	EPORT 2015

### Flags meeting criteria for Low Risk Ships 2015

Flags meeting criteria for Low Risk Ships (as per 31 December 2015)							
Antigua and Barbuda	Germany	Malta					
Bahamas	Gibraltar, UK	Marshall Islands					
Belgium	Greece	Netherlands					
Bermuda, UK	Hong Kong, China	Norway					
Cayman Islands, UK	India	Panama					
China	Ireland	Russian Federation					
Croatia	Isle of Man, UK	Singapore					
Cyprus	Italy	Sweden					
Denmark	Japan	Switzerland					
Estonia	Korea, Republic of	Turkey					
Faroe Islands, DK	Latvia	United Kingdom					
Finland	Liberia	United States of America					
France	Luxembourg						

To meet the criteria for Low Risk Ships, flags should be on the Paris MoU White list and have submitted evidence of having undergone an IMO VIMSAS Audit.

Non listed flags having undergone IMO VIMSAS Audit					
Australia	Canada	Slovenia			

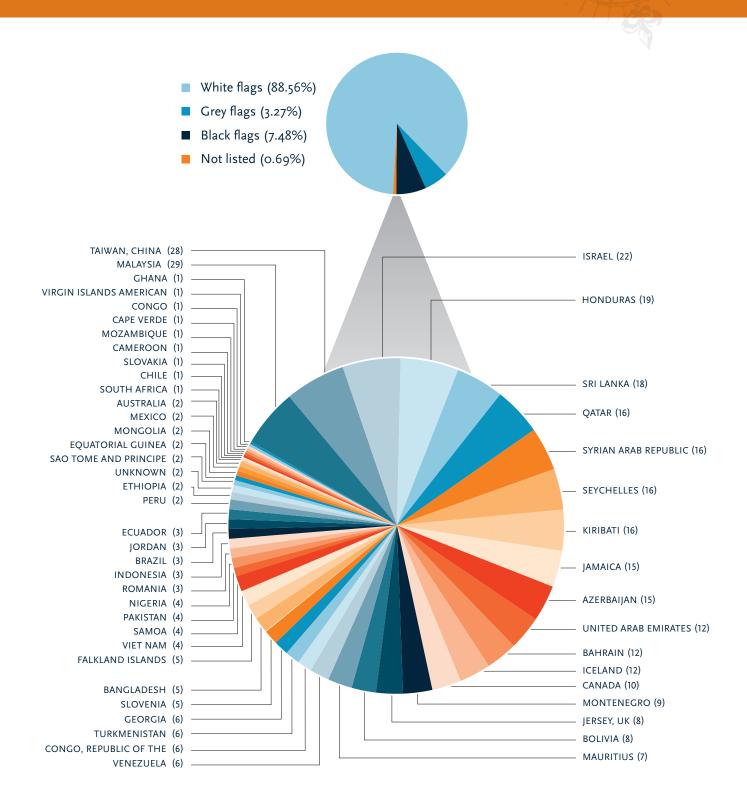
Flags who's total number of inspections over a 3-years rolling period do not meet the minimum of 30 are not included in the Paris MoU White list. Consequently some flags cannot meet the criteria for their ships to qualify as Low Risk Ships under the Paris MoU, despite having undergone the IMO VIMSAS Audit.

Non listed flags with no detentions 2013-2015*						
Australia (2 )	Georgia (6 )	Mozambique (1 )	Seychelles (16)			
Brazil (3)	Israel (19)	Pakistan (4)	Slovakia (1 )			
Canada (10)	Jersey, UK (8)	Peru (2)	Slovenia (5)			
Chile (1)	Mauritius (7 )	Qatar (16)	South Africa (1)			
Equatorial Guinea (2)	Mexico (2)	Romania (3)	Taiwan, China (22 )			
Ethiopia (2)	Mongolia (2)	Samoa (4)	Turkmenistan (6)			
Falkland Islands (5)	Montenegro (9)	Sao Tome and Principe (2)	Venezuela (6)			

Flags who's total number of inspections over a 3-years rolling period do not meet the minimum of 30 are not included in the Paris MoU White, Grey and Black lists. The flags in this table had too few inspections to be included in the lists, but had no detentions in the period 2013-2015.

<sup>\*</sup> Note: The flags are listed in alphabetical order. The number of inspections over the period 2013-2015 taken into account is shown in brackets. Flags on this list do not meet the criteria for Low Risk Ships.

### Distribution of listed and non listed flags 2013-2015



### Inspections, detentions and deficiencies 2015

Flag	Nr of Inspections	Inspections with deficiencies	Inspections with detentions	Nr of Individual ships inspected	% of Inspections with deficiencies	% of Inspections with detentions
	Nro	Insp with defi	Insp with dete	Nr of Individ ships inspec	% of Inspe with defici	% of Inspe with deten
Albania	26	24	3	17	92.3	11.5
Algeria	24	20	1	19	83.3	4.2
Antigua and Barbuda	1,067	610	42	797	57.2	3.9
Azerbaijan	9	6	1	7	66.7	11.1
Bahamas	763	383	11	650	50.2	1.4
Bahrain	5	3	1	4	60.0	20.0
Bangladesh	1	1	1	1	100.0	100.0
Barbados	105	57	3	83	54.3	2.9
Belgium	68	36	0	62	52.9	0.00
Belize	146	123	11	112	84.2	7.5
Bermuda (UK)	68	26	1	64	38.2	1.5
Bolivia	4	4	2	4	100.0	50.0
Brazil	1	0	0	1	0	0.00
Bulgaria	16	16	2	12	100.0	12.5
Cambodia	117	106	11	88	90.6	9.4
Canada	5	2	0	5	40.0	0.00
Cayman Islands (UK)	125	49	0	122	39.2	0.00
Chile	1	1	0	1	100.0	0.00
China	79	31	1	73	39.2	1.3
Comoros	58	53	10	47	91.4	17.2
Congo	1	1	1	1	100.0	100.0
Congo, the Democratic Republic of the	6	5	2	4	83.3	33.3
Cook Islands	118	95	9	97	80.5	7.6
Croatia	34	12	0	29	35.3	0.00
Curacao	47	33	4	38	70.2	8.5
Cyprus	664	354	17	519	53.3	2.6
Denmark	386	142	2	337	36.8	0.5
Dominica	6	5	2	5	83.3	33.3
Egypt	15	12	1	11	80.0	6.7
Equatorial Guinea	2	2	0	1	100.0	0.00
Estonia	27	8	0	16	29.6	0.00
Falkland Islands (UK)	2	0	0	2	0	0.00
Faroe Islands	92	44	3	73	47.8	3.3
Finland	139	47	0	106	33.8	0.00
France	77	35	0	63	45.5	0.00
Georgia	2	2	0	2	100.0	0.00
Germany	224	93	2	194	41.5	0.9
Gibraltar (UK)	256	140	7	204	54.7	2.7
Greece	300	123	6	279	41.0	2.0

						V
Flag	Nr of Inspections	Inspections with deficiencies	Inspections with detentions	Nr of Individual ships inspected	% of Inspections with deficiencies	% of Inspections with detentions
Honduras	6	4	1	5	66.7	16.7
Hong Kong, China	649	280	9	611	43.1	1.4
Iceland	3	3	0	3	100.0	0.00
India	19	9	2	18	47.4	10.5
Iran, Islamic Republic of	25	20	0	25	80.0	0.00
Ireland	41	19	0	33	46.3	0.00
Isle of Man (UK)	245	105	4	227	42.9	1.6
Israel	7	1	0	7	14.3	0.00
Italy	391	197	2	347	50.4	0.5
Jamaica	4	2	0	4	50.0	0.00
Japan	31	12	1	31	38.7	3.2
Jersey (UK)	4	1	0	4	25.0	0.00
Jordan	1	1	1	1	100.0	100.0
Kazakhstan	25	7	0	25	28.0	0.00
Kiribati	2	2	0	2	100.0	0.00
Korea, Republic of	31	23	0	30	74.2	0.00
Kuwait	15	3	0	14	20.0	0.00
Latvia	31	16	0	19	51.6	0.00
Lebanon	21	21	3	19	100.0	14.3
Liberia	1,333	649	42	1,209	48.7	3.2
Libya	11	7	1	10	63.6	9.1
Lithuania	47	19	3	34	40.4	6.4
Luxembourg	65	27	1	57	41.5	1.5
Malaysia	5	4	2	5	80.0	40.0
Malta	1,531	796	57	1,294	52.0	3.7
Marshall Islands	1,274	553	16	1,176	43.4	1.3
Mauritius	2	1	0	2	50.0	0.00
Mexico	1	1	0	1	100.0	0.00
Moldova, Republic of	177	170	26	106	96.0	14.7
Mongolia	1	0	0	1	0.00	0.00
Montenegro	4	2	0	4	50.0	0.00
Morocco	11	10	0	6	90.9	0.00
Netherlands	1,038	447	10	858	43.1	1.0
Nigeria	2	0	0	2	0.00	0.00
Norway	475	224	3	436	47.2	0.6
Pakistan	2	2	0	1	100.0	0.00
Palau	46	44	5	32	95.7	10.9
Panama	2,013	1,176	92	1,790	58.4	4.6
Peru	1	0	0	1	0.00	0.00

Flag	Nr of Inspections	Inspections with deficiencies	Inspections with detentions	Nr of Individual ships inspected	% of Inspections with deficiencies	% of Inspections with detentions
Philippines	49	29	0	48	59.2	0.00
Poland	43	15	0	33	34.9	0.00
Portugal	182	95	7	157	52.2	3.8
Qatar	5	2	0	5	40.0	0.00
Romania	1	1	0	1	100.0	0.00
Russian Federation	387	224	20	339	57.9	5.2
Saint Kitts and Nevis	89	68	10	74	76.4	11.2
Saint Vincent and the Grenadines	207	138	13	155	66.7	6.3
Samoa	4	4	0	4	100.0	0.00
Sao Tome and Principe	1	1	0	1	100.0	0.00
Saudi Arabia	19	5	0	19	26.3	0.00
Seychelles	5	1	0	5	20.0	0.00
Sierra Leone	81	77	10	63	95.1	12.3
Singapore	614	277	11	570	45.1	1.8
Slovenia	1	1	0	1	100.0	0.00
Spain	64	29	2	59	45.3	3.1
Sri Lanka	7	6	1	5	85.7	14.3
Sweden	121	46	0	92	38.0	0.00
Switzerland	44	29	3	37	65.9	6.8
Syrian Arab Republic	4	4	1	4	100.0	25.0
Taiwan, China	5	1	0	5	20.0	0.00
Tanzania, United Republic of	57	56	11	39	98.2	19.3
Thailand	26	9	0	24	34.6	0.00
Togo	110	101	18	75	91.8	16.4
Tunisia	11	9	2	8	81.8	18.2
Turkey	391	227	24	335	58.1	6.1
Turkmenistan	5	3	0	5	60.0	0.00
Tuvalu	12	11	3	9	91.7	25.0
Ukraine	41	36	6	38	87.8	14.6
United Arab Emirates	3	Ī	0	3	33.3	0.00
United Kingdom	426	202	2	392	47.4	0.5
United States	68	42	2	64	61.8	2.9
Vanuatu	96	68	10	82	70.8	10.4
Venezuela	2	0	0	2	0.00	0.00
Virgin Islands (US)	1	1	1	1	100.0	100.0

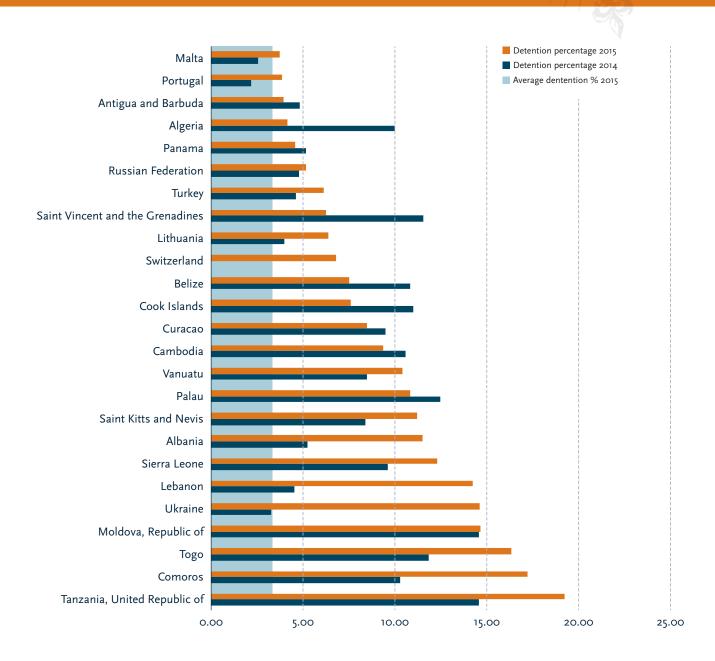


# 2015 detentions per flag, exceeding average percentage

Flag	Nr of Inspections	Inspections with detentions	% of Inspections with detentions	Excess of average 2015	Detentions % 2014	Excess of average 2014
Tanzania, United Republic of	57	11	19.3	16,0	14.6	11.3
Comoros	58	10	17.2	13,9	10.3	7.0
Togo	110	18	16.4	13,0	11.9	8.6
Moldova, Republic of	177	26	14.7	11,4	14.6	11.3
Ukraine	41	6	14.6	11,3	3.3	0.0
Lebanon	21	3	14.3	11,0	4.5	1.2
Sierra Leone	81	10	12.3	9,0	9.6	6.3
Albania	26	3	11.5	8,2	5.3	1.9
Saint Kitts and Nevis	89	10	11.2	7,9	8.4	5.1
Palau	46	5	10.9	7,5	12.5	9.2
Vanuatu	96	10	10.4	7,1	8.5	5.2
Cambodia	117	11	9.4	6,1	10.6	7.3
Curacao	47	4	8.5	5,2	9.5	6.2
Cook Islands	118	9	7.6	4,3	11.0	7.7
Belize	146	11	7.5	4,2	10.8	7.5
Switzerland	44	3	6.8	3,5		-3.3
Lithuania	47	3	6.4	3,1	4.0	0.7
Saint Vincent and the Grenadines	207	13	6.3	2,9	11.6	8.2
Turkey	391	24	6.1	2,8	4.6	1.3
Russian Federation	387	20	5.2	1,8	4.8	1.5
Panama	2,013	92	4.6	1,2	5.2	1.8
Algeria	24	1	4.2	0,8	10.0	6.7
Antigua and Barbuda	1,067	42	3.9	0,6	4.8	1.5
Portugal	182	7	3.8	0,5	2.2	-1.1
Malta	1,531	57	3.7	0,4	2.6	-0.8

Only flags with 20 and more port State control inspections in 2015 and with a detention percentage exceeding the average percentage of 3.33% are recorded in this graph.

## 2015 detentions per flag, exceeding average percentage

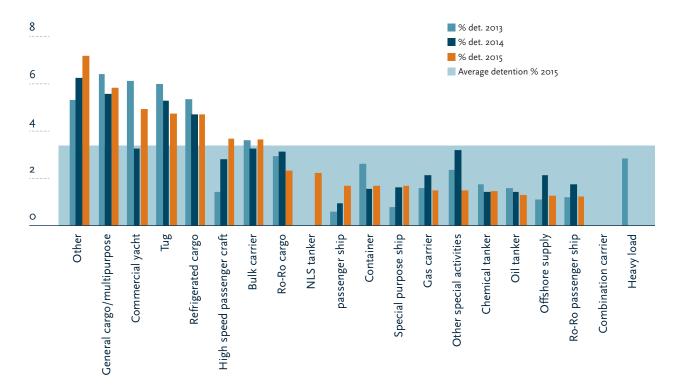


- Only flags with 20 and more port State control inspections in 2015 and with a detention percentage exceeding the average percentage of 3.33% are recorded in this graph. In 2014 the average detentions percentage was 3.32%.
- The grey column represents the 2015 average detention percentage (3.33%).

## Inspections and detentions 2015 PER SHIP TYPE

Ship type	Nr of Inspections	Inspections with deficiencies	% of inspections with deficiencies	Nr of Individual ships inspected	Inspections with detentions	% of detentions to inspections 2015	% of detentions to inspections 2014	% of detentions to inspections 2013	+ / - average detention 3.32%
	ž	de la	%. <u>×</u>	ş id	del n	% 2 %	% 2 %	% 5 %	+ <del>p</del>
Bulk carrier	3,646	1,975	54.2	3,293	130	3.6	3.2	3.6	0.2
Chemical tanker	1,607	704	43.8	1,412	23	1.4	1.4	1.7	-1.9
Combination carrier	12	5	41.7	12	-	0.0	0.0	0.0	-3.3
Commercial yacht	207	98	47.3	205	10	4.8	3.2	6.0	1.5
Container	1,768	819	46.3	1,559	29	1.6	1.5	2.6	-1.7
Gas carrier	409	170	41.6	372	6	1.5	2.1	1.6	-1.9
General cargo/multipurpose	5,119	3,171	61.9	3,967	293	5.7	5.5	6.3	2.4
Heavy load	43	23	53.5	41	-	0.0	0.0	2.8	-3.3
High speed passenger craft	83	54	65.1	49	3	3.6	2.7	1.4	0.3
NLS tanker	46	16	34.8	42	1	2.2	0.0	0.0	-1.2
Offshore supply	481	231	48.0	466	6	1.2	2.1	1.1	-2.1
Oil tanker	1,418	533	37.6	1,320	18	1.3	1.4	1.6	-2.1
Other	170	124	72.9	146	12	7.1	6.1	5.2	3.7
Other special activities	623	266	42.7	592	9	1.4	3.1	2.3	-1.9
Passenger ship	302	169	56.0	240	5	1.7	0.9	0.6	-1.7
Refrigerated cargo	282	197	69.9	243	13	4.6	4.6	5.2	1.3
Ro-Ro cargo	785	368	46.9	686	18	2.3	3.1	2.9	-1.0
Ro-Ro passenger ship	499	286	57.3	278	6	1.2	1.7	1.2	-2.1
Special purpose ship	122	53	43.4	118	2	1.6	1.6	0.8	-1.7
Tug	236	119	50.4	228	11	4.7	5.2	5.9	1.3





### Major categories of deficiencies 2013-2015

			13	20	14	2015	
Deficiencies Main Group	Category of deficiencies	Def	Def %	Def	Def %	Def	Def %
	Crew Certificates	1,013	2.1	1,541	3.4	1,263	3.0
Certificates & Documentation	Documents	3,069	6.3	3,491	7.6	2,600	6.3
	Ship Certificates	2,754	5.6	2,640	5.7	2,375	5.7
Structural Condition		2,202	4.5	1,904	4.1	1,895	4.6
Water/Weathertight condition		2,111	4.3	2,015	4.4	1,893	4.6
Emergency Systems		2,184	4.5	2,092	4.5	2,490	6.0
Radio Communication		1,301	2.7	1,240	2.7	1,011	2.4
Cargo operations including equipment		329	0.7	234	0.5	208	0.5
Fire safety		6,657	13.6	6,176	13.4	5,558	13.4
Alarms		490	1.0	392	0.9	388	0.9
Working and Living Conditions	Living Conditions	1,946	4.0	759	1.7	198	0.5
(ILO 147)**	Working conditions	4,579	9.3	2,195	4.8	966	2.3
	MLC, 2006 Title 1	14	0.0	57	0.1	62	0.1
Working and Living Conditions	MLC, 2006 Title 2	88	0.2	324	0.7	393	0.9
(MLC, 2006)*	MLC, 2006 Title 3	258	0.5	1,352	2.9	1,752	4.2
	MLC, 2006 Title 4	390	0.8	2,218	4.8	2,795	6.7
Safety of Navigation		6,861	14.0	6,195	13.5	5,150	12.4
Life saving appliances		4,526	9.2	4,016	8.7	3,709	9.0
Dangerous goods		100	0.2	107	0.2	67	0.2
Propulsion and auxiliary machinery		2,710	5.5	2,234	4.9	2,020	4.9
	Anti Fouling	25	0.1	17	0.0	10	0.0
	Marpol Annex I	1,060	2.2	874	1.9	795	1.9
	Marpol Annex II	30	0.1	27	0.1	16	0.0
Pollution prevention	Marpol Annex III	9	0.0	4	0.0	5	0.0
	Marpol Annex IV	341	0.7	344	0.7	338	0.8
	Marpol Annex V	889	1.8	596	1.3	609	1.5
	Marpol Annex VI	492	1.0	458	1.0	470	1.1
ISM		1,821	3.7	1,801	3.9	1,797	4.3
ISPS		401	0.8	337	0.7	337	0.8
Other		424	0.9	339	0.7	266	0.6

<sup>\*</sup> On 20 August 2013 the Maritime Labour Convention 2006 entered into force. Only Member States of the Paris MoU that had ratified the MLC, 2006 on or before 20 August 2012 were entitled to conduct PSC inspections on MLC,2006 requirements from 20 August 2013.

<sup>\*\*</sup> For Member States of the Paris MoU that have not ratified the MLC, 2006, enforcement of the Merchant Shipping Convention (ILO 147) and the protocol of 1996 to the Merchant Shipping Convention (ILO P147) will initially continue.

#### Top 5 categories of deficiencies 2015

Category of deficiencies	Deficiencies	% Deficiencies
Fire safety	5,558	13.4%
Safety of Navigation	5,150	12.4%
Life saving appliances	3,709	9.0%
Labour conditions-Health protection, medical care, social security	2,795	6.7%
Certificate & Documentation-Documents	2,600	6.3%

#### Top 5 deficiencies 2015

Deficiencies	Deficiencies	% Deficiencies
ISM	1,797	4.3%
Fire doors/openings in fire-resisting divisions	1,044	2.5%
Nautical publications	1,016	2.5%
Charts	996	2.4%
Oil record book	645	1.6%



## Maritime Labour Convention, 2006

MLC Deficiencies per Area	Nr MLC Deficiencies	% of Total of Nr. MLC deficiencies	Nr Detainable MLC Deficiencies	% of Detainable deficiencies of MLC deficiencies
MLC,2006 Ship's certificates and documents	191	3.0	14	7.3
Area 1 Minimum age of seafarers	0	0.0	0	0.0
Area 2 Medical certification of seafarers	190	3.0	8	4.2
Area 3 Qualifications of seafarers	15	0.2	2	13.3
Area 4 Seafarers' employment agreements	395	5.9	37	9.4
Area 5 Use of any licensed or certified or regulated private recruitment and placement service for seafarers	15	0.2	0	0.0
Area 6 Hours of Works or rest	730	11.6	18	2.5
Area 7 Manning levels for the ship	78	1.3	19	24.4
Area 8 Accommodation	583	9.1	49	8.4
Area 9 On-board recreational facilities	31	0.5	2	6.5
Area 10 Food and catering	1,058	16.7	44	4.2
Area 11 Health and safety and accident prevention	2,656	41.3	100	3.8
Area 12 on-board medical care	231	3.6	12	5.2
Area 13 On-board complaint procedure	81	1.3	3	3.7
Area 14 Payment of wages	150	2.3	54	36.0
Grand Total	6404	100,00%	362	5,7

#### MLC deficiencies top 5

Category of deficiencies	Deficiencies	% Deficiencies
Records of seafarers' daily hours of work or rest	351	5.5
Electrical	329	5.1
Seafarers' employment agreement (SEA)	293	4.6
Access / structural features (ship)	243	3.8
Cold room, cold room cleanliness, cold room temperature	242	3.8

#### MLC detainable deficiencies top 5

Deficiencies	Detainable deficiencies	% Deficiencies
Wages	41	11.3
Seafarers' employment agreement (SEA)	33	9.1
Cleanliness of engine room	29	8.0
Sanitary Facilities	25	6.9
Manning specified by the minimum safe manning doc	19	5.2



# Detentions of ships with RO related detainable deficiencies per Recognized Organization 2015

(CASES IN WHICH 10 OR MORE INSPECTIONS ARE INVOLVED)

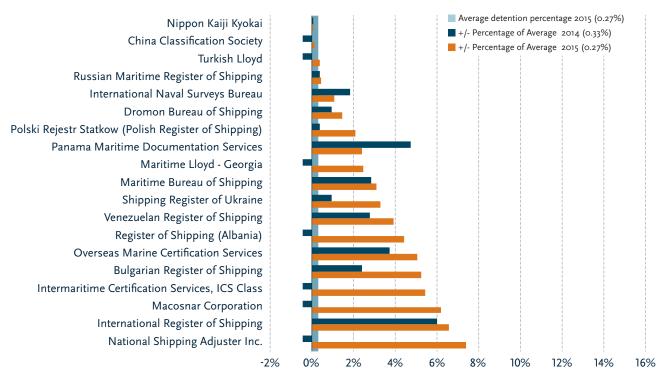
Recognized Organization		Total number of inspections*	Number of individual ships inspected*	Total number of detentions***	Detention-% of total number of inspections	+/- Percentage of Average (0.27%)	Detention-% of individual ships	+/- Percentage of Average (0.31%)
American Bureau of Shipping	ABS	1,901	1,776	1	0.05	-0.22	0.06	-0.26
ASIA Classification Society	ACS	12	12	0	-	-0.27	-	-0.31
Bulgarian Register of Shipping	BRS	89	62	4	4.49	4.22	6.45	6.14
Bureau Veritas	BV	3,795	3,172	8	0.21	-0.06	0.25	-0.06
China Classification Society	CCS	268	255	1	0.37	0.10	0.39	0.08
Columbus American Register	COLAM- REG	24	15	0	-	-0.27	-	-0.31
Croatian Register of Shipping	CRS	44	38	0	-	-0.27	-	-0.31
Det Norske Veritas	DNV	2,973	2,678	2	0.07	-0.20	0.07	-0.24
DNV GL AS	DNVGL	4,274	3,745	2	0.05	-0.22	0.05	-0.26
Dromon Bureau of Shipping	DBS	140	100	2	1.43	1.16	2.00	1.69
Germanischer Lloyd	GL	3,444	2,843	5	0.15	-0.12	0.18	-0.14
Global Marine Bureau Inc.	GMB	24	17	0	-	-0.27	-	-0.31
Hellenic Register of Shipping	HRS	12	8	0	-	-0.27	-	-0.31
Indian Register of Shipping	IRS	18	17		-	-0.27	-	-0.31
Intermaritime Certification Services, ICS Class	ICS	43	37	2	4.65	4.38	5.41	5.09
International Naval Surveys Bureau	INSB	174	138	2	1.15	0.88	1.45	1.14
International Register of Shipping	IS	108	75	6	5.56	5.29	8.00	7.69
International Ship Classification	ISC	10	8	0	-	-0.27	-	-0.31
Iranian Classification Society	IRCS	13	13	0	-	-0.27	-	-0.31
Isthmus Bureau of Shipping, S.A.	IBS	44	39	0	-	-0.27	-	-0.31
Korean Register of Shipping	KRS	355	328	0	-	-0.27	-	-0.31
Lloyd's Register	LR	4,185	3,661	1	0.02	-0.25	0.03	-0.29
Macosnar Corporation	МС	19	16	1	5.26	4.99	6.25	5.94
Maritime Bureau of Shipping	MBS	36	23	1	2.78	2.51	4.35	4.04
Maritime Lloyd - Georgia	MLG	44	26	1	2.27	2.00	3.85	3.53
Mediterranean Shipping Register	MSR	16	10	0	-	-0.27	-	-0.31
National Shipping Adjuster Inc.	NASHA	48	38	3	6.25	5.98	7.89	7.58
Nippon Kaiji Kyokai	NKK	2,695	2,424	9	0.33	0.06	0.37	0.06
Other	OTHER	101	90	0	-	-0.27	-	-0.31
Overseas Marine Certification Services	OMCS	23	20	1	4.35	4.08	5.00	4.69
Panama Marine Survey and Certification Services Inc.	PMSCS	18	12	0	-	-0.27	-	-0.31
Panama Maritime Documentation Services	PMDS	45	42	1	2.22	1.95	2.38	2.07
Panama Register Corporation	PRC	30	25	0	-	-0.27	-	-0.31
Panama Shipping Registrar Inc.	PSR	12	11	0	-	-0.27	-	-0.31

Recognized Organization		Total number of inspections*	Number of individual ships inspected*	Total number of detentions ***	Detention-% of total number of inspections	+/- Percentage of Average (0,27%)	Detention-% of individual ships	+/- Percentage of Average (0,31%)
Phoenix Register of Shipping	PHRS	64	57	0	-	-0.27	-	-0.31
Polski Rejestr Statkow (Polish Register of Shipping)	PRS	152	108	3	1.97	1.70	2.78	2.47
Register of Shipping (Albania)	RSA	26	17	1	3.85	3.58	5.88	5.57
RINA Services S.p.A.	RINA	1,271	1,070	1	0.08	-0.19	0.09	-0.22
Russian Maritime Register of Shipping	RMRS	1,097	885	7	0.64	0.37	0.79	0.48
Shipping Register of Ukraine	SRU	170	124	5	2.94	2.67	4.03	3.72
Turkish Lloyd	TL	181	157	1	0.55	0.28	0.64	0.32
Universal Shipping Bureau Inc.	USB	13	12	0	-	-0.27	-	-0.31
Venezuelan Register of Shipping	VRS	58	47	2	3.45	3.18	4.26	3.94

<sup>\*</sup> As more than one Recognized Organization might have issued or endorsed statutory certificates with regard to the same ship, an inspection can be relevant for more than one RO and might appear multiple times in this column.

## % of detentions of ships with RO related detainable deficiencies per Recognized Organization 2014-2015

(CASES IN WHICH MORE THAN 10 INSPECTIONS ARE INVOLVED )



<sup>\*</sup> Only ROs with 10 and more port State control inspections in 2015 and with a detention percentage exceeding the average percentage of 0.27% are recorded in this graph. In 2014 the average detentions percentage was also 0.33%.

<sup>\*\*</sup> Only detentions with RO related detainable deficiencies are taken into account.

<sup>\*</sup> The grey column represents the 2015 average detention percentage (0.27%).

### Recognized Organization performance table 2013-2015

Recognized Organization		Inspections	Detentions	Low/medium limit	Medium / high limit	Excess Factor	Performance level
DNV GL AS	DNVGL	5,992	2	138	102	-1.95	
Det Norske Veritas	DNV	9,688	6	217	171	-1.92	
American Bureau of Shipping	ABS	5,506	3	128	93	-1.92	
Lloyd's Register	LR	12,009	9	266	214	-1.91	
Korean Register of Shipping	KRS	1,018	1	28	13	-1.70	
RINA Services S.p.A.	RINA	3,390	7	82	54	-1.69	нідн
Bureau Veritas	BV	11,366	31	252	202	-1.67	пісп
Germanischer Lloyd	GL	11,734	34	260	209	-1.65	
China Classification Society	CCS	802	1	23	9	-1.56	
Nippon Kaiji Kyokai	NKK	7,414	27	169	128	-1.54	
Russian Maritime Register of Shipping	RMRS	3,704	19	89	60	-1.28	
Turkish Lloyd	TL	642	2	19	7	-0.95	
Croatian Register of Shipping	CRS	155	0	6	0	0.04	
Polski Rejestr Statkow (Polish Register of Shipping)	PRS	440	4	14	3	0.05	
Other	OTHER	348	4	12	2	0.19	
Indian Register of Shipping	IRS	67	0	4	0	0.22	
Isthmus Bureau of Shipping, S.A.	IBS	171	2	7	0	0.30	
Register of Shipping (Albania)	RSA	76	1	4	0	0.40	
Shipping Register of Ukraine	SRU	549	10	17	5	0.42	
Macosnar Corporation	MC	68	1	4	0	0.42	
Intermaritime Certification Services, ICS Class	ICS	102	2	5	0	0.49	
Maritime Bureau of Shipping	MBS	99	2	5	0	0.50	
Maritime Lloyd - Georgia	MLG	141	3	6	0	0.53	MEDIUM
International Naval Surveys Bureau	INSB	621	13	19	6	0.55	
Global Marine Bureau Inc.	GMB	87	2	4	0	0.55	
Phoenix Register of Shipping	PHRS	181	4	7	0	0.55	
Dromon Bureau of Shipping	DBS	486	11	15	4	0.61	
Columbus American Register	COLAMREG	69	2	4	0	0.63	
Panama Maritime Documentation Services	PMDS	102	3	5	0	0.67	
Panama Register Corporation	PRC	99	3	5	0	0.68	
National Shipping Adjuster Inc.	NASHA	87	3	4	0	0.74	
Venezuelan Register of Shipping	VRS	202	7	8	0	0.89	
Overseas Marine Certification Services	OMCS	85	4	4	0	0.94	
Bulgarian Register of Shipping	BRS	259	9	9	1	0.95	
Universal Shipping Bureau Inc.	USB	99	5	5	0	1.15	LOW
International Register of Shipping	IS	345	18	12	2	2.46	VERY LOW

In this table only Recognized Organizations that had 60 or more inspections in a 3-year period are taken into account. The formula is identical to the one used for the White, Grey and Black list. However, the values for P and Q are adjusted to P=0.02 and Q=0.01.

Performance of recognized organizations is measured over a 3-year rolling period. In 2014 DNV GL was included for the first year, while DNV and GL issued certificates were still recorded as separate entities. In the 2016 report DNV and GL will no longer be listed separately (as all those certificates will have been superseded / expired / renewed).

# Number of certificates covering RO responsible detainable deficiencies 2015

Recognized Organization		Certificates	Nr of RO detainable deficiencies	% defeiciencies / certificates
American Bureau of Shipping	ABS	15,848	1	0.01
Bulgarian Register of Shipping	BRS	827	26	3.14
Bureau Veritas	BV	30,452	16	0.05
China Classification Society	CCS	2,418	4	0.17
Croatian Register of Shipping	CRS	462		0.00
Det Norske Veritas	DNV	16,869	5	0.03
DNV GL AS	DNVGL	21,991	7	0.03
Dromon Bureau of Shipping	DBS	1,482	2	0.13
Germanischer Lloyd	GL	23,202	16	0.07
Intermaritime Certification Services, ICS Class	ICS	243	3	1.23
International Naval Surveys Bureau	INSB	1,313	7	0.53
International Register of Shipping	IS	890	15	1.69
Isthmus Bureau of Shipping, S.A.	IBS	236		0.00
Korean Register of Shipping	KRS	3,331		0.00
Lloyd's Register	LR	28,380	1	0.00
Maritime Bureau of Shipping	MBS	419	2	0.48
Maritime Lloyd - Georgia	MLG	430	3	0.70
National Shipping Adjuster Inc.	NASHA	469	7	1.49
Nippon Kaiji Kyokai	NKK	26,190	32	0.12
Other	OTHER	305		0.00
Panama Maritime Documentation Services	PMDS	199	5	2.51
Panama Register Corporation	PRC	147		0.00
Phoenix Register of Shipping	PHRS	448		0.00
Polski Rejestr Statkow (Polish Register of Shipping)	PRS	1,159	17	1.47
RINA Services S.p.A.	RINA	8,696	1	0.01
Russian Maritime Register of Shipping	RMRS	10,073	46	0.46
Shipping Register of Ukraine	SRU	1,616	18	1.11
Turkish Lloyd	TL	901	1	0.11
Venezuelan Register of Shipping	VRS	587	6	1.02

## Flags on the "Black List" in combination with Recognized Organizations that act on their behalf with a combined lower performance 2013-2015

## "Black" flags with corresponding RO with an excess factor ≥ 0.50 detentions period 2013-2015

Flag State	Recognized Organization	Nr of Inspections	Inspections with detentions	Detentions %	(+/-) Average det % 1.90
Belize	Dromon Bureau of Shipping	17	0	0.0	-1.90
	International Naval Surveys Bureau	32	0	0.0	-1.90
Cambodia	Global Marine Bureau Inc.	24	0	0.0	-1.90
	International Register of Shipping	11	0	0.0	-1.90
Comoros	Bulgarian Register of Shipping	11	0	0.0	-1.90
	International Naval Surveys Bureau	15	0	0.0	-1.90
	Venezuelan Register of Shipping	19	0	0.0	-1.90
Cook Islands	International Naval Surveys Bureau	10	1	10.0	8.10
Moldova, Republic of	Bulgarian Register of Shipping	28	1	3.6	1.67
	Dromon Bureau of Shipping	11	0	0.0	-1.90
	Maritime Bureau of Shipping	26	1	3.8	1.95
	Maritime Lloyd - Georgia	19	0	0.0	-1.90
	Venezuelan Register of Shipping	11	0	0.0	-1.90
Saint Kitts and Nevis	International Register of Shipping	34	2	5.9	3.98
Saint Vincent and the Grenadines	International Naval Surveys Bureau	38	0	0.0	-1.90
Sierra Leone	Dromon Bureau of Shipping	59	1	1.7	-0.21
Tanzania, United Republic of	Maritime Lloyd - Georgia	23	1	4.3	2.45
	Venezuelan Register of Shipping	14	1	7.1	5.24
Togo	Columbus American Register	24	0	0.0	-1.90
	Dromon Bureau of Shipping	49	1	2.0	0.14
	International Naval Surveys Bureau	38	0	0.0	-1.90
	Venezuelan Register of Shipping	13	1	7.7	5.79

Note: Criteria were developed to identify flag States and Recognized Organizations acting on their behalf that jointly have a lower performance. The targeted flags are the flags placed on the "Black List". The targeted Recognized Organizations are ROs which act on behalf of a flag on the "Black List" and have an excess factor of  $\geq$  0.50 on the RO performance list in combination with  $\geq$  10 inspections for this flag.

## ROs with corresponding "Black" flags with an average detention % > 1.90% period 2013-2015

Recognized Organization	Flag State	Nr of Inspections	Inspections with detentions	Detentions %	(+/-) Average det % 1.90
Bulgarian Register of Shipping	Moldova, Republic of	28	1	3.57	1.67
Dromon Bureau of Shipping	Togo	49	1	2.04	0.14
International Naval Surveys Bureau	Cook Islands	10	1	10.00	8.10
International Register of Shipping	Saint Kitts and Nevis	34	2	5.88	3.98
Maritime Bureau of Shipping	Moldova, Republic of	26	1	3.85	1.95
Maritime Lloyd - Georgia	Tanzania, United Republic of	23	1	4.35	2.45
Venezuelan Register of Shipping	Togo	13	1	7.69	5.79
Venezuelan Register of Shipping	Tanzania, United Republic of	14	1	7.14	5.24

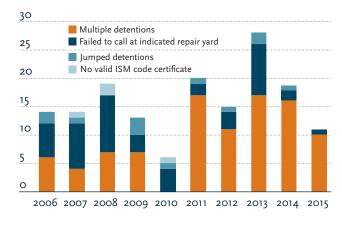
Note: To identify the poorest performing Recognized Organizations the average detention rate (1.90%) of the lower performing combinations of flags and ROs has been used as a limit. The outcome is a list of Recognized Organizations which performance on behalf of a flag on the Black list is poorer than the average performance of ROs performing below average.



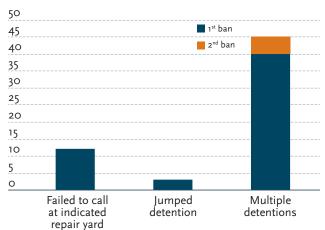
### Refusal of access (banning) per flag 2013-2015

Flag	to call cated yard d		Mul	anned		
	Failed to call at indicated repair yard	Jumped detention	1 <sup>st</sup> ban	2 <sup>nd</sup> ban	3 <sup>rd</sup> ban	Total Banned ships
Belize	1		1	1		3
Cambodia	1		2			3
Comoros			1			1
Moldova, Republic of	1		7	1		9
Panama	3	1				4
Russian Federation	1					1
Saint Kitts and Nevis	1		3			4
Saint Vincent and the Grenadines	1		7	1		9
Sierra Leone	1		3			4
Tanzania, United Republic of		2	10	1		13
Togo	2		5			7
Ukraine				1		1
Vanuatu			1			1
Total	12	3	40	5	0	60

#### Refusal of access 2006-2015



#### 2013-2015



### CIC 2015 Enclosed Space Entry

Number of ships inspected during CIC	Nr of individual ships inspected during CIC	Nr of inspections performed with a CIC questionnaire	Nr of inspections without a CIC questionnaire
Inspections	4,117	3,776	438
Inspections with detentions	160	140	20
Detentions with CIC-topic related deficiencies	54	53	1

Number of inspections performed per ship during CIC	Nr of ships	% of total	
1	3,776	100.0	
2	0	0.0	
3	0	0.0	
Total	3,776	100.0	

Ship type	Nr of inspections	Nr of detentions	detention as % of inspections	detentions CIC-topic related	detentions CIC-topic related as % of inspections
Bulk carrier	889	27	3.0	11	1.2
Chemical tanker	368	7	1.9	2	0.5
Commercial yacht	22	3	13.6	0	0.0
Container	356	8	2.2	2	0.6
Gas carrier	110	0	0.0	0	0.0
General cargo/multipurpose	1,151	72	6.3	28	2.4
Heavy load	16	0	0.0	0	0.0
High speed passenger craft	2	0	0.0	0	0.0
Offshore supply	84	2	2.4	0	0.0
Oil tanker	316	6	1.9	2	0.6
Other	32	4	12.5	4	12.5
Other special activities	89	1	1.1	0	0.0
Passenger ship	39	1	2.6	0	0.0
Refrigerated cargo	84	5	6.0	3	3.6
Ro-Ro cargo	150	1	0.7	0	0.0
Ro-Ro passenger ship	17	0	0.0	0	0.0
Special purpose ship	16	0	0.0	0	0.0
Tug	23	2	8.7	1	4.3
NLS tanker	9	1	11.1	0	0.0
Combination carrier	3	0	0.0	0	0.0
Total	3.776	140	3.7	53	1.4

### Explanatory note - "White", "Grey" and "Black List"

## The normative listing of Flags provides an independent categorization that has been prepared on the basis of Paris MoU port State inspection results over a 3-year period, based on binomial calculus.

The performance of each Flag 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 system, the 'black to grey' and the 'grey to white' limit, each with its own specific formula:

$$\begin{split} u_{black\_to\_grey} &= N \cdot p + 0.5 + z \sqrt{(N \cdot p \cdot (1-p))} \\ u_{white\_to\_grey} &= N \cdot p - 0.5 - z \sqrt{(N \cdot p \cdot (1-p))} \end{split}$$

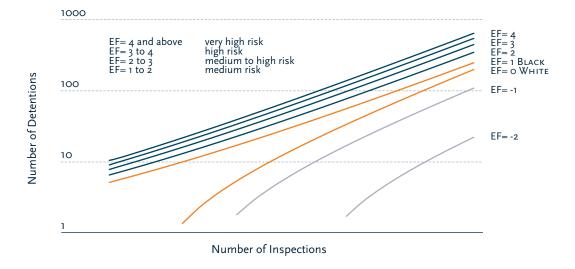
In the formula "N" is the number of inspections, "p" is the allowable detention limit (yardstick), set to 7% by the Paris MoU Port State Control Committee, and "z" is the significance requested (z=1.645 for a statistically acceptable certainty level of 95%). The result "u" is the allowed number of detentions for either the black or white list. The "u" results can be found in the table. 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 is positioned between the two, the Flag 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 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 of the White, Grey or Black list. The target (yardstick) has been set on 7% and the size of the increment and decrement on 3%. The White/Grey/Black lists have been calculated in accordance with the principles above\*.

The graphical representation of the system below is showing the direct relations between the number of inspected ships and the number of detentions. Both axes have a logarithmic character as the 'black to grey' or the 'grey to white' limit.



<sup>\*</sup> Explanatory notes can be found on www.parismou.org/publications

## Secretariat Paris Memorandum of Understanding on Port State Control



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### Paris MoU fact sheet – organizational structure

