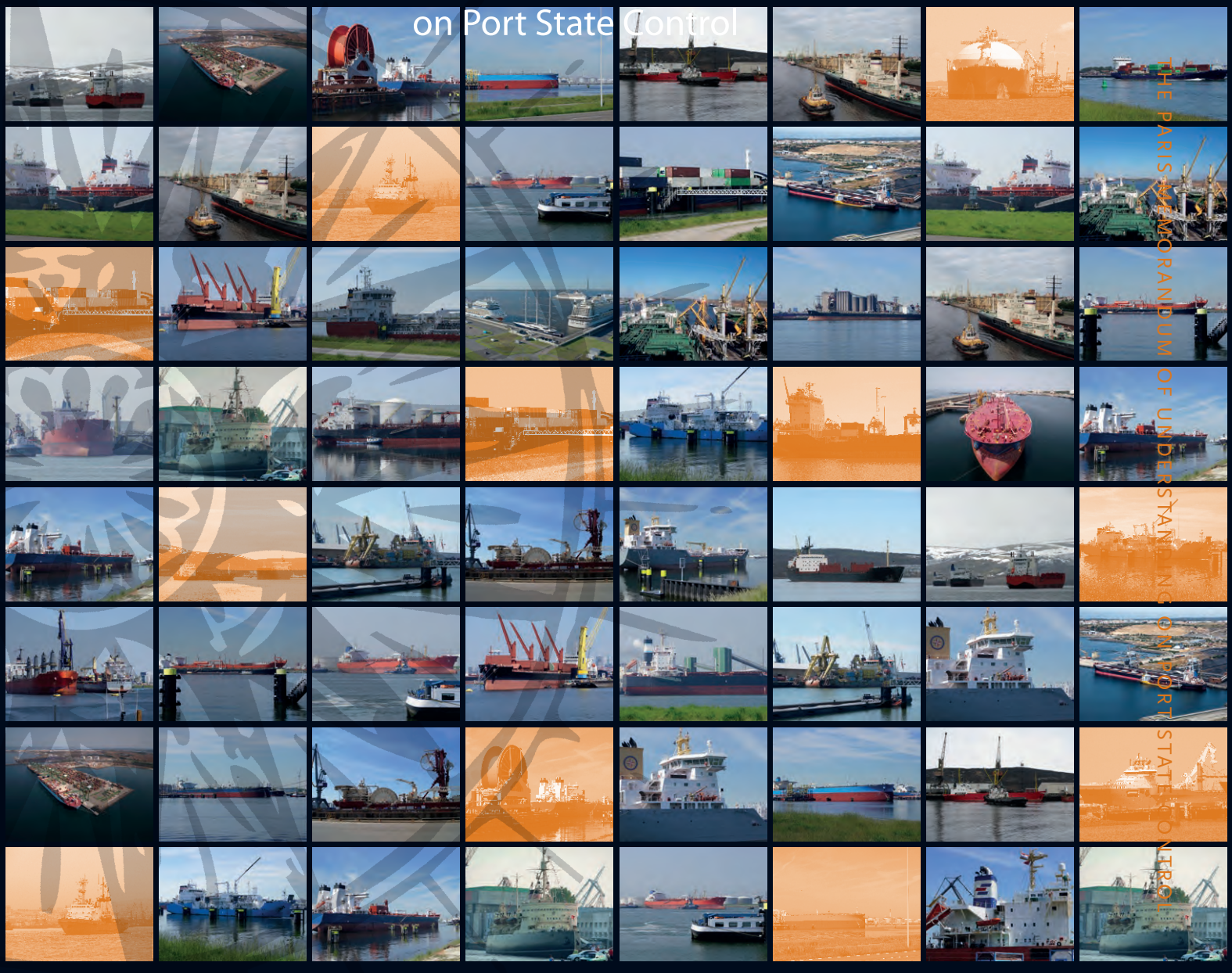
Paris MoU

on Port State Control



THE PARIS MEMORANDUM OF UNDERSTANDING ON PORT STATE CONTROL

Port State Control
Getting back on track

ANNUAL REPORT 2021

Paris MoU

on Port State Control

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Paris MoU
on Port State Control

Annual Report **2021**

CONTENTS

Introduction
CHAIRMAN AND SECRETARY-GENERAL

Looking back on the year of 2021 one cannot escape the conclusion that the impact of COVID-19 was very significant. Especially from the perspective of the Paris MoU in terms of the ability to carry out safe port State control inspections on board ships. It was also very important to ensure the safety of both the port State control officers and the persons on board the ships involved.

More importantly, and from a broader perspective, the impact on seafarers was very significant. While the consequences of COVID-19 for the recipients of the goods that were transported overseas were, to a certain extent, still manageable, this was much less the case for the seafarers themselves. As we have all heard, repatriation was very challenging and with that the opportunity for seafarers to take their leave, which also resulted in situations where the maximum permissible period on board was exceeded. This is reflected in the data for 2021.

As indicated, there continued to be an impact on the ability to carry out port State control inspections, although that impact was not the same for every Paris MoU member Authority. Overall, the number of inspections carried out in 2021 was higher than in 2020, but not quite back to pre-pandemic levels.

Unfortunately, the inspection results showed an increased detention rate for 2021. This is a worrying development

that cannot be viewed in isolation from the pandemic and its effects on compliance.

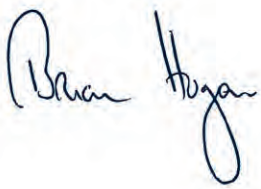
Looking ahead to 2022, taking advantage of the experience of the first months of that year, it seems that we can look forward to the situation where the influence of COVID-19 on port State control will become less over time.
At the same time, hopefully the terrible impact on seafarers will also become a thing of the past. And let's express the expectation that the chain partners in the maritime sector, each in their own way, will draw lessons from these experiences in order to prevent this from happening again in the future.

Notwithstanding the continuing limitations to travel and personal contact, the Paris MoU continued during 2021 to further develop, and thus taking further steps in the elimination of substandard shipping. An important part of this is also the enhanced cooperation with port State control regimes in other parts of the world.

The Paris MoU members and bodies have continued to positively contribute to the goals and results of maritime safety. The European Commission and the European Maritime Safety Agency (EMSA) are also thanked for their pro-active co-operation and strong working relationship with the Paris MoU.

In conclusion, the port State control officers are the ones at the heart of the Paris MoU together with their colleagues in the maritime administrations and who together continue to deliver on our common objectives. Special thanks and appreciation go to them in an – again – very challenging year. ■

Brian Hogan



Chairman of the Paris MoU Committee

Luc Smulders

Secretary-General of the Paris MoU

Executive **SUMMARY**

The ongoing impact of COVID-19 on the world has clearly affected the work of the Paris MoU. The Paris MoU has monitored the situation and revised guidance as necessary in line with changed circumstances and shared it with other port State control regimes, the IMO and the ILO and the public at large.
The overall situation did improve in 2021, resulting in an increasing number of inspections, but at the same time a higher number of deficiencies, detentions and bannings.

In 2021, 11 Refusal of Access Orders (bans) were issued. This shows an increase compared to 2020 when 8 bans were issued. The detention percentage has risen to 3.43% (2.92% in 2020). The number of detainable deficiencies increased to 3,274 (from 2,182 in 2020). The number of inspections carried out was 15,387. Clearly a substantial increase compared to 2020: 13,168.

In the past three years 36 ships have been banned for multiple detentions, seven ships were banned "failing to call at an indicated repair yard" and one ship for jumping detention. In the same period, seven ships were banned for a second time.
Over a three-year period the flags of Comoros and the Republic of Moldova have recorded the highest number of bannings.

Looking at the Paris MoU "White, Grey and Black List" in this again challenging year, a small shift is noticeable in the quality of shipping, resulting in a larger "White List" and a smaller "Black List". The total number of 40 flags on the "White List" is slightly more than that of 2020 (39). The "Grey List" contains 21 flags (22 in 2020); the "Black List" 7 flags (9 in 2020).

Recognized Organizations (ROs) are authorised by flag States to carry out statutory surveys on their behalf. For this reason, it is important to monitor their performance, which is why a performance list for ROs is presented in the Annual Report as well. Out of 528 detentions recorded in 2021, 64 (12.1%) were considered RO related (10.6% in 2020). Noteworthy is the fact that, for the second year in a row, no RO was mentioned in the category "very low" on the RO performance list.

The number of inspections has clearly picked up again in 2021; 15,387. The detention percentage in 2021 also increased to 3.43% (2.92% in 2020). The number of detainable deficiencies has also increased from 2,182 in 2020 to 3,274 this year.

Members with the largest number of inspections, namely Canada, France, Italy, Spain and the United Kingdom jointly accounted for 41% of the total number of inspections this year.

With 380 inspections and 60 detentions the ships flying a "Black-listed flag" had a detention rate of 15.8%, which is substantially more than the 9.4% in 2020. For ships flying a "Grey-listed flag" the detention rate was 8.2%, again substantially more than the 4.6 % in 2020. Ships flying a "White-listed flag" had a detention rate of 2.8% which is slightly higher than in 2020 (2.4%) and 2019 (2.2%).

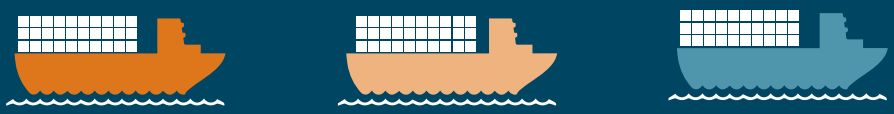
The five most frequently recorded deficiencies in 2021 were "ISM" (4.9%, 1,777), "fire doors/openings in fire-resisting divisions" (3.9%, 1,052), "Seafarers' Employment Agreement" (1.7%, 597), "auxiliary engine" (1.4%, 503) and "cleanliness of engine room" (1.3%, 471).
The deficiency on the seafarers' employment agreement, in the previous year marked as a consequence of COVID-19 situation, decreased relatively from 1.9% to 1.7%.

In addition, the total number of the top five of deficiencies has remained similar to previous years at 12% this year. ■

Paris MoU 2021

on Port State Control

Three year trend detention %



2019: 2.98%

2020: 2.92%

2021: 3.43%

Inspection results

15,387 Inspections

7,915 Inspections with deficiencies

528 Detentions

11 Bannings

Number of White, Grey and Black flags

40

21

7

Performance in number of ROs

High 11

Medium 19

Low 3

Very low 0

Top 5 category of deficiencies

13% Fire Safety

10% Safety of Navigation

10% Labour Conditions - Health protection, medical care, welfare and social security protection

7% Life Saving Appliances

6% Certificate & Documentation

Continued impact of COVID-19 ON THE PARIS MOU

The year 2021 was again largely characterised by the consequences of the COVID-19 crisis. The impact of the pandemic on the global health, social and economic situation was again widely spread. Needless to say, this continued to affect the Paris MoU members and the Paris MoU activities in general. Health and travel restrictions still made it difficult to conduct inspections and attend trainings and meetings at different periods.

The Paris MoU continued to focus on its crucial role to ensure a correct implementation of the ILO Maritime Labour Convention (MLC, 2006). The guidance developed to deal with the impact of the outbreak of COVID-19 (PSCircular 97) and in place since the start of the pandemic was revised to keep pace with developments. The initial flexibility and pragmatism that was offered was gradually reduced by no longer accepting it outright that the validity of certificates and periods of service on board for seafarers were extended and that surveys, inspections and audits were delayed; in line with guidance issued by the IMO (Circular Letter No. 4204/Add.19 and revisions) and the ILO (Information Notes).

The Paris MoU monitored the impact of the crisis on the work of the Paris MoU itself, including whether and to what extent the harmonised and risk-based methodology was also affected. In particular, effects on the increase of ships that were required to be inspected at ports calls (priority 1 ships) were noticed. ■

Paris MoU **DEVELOPMENTS**

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 issues related to the regional implementation of port State control, reviews the work of the Technical Evaluation Group and task forces and decides on administrative procedures.

The task forces are each assigned a specific work programme to examine the improvement of operational, technical and administrative port State control procedures. Reports from the task forces are submitted to the Technical Evaluation Group (TEG) in which all Paris MoU members and observers are represented. The evaluation by 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 2021 consisted of participants from Norway, the Russian Federation, Belgium, the Netherlands and the European Commission.

PORT STATE CONTROL COMMITTEE

The Paris Memorandum of Understanding on Port State Control (Paris MoU) held its 54th Committee meeting by virtual means from the 17th of May to the 21st of May 2021. The Committee consists of 27 member Authorities and the European Commission.

One of the priority elements discussed was the COVID-19 pandemic and its impact on port State control. Port calls and the number of inspections were still affected as a consequence of restrictive measures resulting from COVID-19. However, the situation did improve and inspection efforts increased again.

The Committee discussed the impact of the COVID-19 situation and discussed the monitoring of the situation. Measures taken at an earlier stage such as a specific circular focusing on MLC, 2006 requirements (PSCircular 97) and the establishment of a task force to monitor the effects were considered.

The Committee discussed the concentrated inspection campaigns (CICs) schedule to start with Stability in 2021, to be followed by an Inspection Campaign on the Polar Code June and August 2022 and a CIC on STCW in the autumn of 2022.

The Committee has also adopted the 2020 Annual Report, including the "White, Grey and Black List" and the performance list of Recognized Organizations. These lists have been taken into account for the calculation of the Ship Risk Profile from 1 July 2021.

TECHNICAL EVALUATION GROUP

In 2021, the regular schedule of the Port State Control Committee (PSCC) held in May allowed the Committee to establish task forces again, giving them sufficient time to complete their work before the scheduled meeting of the Technical Evaluation Group (TEG) in December 2021. TEG was held face-to-face in Malta. Several member Authorities that had travel restrictions participated online. The task forces, which were to deal with – amongst others – the following topics, were instructed to report to TEG and to the next PSCC:

- Information System Developments;
- Evaluation of Paris MoU Statistics;
- New inspection policy within the Paris MoU;
- CIC on Stability (in general) 2021;
- CIC on STCW 2022;
- CIC on Fire Safety 2023;
- CIC on MLC, 2006 2024;
- CIC on BWM 2025;
- Digitisation;
- Scheme to harmonise the level of professional competence within the Paris MoU;
- Study on Port State control on fishing vessels;
- Impact of COVID-19 crisis.

PORT STATE CONTROL TRAINING AND SEMINARS

The Paris MoU inspection regime is focussed on the elimination of sub-standard shipping in the region. Inspections are carried out on the basis of the Relevant Instruments, where the conduct of inspections is supported by a set of procedures, which are aimed at providing more guidance to enhance harmonisation in the region. Ongoing improvements and performance measurement through inspection results require strict adherence to the established procedures.

Training plays an important part in achieving these goals and aims at a higher degree of harmonisation and standardisation of inspections throughout the region. To assist in this a Professional Development Scheme (PDS) has been successfully established, consisting of minimum requirements for practical experience and training.

With respect to training, the PDS consists of:

- Trainings organised by the Paris MoU secretariat
  - Seminars (twice a year);
  - Expert Trainings (twice a year);
  - Specialised Trainings (once a year; bulk carriers in 2021).
- Trainings organised by EMSA
  - EMSA Paris MoU seminar for PSCOs (five a year).

TRAINING ACTIVITIES DURING THE PANDEMIC

Similarly to 2020, the COVID-19 pandemic prevented the organisation of face-to-face meetings in 2021. Temporary measures were adopted enabling PSCOs to maintain compliance with the requirements from the PDS and in order to continuously maintain and update the knowledge of PSCOs, the Paris MoU and EMSA training programmes

were converted into online sessions, enabling the participants to attend and liaise with their colleagues by virtual means. Care was taken to allow for the attendance of a maximum number of PSCOs requiring training based on their PDS.

SEMINARS

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.

Seminar 69

The 69th Port State Control Seminar took place virtually in June 2021. Due to the large number of participants, two sessions were organised to maintain the appropriate group size in order to maximize interaction and exchange of experiences. The main topic of discussion was the train-the-trainer course for the joint CIC on Stability, held from 1 September to 30 November 2021. The questionnaire and guidelines were extensively discussed and explained by representatives of the maritime Authority of the United Kingdom, being the TF leader for this CIC. Taking the opportunity that the seminar was held online, several participants from other regional port State control agreements joined the sessions in their preparation for the upcoming CIC.

Seminar 70

The 70th Port State Control Seminar took place virtually in November 2021. This year the second seminar of the year also focussed on an inspection campaign (IC), namely the IC on Polar Code, scheduled to be held in two periods running from 13 June until 1 July 2022 and from 1 August until 19 August 2022. The questionnaire and guidelines were extensively discussed and explained by representatives of the maritime Authority of Denmark, being the TF leader for this IC. Lectures on associated topics were also provided for by delegates from Greenland and the Russian Federation. Since this seminar was also held online, several participants from the Tokyo MoU, having shown an interest is participating in this IC, also joined the seminar.

EXPERT AND SPECIALIZED TRAINING

For the Expert Training, the central themes are "The Human Element" and "Safety and Environment". Unfortunately, with the training programme being converted to online sessions, the latter could not take place in 2021 and was rescheduled to early 2022.

The theme of the Specialized Training changes every year; the 2021 topic was "Bulk carriers".

These 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 member Authorities and the maritime industry. Expert and Specialized Trainings aim to promote a higher degree of professional knowledge and harmonisation of more complex port State control issues and procedures.

"Ongoing improvements and performance measurement through inspection results require strict adherence to the established procedures."

Specialized Training on the Inspection of Bulk carriers

The training was held by virtual means and attended by 42 participants. Specific requirements for the construction, certification and maintenance of Bulk carriers were discussed. Lectures were given by the maritime industry, notably IACS and INTERCARGO. The Paris MoU guidance on expanded inspections was also discussed, presented by a delegate from the maritime Authority of Italy.

Expert Training "The Human Element"

The programme focussed on MLC, 2006 and on the STCW Convention. Presentations on these subjects were delivered by the maritime Authorities of Ireland and the United Kingdom, as well as by representatives from the International Transport Workers' Federation (ITF). Several Paris MoU procedures were also discussed. Though this training was also held online, a communication and interaction exercise was conducted with the help of professional actors, outlining relevant aspects of human behaviour and cultural differences.

WEBINAR

Webinars are relatively new to the Paris MoU. With the ongoing effects of the pandemic on the shipping industry, in April and May two webinars were held on the MLC in relation to COVID-19. The webinars focussed on the application of PSCircular 97, dealing with MLC, 2006 compliance (such as crew changes, repatriation) directly affected by the restrictions put in place by parties due to the pandemic.

The webinar included interviews with ITF, ILO and IMO who expressed their views on the compliance issues. In total, over 200 PSCOs attended both webinars.

TRAINING IN COOPERATION WITH EMSA

The Paris MoU also collaborates with EMSA in the "PSC Seminar for Port State Control Officers". The PSC Seminars are delivered to PSCOs of all member Authorities. In 2021, mainly due to the pandemic, the Professional Development Scheme (PDS) for PSCOs of the Paris MoU had to be adjusted.

The Paris MoU inspection regime focuses on elimination of substandard shipping and on rewarding well-performing ships in terms of the inspection frequency. It translates to "less, but higher quality inspections". The regime is supported by a comprehensive 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 in 2021, the previously adopted approach was followed, and 299 persons participated to the five training sessions that were delivered online due to the COVID-19 restrictions. Nevertheless, the trainings succeeded to maximize the familiarisation with port State control inspection procedures.

"The Paris MoU also developed a flexible information tool on inspections, detentions, deficiencies and flag States that is presented through the website."

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 broader understanding of the procedures and the available tools such as the Paris MoU manual, THETIS, RuleCheck and the implementation of enhanced EMSA's MaKCs learning platform where PSCOs can follow distance learning modules as well as download training material that was provided during the seminars. In addition PSC seminars will also be enriched with realistic virtual reality scenarios. However, there were requests for including training on THETIS and more on Rule Check especially by the New Entrants. Finally, it was also requested to pay more attention to new and upcoming regulations.

All seminars were organised by EMSA in an online synchronous mode, due to the imposed travelling restrictions. Learning activities and delivery were provided both by EMSA and by the Paris MoU Secretariat. In February and March, 40 New Entrants (NE) and Common Assessment of Competence (CAC) participants attended seminars that tackled the theoretical part of the programme, whilst in June and September three more seminars to cover part B (practical part) for NEs and CACs were organised and delivered for 94 participants. Finally in October and November two more online seminars were delivered for Refresher PSC officers where 140 participants were trained covering the needs for 2021 and the needs that could not be covered in 2020.

DETENTION REVIEW PANEL

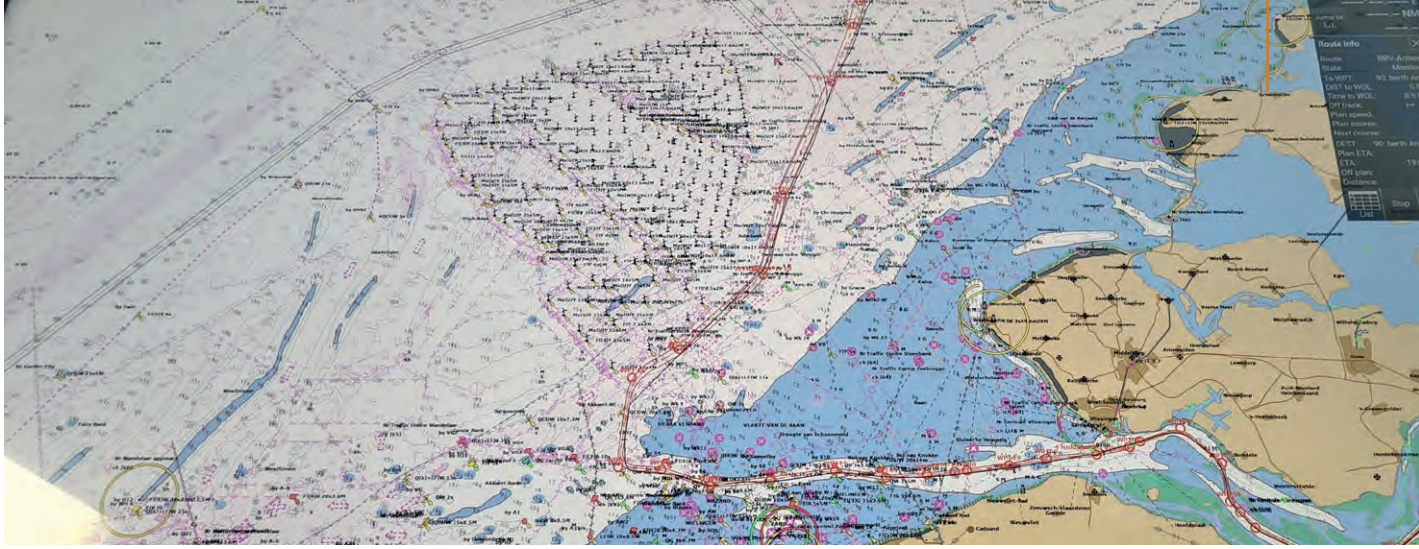
When ship managers, owners, flag States or ROs are unable to resolve a dispute regarding a detention with the port State, there are two ways to appeal a detention. There is the possibility to file a national appeal in the country of the port State according to the national legislation of the port State. Another possibility is to request, by the flag State or RO, a detention review panel within the Paris MoU. The Detention Review Panel consists of representatives from four different Paris MoU member Authorities and the Secretariat and will consider the procedural and technical aspects of the inspection and detention based on the information provided by the flag State, RO and the port State. If the views of the panel support the flag State or recognised organisation complaint, the port State will be requested to reconsider its decision. The findings of the panel are not binding but may provide justification for the port State to amend its inspection data and the associated detention.

In 2021 two cases were submitted to the Secretariat. The cases met the criteria for the Detention Review Panel and were submitted to MoU members for review. In one case, the panel concluded that the port State should be requested to reconsider the detention and in the second case, the panel concluded that there was no need to request the port State for a reconsideration of the detention.

PARIS MOU ON THE INTERNET

The Paris MoU Secretariat is constantly improving the accessibility of information on the website.

Inspection search, current detentions, current bannings and publications are in the top 5 of most popular webpages of 2021. Some popular pages (inspection search & current detentions) are embedded pages made available by courtesy of EMSA.



The Paris MoU also developed a flexible information tool on inspections, detentions, deficiencies and flag States that is presented through the website. Flag and port States, government agencies, charterers, insurers and classification societies are constantly looking for data and information and in this way can continuously monitor their performance and that of others.

The Paris MoU has made its inspection data publicly available through the website for many years. This inspection data was available on an individual ship basis. Due to the increasing importance of the availability of reliable data for parties in the maritime industry and the demand from third parties to be able to analyse such data, a data sharing service, to share data in bulk form with the interested public, was developed and implemented on the website in 2021.

Other information of interest such as monthly detention lists, annual reports, performance lists and news items can be downloaded from our website: **www.parismou.org**

CO-OPERATION WITH OTHER ORGANISATIONS

The strength of regional regimes of port State control, which are bound by geographical circumstances and interests, is widely recognised. Apart from the Paris MoU, nine other regional PSC Agreements (including the US Coast Guard) have been established.

All other PSC Agreements have observer status at the Paris MoU. This facilitates the co-operation between the regional agreements. Regional agreements have demonstrated 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.

The regional agreements are: 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.

Since 2006 the Paris MoU has had an official status at the IMO as an Inter-Governmental Organisation. In April 2021 the first part of the 4th Special Tripartite Committee of the Maritime Labour Convention was held virtually and was attended by representatives from the Paris MoU. The 7th session of the Sub-Committee on Implementation of IMO Instruments (III 7) was held virtually in July 2021 and was also attended by representatives from the Paris MoU.

The 2020 Annual Report including inspection data and a combined list of flags targeted by the Paris MoU, Tokyo MoU and USCG in 2020 were submitted to the 7th meeting of the IMO III Sub-Committee.

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 Authorities and observer/associate status for other PSC regions.

Specific criteria must be met, including completion of a self-evaluation questionnaire, before co-operating status can be granted.

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. ■

Facts & Figures 2021

The facts and figures for 2021 are listed on the following pages. The COVID-19 crisis still had its impact on the actual number of the inspections, although having increased when compared to 2020. This still affects the usual presentation where a comparison is made with previous years. This comparison shows both the absolute and the relative differences with the results from those years.

Although not at the pre-COVID level, the number of inspections has increased from 2020: from a level of 13,168 in 2020, inspections increased to 15,387. An increase of 17%. The detention percentage of 3.43% has increased substantially (2.92% in 2020). The number of ships that received a refusal of access (banning) order increased from 8 in 2020 to 11 this year.

INSPECTIONS

As mentioned, the total number of inspections carried out in 2021 is 15,387. A substantial increase compared to the numbers in 2020 (13,168).

DEFICIENCIES

The number of deficiencies in the past 3 years was 39,821 (2019), 28,372 (2020) and 36,113 (2021) respectively. The percentage of inspections carried out with one or more deficiencies recorded remained stable over a three-year period 52% (2019), 50% (2020) and 51% (2021).
The average number of deficiencies per inspection of 2.4 is comparable to that in 2020 (2.2).

DETAINABLE DEFICIENCIES

The recorded detainable deficiencies have increased from 2,182 in 2020 to 3,274 in 2021.

DETENTIONS

Some deficiencies are clearly dangerous to safety, health or the environment and the ship will be detained until rectified. Detention rates are expressed as a percentage of the number of inspections, rather than the number of individual ships inspected to account for the fact that some ships are detained more than once a year.

Compared to 2020, the number of detentions has increased significantly from 385 to 528 detentions. While the number of detentions is almost similar to that in 2019 (534), before COVID-19 set in, the number of inspections was still lower than in 2019. As a result the average detention rate increased to 3.43% (compared to 2.98% in 2019 and 2.92% in 2020).

"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 during a 3-year rolling period for flags with at least 30 inspections in the period.

The "White List" represents quality flags with a consistently low detention record.
Flags with an average performance are shown on the "Grey List". Their appearance on this list may serve 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.

Regarding the "White, Grey and Black List" for 2021, a total number of 68 flags are listed: 40 on the "White List", 21 on the "Grey List" and 7 on the "Black List". In 2020 the total number of flag States on the list was 70 of which 39 on the "White List", 22 on the "Grey List" and 9 on the "Black List".

A graph of the distribution of listed and non-listed flags indicates that only 1% of the ships inspected are from flags not listed on the WGB list because the number of inspections of ships under those flags is too low to be taken into account statistically.

SHIP TYPE

In 2021 the top 3 detention rates in terms of ship types were: livestock carrier 8.8% (down from 11%); General cargo/multipurpose ships at 6.1% (up from 4.6%) and commercial yacht 5.5% (up from 0.6%). The general category "other" shows a percentage of 7.1%, the result of merely 1 detention on 14 inspections.

PERFORMANCE OF RECOGNIZED ORGANIZATIONS

For several years the Committee has closely monitored the performance of ROs acting on behalf of flag States. To calculate the performance of ROs, 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 2021 33 ROs were recorded on the performance list.

Compared to last year's performance level, the RO performance level has a similar level as last year. It is noteworthy that, next to last year, again no more ROs are categorised as very low performing.

Details of the responsibility of ROs for detainable deficiencies have been published since 1999. When one or more detainable deficiencies are attributed to an RO in accordance with the Paris MoU criteria, it is recorded "RO responsible" and the RO is informed. Out of 528 detentions recorded in 2021, 64 (12%) were considered RO related (11% in 2020). In relative terms a similar level.

REFUSAL OF ACCESS OF SHIPS

A total of 11 ships were refused access (banned) from the Paris MoU region in 2021. 8 for multiple detentions and 3 failed to call at the indicated repair yard. Over a period from 2019 to 2021, 7 ships have been banned for the second time after multiple detentions, resulting in a minimum banning period of 12 months. The total number of 11 bannings in 2021 increased from 7 in 2020.

DEFICIENCIES PER MAIN CATEGORY

The number of deficiencies in the following six areas (out of the 16 areas defined) accounted for approximately 66% of the total number of deficiencies. The (broken) trends in these areas are described below.

Certificates & Documentation

The number of recorded deficiencies with regard to ship certificates, crew certificates and documents shows an increase from 4,042 in 2020 to 4,797 in 2021. The relative share of the total deficiencies has decreased from 14.2% in 2020 to 13.7% in 2021.

Safety of Navigation

In 2021, Safety of Navigation deficiencies accounted for 10% of all deficiencies recorded. The percentage in 2020 was 11. The number of deficiencies increased from 3,144 in 2020 to 3,677 in 2021.

Fire safety

In 2021 fire safety deficiencies accounted for 13.5% of all deficiencies recorded, similar to 2020. In numbers, however, there is an increase 3,730 in 2020 to 4,872 in 2021.

Pollution prevention

The total number of deficiencies recorded in the different pollution prevention areas in 2021 was 2,338. This is an increase compared to 2020; 1,884. The share of deficiencies in the different pollution prevention areas compared to the total number of deficiencies was 6.5% in both 2021, similar to 2020.

Working and living conditions

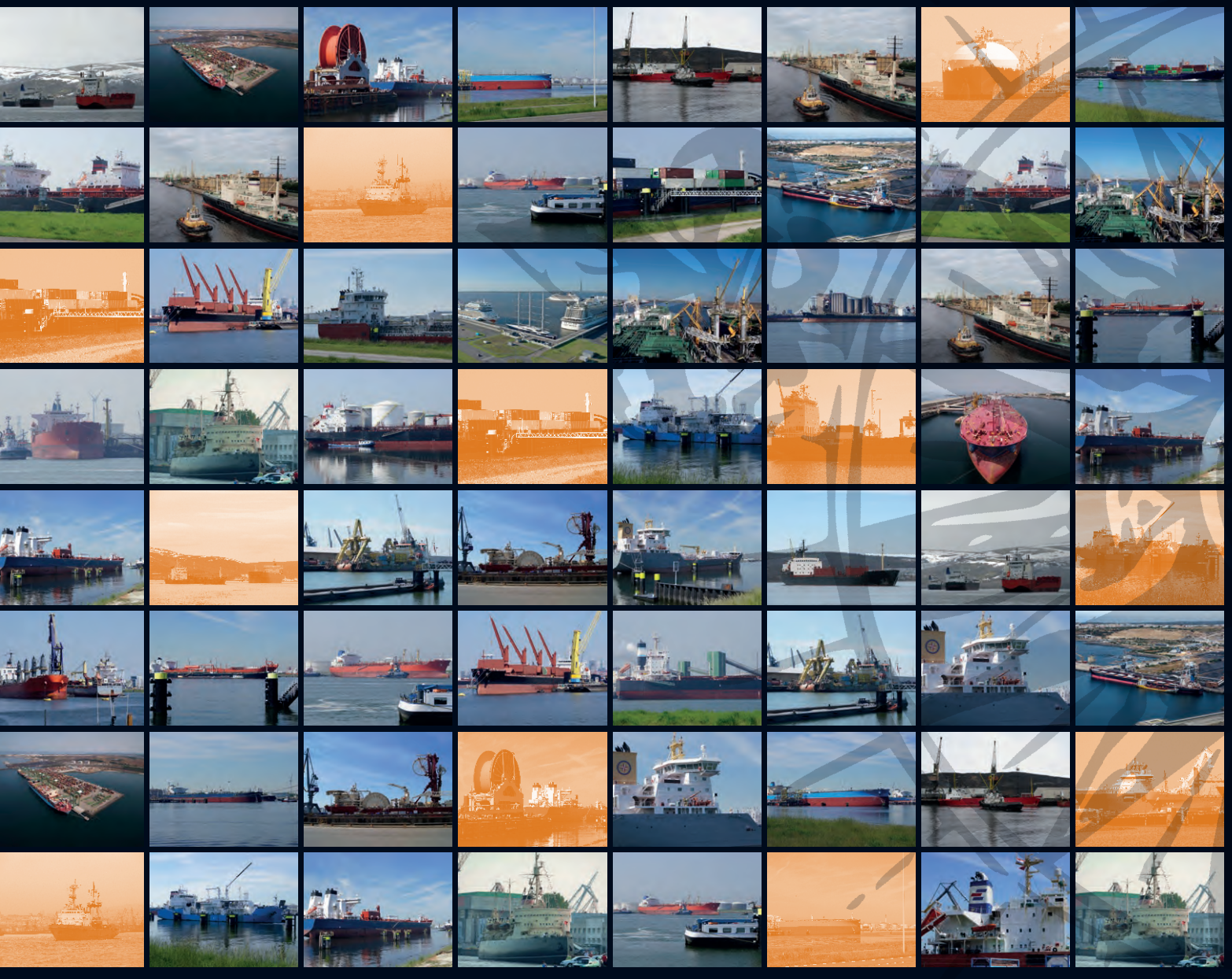
Most of the deficiencies in the field of working and living conditions (MLC, 2006, areas as mentioned in the table on page 46) have been found in the following areas: Health and safety and accident prevention (area 11) 3,444 (44% of all MLC deficiencies); food and catering (area 10) 1,431 (18%); seafarer's employment agreements (area 4) 697 (8,9%) deficiencies; accommodation (area 8), 628 (8%); hours of work and rest (area 6) 530 (6.8%).

The percentage of deficiencies regarding working and living conditions, related to the total of deficiencies is 21.7%, similar to 2020. The total number of MLC deficiencies in 2021 was 7,821. In increase from 6,012 in 2020.

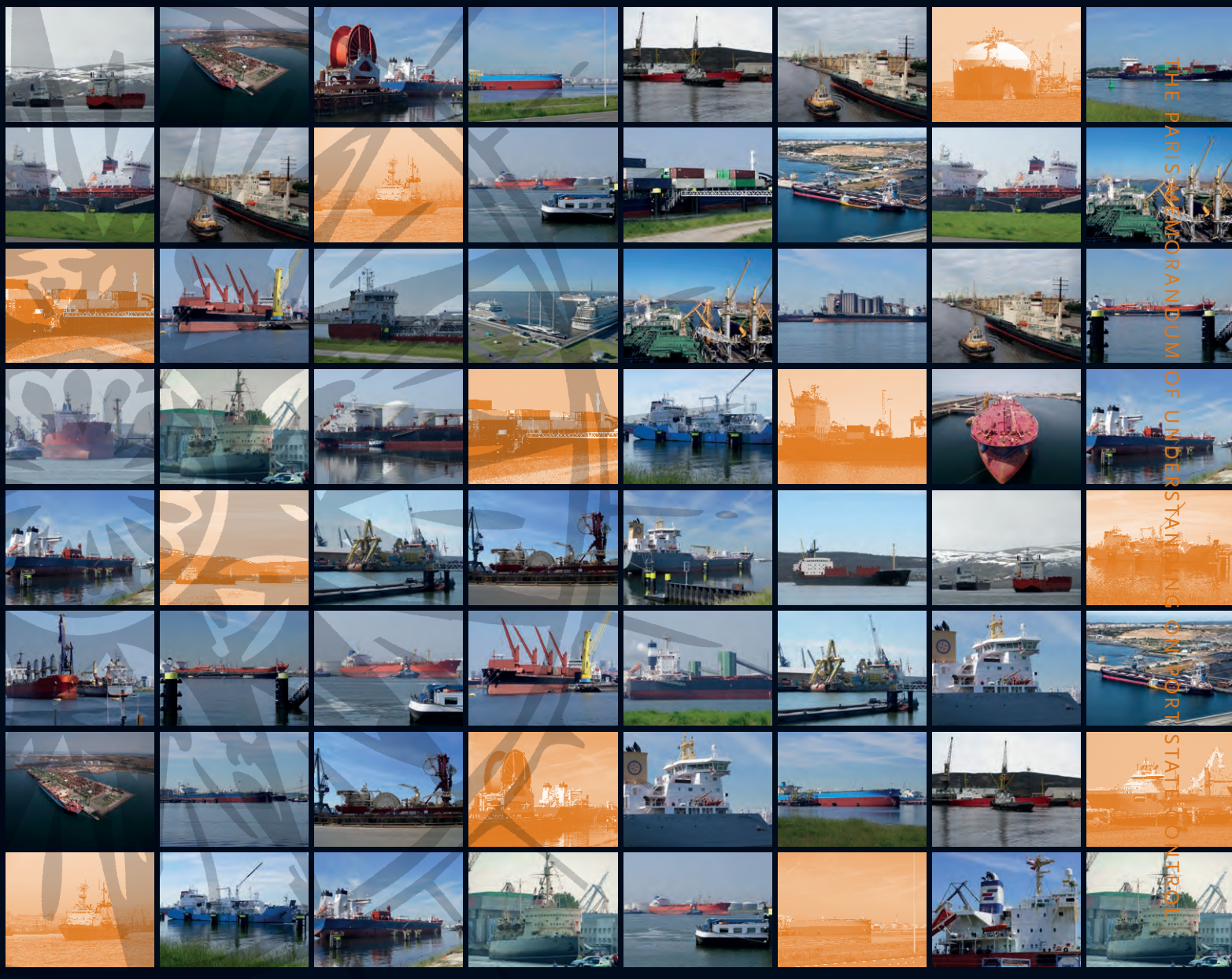
The specific increase seen last year on SEAs, shows a small increase in numbers of deficiencies, but a relative decrease from 8.8% to 7.6%. Looking at the detainable deficiencies regarding SEAs, the decrease is substantive from 24.9% (2020) to 13.6% in 2021.

Safety Management

The number of ISM-related deficiencies has increased to 1,777 in 2021. In 2020, this was 1,310 deficiencies, compared to 1,784 in 2019. The percentage related to the total deficiencies has increased from 4.6% in 2020 to 4.9% in 2021. ■



STATISTICAL ANNEXES

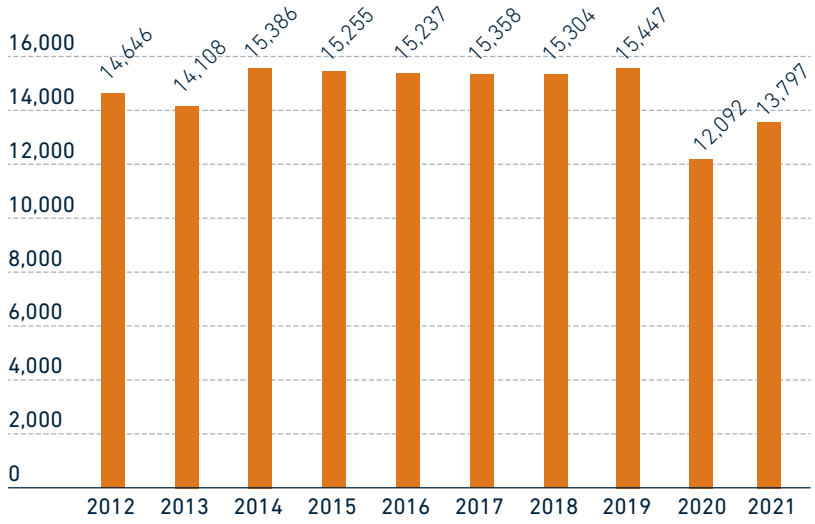


THE PARIS MEMORANDUM OF UNDERSTANDING ON PORT STATE CONTROL

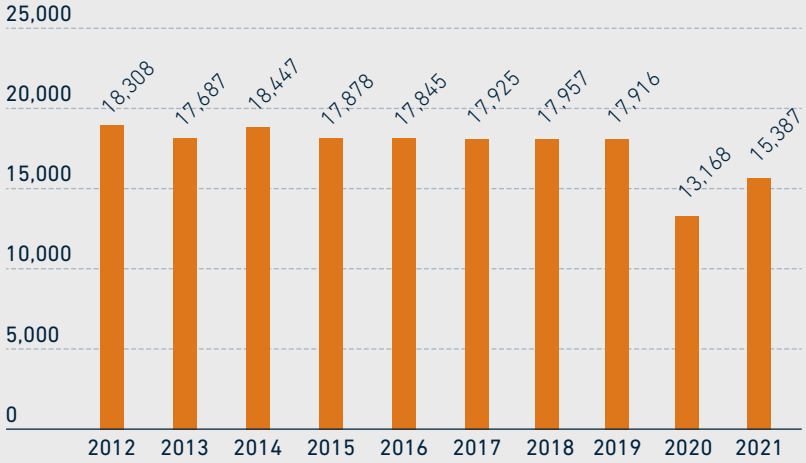
ANNUAL REPORT 2021

BASIS PORT STATE CONTROL FIGURES 2021

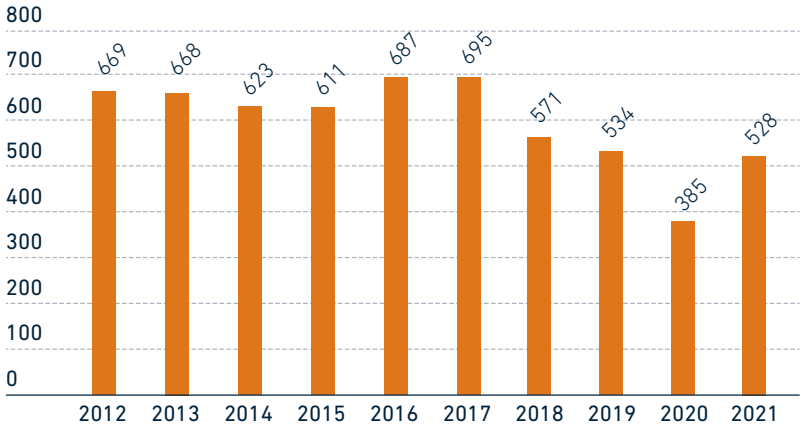
NUMBER OF INDIVIDUAL SHIPS INSPECTED



NUMBER OF INSPECTIONS

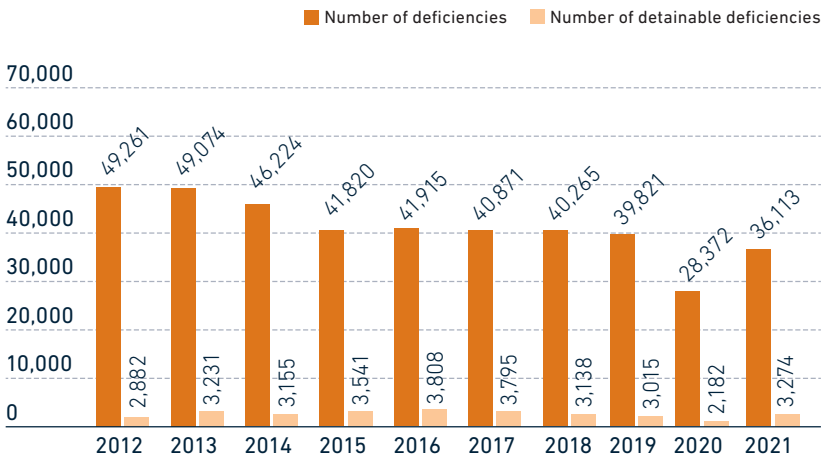


NUMBER OF DETENTIONS

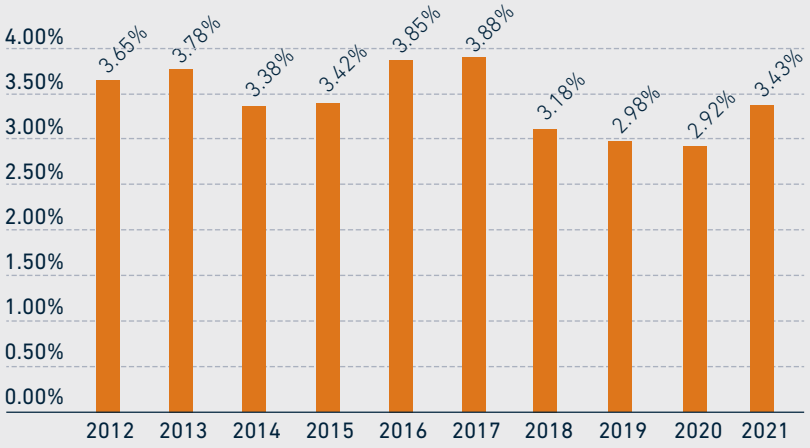


Note: The cut-off date for inspection data to be included in the Annual Report 2021 was 17-01-2022. Changes to inspection data after this date have as a rule not been taken into account. Based on a decision of the Committee in 2017, the annual report provides data for the calendar year being reported on and amended data for the two preceding years.

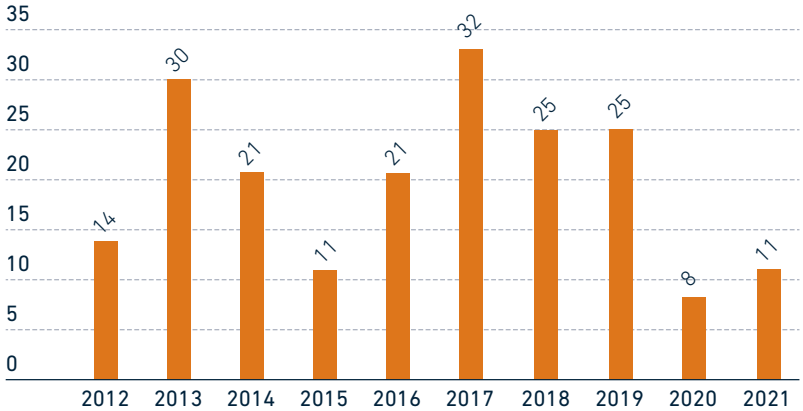
NUMBER OF DEFICIENCIES AND DETAINABLE DEFICIENCIES



DETENTIONS IN % OF INSPECTIONS

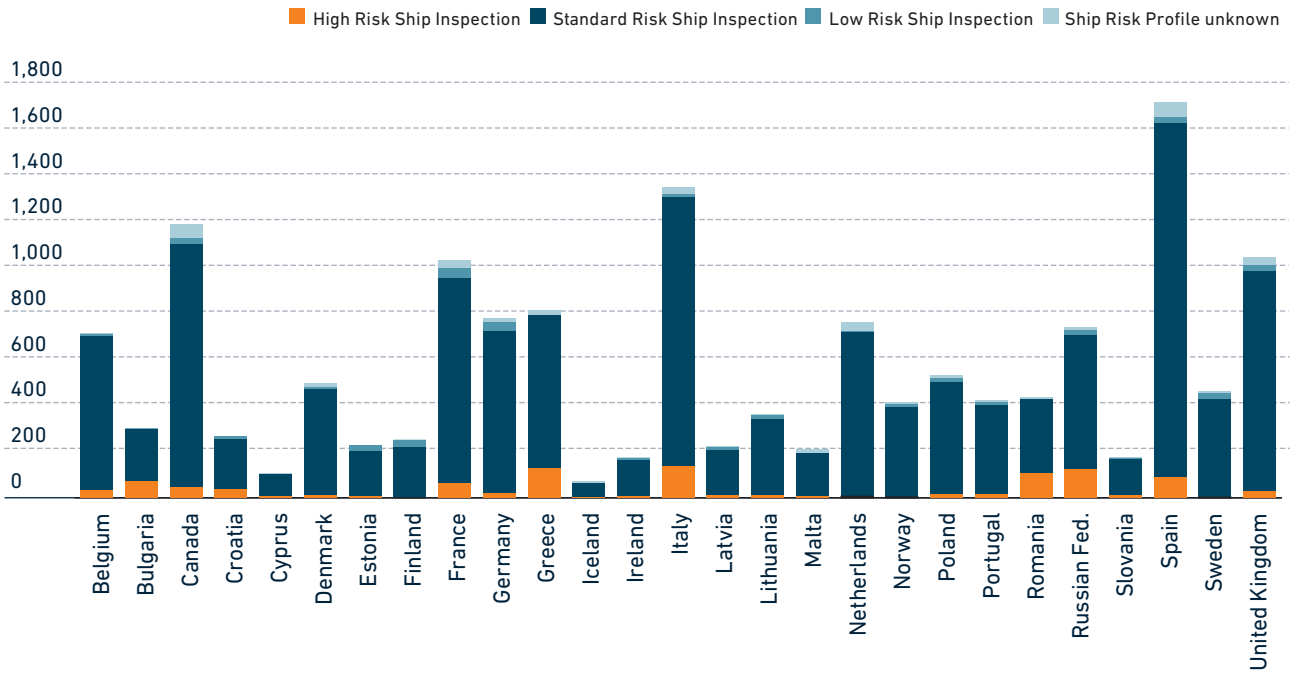


NUMBER OF REFUSAL OF ACCESS

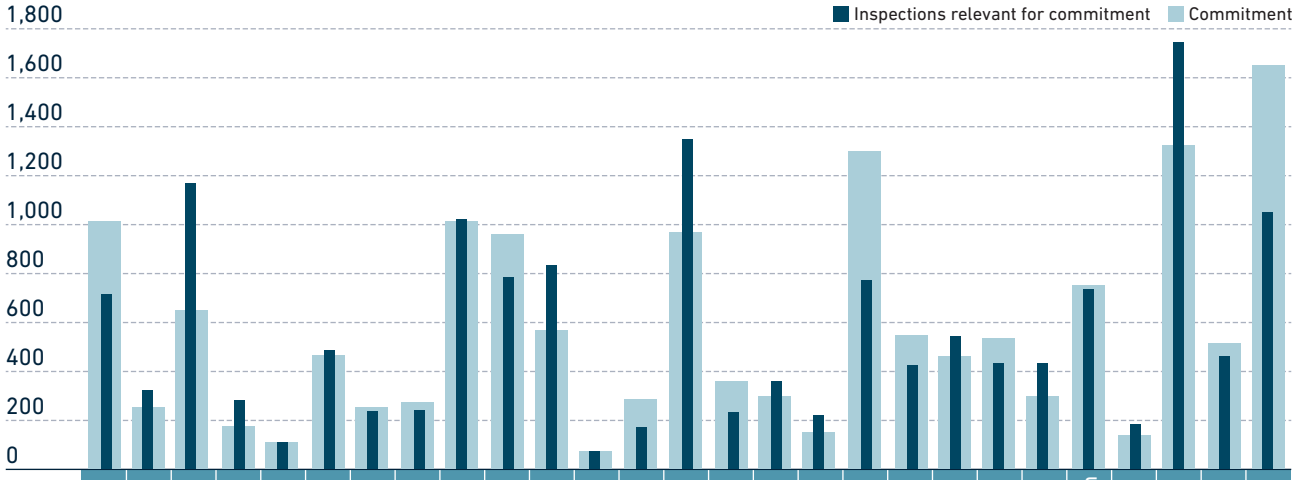


INSPECTION EFFORTS 2021

HRS, SRS AND LRS INSPECTIONS PER MEMBER AUTHORITY



COMMITMENT



	Belgium	Bulgaria	Canada	Croatia	Cyprus	Denmark	Estonia	Finland	France	Germany	Greece	Iceland	Ireland	Italy	Latvia	Lithuania	Malta	Netherlands	Norway	Poland	Portugal	Romania	Russian Federation	Slovenia	Spain	Sweden	United Kingdom
Inspections	722	304	1,186	270	107	487	232	250	1,036	785	824	72	171	1,358	224	365	213	775	416	536	425	441	748	179	1,726	464	1,043
Commitment	1,011	259	645	180	107	462	258	286	1,035	957	574	73	287	959	350	312	155	1,326	553	469	535	330	763	129	1,330	516	1,648

Note: The number of inspections relevant for the commitment of MoU Port States may differ from the total number of inspections used in other graphs and tables. Certain inspections are not relevant for the commitment and therefore not included in the above diagram and table.

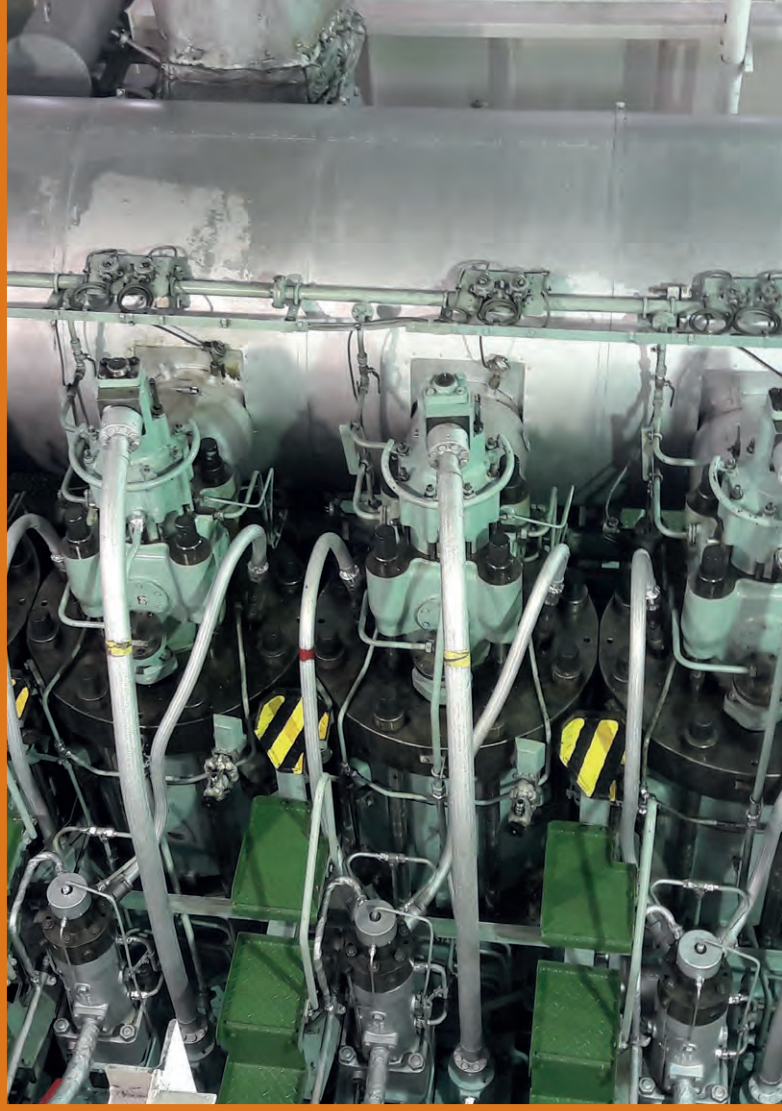
CURRENT DETENTIONS AS PER 31-12-2021 PER PORT STATE AUTHORITY SINCE 2011

Excluded detentions Annual figures 2011 - 2021

Detaining Authority	Interval	
	< 12 Months	> 12 Months
Belgium	6	-
Canada	2	2
Greece	1	5
Ireland	1	1
Italy	3	6
Malta	1	1
Netherlands	6	2
Poland	-	1
Spain	1	3
United Kingdom	3	2
Norway	3	1
Russian Federation	-	1
Romania	-	1
Germany	2	-
Denmark	-	1
Portugal	2	-
Grand Total	**31**	**27**

Flag	< 12 Months	> 12 Months
Bolivia	1	1
Congo, the Democratic Republic of the	-	1
Honduras	1	-
Malta	1	4
Moldova, Republic of	-	1
Palau	-	1
Panama	11	5
Portugal	1	-
Russian Federation	1	2
Saint Kitts and Nevis	-	1
Saint Vincent and the Grenadines	1	3
Togo	-	1
Ukraine	-	1
Syrian Arab Republic	-	1
Cape Verde	-	1
Iceland	1	1
Belize	-	1
Singapore	2	-
Marshall Islands	1	-
Cameroon	-	1
Virgin Islands British, UK	-	1
Luxembourg	2	-
Algeria	1	-
Guyana	1	-
Liberia	2	-
Norway	1	-
Antigua and Barbuda	2	-
Netherlands	1	-
Grand Total	**31**	**27**

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



WHITE LIST

RANK	FLAG	INSPECTIONS 2019-2021	DETENTIONS 2019-2021	BLACK TO GREY LIMIT	GREY TO WHITE LIMIT	EXCESS FACTOR
WHITE LIST						
1	Denmark	1,143	6	95	65	-1.98
2	Netherlands	2,597	33	204	160	-1.77
3	Norway	1,539	18	125	91	-1.76
4	Bahamas	1,656	24	133	98	-1.66
5	Japan	148	0	16	5	-1.60
6	Greece	644	8	56	34	-1.59
7	Bermuda (UK)	146	0	16	5	-1.59
8	Turkey	621	8	54	33	-1.57
9	Singapore	1,707	30	137	102	-1.55
10	Italy	850	13	72	47	-1.53
11	Belgium	202	1	21	8	-1.53
12	Cayman Islands (UK)	353	4	33	16	-1.47
13	Cyprus	1,995	42	159	120	-1.43
14	Hong Kong (China)	1,617	34	131	96	-1.41
15	Marshall Islands	4,312	104	330	274	-1.39
16	Liberia	4,103	105	315	260	-1.34
17	Malta	3,882	100	298	245	-1.33
18	Antigua and Barbuda	1,861	45	149	112	-1.31
19	United Kingdom	730	15	63	39	-1.28
20	Sweden	287	4	28	12	-1.26
21	Finland	365	6	34	17	-1.25
22	Portugal	1,254	32	103	72	-1.20
23	Russian Federation	1,072	28	89	61	-1.14
24	Lithuania	95	0	11	2	-1.12
25	Isle of Man (UK)	424	9	39	21	-1.09
26	Barbados	449	10	41	22	-1.06
27	United States	169	2	18	6	-1.02
28	Faroe Islands	240	4	24	10	-1.02
29	Gibraltar (UK)	518	13	46	26	-0.99
30	France	247	5	24	10	-0.88
31	Luxembourg	209	4	21	8	-0.84
32	Germany	565	17	50	29	-0.82
33	Croatia	75	0	9	1	-0.79
34	Ireland	141	2	15	4	-0.78
35	China	159	4	17	5	-0.38
36	Panama	5,487	306	416	352	-0.30
37	Latvia	106	2	12	3	-0.27
38	Saudi Arabia	54	0	7	0	-0.22
39	Spain	146	4	16	5	-0.20
40	Estonia	79	1	10	1	-0.20

GREY LIST

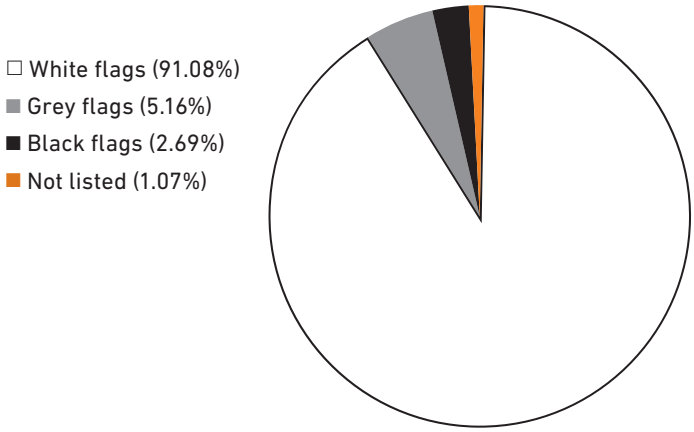
RANK	FLAG	INSPECTIONS 2019-2021	DETENTIONS 2019-2021	BLACK TO GREY LIMIT	GREY TO WHITE LIMIT	EXCESS FACTOR
GREY LIST						
41	Morocco	48	0	7	0	0.01
42	Thailand	33	0	5	0	0.10
43	Curacao	40	1	6	0	0.21
44	Korea, Republic of	75	3	9	1	0.23
45	Azerbaijan	56	2	8	0	0.24
46	India	36	1	6	0	0.25
47	Iran, Islamic Republic of	68	3	9	1	0.28
48	Palau	162	9	17	5	0.30
49	Saint Vincent and the Grenadines	331	20	31	15	0.31
50	Philippines	131	8	14	4	0.39
51	Lebanon	53	3	7	0	0.40
52	Saint Kitts and Nevis	112	7	13	3	0.42
53	Poland	50	3	7	0	0.43
54	Mongolia	33	3	5	0	0.62
55	Cook Islands	201	17	21	8	0.73
56	Vanuatu	253	22	25	11	0.80
57	Sierra Leone	250	22	25	10	0.82
58	Ukraine	74	8	9	1	0.84
59	Belize	241	22	24	10	0.87
60	Switzerland	44	6	6	0	0.94
61	Tanzania, United Republic of	189	19	20	7	0.96


TOTAL
100

BLACK LIST

RANK	FLAG	INSPECTIONS 2019-2021	DETENTIONS 2019-2021	BLACK TO GREY LIMIT	RISK	EXCESS FACTOR
BLACK LIST						
62	Egypt	46	7	7	Medium	1.23
63	Algeria	69	10	9		1.44
64	Comoros	315	39	30		1.84
65	Albania	60	11	8	Medium to high	2.30
66	Moldova, Republic of	328	48	31		2.53
67	Togo	361	53	34		2.59
68	Cameroon	69	15	9	High Risk	3.38

NUMBER OF INSPECTIONS PER PERFORMANCE LIST 2019-2021



FLAGS MEETING CRITERIA FOR LOW RISK SHIPS 2021

Flags meeting criteria for Low Risk Ships (as per 1 July 2022)		
Antigua and Barbuda	Bahamas	Barbados
Belgium	Bermuda (UK)	Cayman Islands (UK)
China	Croatia	Cyprus
Denmark	Estonia	Faroe Islands
Finland	France	Germany
Gibraltar (UK)	Greece	Hong Kong (China)
Ireland	Isle of Man (UK)	Italy
Japan	Latvia	Liberia
Lithuania	Luxembourg	Malta
Marshall Islands	Morocco	Netherlands
Norway	Panama	Portugal
Russian Federation	Saudi Arabia	Singapore
Spain	Sweden	Thailand
Turkey	United Kingdom	United States

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 (V)IMSAS Audit.

Non-listed flags having undergone IMO (V)IMSAS Audit 2019-2021*			
Bangladesh	Bolivia	Brazil	Brunei Darussalam
Bulgaria	Canada	Congo, the Democratic Republic of the	Dominica
Ecuador	Gabon	Georgia	Guyana
Honduras	Iceland	Indonesia	Israel
Jamaica	Jordan	Kazakhstan	Kuwait
Malaysia	Mauritius	Monaco	Montenegro
Nigeria	Pakistan	Qatar	Romania
Samoa	Sao Tome and Principe	Seychelles	Slovenia
South Africa	Sri Lanka	Trinidad and Tobago	Tunisia
Turkmenistan	Tuvalu	United Arab Emirates	Viet Nam

Flags whose 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 but with a minimum of 1 inspection. 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 2019-2021*		
Brazil (14)	Jersey (UK) (17)	South Africa (1)
Brunei Darussalam (1)	Jordan (4)	Sri Lanka (8)
Canada (24)	Kazakhstan (28)	Taiwan, Province of China (13)
Cape Verde (3)	Kuwait (14)	Timor-Leste (1)
Congo, the Democratic Republic of the (1)	Malaysia (17)	Trinidad and Tobago (1)
Ecuador (1)	Mauritius (8)	Turkmenistan (4)
Ethiopia (2)	Monaco (1)	Unknown (6)
Falkland Islands (UK) (Malvinas) (3)	Montenegro (8)	Viet Nam (15)
Gabon (4)	Nauru (1)	Virgin Islands (USA) (1)
Georgia (9)	Pakistan (4)	Virgin Islands British (UK) (9)
Guyana (4)	Romania (1)	Zambia (1)
Indonesia (5)	Seychelles (18)	
Israel (21)	Slovenia (8)	

Flags whose 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 but with a minimum of 1 inspection. The flags in this table had too few inspections to be included in the lists, but had no detentions in the mentioned period. * Note: The flags are listed in alphabetical order. The number of inspections over the mentioned period taken into account is shown between brackets.

INSPECTIONS, DETENTIONS AND DEFICIENCIES 2021

Flag	Nr of Inspections	Inspections with deficiencies	Inspections with detentions	Nr of detainable deficiencies	% of Inspections with deficiencies	% of Inspections with detentions
Albania	15	13	2	28	86.7	13.3
Algeria	23	19	6	50	82.6	26.1
Antigua and Barbuda	560	327	19	79	58.4	3.4
Azerbaijan	18	15	2	16	83.3	11.1
Bahamas	536	227	6	24	42.4	1.1
Bangladesh	5	3	1	10	60.0	20.0
Barbados	172	92	5	28	53.5	2.9
Belgium	63	29	-	-	46.0	-
Belize	66	53	6	32	80.3	9.1
Bermuda, UK	46	11	-	-	23.9	-
Bolivia	2	2	-	-	100.0	-
Brazil	2	1	-	-	50.0	-
Brunei Darussalam	1	1	-	-	100.0	-
Bulgaria	6	6	-	-	100.0	-
Cameroon	23	22	3	21	95.7	13.0
Canada	9	3	-	-	33.3	-
Cape Verde	1	1	-	-	100.0	-
Cayman Islands, UK	110	36	2	7	32.7	1.8
China	73	30	2	9	41.1	2.7
Comoros	109	105	14	146	96.3	12.8
Cook Islands	34	29	4	33	85.3	11.8
Croatia	22	15	-	-	68.2	-
Curacao	10	9	-	-	90.0	-
Cyprus	684	341	9	45	49.9	1.3
Denmark	373	149	2	5	39.9	0.5
Dominica	5	5	3	18	100.0	60.0
Egypt	20	17	3	19	85.0	15.0
Estonia	32	7	-	-	21.9	-
Ethiopia	1	1	-	-	100.0	-
Falkland Islands, UK (Malvinas)	1	-	-	-	-	-
Faroe Islands	71	41	1	1	57.7	1.4
Finland	117	58	-	-	49.6	-
France	79	31	2	5	39.2	2.5
Gabon	3	3	-	-	100.0	-
Germany	179	93	6	33	52.0	3.4
Gibraltar, UK	134	60	2	3	44.8	1.5
Greece	181	75	2	8	41.4	1.1
Guyana	4	3	-	-	75.0	-
Honduras	12	11	2	8	91.7	16.7
Hong Kong (China)	511	238	12	40	46.6	2.3

Flag	Nr of Inspections	Inspections with deficiencies	Inspections with detentions	Nr of detainable deficiencies	% of Inspections with deficiencies	% of Inspections with detentions
Iceland	3	3	1	4	100.0	33.3
India	13	7	1	1	53.8	7.7
Indonesia	3	1	-	-	33.3	-
Iran, Islamic Republic of	28	27	1	3	96.4	3.6
Ireland	48	16	-	-	33.3	-
Isle of Man, UK	110	42	2	4	38.2	1.8
Israel	7	4	-	-	57.1	-
Italy	265	118	4	9	44.5	1.5
Jamaica	3	3	-	-	100.0	-
Japan	57	18	-	-	31.6	-
Jersey, UK	7	2	-	-	28.6	-
Jordan	2	2	-	-	100.0	-
Kazakhstan	5	4	-	-	80.0	-
Korea, Republic of	31	18	1	3	58.1	3.2
Kuwait	6	1	-	-	16.7	-
Latvia	45	31	1	3	68.9	2.2
Lebanon	13	11	-	-	84.6	-
Liberia	1,522	784	45	235	51.5	3.0
Libya	8	5	1	11	62.5	12.5
Lithuania	34	16	-	-	47.1	-
Luxembourg	73	41	1	3	56.2	1.4
Malaysia	4	2	-	-	50.0	-
Malta	1,293	615	37	165	47.6	2.9
Marshall Islands	1,532	669	52	399	43.7	3.4
Mauritius	1	1	-	-	100.0	-
Moldova, Republic of	84	82	13	113	97.6	15.5
Mongolia	3	2	-	-	66.7	-
Montenegro	4	2	-	-	50.0	-
Morocco	16	10	-	-	62.5	-
Netherlands	856	382	10	33	44.6	1.2
Nigeria	1	1	1	3	100.0	100.0
Niue	1	1	-	-	100.0	-
Norway	516	227	7	30	44.0	1.4
Pakistan	2	1	-	-	50.0	-
Palau	53	50	2	7	94.3	3.8
Panama	1,830	1,100	127	941	60.1	6.9
Philippines	43	25	3	26	58.1	7.0
Poland	10	5	-	-	50.0	-
Portugal	479	231	12	46	48.2	2.5
Qatar	5	4	1	2	80.0	20.0

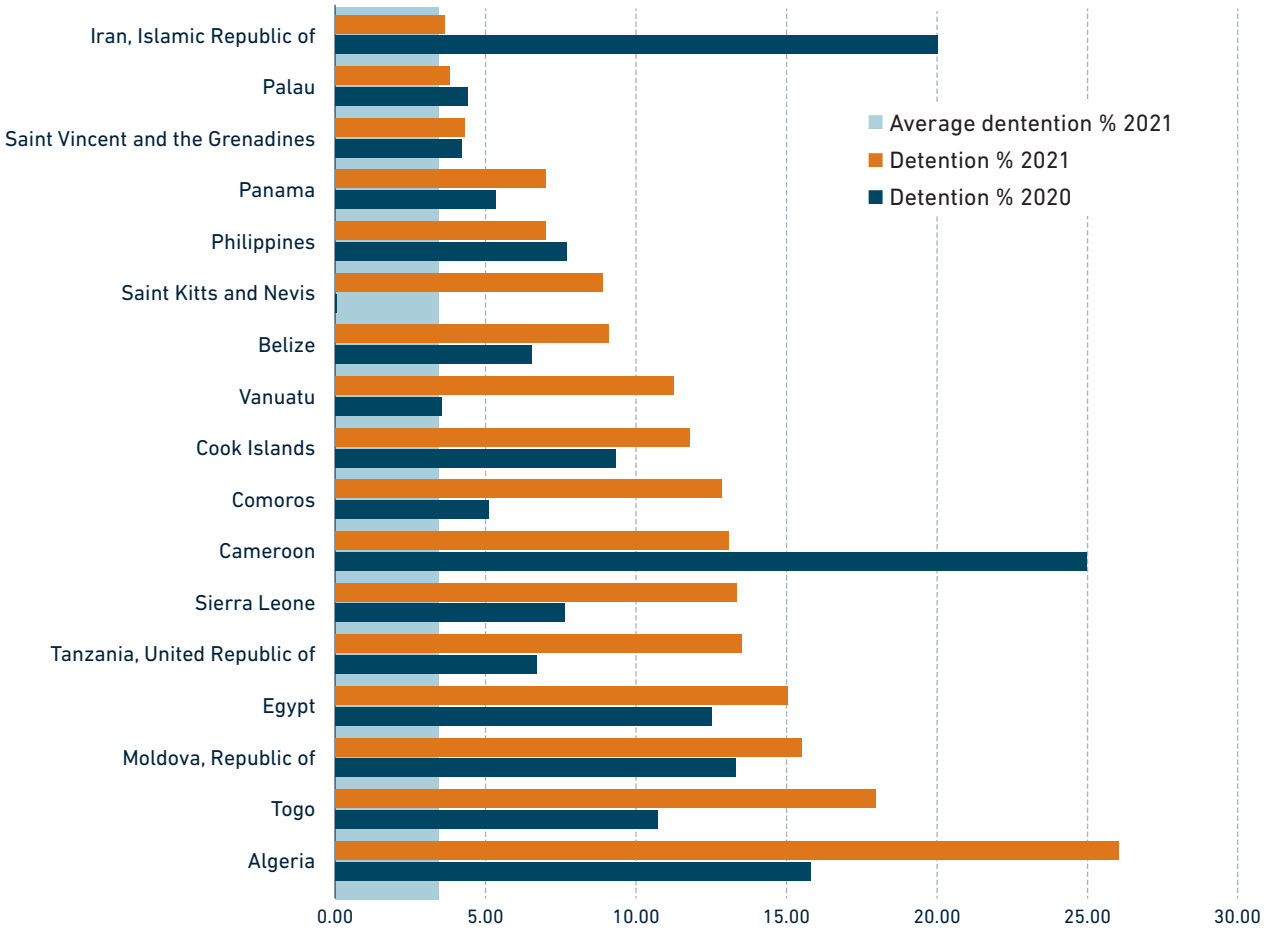
Flag	Nr of Inspections	Inspections with deficiencies	Inspections with detentions	Nr of detainable deficiencies	% of Inspections with deficiencies	% of Inspections with detentions
Register Withdrawn	1	1	1	12	100.0	100.0
Russian Federation	361	207	11	70	57.3	3.0
Saint Kitts and Nevis	45	40	4	21	88.9	8.9
Saint Vincent and the Grenadines	94	54	4	10	57.4	4.3
Sao Tome and Principe	2	2	1	2	100.0	50.0
Saudi Arabia	23	10	-	-	43.5	-
Seychelles	6	1	-	-	16.7	-
Sierra Leone	60	57	8	88	95.0	13.3
Singapore	552	230	9	53	41.7	1.6
Slovenia	2	-	-	-	-	-
Spain	43	17	1	7	39.5	2.3
Sweden	103	32	1	3	31.1	1.0
Switzerland	12	5	1	1	41.7	8.3
Syrian Arab Republic	4	3	2	4	75.0	50.0
Taiwan, Province of China	3	2	-	-	66.7	-
Tanzania, United Republic of	37	36	5	29	97.3	13.5
Thailand	10	5	-	-	50.0	-
Timor-Leste	1	-	-	-	-	-
Togo	106	99	19	138	93.4	17.9
Tunisia	11	10	2	7	90.9	18.2
Turkey	193	110	1	4	57.0	0.5
Turkmenistan	1	1	-	-	100.0	-
Tuvalu	9	8	3	24	88.9	33.3
Ukraine	19	18	3	15	94.7	15.8
United Arab Emirates	1	1	1	5	100.0	100.0
United Kingdom	194	96	-	-	49.5	-
United States	46	26	-	-	56.5	-
Vanuatu	107	88	12	72	82.2	11.2
Viet Nam	7	7	-	-	100.0	-
Virgin Islands British, UK	3	2	-	-	66.7	-
Zambia	1	1	-	-	100.0	-

2021 DETENTIONS PER FLAG, EXCEEDING AVERAGE PERCENTAGE

Flag	Nr of Inspections	Inspections with detentions	% of Inspections with detentions	Excess of average 2021	Detentions % 2020	Excess of average 2020
Algeria	23	6	26.1	22.7	15.8	12.9
Togo	106	19	17.9	14.5	10.7	7.8
Moldova, Republic of	84	13	15.5	12.0	13.3	10.4
Egypt	20	3	15.0	11.6	12.5	9.6
Tanzania, United Republic of	37	5	13.5	10.1	6.7	3.7
Sierra Leone	60	8	13.3	9.9	7.6	4.7
Cameroon	23	3	13.0	9.6	25.0	22.1
Comoros	109	14	12.8	9.4	5.1	2.1
Cook Islands	34	4	11.8	8.3	9.3	6.3
Vanuatu	107	12	11.2	7.8	3.5	0.6
Belize	66	6	9.1	5.7	6.5	3.6
Saint Kitts and Nevis	45	4	8.9	5.5	-	-2.9
Philippines	43	3	7.0	3.5	7.7	4.8
Panama	1,830	127	6.9	3.5	5.3	2.4
Saint Vincent and the Grenadines	94	4	4.3	0.8	4.2	1.2
Palau	53	2	3.8	0.3	4.3	1.4
Iran, Islamic Republic of	28	1	3.6	0.1	20.0	17.1

Only flags with 20 and more port State control inspections and with a detention percentage exceeding the average percentage of 3.43% are recorded in this table (last year the average was 2.92%).

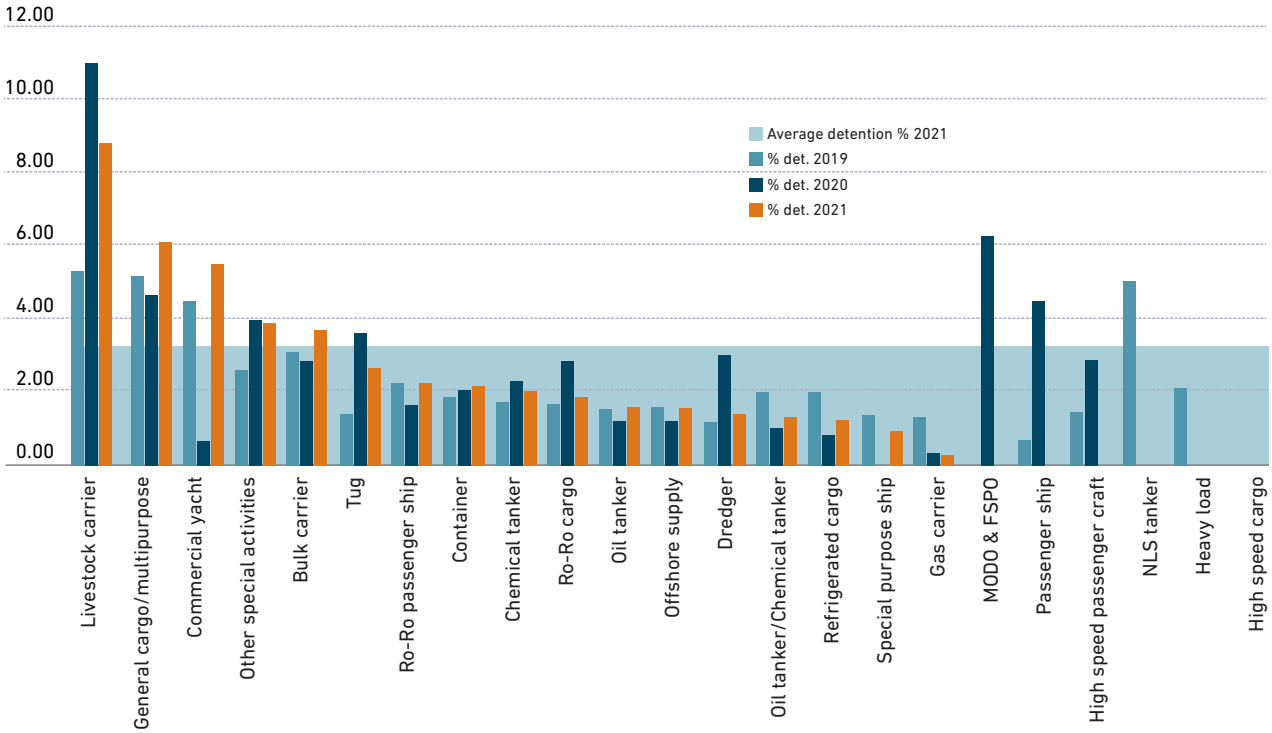
2021 DETENTIONS PER FLAG, EXCEEDING AVERAGE PERCENTAGE



- Only flags with 20 and more port State control inspections in 2021 and with a detention percentage exceeding the average percentage of 3.43% are recorded in this graph. In 2020 the average detentions percentage was 2.92%.
- The light blue column represents the 2021 average detention percentage (3.43%).

INSPECTIONS AND DETENTIONS 2021 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 2021	% of detentions to inspections 2020	% of detentions to inspections 2019	+/- average detention % 2021
Bulk carrier	3,511	1,955	55.7	3,239	129	3.7	2.8	3.1	0.2
Chemical tanker	905	352	38.9	846	18	2.0	2.3	1.7	-1.4
Other	14	8	57.1	14	1	7.1	11.1	18.2	3.7
Commercial yacht	183	54	29.5	181	10	5.5	0.6	4.5	2.0
Container	1,691	793	46.9	1,571	36	2.1	2.0	1.8	-1.3
Gas carrier	398	116	29.1	385	1	0.3	0.3	1.3	-3.2
General cargo/multipurpose	4,126	2,631	63.8	3,422	250	6.1	4.6	5.1	2.6
Heavy load	41	21	51.2	40	-	0.0	0.0	2.1	-3.4
High speed passenger craft	48	27	56.3	35	-	0.0	2.9	1.4	-3.4
NLS tanker	14	7	50.0	11	-	0.0	0.0	5.0	-3.4
Offshore supply	334	184	55.1	323	5	1.5	1.1	1.5	-1.9
Oil tanker	1,091	372	34.1	1,042	17	1.6	1.1	1.5	-1.9
Dredger	72	33	45.8	69	1	1.4	3.0	1.1	-2.0
High speed cargo	15	6	40.0	15	-	0.0	0.0	0.0	-3.4
Livestock carrier	80	71	88.8	69	7	8.8	11.0	5.3	5.3
MODU & FPSO	16	9	56.3	16	-	0.0	6.3	0.0	-3.4
Oil tanker/Chemical tanker	782	316	40.4	710	10	1.3	1.0	2.0	-2.2
Other special activities	390	186	47.7	372	15	3.8	3.9	2.6	0.4
Passenger ship	188	86	45.7	176	-	0.0	4.5	0.7	-3.4
Refrigerated cargo	166	96	57.8	158	2	1.2	0.8	2.0	-2.2
Ro-Ro cargo	659	266	40.4	604	12	1.8	2.8	1.6	-1.6
Ro-Ro passenger ship	363	196	54.0	234	8	2.2	1.6	2.2	-1.2
Special purpose ship	109	45	41.3	106	1	0.9	0.0	1.3	-2.5
Tug	191	85	44.5	181	5	2.6	3.6	1.4	-0.8


12.00
10.00
8.00
6.00
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0.00
Average detention % 2021
% det. 2019
% det. 2020
% det. 2021
Livestock carrier
General cargo/multipurpose
Commercial yacht
Other special activities
Bulk carrier
Tug
Ro-Ro passenger ship
Container
Chemical tanker
Ro-Ro cargo
Oil tanker
Offshore supply
Dredger
Oil tanker/Chemical tanker
Refrigerated cargo
Special purpose ship
Gas carrier
MODO & FSPO
Passenger ship
High speed passenger craft
NLS tanker
Heavy load
High speed cargo

MAJOR CATEGORIES OF DEFICIENCIES 2019-2021

		2019		2020		2021	
Deficiencies Main Group	**Category of deficiencies**	**Def**	**Def %**	**Def**	**Def %**	**Def**	**Def %**
Certificates & Documentation	Crew Certificates	1,228	3.1	1,066	3.8	1,209	3.3
	Documents	2,532	6.4	1,731	6.1	2,218	6.1
	Ship Certificates	2,135	5.4	1,245	4.4	1,552	4.3
Structural Condition		1,911	4.8	1,415	5.0	2,079	5.8
Water/Weathertight condition		1,790	4.5	1,322	4.7	1,639	4.5
Emergency Systems		2,604	6.5	1,620	5.7	2,129	5.9
Radio Communication		871	2.2	562	2.0	719	2.0
Cargo operations including equipment		218	0.5	142	0.5	225	0.6
Fire safety		5,226	13.1	3,730	13.1	4,872	13.5
Alarms		382	1.0	262	0.9	378	1.0
Working and Living Conditions (ILO 147)*	Living Conditions	17	0.0	4	0.0	0	0.0
	Working conditions	413	1.0	236	0.8	0	0.0
Working and Living Conditions (MLC, 2006)	MLC, 2006 Title 1	44	0.1	20	0.1	29	0.1
	MLC, 2006 Title 2	334	0.8	286	1.0	306	0.8
	MLC, 2006 Title 3	2,208	5.5	1,621	5.7	2,175	6.0
	MLC, 2006 Title 4	3,247	8.2	2,796	9.9	3,713	10.3
Safety of Navigation		4,371	11.0	3,144	11.1	3,677	10.2
Life saving appliances		3,196	8.0	2,165	7.6	2,600	7.2
Dangerous goods		63	0.2	35	0.1	49	0.1
Propulsion and auxiliary machinery		1,785	4.5	1,336	4.7	1,810	5.0
Pollution prevention	Anti Fouling	9	0.0	1	0.0	5	0.0
	MARPOL Annex I	560	1.4	377	1.3	538	1.5
	MARPOL Annex II	16	0.0	8	0.0	2	0.0
	MARPOL Annex III	8	0.0	2	0.0	14	0.0
	MARPOL Annex IV	356	0.9	247	0.9	272	0.8
	MARPOL Annex V	586	1.5	470	1.7	559	1.5
	MARPOL Annex VI	525	1.3	301	1.1	327	0.9
	Ballast Water	623	1.6	478	1.7	621	1.7
ISM		1,784	4.5	1,310	4.6	1,777	4.9
ISPS		507	1.3	303	1.1	451	1.2
Other		272	0.7	137	0.5	168	0.5
	Total	**39,821**	**100**	**28,372**	**100**	**36,113**	**100**

* As of 2021 Working and living conditions (ILO 147) is no longer a relevant instrument anymore, since all member States have ratified the MLC, 2006.

TOP 5 CATEGORIES OF DEFICIENCIES 2021

	2020		2021	
Deficiencies	**Deficiencies**	**% Total deficiencies**	**Deficiencies**	**% Total deficiencies**
Fire safety	3,730	13.1	4,872	13.5
Safety of Navigation	3,144	11.1	3,677	10.2
Labour conditions-Health protection, medical care, social security	2,796	9.9	3,638	10.1
Life saving appliances	2,165	7.6	2,600	7.2
Certificate & Documentation-Documents	1,731	6.1	2,218	6.1

TOP 5 DEFICIENCIES 2021

	2020		2021	
Deficiencies	**Deficiencies**	**% Total deficiencies**	**Deficiencies**	**% Total deficiencies**
ISM	1,310	4.6	1,777	4.9
Fire doors/openings in fire-resisting divisions	864	3.0	1,052	2.9
Seafarers' employment agreement (SEA)	539	1.9	597	1.7
Auxiliary engine	352	1.2	503	1.4
Cleanliness of engine room	405	1.4	471	1.3

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	136	1.7	10	7.4
Area 1 Minimum age of seafarers	0	0.0	0	0.0
Area 2 Medical certification of seafarers	124	1.6	8	6.5
Area 3 Qualifications of seafarers	8	0.1	0	0.0
Area 4 Seafarers' employment agreements	697	8.9	63	9.0
Area 5 Use of any licensed or certified or regulated private recruitment and placement service for seafarers	7	0.1	0	0.0
Area 6 Hours of Works or rest	530	6.8	22	4.2
Area 7 Manning levels for the ship	60	0.8	19	31.7
Area 8 Accommodation	628	8.0	55	8.8
Area 9 On-board recreational facilities	30	0.4	1	3.3
Area 10 Food and catering	1,431	18.3	68	4.8
Area 11 Health and safety and accident prevention	3,444	44.0	115	3.3
Area 12 on-board medical care	292	3.7	10	3.4
Area 13 On-board complaint procedure	82	1.0	2	2.4
Area 14 Payment of wages	140	1.8	43	30.7
Area 15 Certificate or documentary evidence of financial security for repatriation	109	1.4	2	1.8
Area 16 Certificate or documentary evidence of financial security relating to shipowners liability	103	1.3	2	1.9
Grand total	**7,821**	**100.0**	**420**	**5.4**

MLC DEFICIENCIES TOP 5

	2020		2021	
Deficiencies	**Deficiencies**	**% Total deficiencies**	**Deficiencies**	**% Total deficiencies**
Seafarers' employment agreement (SEA)	539	8.8	597	7.6
Electrical	334	5.5	453	5.8
Cleanliness of engine room	253	4.1	396	5.1
Access / structural features (ship)	260	4.3	283	3.6
Ropes and wires	250	4.1	284	3.6

MLC DETAINABLE DEFICIENCIES TOP 5

	2020		2021	
MLC detainable deficiencies	**Detainable deficiencies**	**% Total detainable deficiencies**	**Detainable deficiencies**	**% Total detainable deficiencies**
Seafarers' employment agreement (SEA)	83	24.9	57	13.6
Cleanliness of engine room	19	5.7	33	7.9
Wages	23	6.9	29	6.9
Sanitary Facilities	12	3.6	19	4.5
Heating, air conditioning and ventilation	6	1.8	19	4.5

DETENTIONS OF SHIPS WITH RO RELATED DETAINABLE DEFICIENCIES PER RECOGNIZED ORGANIZATION 2021 (CASES IN WHICH 10 OR MORE INSPECTIONS ARE INVOLVED)

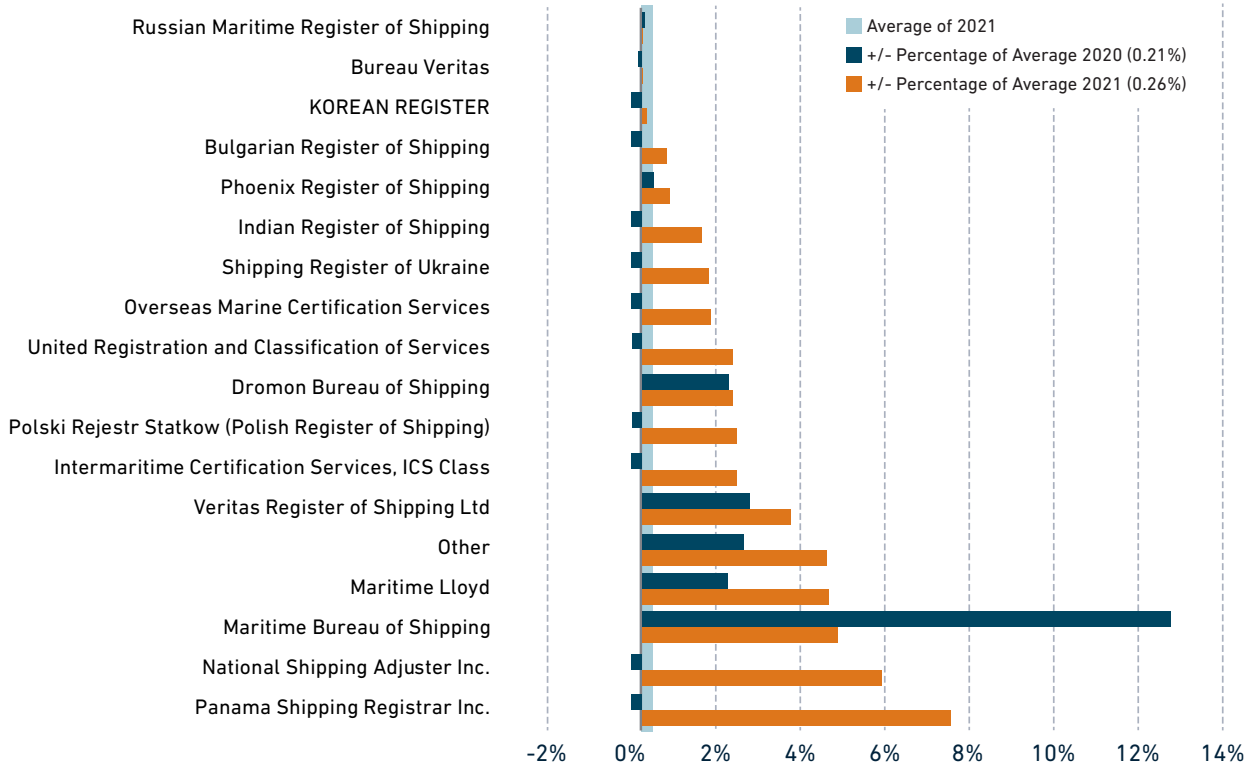
Recognized Organization	Abbr	Total number of inspections	Number of individual ships inspected*	Total number of detentions**	Detention % of total number of Inspections	+/- Percentage of Average 2021. (0.26)	Detention % of individual ships	+/- Percentage of Average Indiv. 2021. (0.29)
American Bureau of Shipping	ABS	1,925	1,829	-	-	-0.26	-	-0.29
ASIA Classification Society	ASIA	11	11	-	-	-0.26	-	-0.29
Bulgarian Register of Shipping	BRS	118	91	1	0.85	0.58	1.10	0.81
Bureau Veritas	BV	3,555	3,157	11	0.31	0.04	0.35	0.06
China Classification Society	CCS	337	317	-	-	-0.26	-	-0.29
Columbus American Register	COLAMREG	10	7	-	-	-0.26	-	-0.29
Croatian Register of Shipping	CRS	43	39	-	-	-0.26	-	-0.29
DNV AS	DNV	7,508	6,987	4	0.05	-0.21	0.06	-0.23
Dromon Bureau of Shipping	DBS	205	151	5	2.44	2.17	3.31	3.02
Indian Register of Shipping	IRS	58	52	1	1.72	1.46	1.92	1.63
Intermaritime Certification Services, ICS Class	ICS	39	33	1	2.56	2.30	3.03	2.74
International Naval Surveys Bureau	INSB	164	136	-	-	-0.26	-	-0.29
International Register of Shipping	IS	72	62	-	-	-0.26	-	-0.29
Iranian Classification Society	IRCS	18	18	-	-	-0.26	-	-0.29
Isthmus Bureau of Shipping, S.A.	IBS	59	52	-	-	-0.26	-	-0.29
KOREAN REGISTER	KR	513	489	2	0.39	0.12	0.41	0.12
Lloyd's Register	LR	3,502	3,256	7	0.20	-0.07	0.21	-0.08
Macosnar Corporation	MC	24	22	-	-	-0.26	-	-0.29
Maritime Bureau of Shipping	MBS	20	14	1	5.00	4.74	7.14	6.85
Maritime Lloyd	ML	21	20	1	4.76	4.50	5.00	4.71
Mediterranean Shipping Register	MSR	30	21	-	-	-0.26	-	-0.29
National Shipping Adjuster Inc.	NASHA	33	30	2	6.06	5.80	6.67	6.37
Nippon Kaiji Kyokai	NKK	2,698	2,533	7	0.26	-0.01	0.28	-0.02
Other	OTHER	85	66	4	4.71	4.44	6.06	5.77
Overseas Marine Certification Services	OMCS	52	44	1	1.92	1.66	2.27	1.98
Panama Maritime Documentation Services	PMDS	41	37	-	-	-0.26	-	-0.29
Panama Shipping Registrar Inc.	PSR	26	19	2	7.69	7.43	10.53	10.23
Phoenix Register of Shipping	PHRS	206	164	2	0.97	0.71	1.22	0.93
Polski Rejestr Statkow (Polish Register of Shipping)	PRS	157	117	4	2.55	2.28	3.42	3.13
Qualitas Register of Shipping S.A.	QRS	35	28	-	-	-0.26	-	-0.29
RINA Services S.p.A.	RINA	1,663	1,395	3	0.18	-0.08	0.22	-0.08

Recognized Organization	Abbr	Total number of inspections	Number of individual ships inspected*	Total number of detentions**	Detention % of total number of Inspections	+/- Percentage of Average 2021. (0.26)	Detention % of individual ships	+/- Percentage of Average Indiv. 2021. (0.29)
Russian Maritime Register of Shipping	RMRS	650	565	2	0.31	0.04	0.35	0.06
Shipping Register of Ukraine	SRU	53	43	1	1.89	1.62	2.33	2.03
Turkish Lloyd	TL	86	71	-	-	-0.26	-	-0.29
United Registration and Classification of Services	URACOS	41	33	1	2.44	2.17	3.03	2.74
Veritas Register of Shipping Ltd	VRS	26	20	1	3.85	3.58	5.00	4.71

* 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.

** Only detentions with RO related detainable deficiencies are taken into account.
(Recognized organizations with more than 10 inspections are taken into account).

% OF DETENTIONS OF SHIPS WITH RO RELATED DETAINABLE DEFICIENCIES PER RECOGNIZED ORGANIZATION 2019-2021 (CASES IN WHICH MORE THAN 10 INSPECTIONS ARE INVOLVED)



* Only ROs with 10 and more port State control inspections in 2021 and with a detention percentage exceeding the average percentage of 0.26 are recorded in this graph. In 2020 the average detention percentage was 0.21.

* The light blue column represents the 2021 average detention percentage (0.26).

RECOGNIZED ORGANIZATION PERFORMANCE TABLE 2019-2021

Recognized Organization	RO abrev	Inspections	Detentions	Low / medium limit	Medium / high limit	Excess Factor	Performance level
American Bureau of Shipping	ABS	5,633	2	130	95	-1.94	High
DNV AS	DNV	21,689	14	468	399	-1.92	
Lloyd's Register	LR	10,679	12	238	189	-1.86	
Nippon Kaiji Kyokai	NKK	7,726	13	175	134	-1.79	
Bureau Veritas	BV	10,263	23	229	181	-1.73	
RINA Services S.p.A.	RINA	4,794	11	112	79	-1.69	
China Classification Society	CCS	850	1	24	10	-1.60	
Russian Maritime Register of Shipping	RMRS	2,096	5	53	31	-1.59	
Korean Register	KRS	1,402	3	37	19	-1.56	
Turkish Lloyd	TL	313	0	11	2	-0.86	
Phoenix Register of Shipping	PHRS	588	4	18	6	-0.39	
Polski Rejestr Statkow (Polish Register of Shipping)	PRS	501	5	16	4	0.06	Medium
Croatian Register of Shipping	CRS	134	0	6	0	0.08	
Panama Maritime Documentation Services	PMDS	130	0	6	0	0.08	
Qualitas Register of Shipping S.A.	QRS	86	0	4	0	0.17	
International Register of Shipping	IS	182	2	7	0	0.27	
Indian Register of Shipping	IRS	177	2	7	0	0.28	
International Naval Surveys Bureau	INSB	492	8	15	4	0.34	
Intermaritime Certification Services, ICS Class	ICS	150	2	6	0	0.35	
Macosnar Corporation	MC	89	1	4	0	0.35	
Shipping Register of Ukraine	SRU	238	4	9	1	0.41	
Bulgarian Register of Shipping	BRS	288	5	10	1	0.41	
Isthmus Bureau of Shipping, S.A.	IBS	161	3	7	0	0.47	
National Shipping Adjuster Inc.	NASHA	157	3	7	0	0.48	
Overseas Marine Certification Services	OMCS	147	3	6	0	0.51	
United Registration and Classification of Services	URACOS	93	2	5	0	0.53	
Dromon Bureau of Shipping	DBS	607	15	18	6	0.73	
Mediterranean Shipping Register	MSR	120	4	5	0	0.76	
Maritime Lloyd - Georgia	ML	114	4	5	0	0.79	
Panama Shipping Registrar Inc.	PSR	72	3	4	0	0.82	
Maritime Bureau of Shipping	MBS	64	4	4	0	1.36	Low
Veritas Register of Shipping Ltd	VRS	90	5	4	0	1.37	
Other	OTHER	320	14	11	2	1.73	

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.

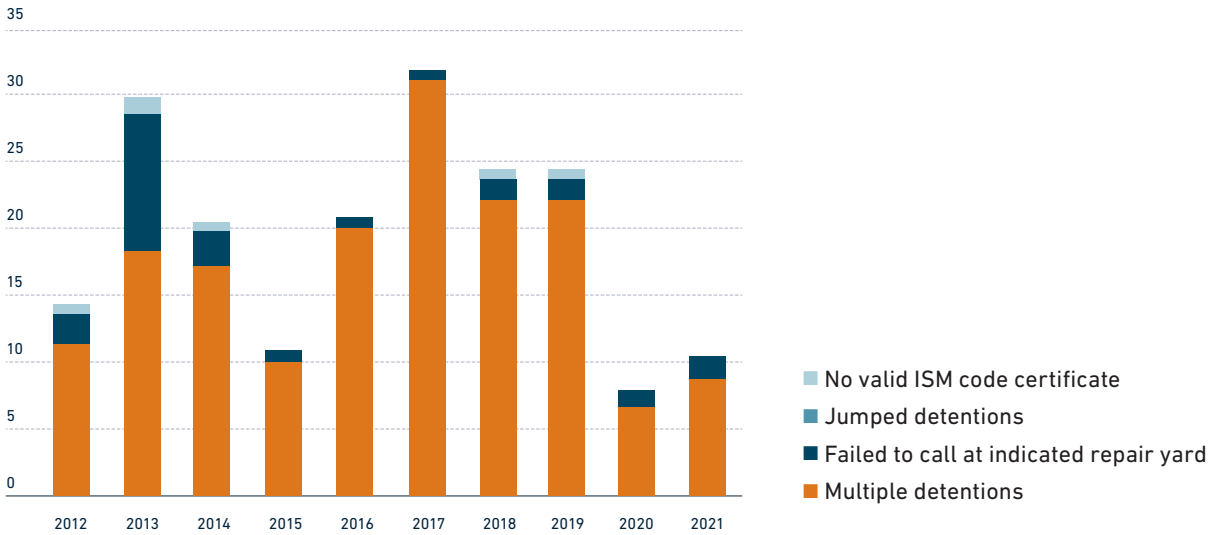
NUMBER OF CERTIFICATES COVERING RO RESPONSIBLE DETAINABLE DEFICIENCIES 2021

Recognized Organization	RO abrev	Certificates	Total number of RO detainable deficiencies	% deficiencies / certificates
American Bureau of Shipping	ABS	18,674	0	0.00
Bulgarian Register of Shipping	BRS	1,092	1	0.09
Bureau Veritas	BV	32,805	32	0.10
China Classification Society	CCS	3,996	0	0.00
Croatian Register of Shipping	CRS	492	0	0.00
DNV AS	DNV	51,892	24	0.05
Dromon Bureau of Shipping	DBS	2,340	9	0.38
Indian Register of Shipping	IRS	507	9	1.78
Intermaritime Certification Services, ICS Class	ICS	155	1	0.65
International Naval Surveys Bureau	INSB	1,238	0	0.00
International Register of Shipping	IS	785	0	0.00
Isthmus Bureau of Shipping, S.A.	IBS	643	0	0.00
KOREAN REGISTER	KR	4,191	2	0.05
Lloyd's Register	LR	28,044	24	0.09
Mediterranean Shipping Register	MSR	355	0	0.00
National Shipping Adjuster Inc.	NASHA	273	7	2.56
Nippon Kaiji Kyokai	NKK	28,709	37	0.13
Other	OTHER	629	10	1.59
Overseas Marine Certification Services	OMCS	336	1	0.30
Panama Maritime Documentation Services	PMDS	120	0	0.00
Phoenix Register of Shipping	PHRS	1,901	12	0.63
Polski Rejestr Statkow (Polish Register of Shipping)	PRS	1,528	10	0.65
Qualitas Register of Shipping S.A.	QRS	171	0	0.00
RINA Services S.p.A.	RINA	15,429	11	0.07
Russian Maritime Register of Shipping	RMRS	6,968	8	0.11
Shipping Register of Ukraine	SRU	588	1	0.17
Turkish Lloyd	TL	816	0	0.00
United Registration and Classification of Services	URACOS	359	1	0.28

REFUSAL OF ACCESS (BANNING) PER FLAG 2019-2021

Flag	Failed to call at indicated repair yard	Jumped detention	Multiple detentions			Total Banned
			1st ban	2nd ban	3rd ban	
Albania	-	-	2	1	-	3
Algeria	-	-	1	-	-	1
Cameroon	2	-	-	-	-	2
Comoros	2	-	7	3	-	12
Moldova, Republic of	1	-	10	2	-	13
Palau	-	-	3	-	-	3
Panama	1	1	-	-	-	2
Saint Kitts and Nevis	-	-	1	-	-	1
Sierra Leone	-	-	1	-	-	1
Tanzania, United Republic of	1	-	1	1	-	3
Togo	-	-	2	-	-	2
Ukraine	-	-	1	-	-	1
Total	**7**	**1**	**29**	**7**	**-**	**44**

REFUSAL OF ACCESS 2012-2021



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:

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

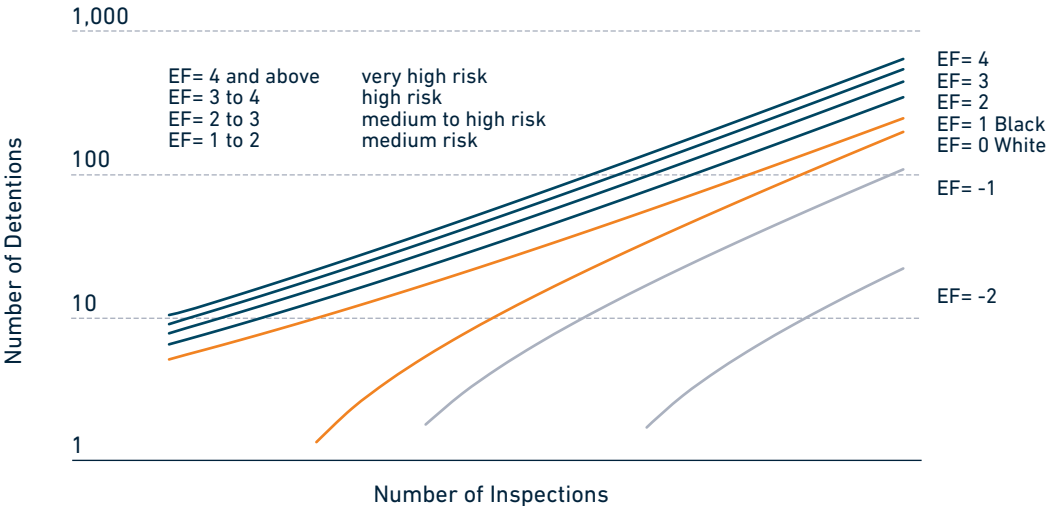
$$u_{white\_to\_grey} = N \cdot p - 0.5 - z\sqrt{(N \cdot p \cdot (1-p)}$$

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. 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.



* Explanatory notes can be found on www.parismou.org/publications

Secretariat Paris Memorandum OF UNDERSTANDING ON PORT STATE CONTROL

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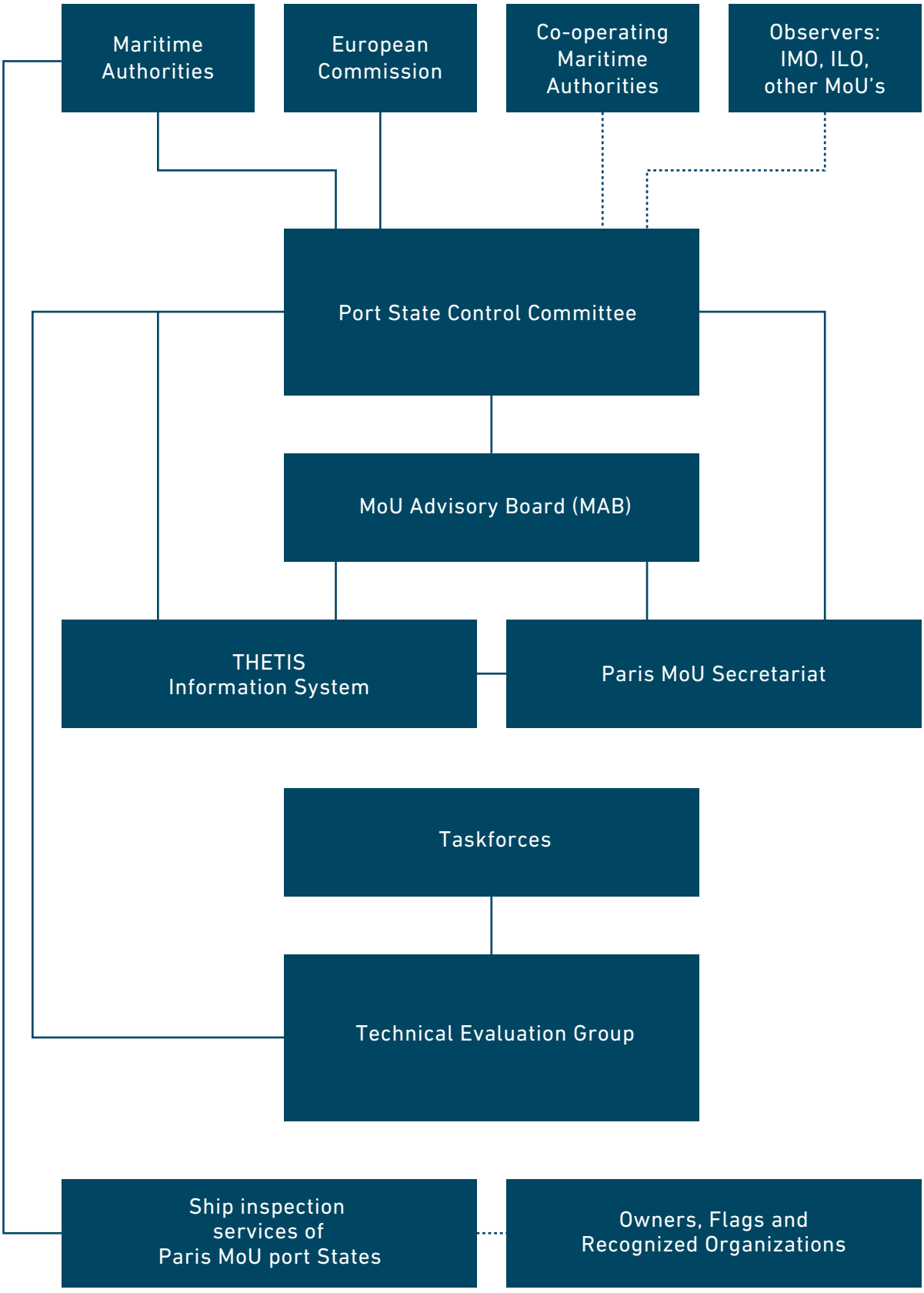
Paris MoU fact sheet - **ORGANIZATIONAL STRUCTURE**



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