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TECHNICAL PUBLICATION

PSC Inspection Regime

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INTRODUCTION

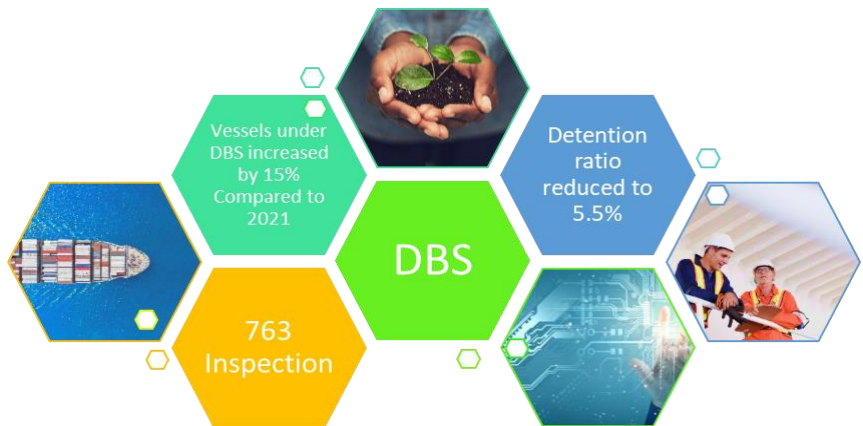
Dromon Bureau of Shipping (DromonClass) establishes mandatory provisions to ensure vessels' compliance with the relevant International Regulations.

With a continues effort to comply with existing and forthcoming Regulatory updates, DromonClass ensures that all necessary measures are implemented on board vessels for the improvement of aspects related to maritime safety and security, as well as protection of the marine environment. By using reliability, critical tools and methodologies, DromonClass provides best practices to ship managers and Owners to improve the operational efficiencies of their fleets.

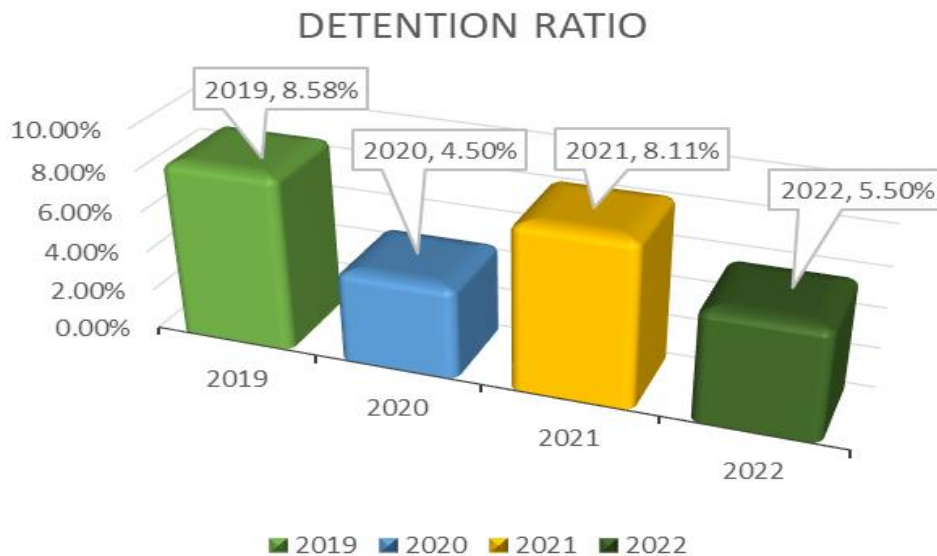
DromonClass offers a variety of tools and services, such as preparing the vessel for Port State Control Inspections, helping each ISM Manager and Operator increase the operational effectiveness of the vessel and more. Together with steps made by the Marine Division, growing awareness and boosting DromonClass criteria for vessels, led to a rise in the DromonClass fleet and a decrease in the detention ratio over the past few years.

This year, a more in-depth study was conducted from both a qualitative and quantitative standpoint. The Port State Control (PSC) reports were evaluated by analyzing inspections in Paris, Black Sea, the Mediterranean, Abuja, Indian and Tokyo MoUs, and statistics were constructed by gathering deficiencies from the database in order to offer the following results. The goal is to eliminate vessel detentions by publishing these facts.

Regarding the number of vessels that DromonClass performed Class and Statutory surveys/ audits, it has been noticed that there is a consistent increase. The growth of the Dromon Fleet led to more inspections, resulting in an increase of number of deficiencies onboard the fleet. However, the ratio between inspections and deficiencies has been reduced.



Additionally, the total detention ratio in Paris, Mediterranean, Black Sea, Tokyo, Abuja and Indian MoUs has been reduced to 5.50%, as shown in the below chart.



GETTING BACK ON TRACK

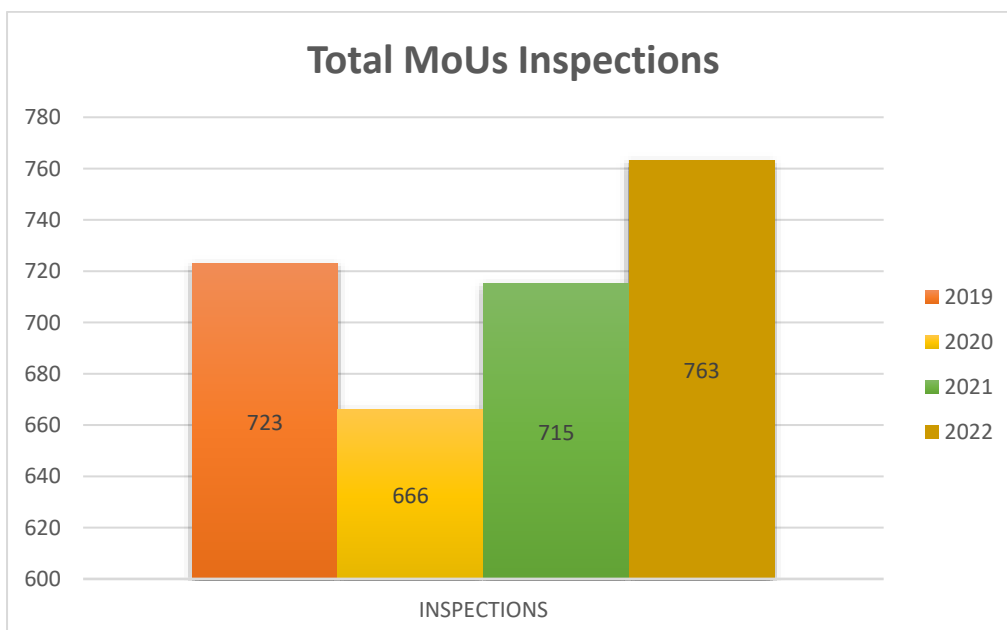
During the Pandemic of Sars-Cov2, commonly known as Covid-19 everyone was somehow affected to a different degree. Since the very start of Covid in late 2019 and early 2020 shipping could not stay unaffected by measures taken by governments. The reaction to these measures resulted in repatriation of stranded crews, and reduction of voyages performed, to name a few.

The combination of measures taken by governments and reaction of shipping to this crisis has significantly affected the number of ship inspections by PSC Authorities everywhere on the Globe. This can also be seen in the graph on the below table; and more specifically in the year 2020, where a similar trend of 2019 can be noticed, followed by a sudden reduction of Inspections as governments measures came into effect. The number of inspections continues to follow this volatile trend throughout the 2020 year.

In 2021 an increase of Inspections is observed. This time the trend shows an increased number of inspections for the first half of 2021, however, where fewer inspections are recorded for the last 5 months of the year strengthening once again the shipping industry has been major impacted from the pandemic. During this period, there was a remarkable increase in the detention ratio which was attributed to many factors but mainly to the crew fatigue and prolonged period absence of attendance on board by the company and third parties.

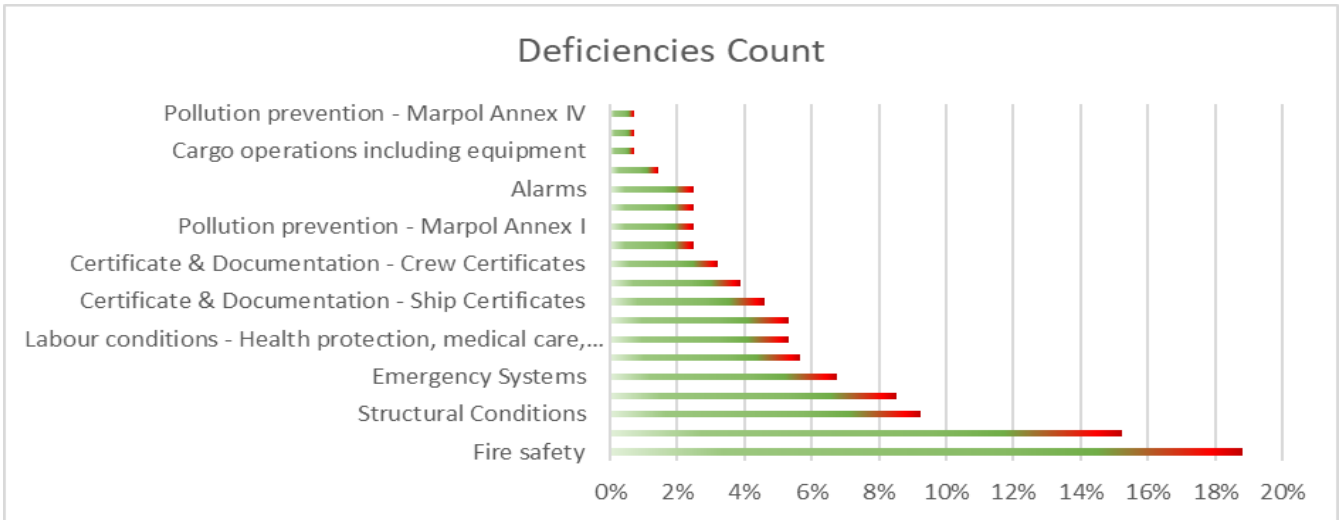
	January	February	March	April	May	June	July	August	September	October	November	December	Total
2019	24	19	20	16	22	16	27	19	23	12	14	20	232
2020	22	19	15	4	5	14	14	16	17	20	14	8	168
2021	19	24	21	15	12	20	22	13	14	14	16	16	206
2022	23	17	16	13	20	17	16	13	15	14	12	15	191

During 2022, Inspections performed on daily basis are more stable as the globe starts returning to normal and everything starts to fall into place to some form of new normality. Inspections of 2022 are close, but a bit less than Inspections recorded during 2020 as a consequence of an improved vessel profile certified by this Organization. Moreover, a particularly significant figure worth mentioning for 2022 is the detention ratio which showed a dramatic decrease as shown in the bar chart above "Detention Ratio". This result has been achieved through a series of measures that were established and strictly implemented throughout the year.



SUMMARY OF DETAINABLE DEFICIENCIES

DromonClass aims to improve fleet operations and ensure vessel safety by evaluating new entry requests, ensuring the nomination of qualified and competent personnel, and analyzing data collected during PSC inspections. This data is used to identify critical issues and establish a reliable basis for preventing ships from being detained. The graph below illustrates proportionally the percentage of detainable deficiencies by area, and ranked based on the frequency of their occurrence on DromonClass fleet 2022.

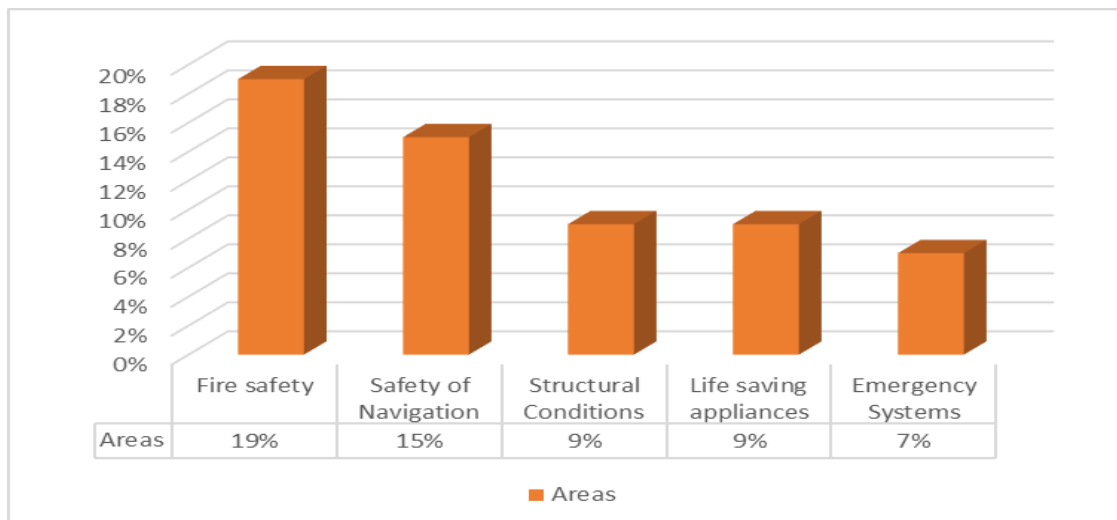


Based on this year's evaluations, Fire Safety had the highest percentage of detainable deficiencies at 19%. Safety of Navigation was also found to have frequent observations over the past few years and is therefore observed to have a detainable impact accounting 15%.

The areas with the highest detainable ratio are presented below along with the percentage of their occurrence.

- Fire Safety
- Safety of Navigation
- Structural Conditions
- Life Saving Appliances
- Emergency Systems

These Areas account for 59% of the total detainable deficiencies.

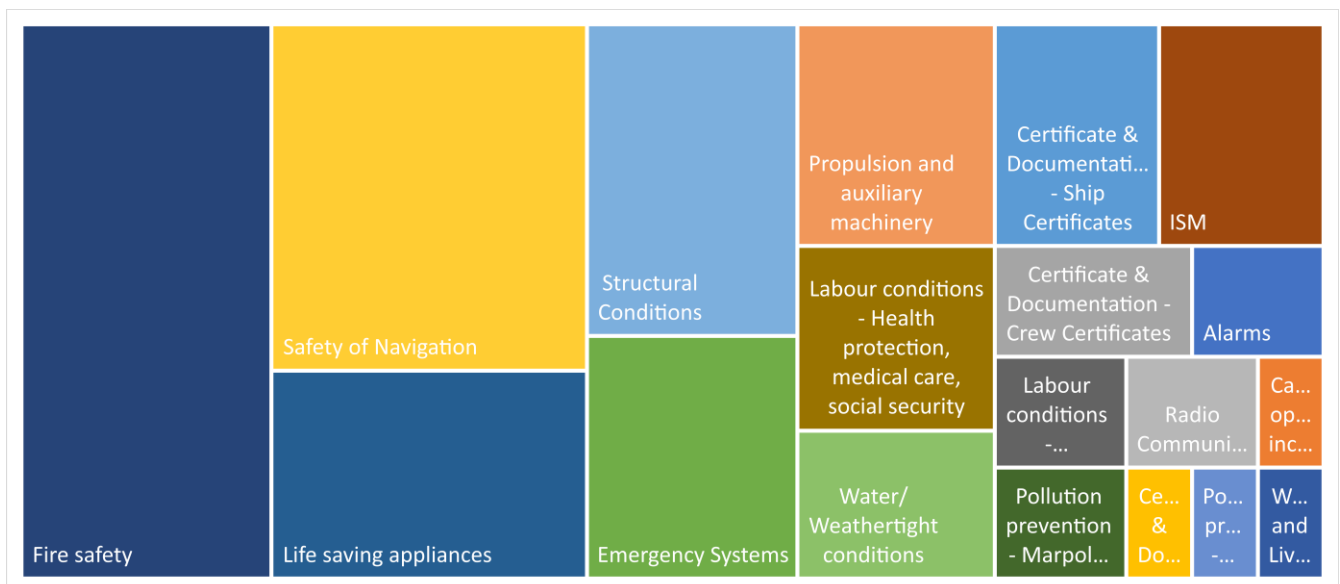


It is evident from the data collected that DromonClass has efficiently handled and focused on defective items, resulting in a percentage drop in detainable remarks from 2021 to 2022. During this period, efforts were made to reduce all detainable related remarks, which contributed to a drop of about 29%. Detainable related remarks reduced from 397 in 2021 to 282 in 2022 despite the increase of the inspections. Comparing now the Top 5 detainable related remarks as also shown on the below graph, it is observed that an overall reduction of 27% from year 2021 to 2022 can be observed as total count for these areas in 2021 accounted to 225 compared to 165 in 2022. It is notable to comment that all 5 Top areas appear to have a reduction of appearing as detainable remarks except for Structural Conditions Showing a numerical increase of 7 units in this Period.

TOP 5 AREAS	2021	2022
Fire safety	70	53
Safety of Navigation	50	43
Structural Conditions	19	26
Life saving appliances	47	24
Emergency Systems	39	19
TOTAL	225	165

DromonClass has developed a Treemap chart based on the frequency of deficiencies to identify significant detainable remarks. The chart concludes that the five areas mentioned earlier are critical and can cause detention. Additionally, the areas of detainable deficiencies are represented in the chart in proportionate size compared to their frequency.

DromonClass continuously provides services to Owners and ISM Managers and conducts deep inspection database analysis to ensure compliance with International Regulations and relevant standards. Based on the lessons learned from data gathering in the past years, specific geographical areas have been targeted to minimize the risk of having detainable remarks. The objective is to improve and increase reliability, which can result in vessels achieving less frequent inspections and detentions.



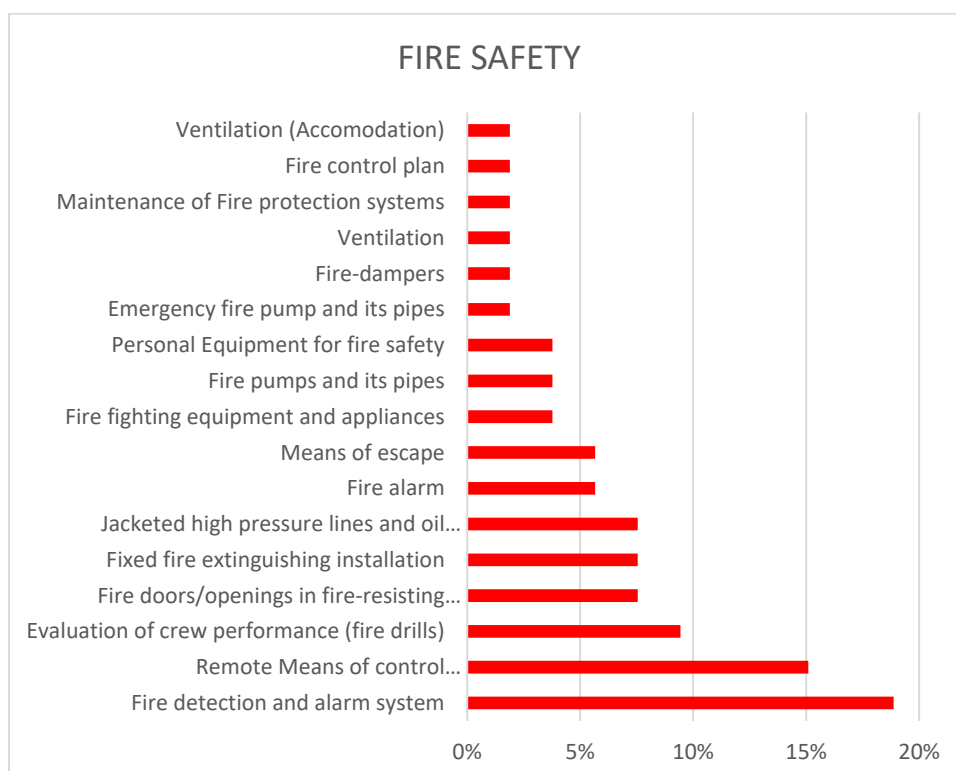
All detainable remarks have been sorted and further analyzed to provide a comprehensive overview of overall ship detention remarks. The table below identifies the top categories for grounds during PSC inspections.

AREA	Weight
Fire safety	19%
Safety of Navigation	15%
Life saving appliances	9%
Structural Conditions	9%
Emergency Systems	7%
Propulsion and auxiliary machinery	6%
Certificate & Documentation - Ship Certificates	5%
ISM	5%
Labour conditions - Health protection, medical care, social security	5%
Water/Weathertight conditions	4%
Certificate & Documentation - Crew Certificates	3%
Alarms	2%
Labour conditions - Accommodation, recreational facilities, food and catering	2%
Pollution prevention - MARPOL Annex I	2%
Radio Communications	2%
Cargo operations including equipment	1%
Certificate & Documentation - Documents	1%
Pollution prevention - MARPOL Annex IV	1%
Working and Living Conditions - Living conditions	1%

The chart below illustrates the most frequently imposed detainable sub-items related to the top five pillars with the highest percentage of detainable deficiencies.

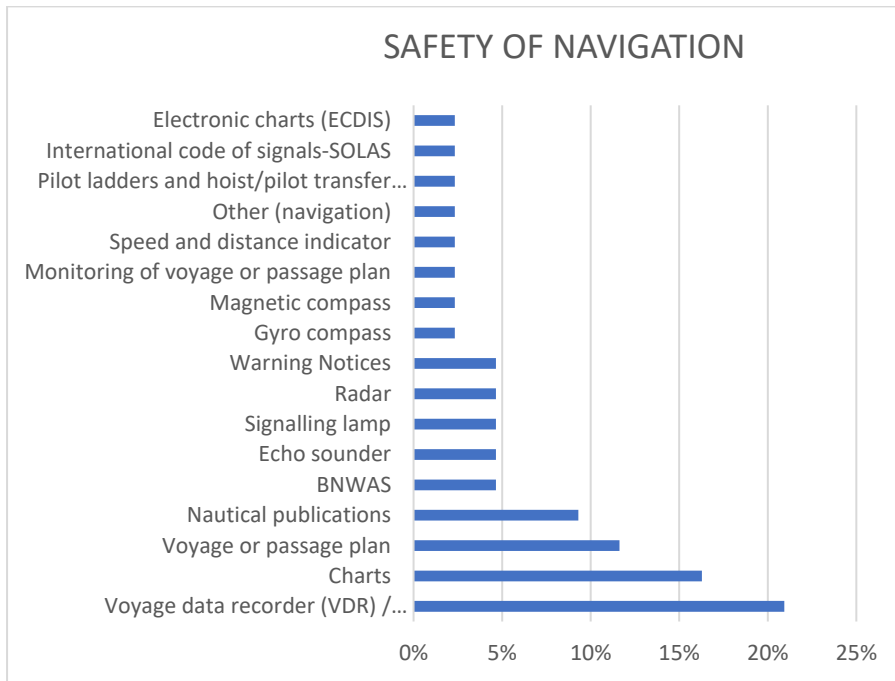
Fire Safety

Defective Items Related to Fire detection and alarm System dominate the Fire Safety Pillar of detainable items at 19% followed by another high value of 15% for Remote means of Control. Rest of the Items in this Category are below 10% with Evaluation of crew performance during fire drills being at 9%.



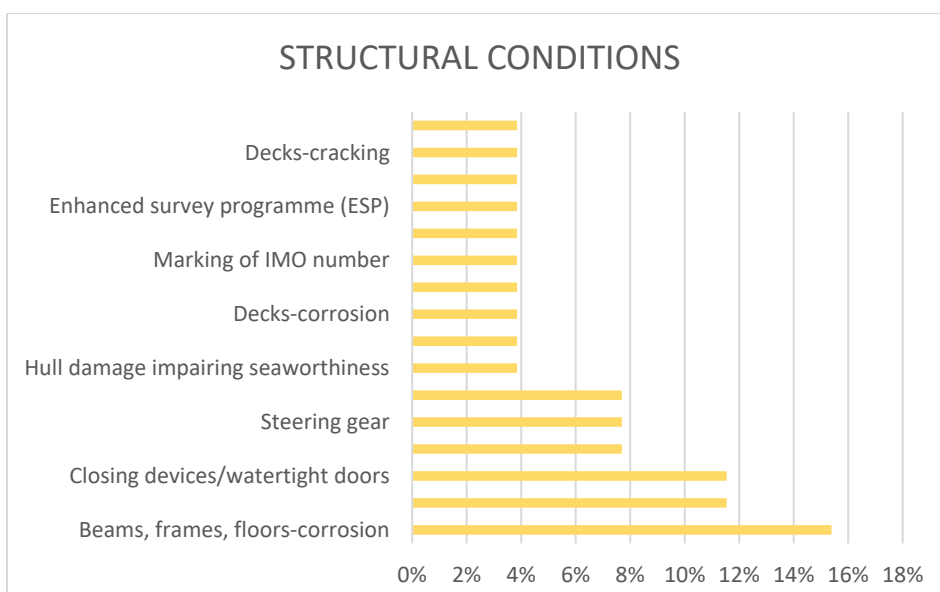
Safety of Navigation

It is important to raise awareness regarding Voyage data recorder (VDR), as it is evident that detainable remarks related to VDR/SVDR have the highest value compared to other grounds at 21% of Safety of Navigation Pillar. Notably, Charts at 16% and Voyage or passage plan at 11% for which the company should provide further support to the crew member for compliance with these requirements. Lastly Nautical Publications at a shy 9% also indicates that the Authorities give special consideration that the latest editions of Publications should be available on Board.



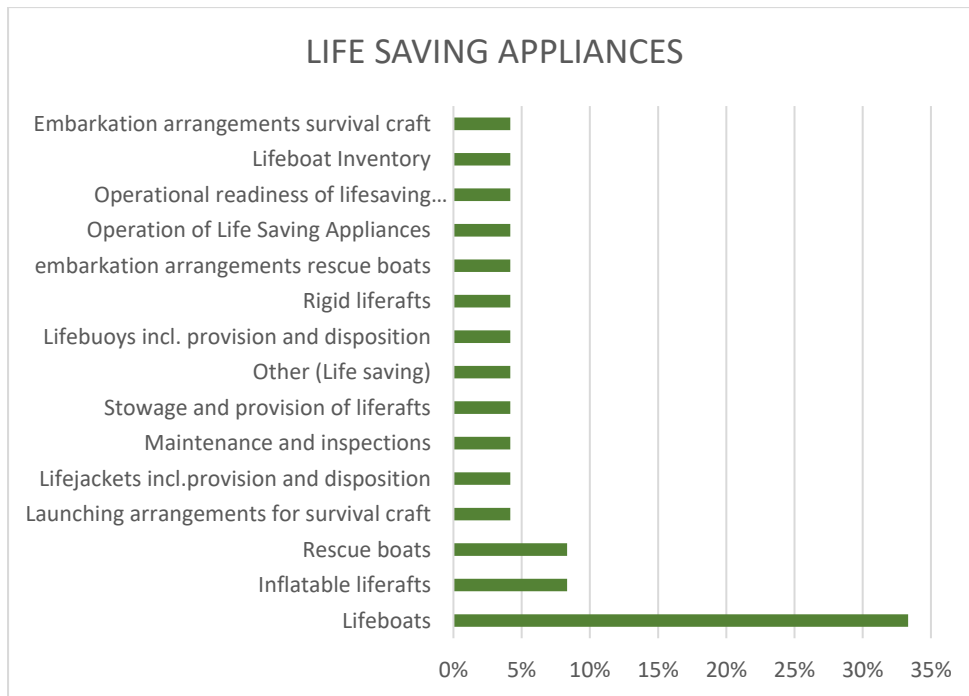
Structural Conditions

Structural conditions are an essential aspect of ship safety and refer to the ship's overall condition and integrity, including its hull, superstructure, and internal structures. Any deficiencies in these areas can compromise the ship's safety and stability, potentially leading to a serious accident. Top deficiencies in category Structural conditions are more widely spread with Most common deficiencies being at 15% beams, frames, floors corrosion, followed by Electrical Installations and Closing Devices/watertight doors at 12%. The rest of Items are at below 10% without meaning that are less importance.



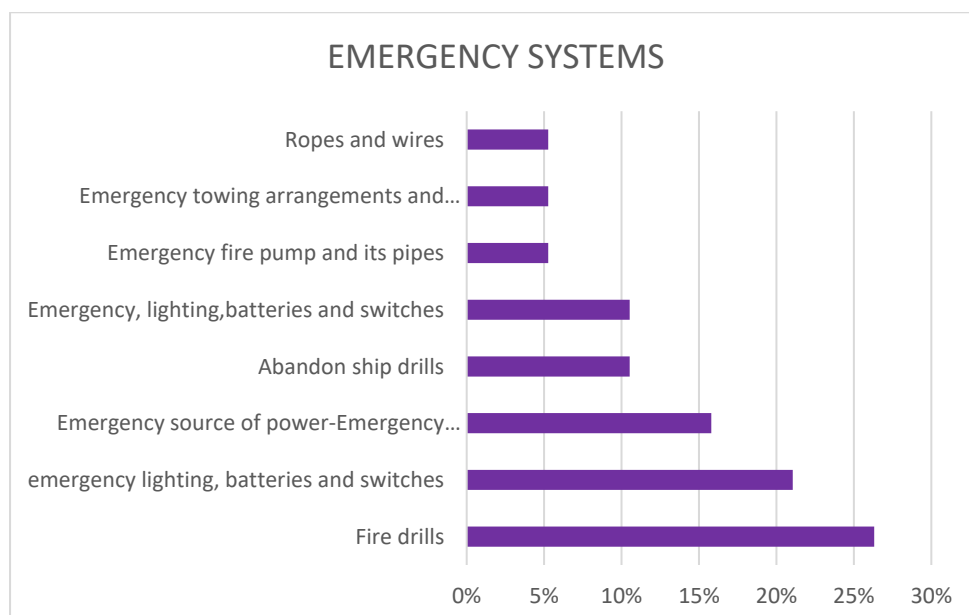
Life Saving Appliance

Lifesaving appliances are vital equipment on board ships which are used for the safety of life at sea. These include lifeboats, life rafts, lifebuoys, life jackets, immersion suits, and other rescue equipment. As shown below lifeboats is the most frequent and major deficiency in the category of Emergency systems, having significantly higher value at 33%. Based on this, it is concluded that PSC gives emphasis on Lifeboats to ensure that they meet the international safety standards. Lifeboats are considered one of the most important pieces of the Life Saving Appliances, and their service requires a competent supplier authorized by the manufacturer.



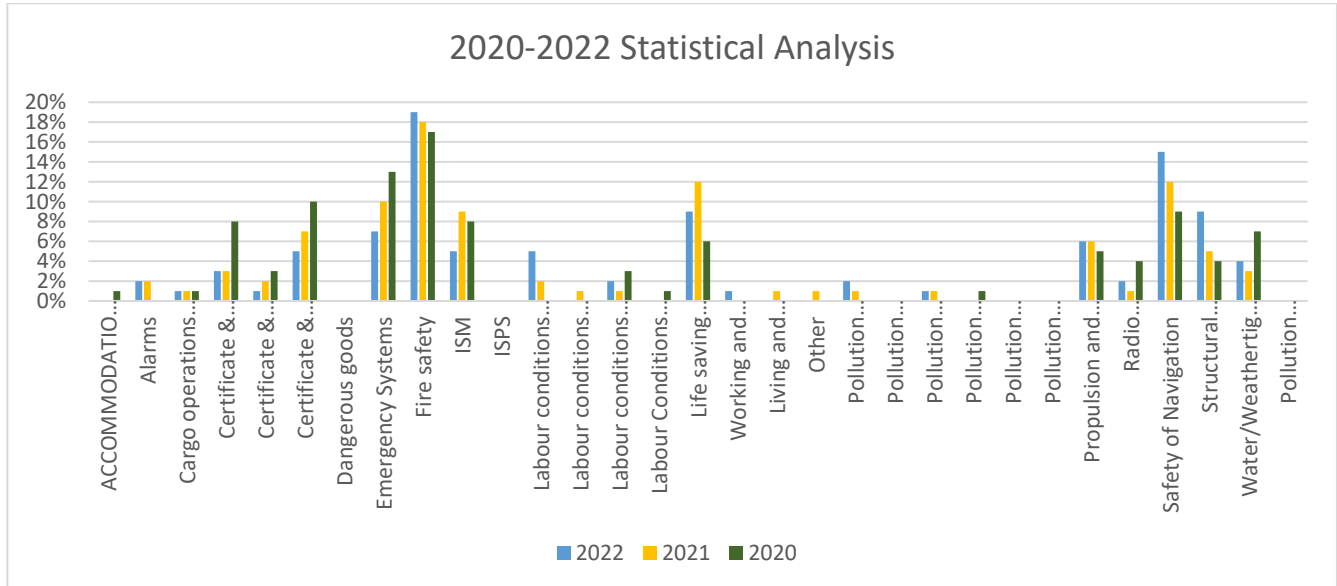
Emergency Systems

Based on the Emergency Systems analysis, it is evident that there is a pressing need to place a stronger emphasis on conducting fire drills.. Among the detainable sub-items in this category, the Fire Drills carries the highest weight prevailing at 26%, while Emergency lighting, batteries and switches account for 21%.



COMPARISON OF PSC INSPECTION OUTCOMES

DromonClass strives to make informed decisions by analyzing data, aiming to minimize detainable deficiencies through innovative solutions. The chart below shows the percentage of detainable deficiencies found during inspections conducted by Paris, Black Sea, Mediterranean, and Tokyo MOUs between 2020 and 2022.



Moreover, it indicates that the efforts and focus on addressing the most critical detainable deficiencies in the previous year have led to a consistent improvement over the last three years. Consequently, the detention rate has reached its lowest level, indicating a general trend of decrease observed in 2022.

In 2022, the percentage of Fire Safety and Safety of Navigation related detainable deficiencies was 19% and 15%, respectively. Additionally, the awareness raised by the Marine Division for Emergency Systems and ISM related detainable items has successfully reduced their percentage values compared to the total detainable remarks.

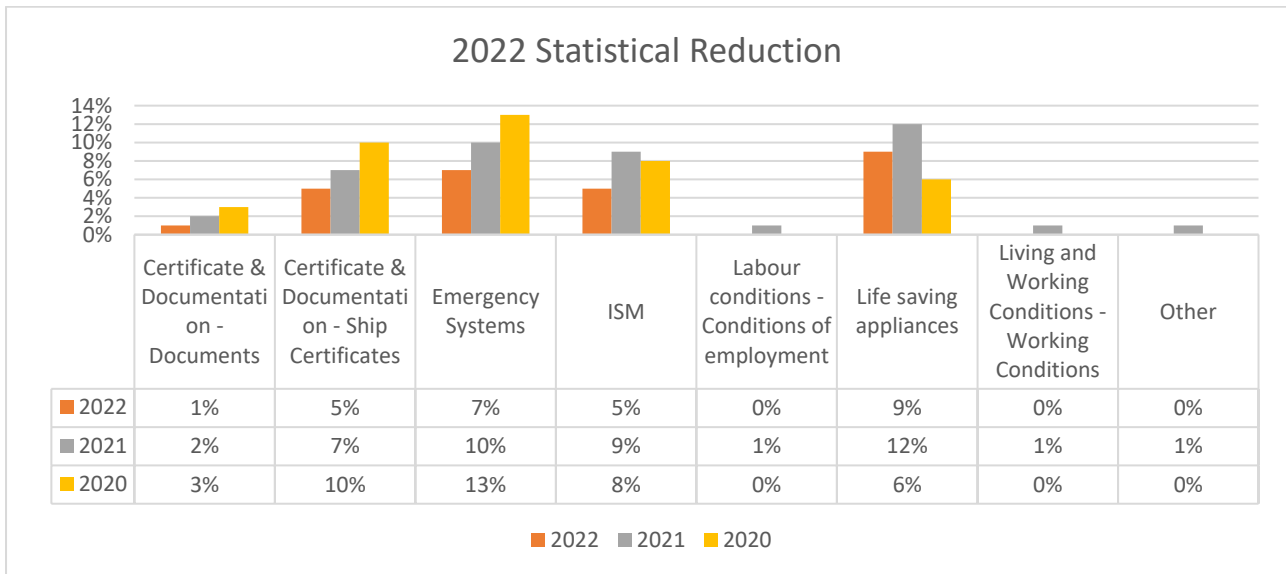
The graph below displays the percentage reduction compared to 2021 in areas that significantly improved. Among these areas, ISM, Emergency Systems and Life saving Appliances recorded a reduction of 3-4 Percentile Units.

On the other hand, in 2022, there was an increase in the rate of deficiencies recorded in Life Saving Appliances compared it with the results in 2020, from 6% to 9%, however, it is notable that there has been a decrease 3% from 2021 to 2022 which means less detainable deficiencies.

Other detainable remarks recorded reduction of proportionate percentage, such as Living and Working Conditions-Working Conditions and Labour Conditions-Conditions of Employment from 1% to 0% meaning no detainable remark for this Item was recorded during the year 2022.

Referring to the remaining detainable items, similar values to last year or minor increases were recorded.

Overall, proper planning, thorough preparation for PSC inspections, organized inspections on board the DromonClass fleet, and the effective use of data have contributed to a reduction in detainable deficiencies.



DROMON CIC ON IMPLEMENTATION OF MLC,2006

The International Transport Workers' Federation (ITF) has announced a campaign in the Ports of the Mediterranean Sea, spanning eight weeks (16th March to 11th May 2023) and targeting more than 1000 vessels.

Considering these initiatives, Dromon Bureau of Shipping has decided to implement a concentrate inspection campaign with a similar focus on the MLC Application and the appropriate condition on board the vessels. As part of this, a specific checklist has been developed which should be completed by the Surveyors during their attendance on boards with aim to enhancing the compliance of the vessel with the convention.

2023 CIC OF PARIS AND TOKYO MOUS

This statement mentions that the Paris Memorandum of Understanding (MoU) Annual Report states that a **Concentrated Inspection Campaign (CIC)** on **Fire Safety** will be conducted in 2023. DromonClass will notify all relevant parties about the requirements of this CIC and provide additional guidance by issuing a Circular along with a questionnaire.

For more information, please send an email to psc@dromon.com
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