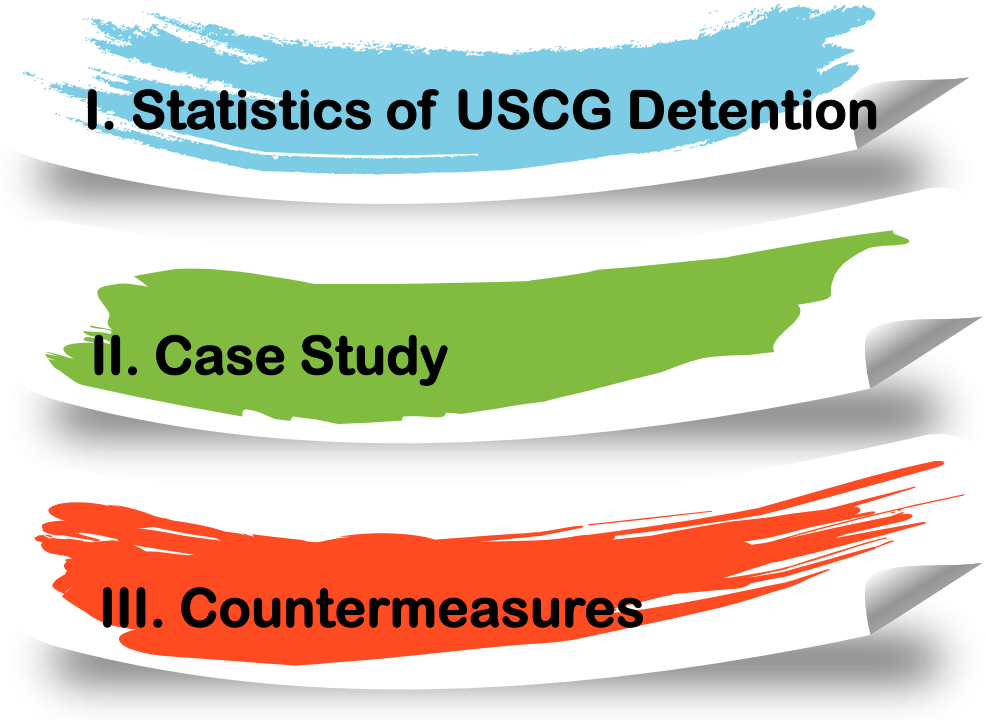
USCG

Case Study for Detention

KR Survey Team

September 2018

Contents



Status

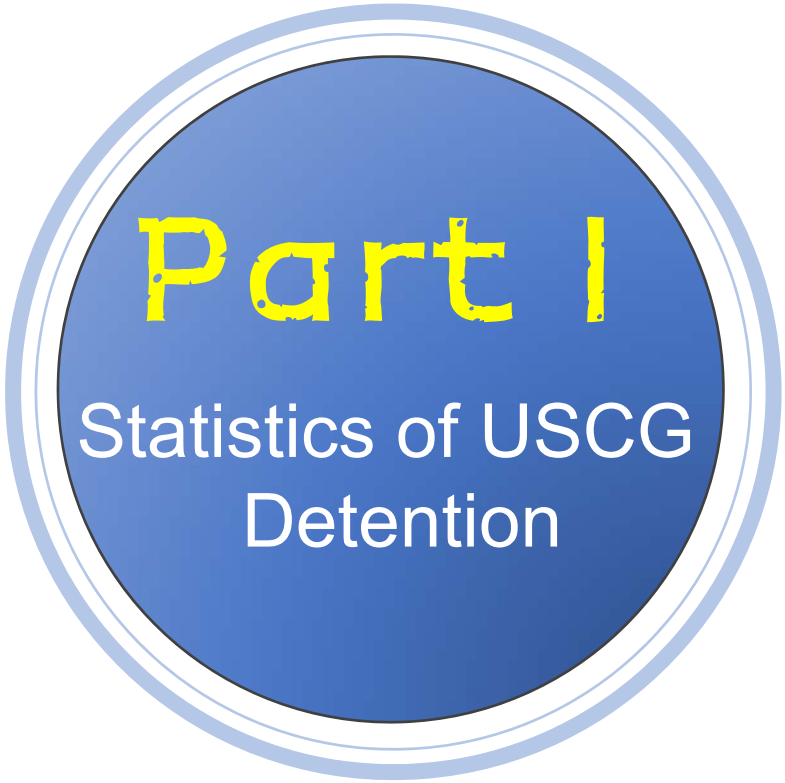
Status of PSC detention in USCG area for the first half of 2018

Case

Case Study of USCG

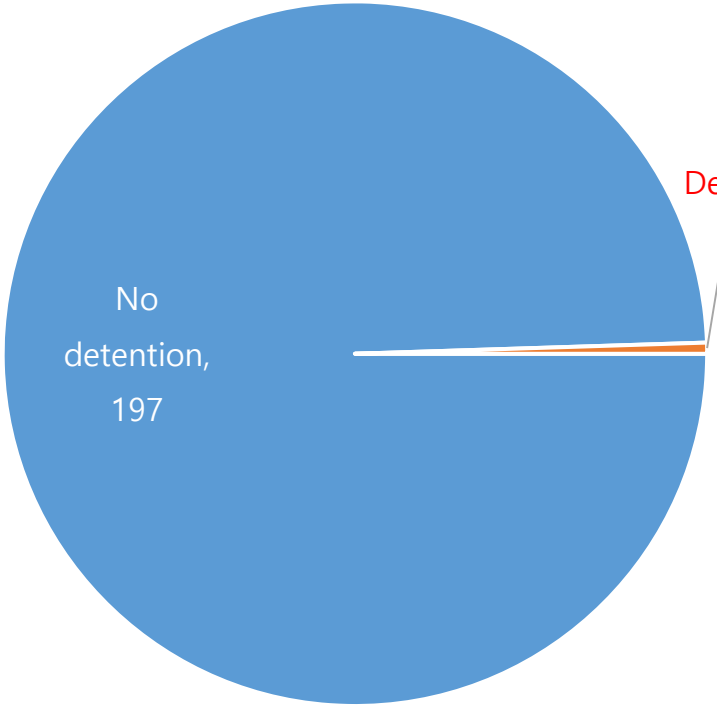
Countermeasures

Overall countermeasures for PSC detention


Part I
Statistics of USCG Detention

Detention by USCG for ships registered in KR (2018.01 ~ 2018.06)

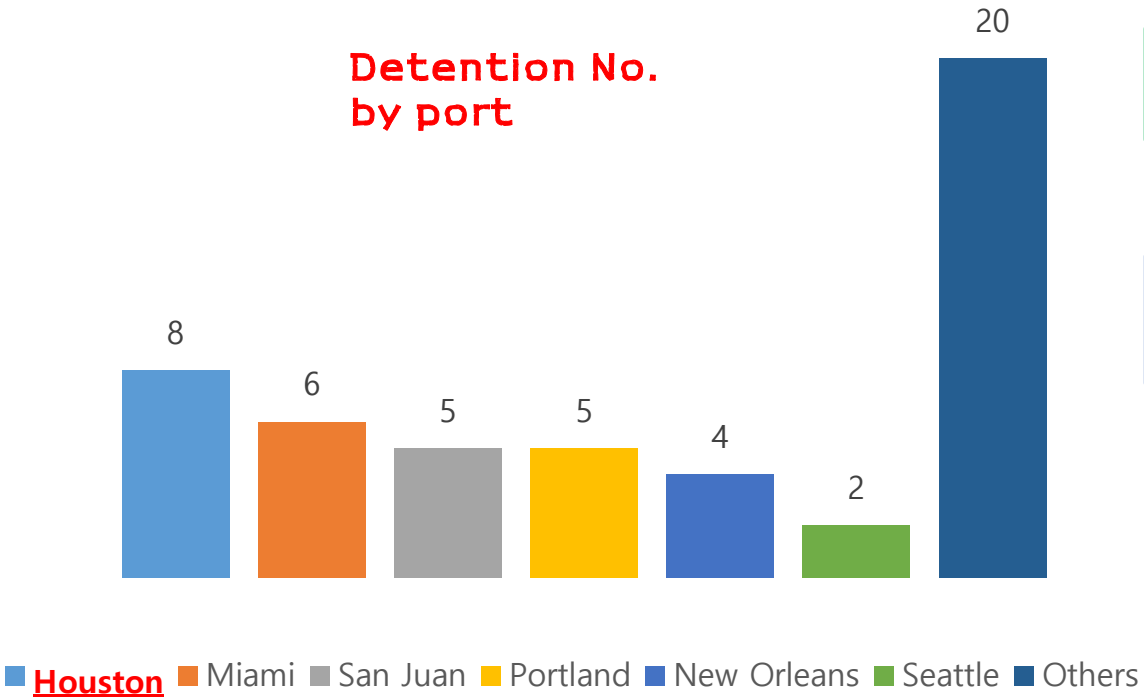
Detained ship no. by USCG



Detention : one ship registered in KR

Category : Fire Safety & Life Saving

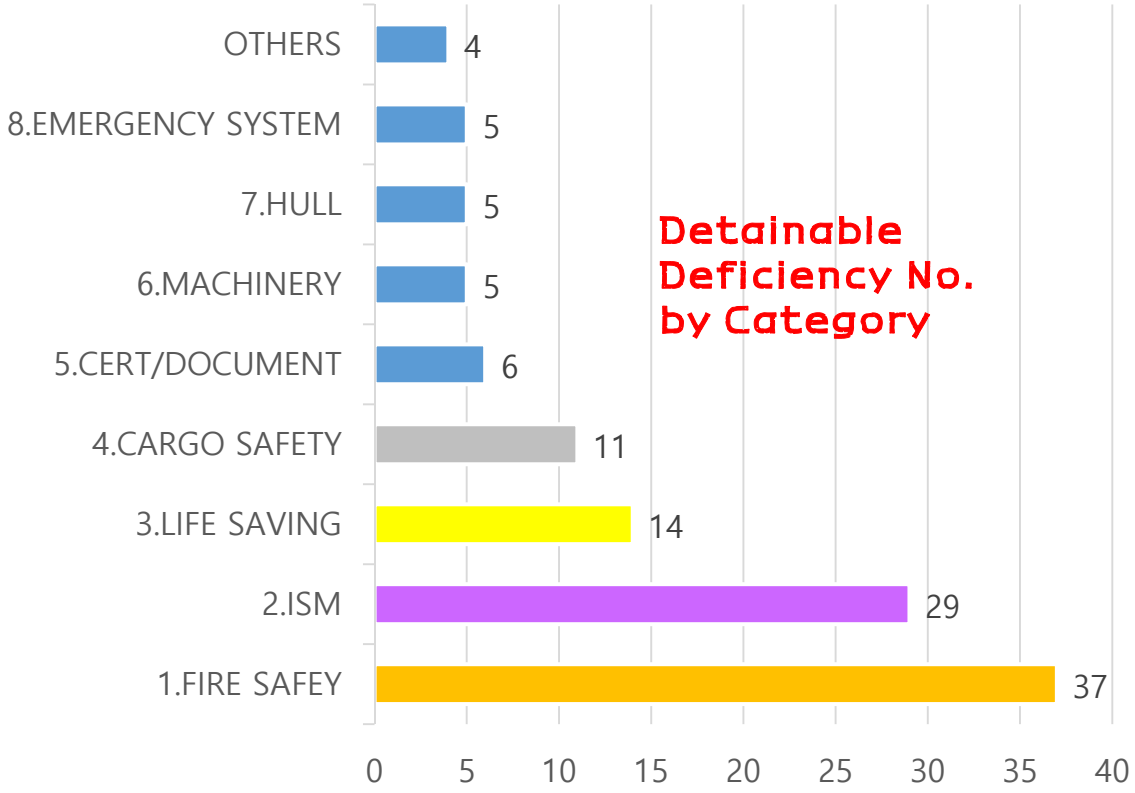
Detention by USCG, including ships registered in other Classes (2018.01 ~ 2018.06)



Detained Ship Nos. : 50 Ships

Houston areas : many detentions for Gas Carrier, etc were found.

Detention by USCG, including ships registered in other Classes (2018.01 ~ 2018.06)



Detained Ship Nos. : 50 Ships

Detainable Deficiency No. :
Abt. 116 deficiencies

1.FIRE SAFETY, 2.ISM, 3.LIFE SAVING & 4.CARGO SAFETY
Deficiency No. for the top four categories :
91 deficiencies, Abt. 78%

Detention by USCG, including ships registered in other Classes (2018.01 ~ 2018.06)

Category	Details for Deficiency
Fire Safety	1) Defective on fixed fire extinguishing system 2) Defective on quick closing valve 3) Defective on fire detection system for engine room 4) Defective on fire door 5) Oil leaking from machinery in engine room 6) Oil soaked lagging and oil rags
ISM	1) No familiarity on drill or missed drill 2) No familiarity on their duty 3) No reporting on deficiency to USCG, Flag and Class 4) ISM failure due to many deficiencies
Life Saving	1) Defective on life boat & rescue boat engine 2) Defective on life raft 3) Defective on launching appliances 4) Defective on immersion suit
Cargo Safety	1) Defective on deck lighting 2) Defective on fixed gas detection system and portable gas detector 3) Defective on electric cable and hydraulic line

Detention by USCG, including ships registered in other Classes (2018.01 ~ 2018.06)

Category	Details for Deficiency
Machinery	1) Defective on generator engine 2) Defective on bilge pump and bilge line in engine room 3) Defective on engine room ventilation system
Hull	1) Wastage on hull and cargo hatch cover 2) Wastage on hold ladder and other equipment
Emergency System	1) Defective on emergency generator 2) Defective on emergency fire pump 3) Defective on steering gear
Cert/Document	1) Missed flag's endorsement on COC 2) Minimum safe manning certificate 3) Mis-recorded oil record book and garbage record book
Others	1) Defective on oily water separator 2) Defective on accommodation ladder


Part II
Case Study

Case 1. Fixed fire extinguishing system

Overview

☞ Bulk Carrier, 11 Yrs old

☞ PSC Date : 2018

☞ Detention

• PSCO observed seawater isolation valve for the fixed foam system in the closed position.
Fixed fire suppression system could not be energized from a remote location as designed. In addition, PSCO observed the fixed water based extinguishing system in manual mode; vessel is approved for periodically unattended machinery space.

Cause & Action

☞ Missed Periodical maintenance and confirmation on Fixed foam system

☞ Lack of familiarity on operation method of crew members

Measures

☞ Effective inspection shall be carried out in accordance with PMS and the education for fire extinguishing system shall be thoroughly carried out.

☞ The actual inspection shall be carried out in accordance with the company & the class checklist. In particular, it is important that Master/Chief Engineer confirm it directly.

Case 2. Quick closing valve

Overview

☞ Bulk Carrier, 10 Yrs old

☞ PSC Date : 2018

☞ Detention

• PSCO observed the actuating air line to the Diesel Oil Service Tank was intentionally disconnected preventing the closure of the Quick Closing Valve in the event of a fire in the machinery space.

Cause & Action

☞ Bolt/nut at air supply line for quick closing valve were loosed, and nobody knows.

☞ Wedge, pin, etc are placed in Q.C.Valve as well to stop valve's operation.

Measures

☞ The actual inspection shall be carried out in accordance with the company & the class checklist. In particular, it is important that Master/Chief Engineer confirm it directly.

Case 3. Fire door

Overview

☞ Gas Carrier, 5 Yrs old

☞ PSC Date : 2018

☞ Detention

・A gas carrier shall comply with the requirements of the international gas carrier code. Airlock doors should be self-closing and without any holding back arrangements.
PSCO discovered outside airlock door did not have a self-closing arrangement.

Cause & Action

☞ The different type was used during self-repairs by crew members and they did not fully understand the relevant requirements.

Measures

☞ When equipment or material is renewed by crew members, the same type shall be used, or the new type shall be applied in accordance with the relevant requirements.

Case 4. Rescue boat engine

Overview

☞ Bulk Carrier, 6 Yrs old

☞ PSC Date : 2018

☞ Detention

・Upon witnessing crew's testing of ship's rescue boat outboard engine, heavy white smoke was observed billowing from the engine. Additionally, PSCO observed that the engine was not discharging cooling water, as designed from reservoir of raw water supplied to engines' lower unit. PSCO observed engine seize and cease operations. PSCO further observed the ship's crew attempt to start the engine again without success. It is the PSCO's assessment that the ship's rescue boat engine is not operational.

Cause & Action

☞ F.O inlet line for outboard engine of rescue boat was blocked, and cooling water could not be supplied due to the edge corrosion of impeller.

☞ It is guessed that actual inspection was not carried out.

Measures

☞ The actual inspection shall be carried out in accordance with the company & the class checklist. In particular, it is important that Master/Chief Engineer confirm it directly.

Case 5. Life raft

Overview

☞ Tanker, 8 Yrs old

☞ PSC Date : 2018

☞ Detention

・Port life raft secured to ship directly without weak link.
Starboard life raft painter not attached to ship by any means.

Cause & Action

☞ In order to prevent the loss in Southeast Asia region, crew members uninstalled it on its own.

☞ It is resulted by no familiarity on weak link and painter.

Measures

☞ The education for PSC main equipment shall be carried out.

☞ The actual inspection shall be carried out in accordance with the company & the class checklist. In particular, it is important that Master/Chief Engineer confirm it directly.

Case 6. Launching appliances

Overview

☞ Bulk Carrier, 11 Yrs old

☞ PSC Date : 2018

☞ Detention

• Port side lifeboat davit mechanically inoperable during multiple launching attempts. Crew was not able to launch portside lifeboat within 10 minutes.

Cause & Action

☞ Davit was malfunctioned due to the trouble of motor.

Measures

☞ The operation of all emergency items shall be thoroughly checked, and Master/Chief Engineer shall directly confirm it before entering port.

Case 7. Immersion suit

Overview

☞ Bulk Carrier, 6 Yrs old

☞ PSC Date : 2018

☞ Detention

・PSCO observed that the immersion suits on board were severely deficient in their material condition. Specifically, the suits' watertight seams between the front zipper and the outer/inner layers of thermal protective insulation were delaminated. A total of 35 immersion suits of the entire shipboard complement of 40 immersion suits were found in this condition.

Cause & Action

☞ It was not identified during emergency drills and/or self-inspection.

Measures

☞ It can be easily found during normal self-inspection. So to make sure that self-inspection by officers are in progress, Master/Chief Engineer shall directly confirm it.

Case 8. Deck lightings

Overview

☞ Gas Carrier, 10 Yrs old

☞ PSC Date : 2018

☞ Detention

• Port Stare Control Officers observed 06 deck lights and 01 emergency deck lights in the cargo area that did not appear to be gas safe. Electrical connections were made with tubing that was not sealed as designed.

Cause & Action

☞ The different type was used during self-repairs by crew members and they did not fully understand the relevant requirements.

Measures

☞ When equipment or material is renewed by crew members, the same type shall be used, or the new type shall be applied in accordance with the relevant requirements.

Case 9. Emergency generator

Overview

☞ Bulk Carrier, 8 Yrs old

☞ PSC Date : 2018

☞ Detention

・PSCO observed emergency generator failed to start on primary battery power.
Electrician stated battery sets are switched weekly and vessel was currently using #2 battery set as primary.
In the event of a blackout the power source would have failed to automatically start.

Cause & Action

☞ Starting by No. 1 battery was failed due to discharge of battery.

☞ Starting test by only No.2 battery was carried out although all batteries were stated as normal condition on weekly inspection record.

☞ Emergency power was not delivered to E.S.B.D due to the trouble of air circuit breaker (ACB).

Measures

☞ The actual inspection shall be carried out in accordance with the company & the class checklist. In particular, it is important that Master/Chief Engineer confirm it directly.

Case 10. Steering gear

Overview

☞ Tanker, 4 Yrs old

☞ PSC Date : 2018

☞ Detention

・When operating on any steering pump configuration on the bridge in non-follow-up mode, the rudder drifts to starboard.

Cause & Action

☞ Periodical operation test was not carried out.

☞ Manual operation lever was defective.

Measures

☞ The actual inspection shall be carried out in accordance with the company & the class checklist. In particular, it is important that Master/Chief Engineer confirm it directly.

Case 11. Oil record book

Overview

☞ Gas Carrier, 11 Yrs old

☞ PSC Date : 2018

☞ Detention

・The oil record book entries are not being completed on each occasion whenever machinery space operation take place. The ship safety management system only addresses entries limited to those necessary to show the accumulation, proper processing, and appropriate final discharge/disposal of oily waste and sludge produced on board.
The collection of oil residue and sludge are not being logged on each occasion as required by MARPOL.

Cause & Action

☞ Lack of familiarity and education for crew members

☞ No effective confirmation by chief engineer

Measures

☞ To confirm oil record book in USA is mandatory and important.

☞ When reviewing all kinds of records, Master/Chief Engineer shall thoroughly check it.

Case 12. Minimum safe manning certificate

Overview

☞ Cargo Ship, 14 Yrs old

☞ PSC Date : 2018

☞ Detention

・Vessel is classed for an unattended machinery space and its minimum safe manning reflects "if the UMS or bridge control systems are not operational then an engineering watchkeeping officer (Reg III/1) and an engine rating (Reg III/4) must be carried in addition to above". Vessel has been sailing without additional engineering crew members since 21DEC17, as required by the Vessels Minimum Safe Manning Document.

Cause & Action

☞ Lack of understanding of the relevant requirements in case of the malfunction of UMA system.

Measures

☞ The familiarity on STCW is required, and education for Master/Chief Engineer shall be strengthened regarding SMS familiarity.

Case 13. No reporting on deficiency to the concerned Parties

Overview

☞ Cargo Ship, 14 Yrs old

☞ PSC Date : 2018

☞ Detention

・Vessels watch call system extension alarm panel is inoperable. Alarm panel was found to be inoperable on 21DEC17 and company was notified accordingly. Vessel has no documentation from company for notification to Class/Flag.

Cause & Action

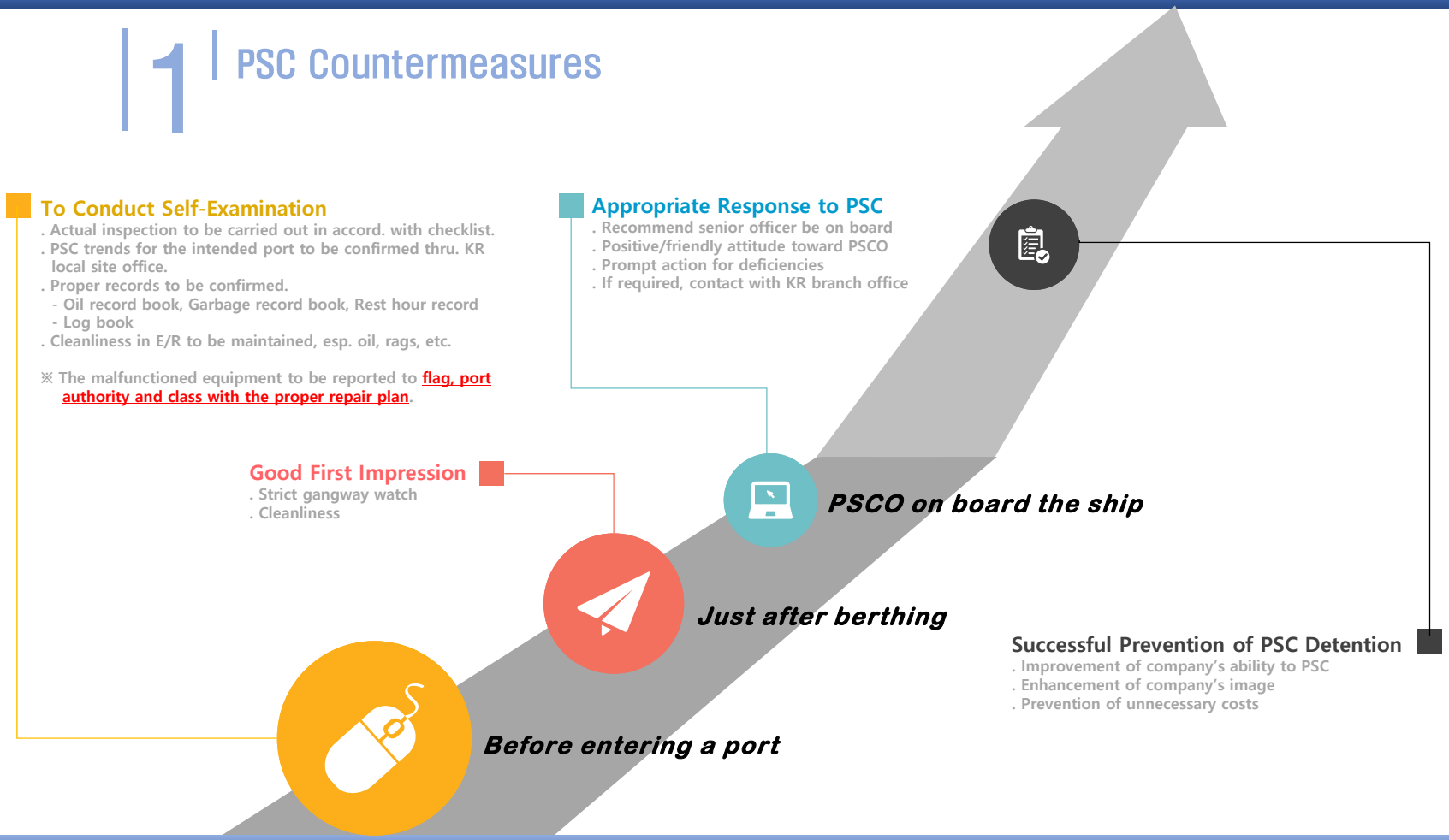
☞ Master reported to company for the malfunctioned item, but company did not take any actions including reporting to the concerned parties for this.

Measures

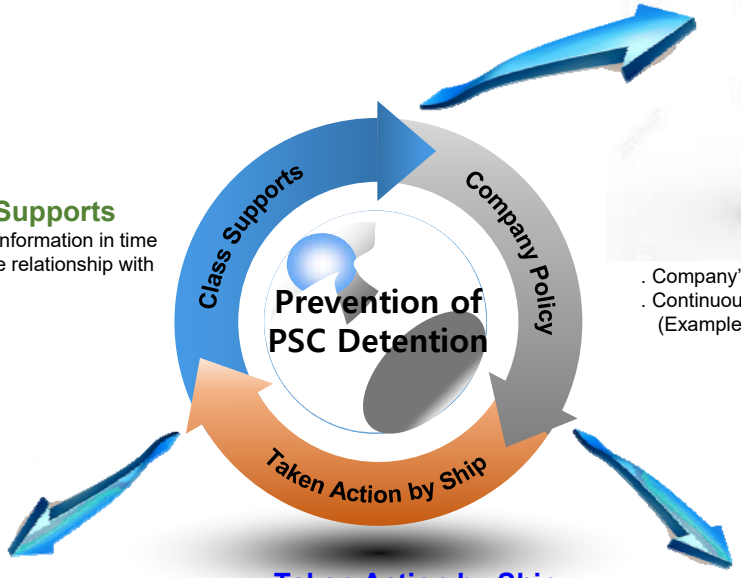
☞ Identified deficiencies shall be reported to Flag, Port Authority and Class with the proper repair plan as soon as possible.


Part III
Countermeasures

1 PSC Countermeasures



2 How to deal with PSC matters and approach to them ?



Class Supports
. Provide PSC information in time
. Strengthen the relationship with port authority

Company Policy
. Company's proper support for ship's maintenance.
. Continuous education for crew
(Examples for PSC deficiencies, SMS)

Taken Action by Ship
. Thorough self-examination by crew
. Continuous education to crew for PSC matters
. Reporting defects to port authority
. Positive/friendly attitude toward PSCO


Thanks!