

# **An analysis of port state control inspections related to the ISPS Code**

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## **Abstract**

The ISPS Code had come into effect on the 1st of July 2004. The overall objectives of the Code are to establish an international framework involving co-operation between contracting governments, government agencies, local administrations and the shipping industry to detect maritime security threats and take pro-active measures against potential terrorist attacks against ships and/or port facilities which are the vital instruments of the international trade.

The Code aims to reduce the vulnerability of port facilities and merchant ships to terrorist attacks and to increase the security awareness of the industry. The ISPS Code, is the first ever internationally and widely agreed proactive regulatory framework to safeguard the maritime industry, seaborne trade, and the world economy from terrorism. In this study the success level of implementation of the ISPS Code already achieved by the ship managers is analysed through the port state control databases of the major regional maritime administrations and MOUs such as the Paris MOU, the Tokyo MOU, the Black Sea MOU and the United States Coast Guard (USCG). The monthly statistics of ISPS non-compliant ships have been compiled based on the variables such as the ships' flag, type, gross tonnage (gt), and the nature of deficiencies between the 1st July 2004, when the ISPS Code came into force, until the end those of months with available statistics currently released on the websites of the respective MOUs. Common awareness of errors and lapses, best practices, sharing of information, and industry-wide co-operation will play a vital role to develop a security culture in the shipping industry.

*Keywords: ISPS Code, port state control, security culture, detention*

## 1 Introduction

Within the maritime community, fraudulent documents and certificates; piracy and armed robbery against ships; phantom ships; illegal migrants and stowaways have far long been the security issues, but terrorism has not been seen as a significant maritime threat until the attacks on the passenger vessels *Achille Lauro* in 1985 and *City of Poros* in 1989 [1, 2, 3]. In 1986, the International Maritime Organization (IMO) had adopted a Convention on the Suppression of Unlawful Acts that contained some advice on security for cruise ships. The 11<sup>th</sup> September 2001 events changed dramatically the perspective, as ships with their cargo are suddenly perceived that they could be used as a weapon and ports could be either targets or locations of attacks to cause havoc in international trade and the international economy. As the ships, ports and cargoes are the key points for security at maritime transportation system, the ship/shore interface emerged as a main weak point. Thereby, the ISPS Code mainly aimed to focus on the cooperation and coordination between ports and ships about security matters.

Briefly, the IMO, through adding the issue of maritime security to its constitutional mandates, took the necessary initiatives to establish a legal framework on maritime security resulting in the adoption of a new chapter in SOLAS on maritime security (Chapter XI-2) and a totally new international Code on ship and port facility security (ISPS) [4,5]. Both of these documents entered into force on the 1st of July 2004. Remarkably, for the first time the remit of the SOLAS Convention was extended to shore facilities when the Solas Convention Amendments were adopted in December 2002. The ISPS Code not only applies to ships but also to the ship/port interface areas.

As world trade is highly dependent on maritime transport, effective and practicable security measures are needed to ensure that the international transportation system is protected from the acts of terrorism. The global nature of maritime transport requires that appropriate security regulations and standards be achieved through international consultation and consensus [1].

Maritime security covers four major inter-related areas. These are the ship; the crew, the cargo; and the port facilities. As a weak link in one of these areas will affect the overall transport security, a continuous assessment of risks by all participants in a “chain of responsibility” approach is a requirement. The maritime community must develop and maintain her “security culture” similar to her “safety culture”. Compared to the level of implementation of the ISM Code and its associated level of safety culture which took the maritime industry more than a decade to achieve, the maritime industry has been constraint by a very limited transitional period to adapt to the requirements of the ISPS Code and develop an associated security culture.

Although there were many doubts about the haste in implementation, effects, practicability and effectiveness of the ISPS Code among the shipping practitioners, an intensive effort was performed globally to ensure the highest possible level of compliance by the governments, shipping and port industries. However, the increased number of crews in order to cope with the new

requirements under the ISPS Code; the potential “wave of lawsuits” over charter contracts when problems such as off-hire situations arise from the Code; difficulty in motivating crews about code and of course security-related surcharges imposed by some port facilities, are some of the drawbacks of this new era [6].

## **2 Control mechanism**

For an effective and efficient management of security in maritime transportation, control function plays an important role. Control is the process of monitoring activities to ensure that they are being accomplished as planned, and correcting any significant deviations. There are three different approaches to designing control systems. These are market, bureaucratic and clan control [7]. Maritime community provides a good example of bureaucratic control which is defined as an approach that emphasizes organizational authority and relies on administrative rules, regulations, procedures, policies, standardization of activities, well-defined job descriptions, and other administrative mechanisms to ensure that employees exhibit appropriate behaviours and meet performance standards. Parties in maritime industry are expected to adhere closely to the international conventions and stay within the guidelines. Establishing a safety and security culture is a way to apply clan control in which the shared values, norms, traditions, rituals, beliefs, and other aspects of the organization's culture regulate employee behaviours.

Port State Control is a widely used control mechanism among the shipping industry where generally bureaucratic control is applied. Port State Control (PSC) is a ship inspection process of foreign vessels in national ports to verify compliance with various major international maritime conventions. The driving force behind the PSC is to identify and eliminate sub-standard ships jumping flag state control, promoted and supported as a second line of defence.

## **3 Control process related to maritime security measures**

In order to ensure the effective implementation of the ISPS Code, the control function plays an important role because; control is not only the process of monitoring activities to ensure that they are being accomplished as planned, but also a way to correct any significant deviations.

Ships, the shipping companies, port facilities and contracting governments have detailed responsibilities under the ISPS Code. One of the main responsibilities of Contracting Governments among others as per the ISPS Code/A-4.3 is; exercising control and monitoring compliance measures where contracting governments may not discharge and delegate their responsibility to a recognized security organization.

The legal references enabling the port states to exercise control on maritime security matters is set by the SOLAS Convention and the ISPS Code. SOLAS Reg. F19 regulates “Control and Compliance Measures” in general. SOLAS Reg. XI-2/9 regulates the security related control function and the ISPS Code

Part B-4 sets the security related responsibilities of contracting governments in details, under the title of “control and compliance measures” from paragraph 4.29 to 4.46.

Regulation XI-2/9 of SOLAS describes the control and compliance measures applicable to ships. It is divided into three distinct sections; control of ships already in a port, control of ships intending to enter a port of another Contracting Government, and additional provisions applicable to both situations.

Regulation XI-2/9.1, control of ships in port, implements a system for the control of ships while in the port of a foreign country where duly authorized officers of the Contracting Government have the right to go on board the ship to verify that the “International Ship Security Certificate” or “Interim International Ships Security Certificate” issued under the provisions of Part A of the ISPS Code are in proper order. Then, if there are clear grounds to believe that the ship does not comply, control measures such as additional inspections or detention may be taken. This reflects the customary control mechanism under the port state control regime. Regulation XI-2/9.3 describes the safeguards that promote fair and proportionate implementation of these additional measures (ISPS-B/4.30)

Regulation XI-2/9.2 applies the control measures to ensure compliance to ships intending to enter a port of another Contracting Government and introduces an entirely different concept of control within chapter XI-2, applying to security only. Under this regulation measures may be implemented prior to the ship entering port -not in port- to better ensure security. If officers have clear grounds for believing that the ship is in non-compliance with the requirements of Regulation XI-2 or Part A of the ISPS Code, such officers may take steps in relation to that ship including denial of entry into port.

Both control mechanisms, in or out of the port, are based on the concept of clear grounds which means evidence or reliable information that the ship does not correspond with the requirements of Chapter XI-2 or Part A of this Code, taking into account the guidance given in Part B of the Code. Examples of possible clear grounds under regulations XI-2/9.1 and XI-2/9.2 are listed in ISPS-B/4.33.

In exercising control and compliance measures, as per ISPS-B/4.43, the duly authorized officers should ensure that any measures or steps imposed are proportionate. Such measures or steps should be reasonable and of the minimum severity and duration necessary to rectify or mitigate the non-compliance. No more favourable treatment principle is applied to the ships flying the flag of a State, which is not a Contracting Party to the Convention and not a Party to the 1988, SOLAS Protocol, and the ships below the Convention size as well.

## **4 Methodology**

This paper presents the statistical analysis of the security related ship non-compliance data obtained from the monthly detention statistics released via the websites of the various MOUs on port state control and the USCG [8,9,10,11]. The above mentioned data of the Black Sea MOU, from the 1st of July 2004 to the 1st April 2005; Paris MOU, from the 1st of July 2004 to the 1st of June 2005;

Tokyo MOU, from the 1st of July 2004 to the 1st of June 2005, and the USCG, from the 1st of July 2004 to the 1st May 2005, was duly scanned and processed into relevant statistical information.

The statistical information achieved for the ISPS non-compliant ships detained within these regional PSC regimes through the inspections conducted between the above stated periods were based on the variables such as the ship's age, flag, gross tonnage (gt), type, and the nature of the security related deficiencies.

## 5 Findings

It is seen that the overall number of ships detained within the above-specified PSC regions within the specified periods is 2511, of which 259 ships (10.3%) were detained on security grounds. The detention rates (Total Detentions on Security Grounds over Total Ships Detained) for each individual region are: the Black Sea MOU 6.6%, the Paris MOU 8.7%, the Tokyo MOU 4.4%, and the USCG 45.7%. The highest detention rate by USCG is highly remarkable among the others. It is also found that 46% of the detentions were due to only security grounds (See Table 1)

Table 1: Detention rates on security grounds.

	<b>Black Sea MOU</b> (1.7. 04/ 1.4.05)	<b>Paris MOU</b> (1.7. 04/ 1.6. 05)	<b>Tokyo MOU</b> (1. 7. 04 / 1 .6 .05)	<b>USCG</b> (1.7.04 / 1.5.05)	<b>TOTAL</b>
<b>Total Detentions on Security Grounds</b>	17	84	46	112	259
A*	13	57	31	19	120
B**	4	27	15	93	139
<b>Total Ships Detained</b>	258	964	1044	245	2511
<b>Detention Rate (%)</b>	6.6	8.7	4.4	45.7	10.3

\* A: detentions with only security grounds

\*\*B: detentions with security grounds plus other non-compliances

The overall detention figures on the grounds of security reveals that 4.6% of the ships detained are under 5 years old, 18.1% are between 5 to 14 years old and 77.3% are 15 years old and over. Therefore, we can undoubtedly confess that older ships are reflecting non-compliance with the requirements of the ISPS Code more significantly. This finding is also valid for each individual PSC areas (See Table 2)

Table 2: ISPS non-compliant ships classified by ship's age.

Age	Black Sea MOU		Paris MOU		Tokyo MOU		USCG		TOTAL	
	Det. No	Rate (%)	Det. No	Rate (%)	Det. No	Rate (%)	Det. No	Rate (%)	Det. No	Rate (%)
<b>Under 5 years</b>	0	0.0	1	1.2	3	6.5	8	7.1	12	4.6
<b>5 to 14 years</b>	1	5.9	6	7.1	4	8.7	36	32.1	47	18.1
<b>15 years or over</b>	16	94.1	77	91.7	39	84.8	68	60.8	200	77.3

It is worth noting that 45% of the overall detentions on the security grounds are attributed to 5 flags only where Panama has the highest score with 52 detentions. Table 3 lists the five flags with the numbers of detentions, with the exception of the Russian Federation, all of them Flags of Convenience (FOCs).

Table 3: ISPS non-compliant ships classified by ship's flag (Top 5).

Flag	Black Sea MOU		Paris MOU		Tokyo MOU		USCG		TOTAL	
	Det. No	Rate (%)	Det. No	Rate %	Det. No	Rate %	Det. No	Rate %	Det. No	Rate %
<b>Panama</b>	0	0.0	11	13.1	9	19.6	32	28.6	52	20.1
<b>Russian Federation</b>	3	17.6	13	15.5	11	23.9	3	2.7	30	11.6
<b>Cambodia</b>	3	17.6	0	0.0	12	26.1	0	0.0	15	5.8
<b>DPR Korea</b>	3	17.6	7	8.3	2	4.3	0	0.0	12	4.6
<b>Georgia</b>	5	29.4	6	7.1	0	0.0	0	0.0	11	4.2

Considering the type of ships, the detention rate on account of ISPS Code non-compliance is the highest for general cargo ships (45.2 %), followed by bulk carriers (23.2%), and refrigerated cargo carriers (8.1%) respectively. The figures are inconsistent in the different MoU PSC areas due to the trade patterns prevailing through them. Low detention rates of containers ships, tankers and passenger ships, where the security risks are perceived to be relatively higher, are worth noting as an optimistic record for the already achieved goals of the Code for maritime security (See Table 4)

Table 4: ISPS non-compliant ships classified by type of ship.

Ship's Type	Black Sea MOU		Paris MOU		Tokyo MOU		USCG		TOTAL	
	Det. No	Rate %	Det. No	Rate %	Det. No	Rate %	Det. No	Rate %	Det. No	Rate %
<b>General Dry Cargo Ship</b>	15	88.2	57	67.9	26	56.5	19	17.0	117	45.2
<b>Bulk Carrier</b>	0	0.0	2	2.4	5	10.9	53	47.3	60	23.2
<b>Refrigerated Cargo Carrier</b>	0	0.0	6	7.1	9	19.6	6	5.4	21	8.1
<b>Passenger Ship</b>	1	5.9	1	1.2	0	0.0	9	8.0	11	4.2
<b>Ro-Ro</b>	0	0.0	8	9.5	1	2.2	2	1.8	11	4.2
<b>Oil Tanker</b>	0	0.0	3	3.6	0	0.0	6	5.4	9	3.5
<b>Containership</b>	0	0.0	1	1.2	0	0.0	7	6.2	8	3.1
<b>Chemical Tanker</b>	0	0.0	0	0.0	1	2.2	7	6.2	8	3.1
<b>Other</b>	1	5.9	6	7.1	4	8.7	3	2.7	14	5.4

By the gross tonnage (gt), the percentage of the detentions of the ISPS non-compliant ships is the highest for 1001-2500 gt (29 %), followed by 10001-25000 gt (21%), 2501-5000 gt (17 %). Summing up, this means that the ships up to 5000 gt makes up 46% of the overall detentions on security grounds. The inconsistency with the figures could be a reason of the different trade patterns prevailing in each individual PSC regions similar with the findings by the ship's type. For instance, within the Black Sea MOU region 94.1% of the detentions on security grounds are the ships between 1001 and 5000 gt, while 75% of the detentions are the ships bigger than 5000 gt (See Table 5).

Table 5: ISPS non-compliant ships classified by gross tonnage (gt).

Gross Tonnage (gt)	Black Sea MOU		Paris MOU		Tokyo MOU		USCG		TOTAL	
	Det. No	Rate (%)	Det. No	Rate (%)	Det. No	Rate (%)	Det. No	Rate (%)	Det. No	Rate (%)
<b>500-1000 gt</b>	0	0.0	12	14.3	8	17.4	6	5.4	26	10.0
<b>1001-2500 gt</b>	9	52.9	36	42.9	19	41.3	11	9.8	75	29.0
<b>2501-5000 gt</b>	7	41.2	19	22.6	7	15.2	11	9.8	44	17.0
<b>5001-10000 gt</b>	0	0.0	9	10.7	4	8.7	10	8.9	23	8.8
<b>10001-25000 gt</b>	1	5.9	7	8.3	7	15.2	41	36.6	56	21.6
<b>25001 gt or more</b>	0	0.0	1	1.2	1	2.2	33	29.5	35	13.5

## **6 Feedback on the current situation**

The early implementation phase had its own difficulties mainly originated from the lack of understanding the philosophy, rapid transition, resistance to new codes that seemed not to be related with the work activities, and the lack of internalisation. Maritime community had experienced a new era and fuelled with its old and strong cultural heritages achieved a satisfactory level of implementation of this Code in a relatively short period.

However, all over the world an intensive process was applied to ensure the highest possible level of compliance by the governments, shipping and port industries. Main problems faced with the early implementation of the ISPS Code seems to be related to ISSC, access control procedures, inadequate Master/SSO familiarity with overall SSP, inadequate crew familiarity with own ISPS roles and responsibilities, restricted area marking and control, inadequate security record-keeping, inadequate monitoring of ship's security integrity, ship-port interface (declaration of security-DOS), SSAS performance characteristics, sub-standard attitude and awareness, and lack of enough experience of ships' crew about the ISPS Code [12]

Feedback by ship management companies, masters and security officers on ISPS Code-related incidents affecting ships is promoted by MARISEC for the purpose of identifying and addressing problems. Potential incidents related to port state actions or requirements in respect of security related matters which impact on the operations of ships were determined as follows: ISSC acceptance; additional information demands from port state inspector; port state control attitude; MARSEC level incompatibility between ship and port facility; degree of liaison with/co-operation from Port Security; problems over agreement on a Declaration of Security; excessive information demands before entering port, current and historical information; problems caused by trading history; access control issues; restricted areas; monitoring; storing of any delivered spares and provisions; and cargo operations [13].

According to survey by the European Sea Ports Organisation to assess the status of implementation of the ISPS Code in the EU, 8 months after 1 July deadline; the general impression is that the implementation of the ISPS Code has been smoother than feared. No ship has ever refused to enter an EU port facility due to its non-compliance, and concluded that some adaptations have been necessary and difficulties might have been overcome through additional personnel, equipment and resources [14].



## 7 Conclusions

As a conclusion of the statistical analysis of the security related ship non-compliance data obtained from the monthly detention statistics released via the websites of the various MOUs on port state control and the USCG, it is found that; the overall detention rate (10.3%) on security grounds is relatively low which seems as an evidence for the success of the ship managers on reaching the desired level of compliance with the Code, where remarkable higher detention rate (45.7%) by the USCG is found to be an exception to this fact. Older ships, especially 15 years old and over reflects the highest rate of non-compliance (77.3%) with the requirements of the ISPS Code. It is also seen that four of the five low-compliant flags are Flags of Convenience (FOCs). According to overall detentions the rate of ISPS non-compliant ships is the highest for general dry cargo ships (45.2%), followed by bulk carriers (23.2%). Low detention rate of container ships, tankers and passenger ships, with perceivable high risks, have low detention rates. The smaller ships with lower gross tonnages (gt) are having higher detention rates, whereby ships up to 5000 gt makes up 46% of the overall detentions on security grounds. According to statistics, the most common areas of non-compliance are failure of keeping continuous synopsis records (CSR), and improper ISPS related certificates, i.e. the ISS Certificate and the SSO Certificate.

Finally, in the light of the above findings, we believe that; in this relatively short transition period, common awareness of errors and lapses, best practices, sharing of information, and industry wise close co-operation has played and will be playing a vital role to develop a security culture in the shipping industry.

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