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AN ANALYSIS OF THE SECURITY ISSUES IN CROATIAN PORTS IN RELATION TO THE PORT STATE CONTROL INSPECTIONS

ABSTRACT

This paper analyzes the level of implementation of the ISPS Code in the Croatian ports. The analysis is based on the Port State Control inspections as the most important controlling mechanisms for evaluation of the adherence to the international regulations. In this respect the analysis of the security-related measures in ports is carried out implicitly - it is based on the analysis of the security-related deficiencies found on ships since ISPS Code came into force. The period of one and a half years, from the beginning of the ISPS Code implementation, is considered to be representative to provide initial assessment of the effectiveness of the implemented security measures. In addition, the paper presents conclusions based on the comparison of results of security-related inspections in Croatian ports with data presented by the Paris and other MOU inspection database.

KEY WORDS

port security, ISPS Code, Port State Control

1. INTRODUCTION

Throughout the centuries, maritime transportation system has been exposed to different kinds of security threats. In the past, piracy and robbery attacks, smuggling, as well as stowaways or illegal migrants were the most important security issues that had direct harmful influence on the effectiveness of maritime transport. Following the attack on the cruise ship *Achille Lauro* and particularly after the events of September 11, 2001 in the USA, the shipping industry has been faced with the particular necessity to implement appropriate security measures and standards through new international regulation. For the first time, it has become obvious that ships and their cargo could be used as weapons in terrorist attacks with ports as targets.

In such circumstances, the International Maritime Organization (IMO) responded rapidly by adopting a new internationally agreed regulation. As a result, a new chapter (XI-2) on maritime security was added to the SOLAS Convention and a completely new code (International Ship and Port Facility Security Code - ISPS Code) was developed. They both came into force on 1 July 2004. By introducing the ISPS Code, the IMO, an organization previously dedicated solely to implementation of rules for ships, for the first time, introduced mandatory regulations for seaports. In respect of ports, the main objectives of the Code are to minimize the inherent weaknesses in port facilities and merchant ships and thus reduce the possibility of terrorist attacks and all the other criminal activities. In addition, by requesting the ports to follow the internationally agreed security framework, the IMO imposed significant workload on responsible port officials as well as on all the other subjects involved in routine port operations.

However, the implementation of the new regulations is inconsequential without constant monitoring and control. Consequently, it is quite logical to extend the common tasks of the most effective inspection scheme in international maritime trade, i. e. the Port State Control. The primary task of these inspections is controlling the implementation of safety and pollution prevention measures on ships. Following the requirements of the ISPS Code, such control has also been applied to security-related inspections.

Croatian ports, being part of international shipping routes, are subject to possible security threats as much as any other international port on these routes. These threats come from ships as well as from shore. Therefore, through Port State Control mechanism, as a signatory of the Paris Memorandum of Understanding on Port State Control (Paris MOU), Croatia is carrying out inspections on security-related issues as well.

2. PRINCIPLES OF THE PORT STATE CONTROL INSPECTIONS

Port State Control inspection is a ship inspection procedure applicable to foreign vessels in national ports. The main goal of these inspections is to validate whether a ship complies with the provisions of international conventions[1]. Generally speaking, a port state control is a scheme of harmonized inspection procedures, in particular designed to eliminate the sub-standard ships, i. e. ships on which the requirements of the mentioned conventions are not implemented as required. In other words, the scheme aims to increase the level of maritime safety, security and pollution prevention by eliminating unsafe ships.

In order to harmonize Port State Control mechanisms in different countries, several administrative agreements were reached and the so-called Memorandum of Understanding[2] was signed. The Paris Memorandum consists of 19 European countries, including Croatia as a full member since 1 January 1997. Geographically, the Paris MOU region covers the waters of the European coastal states and the North Atlantic basin from North America to Europe. Control mechanisms of the Paris MOU are related to different aspects of safety at sea with particular attention to:

- safety of life at sea,
- prevention of pollution by ships, and
- living and working conditions onboard ships.

The basic principles of the Paris MOU are based on unannounced control of ships in order to prove the ships' compliance with requirements laid down in the mentioned conventions. The total number of inspected ships should not be less than 25 percent of the estimated number of individual foreign ships entering the member-countries' ports. Nevertheless, it is not common to inspect ships during the period of six months following the last Paris MOU inspection, unless there exist "clear grounds"[3] for inspection. Inspections are performed by a properly qualified person (Port State Control Officer – PSCO) authorized to carry out Port State Control inspections in accordance with the Paris MOU and acts of the Port state maritime authority.

During the inspection, a PSCO may find deficiencies onboard or prove that a ship has no deficiencies. In principle, when deficiencies are found, they must be rectified prior to the ship's departure and according to the PSCO's requirements. However, it is up to the professional judgment of a PSCO to decide, based on the second inspection, whether all deficiencies have indeed been rectified and whether the ship can leave the port. If the deficiencies are considerable, i. e. if it is unsafe for the ship to proceed to sea, it will be detained immediately after the first inspection. If deficiencies cannot be rectified in the port of inspection, the maritime authority may allow the ship to proceed to the next port, with a view to ensuring that the ship can sail without unreasonable danger to safety, health or the environment. If the detained ship proceeds to sea or does not comply with the measures provided in the port of inspections (e. g. not calling to the indicated shipyard), she will be refused access to any port of any member country and will be banned. All details about each inspection and results found are entered in an advanced central computer database system and made accessible to all PSCOs in the Paris MOU region[4].

3. INSPECTIONS OF SECURITY--RELATED ISSUES

According to Chapter XI-2, Regulation 9 of the SOLAS Convention, every ship to which the ISPS Code applies, is subject to control when she is in a port of another contracting government. Therefore, inspection may be carried out by the Port State Control officers duly authorized by that government.

However, the Port State Control inspection shall be normally limited to verifying whether the ship holds a valid International Ship Security Certificate (ISSC) or a valid Interim ISSC. Additionally, a Port State Control inspector may extend control of the ship if he/she believes that there exist clear grounds indicating non-compliance of the ship. Such clear grounds can be based on the officer's professional judgment but are usually related to the following relevant states:

- evidence or reliable information that serious deficiencies exist in the security equipment, documentation or arrangements,
- receipt of a report or complaint which contains reliable information clearly indicating that the ship does not comply with the requirement of the Code,
- evidence or observation gained by an officer that the master or ship's personnel is not familiar with essential shipboard security procedures or cannot carry out drills related to the security of the ship or that such procedures or drills have not been carried out,
- evidence or observation gained by an officer that the key members of the ship's personnel are not able to establish proper communication with any other key members of ship's personnel with security responsibilities on board the ship,
- evidence or reliable information that the ship has embarked persons, or loaded stores or goods at a port facility or from another ship where either the port facility or the other ship is in violation of the Code and that the ship in question has not completed a Declaration of security, nor taken appropriate, special or additional security measures or

has not maintained appropriate ship security procedures,

- evidence or reliable information that the ship has embarked persons, or loaded stores or goods at a port facility or from another source (e. g., another ship or helicopter transfer) where either the port facility or the other source are not required to comply with Chapter XI-2 or part A of the Code, and the ship has not taken appropriate, special or additional security measures or has not maintained appropriate security procedures.

Additionally, in order to observe and gain general impression of the overall security arrangements of the ship, an inspection procedure commonly follows the following steps:

- checking that the ISSC or the Interim ISSC is on board and valid and that it has been issued either by the Administration, a recognized security organization authorized by it or by another Contracting Government at the request of the Administration,
- checking that the security level at which the ship is operating is at least at the level set by the Contracting Government for the port facility,
- identifying the ship security officer,
- checking other documentation, asking for evidence that security drills have been carried out at appropriate intervals and seek information on any exercise involving the ship;
- taking note of the specific security aspects while approaching and boarding the ship and moving around the ship, taking into account the security level, or levels, the ship and the port facility are operating at. Duly authorized officers should only consider those aspects that arise during the course of their normal business on board[5].

Also, ships using port facilities may be subject both to the port State control inspections and the control measures outlined in regulation XI-2/9. The relevant authorities may request the provision of information regarding the ship, her cargo, passengers and personnel prior to the ship's entry into port. Where the non-compliance leading to detention is either a result of a defective item of equipment or faulty documentation that cannot be remedied in the port of inspection, the Contracting Government may allow the ship to sail to another port provided that any conditions agreed between the port States and the Administration or the master are met.

4. OUTCOMES

An analysis of the ISPS application in relation to the Port State Control inspections is based on the Paris MOU database. The analysis is mainly based on the data collected in the period from the implementation of the ISPS Code on 1 July 2004 till the end of the year 2005. It is estimated that this period provides the most representative data about implementation of the new Code.

As a member of the Paris MOU, Croatia is required to bring the Paris MOU database up to date by contributing inspection reports. Collected data have been analyzed according to the port of inspection as well as the inspection results, type of ship, flag state and recognized organization (classification society). Also, a comparison of the inspection results between different MOU members, including data for Croatian ports, has been made.

Croatian individual contribution to the total number of inspections in the Paris MOU represented only 2.20 percent in 2004 and 2.88 percent in 2005. However, Croatia has had the highest rate of inspections compared to the target rate (25%) in 2004. During 2004, 47.61% of ship calls in Croatian ports were inspected. In 2005 this percentage dropped to 33.47%.

Table 1 – Detentions on security grounds in Croatian ports

Port	Detentions on security grounds			Total ships detained	Detention rate on security grounds (%)
	Security grounds only	Security plus other non-compliances	Total detentions on security grounds		
Pula	–	–	–	1	0
Rijeka	2	1	3	15	20.0
Zadar	–	–	–	–	–
Šibenik	–	–	–	1	0
Split	–	3	3	4	75.0
Ploče	1	1	2	12	16.7
Dubrovnik	–	–	–	–	–
Total	3	5	8	33	24.2

Source – Paris MOU database, www.parismou.org

Table 2 – ISPS non-compliant ships in Croatian ports

Port	Total ships with security-related deficiencies			Total inspections with deficiencies	Total detained ships on security grounds	Total ISPS non-compliant ships
	Solely security-related	Security plus other non-compliances	Total security-related			
Pula	–	–	–	21	–	–
Rijeka	–	3	3	154	3	6
Zadar	–	–	–	11	–	–
Šibenik	–	–	–	37	–	–
Split	2	6	8	43	3	11
Ploče	–	1	1	94	2	3
Dubrovnik	–	–	–	4	–	–
Total	2	10	12	364	8	20

Source – Paris MOU database, www.parismou.org

Table 3 – ISPS non-compliant ships in different regions

	Croatia	Croatia (01.07.04.-01.5.05.)	Paris MOU (01.07.04.-01.4.05.)	Black Sea MOU (01.07.04.-01.6.05.)	Tokyo MOU (01.07.04.-01.6.05.)	USCG (01.07.04.-01.5.05.)
Total detentions on security grounds	8	7	84	17	46	112
Detentions with only security grounds	3	3	57	13	31	19
Detentions with security grounds plus other non-compliances	5	4	27	4	15	93
Total ships detained	33	27	964	258	1044	245
Detention rate on security grounds (%)	24.2	25.9	8.7	6.6	4.4	45.7

Source – Yilmazel M., E. Asyali: An analysis of the port state control inspections related to the ISPS Code, Proceedings of the IAMU, 6th AGA conference 2005, WITPress, Southampton, 2005; Paris MOU database, www.parismou.org

In the period of one and a half years (from 1 July 2004) a total of 631 inspections were carried out in seven Croatian ports. Out of 631 ships, 33 were detained (5.2%) and 364 (58%) had one or more deficiencies.

Total number of detained ships in the specified period equals 33 ships. There have been three detentions only on security grounds and 5 detentions for which ships had security deficiencies as well as other non-compliances. It should be noted that ships were detained only in the ports of Rijeka, Split and Ploče. The detention rate[6] related to security issues equals 24.2%, which means that one in four detained ships did not comply with the provisions of the ISPS Code. The most common reason for detention was inadequate (missing or expired) International Ship Security Certificate or the Continuous Synopsis Record.

An ISPS non-compliant ship means a ship on which, during inspection procedure, security-related deficiencies are found onboard. According to the Table 2, it is obvious that only ports of Rijeka, Split and Ploče have accommodated the ISPS non-compliant ships. In these ports, 12 ships have been found with security-related deficiencies. Such cases represent only 3.3% of all inspections with deficiencies. When compared to the rate of detained ships on security grounds, this is almost negligible. This can be explained by the fact that most security-related deficiencies are related to missing, invalid or expired certificates (ISSC, CSR) which constitute clear grounds for detention. However, in most cases non-compliances were rectified on the spot.

It can be seen in Table 3 that the detention rate in different parts of the world shows a discrepancy ranging from only 4.4% in the Tokyo MOU to 45.7% in the area under jurisdiction of the USCG. The detention rate of 25% on security grounds in the Croatia ranks pretty high. Such figures can be explained by a different approach to inspections, character of concentrated inspection as well as number of inspections.

The classification of the ISPS non-compliant ships inspected in Croatian ports, according to the flag state and the type of the ship, point general cargo ships and flags-of-convenience ships (FOCs) as ships with highest rate of non-compliances. Half of the detained ships are sailing under flags-of-convenience (Korea Democratic Republic, Bolivia, Tuvalu and Cambodia). Furthermore, detained ships are mainly classed under

classification societies not being a member of the International Association of Classification Societies - IACS (except three ships classed at the Lloyd's Register of Shipping, the American Bureau of Shipping and the Bureau Veritas).

According to the type of ships, the most common security-related deficiencies are found on general cargo ships. Five out of eight detained ships are general cargo ships (62.5%) and 9 out of 12 (75.0%) are ships with deficiencies. The figures indicate that general cargo ships that are non-IACS classed ships and sailing under a flag of convenience are predominantly the ISPS non-compliant ships inspected in Croatian ports.

In order to understand the data more clearly, it is very important to mention that the Paris MOU mounted a three-month programme to verify compliance with the new security requirements for ships. It was named the Harmonized Verification Programme on Maritime Security, and it was held in conjunction with the Tokyo MOU. The programme ran from 1 July to 30 September 2004 and used a uniform questionnaire to test the key elements of the ship's security arrangements. Aspects considered by the Port State Control officers (PSCO) included the following:

- International Ship Security Certificate (ISSC) and inappropriate use of the Interim Certificate,
- access control,
- access control to sensitive areas of the ship,
- security level,
- records of ship & port interfaces,
- records of security drills,
- crew familiarity with essential ship security procedures,
- communication among key crew members.

An analysis of the programme results showed that in the states of the Paris MOU a total of 4,681 security checks were made on 4,306 individual ships. A total of 72 inspections resulted in the detention, 28 of which resulted in the detention solely on security grounds, while the other 44 ships were detained on security and other grounds. This represents a rate of detention of 1.5% on security grounds compared to the overall detention rate of 5.7%.

Results indicate that the compliance with the ISPS Code were probably better than it was initially anticipated. Although many ships were detained in the initial months of the Code implementation due to the certification problems, no major security risks were encountered. Monthly figures revealed an improving level of compliance as the programme progressed. In July 2004, 50 ships were detained compared with 13 in August and 9 in September. Sixty ships were detained due to lack of a valid ISSC, while further 45 had problems with certificates that did not result in detention. Furthermore, the number of ISPS related deficiencies recorded in 2006 decreased more than 10% in relation to 2005. In 2006 there were 735 ISPS related deficiencies recorded. It represented only 1.11% of the total number of deficiencies.

Inspections in Croatian ports have been analyzed as well. Inspection results for the early implementation phase of 2004 (first three months following the ISPS Code implementation) in comparison to the results for the last half of the 2005 show a ratio of 4 detentions to 1 and a fall in the detention rate on security grounds from 40% to 17%.

The presented data show that the number of security-related deficiencies and the number of ships detained on security grounds is continuously decreasing. It can be concluded that figures from the database have revealed an improving level of ships' compliance with the security regulations. Obviously, there were some difficulties, mainly in the initial stages of the implementation, such as lack of knowledge and understanding of the new regulations, resistance to the new regulations, particularly in ports, lack of communication and insufficient security culture. The most common security-related deficiencies have been inappropriate keeping of the ISPS related certificates, such as the ISSC and the Continuous Synopsis Record.

5. CONCLUSION

An analysis of the security-related Port State Control inspection results in Croatian ports shows that deficiencies found on the ISPS non-compliance ships mainly refer to certification-related defects. In general, inspection results show fewer security deficiencies in comparison to the Paris MOU or other Memorandum of Understanding inspection results.

The total number of 8 ships was detained on security grounds in the period following the ISPS Code implementation till the end of 2005. In the same period another 12 ships with security-related deficiencies were found in the Croatian ports. The ISPS non-compliance ships were found only in the ports of Rijeka, Split and Ploče, which are the ports with the largest number of inspection in Croatia and with the largest number of ship calls. The detention rate on security grounds equals 24.2%, while 3.3% constitutes the number of inspections with security deficiencies. Such figures can be explained by the large numbers of certification deficiencies that immediately lead to detention. Furthermore, general cargo ships classed by the non-IACS classification societies and sailing under the so-called flags of convenience have the highest rate of ISPS non-compliance.

It should be pointed out that the early phase of the implementation was a period with the highest detention rate (40%) and the largest number of security-related deficiencies. It is believed that the Harmonized

Verification Programme on Maritime Security, organized by the Paris MOU and ran three months from the ISPS Code implementation date, has considerably contributed to these findings, as well as inappropriate ships organization on security matters due to short implementation period and lack of knowledge on new regulation.

Inspection results in different MOU member states show great discrepancy, with the detention rate ranging from 4.4% in Tokyo MOU to 45.7% in USCG. In light of these findings, inspection results in Croatian ports have average value with detention rate on security grounds of 25.9%. In comparison to the Paris MOU, the overall detention rate on security grounds is 4 times greater in Croatia.

To sum up, looking into all the relevant elements on the security issues in the Croatian ports in the early stage of ISPS Code implementation, it could be stated that the overall Port State Control inspection results show a decreasing trend in the number of ISPS non-compliance ships visiting Croatian ports, which is the main goal of the ISPS Code.

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SAŽETAK

ANALIZA PROVEDBE MJERA SIGURNOSNE ZAŠTITE U HRVATSKIM LUKAMA S OBZIROM NA INSPEKCIJSKI NADZOR LUKE DRŽAVE

U radu se analizira razina primjene Međunarodnog pravilnika o sigurnosnoj zaštiti brodova i lučkih prostora (ISPS Code) u hrvatskim lukama. Analiza se temelji na inspekcijskom nadzoru luke države koji predstavlja najvažniji kontrolni mehanizam za ocjenu ispunjavanja međunarodnih propisa. Prema tome provedena je analiza mjera sigurnosne zaštite u lukama koja se temelji na analizi nedostatka povezanih sa sigurnosnom zaštitom pronađenim pri inspekcijskim pregledima na brodovima od trenutka primjene Pravilnika. Period od godinu i pol od početka primjene pravilnika smatra se dovoljnim kako bi se osigurala objektivna početna procjena učinkovitosti primjene mjera sigurnosne zaštite. Nadalje, u radu su predstavljeni i zaključci temeljeni na usporedbi podataka o rezultatima inspekcijskog nadzora povezanog sa sigurnosnom zaštitom u hrvatskim lukama i lukama drugih država članica sporazuma o nadzoru države luke.

KLJUČNE RIJEČI

sigurnosna zaštita luka, ISPS pravilnik, nadzor luke države

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1. These conventions are SOLAS, MARPOL, LOADLINE, TONNAGE, STCW 78/95, ILO 147 and COLREG.
2. Presently existing memorandums are Paris Memorandum of understanding, Vina del Mar (Latin-America Agreement), Tokyo MOU, Caribbean MOU, Mediterranean MOU, Indian Ocean MOU and Abuja MOU.
3. "Clear grounds" imply that there is evidence of non-complying with the regulations and provisions of the relevant convention.
4. Paris MOU central computer database is well known as the SIRENAC database.
5. As described in MSC/Circ 1111, Chapter 4.
6. Detention rate shows total number of detentions on security grounds over total number of ships detained.

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