# Safety Aspects of ISPS Code Onboard Practice Sigurnosni aspekti primjene ISPS Pravilnika na brodu

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# **Summary**

In the light of today's global security challenges such as terrorist attacks, immigrant crises or piracy, this paper presents the results of a survey conducted on a sample of experienced maritime officers covering the use of ISPS Code on board. Research data was collected through questionnaires. The analysis of the collected data followed by subsequent discussions with the participants yielded surprising answers. The synthesis of those results suggests that the procedures implemented to increase the security aboard the ship could jeopardize the crew's safety if implemented inadequately. In this case, the responsibility for the poor implementation is not always just on the crew, as the company should also be involved in checking and correction. Consequently, opinions and recommendations that can serve as an example of good practice are provided in the conclusion.

#### **KEY WORDS**

ISPS code on board training on board drills crew safety ship security

#### Sažetak

U svjetlu današnjih globalnih sigurnosnih izazova kao što su teroristički napadi, imigrantska kriza ili piratstvo, ovaj rad prezentira rezultate ankete provedene na uzorku iskusnih pomorskih časnika koji primjenjuju ISPS Pravilnik na brodu. Podaci su prikupljeni putem upitnika. Analiza prikupljenih podataka, dopunjena kasnijim razgovorima sa sudionicima, dala je iznenađujuće odgovore. Sinteza ovih rezultata sugerira da postupci provedeni kako bi se povećala sigurnost na brodu mogu ugroziti sigurnost posade ako se provode neadekvatno. U ovom slučaju odgovornost za lošu provedbu nije uvijek na posadi budući da bi kompanija trebala biti uključena u provjeru i korekcije. Slijedom toga, mišljenja i preporuke koji mogu poslužiti kao primjer dobre prakse navedeni su u zaključku.

# KLJUČNE RIJEČI

ISPS pravilnik obuka na brodu vježbe na brodu sigurnost posade sigurnost broda

# 1. INTRODUCTION / Uvod

There are different security threats to Maritime Industry: terrorism, piracy and armed robbery against ships, the possibility of a biological and chemical attack, smuggling and human trafficking, stowaways, theft, sabotage, cyber-crimes, etc. [3] [1]

The ISPS Code (International Ship and Port Security Code, 2004) is intended to be preventive measure. It gives governments, shipping companies, shipboard personnel, and port facility personnel the responsibility of detecting security threats and taking preventative measures against security incidents affecting ships or port facilities used in international trade. [2]

According to the ISPS Code, a company security officer and ship security officer have to be appointed. It is clear that those people must go through training, since they are required to have certain knowledge regarding the ISPS Code. On board personnel have specific duties and responsibilities involving security that they need to practice during drills to ensure that the crew is proficient in all the assigned security duties. [5]

Although it seems simple, sometimes those drills may be counterproductive if conducted in a wrong way. [4]

#### 2. METHODOLOGY / Metodologija

The results of the research presented in this paper were obtained by analyzing the data collected from questionnaires and subsequent discussion with participants of 'Leadership and teamwork' training courses held on the Maritime Faculty in Rijeka, Croatia in 2016. Participants were experienced seamen, all employed on different companies and different ships worldwide.

There were 464 participants in total who had been asked to answer the following questions:

- a) Do you have any knowledge about the ISPS Code?
- b) Have you been involved in any ISPS Code drills or training on board in the last year?
- c) Can you specify the example(s) of the drills or training you've participated in?
- d) Can you briefly specify the 'conducting procedure' for each training?

The answers are presented in Table 1.

Table 1 The number of participants who answered the questions

Tablica 1. Broj sudionika koji su odgovorili na pitanja

Answer Question	Yes	No	Pirate attack <sup>1</sup>	Bomb search	Stowaway search	Unidentified object detection
a)	464	0	-	-	-	-
b)	462	2*	-	-	-	-
c)	462	2*	462	455	453	7

<sup>\*</sup> Domestic shipyard dry dock staff.

Source: authors

When requested to specify 'conducting procedure' (question d) for each training the participants had answered:

- a) Pirate attack:
- Securing ship openings (doors, windows, hatches, etc.)
- Extra watch on deck (fore and aft)
- Extra lights around the ship
- Fire pump running and fire hoses prepared
- Engine room ready for maneuvering, etc.
- b) Bomb search:
- The master of the ship hid the 'bomb' on board the ship
- Each crew member was involved in searching for the 'bomb'
- Each crew member was searching in those spaces that are familiar to him/her in particular (personal cabins, lockers, working places, closets, etc.)
- c) Searching for stowaways:
- The ship's crew was divided in teams
- The ship's spaces were divided in searching sections
- Each team had a section to search.
- d) Unidentified object detection:
- The master of the ship placed an unidentified object aboard the ship
- Each crew member was involved in detecting the object
- Each crew member entered those spaces that are familiar to him/her and had to look around (360°) trying to recognize the object that had not been there before
- When detected, the Master and the rest of the crew had to be informed
- It was not allowed to touch the object, but rather to secure it and evacuate the area.

### 3. ANALYSIS AND RESULTS / Analiza i rezultati

By analyzing results obtained as proportion of 98,5 % "Bomb search" answers respecting to 1,5 % "Unidentified object detection" (chart 1.) and taking into consideration description of conduction procedure there were three hypothesis raised upon.

#### Hypothesis 1:

Seamen that are conducting "Bomb search" drill know what are they looking for, and seamen conducting "Unidentified object detection" drill do not.

#### Hypothesis 2:

Seamen that are conducting "Bomb search" drill will interact with the object and those conducting "Unidentified object detection" drill will not.

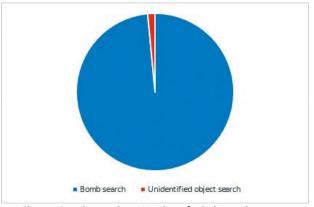


Chart 1 Bomb search vs. Unidentified object detection Grafikon 1. Pretraživanje bombe nasuprot otkrivanju neidentificiranog objekta

Source: authors

#### Hypothesis 3:

Seamen that are conducting "Bomb search" drill will more likely interact with the object upon finding because they know what are they searching for.

Due to such circumstances two extra questions were asked:

- 1. Did you know what were you searching for? (Identification of the object.)
- 2. Did you touch that what you were searching for upon finding? (Interaction with the object.)
- 1. Seamen conducting "Bomb search" drill knew what they were searching for in 94,5% of cases while those conducting "Unidentified object detection" drill did not know it, meaning that their percentage is 0, as shown in Chart 2.

Hypothesis 1 have found to be proven.

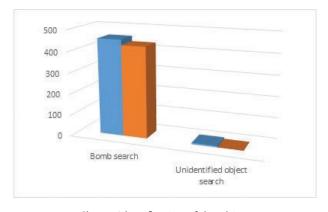


Chart 2 Identification of the object Grafikon 2. Identifikacija objekta

Source: authors

2. Seaman conducting "Bomb search" drill interacted with the object in 100% opposed to 0% of those conducting "Unidentified object search", as shown in Chart 3.

Hypothesis 2 and hypothesis 3 have found to be proven.

"Naše more" 67(2)/2020., pp. 178-180

<sup>&</sup>lt;sup>1</sup> The result shown is including all separate scenario cases (in ex. attack in port, attack at the anchorage and attack during navigation)

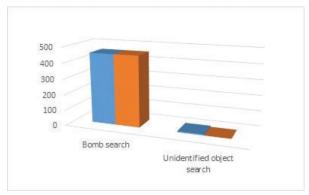


Chart 3 Interaction with the object Grafikon 3. Interakcija s objektom

Source: authors

# 4. DISCUSSION / Rasprava

The procedures of 'Bomb search' and 'Unidentified object detection' are quite similar but different in approach. In the latter, instead of searching for the 'bomb' the crew is instructed just to detect the object that might have been placed on the ship without the knowledge of the crew. Those participants that had answered 'Unidentified object detection' did not mention 'Bomb search' at all claiming to have received such instructions from the company that they were employed by.

The ISPS Code affects the crew on board in the way that they will be the first victim when an incident threatening security happens. They have to be aware and prepared for defense and a quick response. Because of that, there should be procedures established on board, with duties and responsibilities clearly defined. Knowledge of those procedures, duties and responsibilities is to be checked regularly through on board trainings and drills as well as thorough internal and external audits.

When it comes to the practice, there is a possibility of dangerous behavior on board as well as in the security policies of some companies. The purpose and the goal of on board trainings and drills is to keep the crew ready for a response in the case any ISPS scenario happening. The results of research showed that the way they are trained on board should be reconsidered in too many cases, and findings are summarized as follow:

Crew members should be aware of piracy, should know the procedures of preparing the ship against embarkation of pirates, should be familiar with equipment placed on board to prevent embarkation (i.e. how to place a razor wire around the ship), ..., but, nobody can expect that in the case of a real pirate attack they are going to fight against pirates, and nobody can ask them to do that, because they are not trained to combat but to sail the vessels. Placing the devices such as 'air guns' or training the crew to prepare the 'fire hoses' to prevent embarkation of pirates by water jetting is simply a wrong way of training and such practice should be avoided. Companies whose ships are sailing through pirates' areas should take in consideration sailing with professional security escort through the area. Crew members should be aware that by 'trying to be a hero' in such situations they might endanger their own lives in a way that they are not only going to be hostages but someone might get killed. The policy: 'In case of piracy – don't be a hero!' is a good practice.

- 'Bomb search' training. The very name (title) of the drill is completely wrong and sends a dangerous message. It is not quite clear if the name of the drill originates from official on board documents or is just a colloquial term used on board among the crew, but it should be completely changed and avoided. Seamen, generally, do not have any competence in recognizing bombs, explosives, weapons, etc. Those things are not taught at maritime schools and faculties, nor are there a lot of opportunities to learn them from on board experience. Having a certificate of a course on ISPS seems not to indicate serious knowledge on the topic.
- The Master of the vessel has an overall responsibility for on board trainings and drills and to motivate crew members in practicing. The 'motivation' approach referred to in this research ('placing an object of value as a hidden bomb that should serve as award when found') is unforgivable and should be prohibited. It is hard to believe that such an approach comes from Company Officials, and it is rather a misinterpretation by the Master himself / herself. If Company Officials are not aware of such things happening on board they also have a share of the responsibility.
- There are Companies with a different practice in place, in which they implement a different approach. 'Unidentified object detection' suggests that the crew should be aware of the risk that might arise from the placing of an object on board whose origin is unknown, and once detected the procedure is quite clear to crew members. So there is no need to search for something that might be a 'bomb' because crew members do not know what a bomb looks like and in many cases even professionals can't be sure either without using special equipment.

## 5. CONCLUSION / Zaključak

When it comes to good practice there are a lot of obstacles to implement the security barrier that is the ISPS Code applied on board and it is not a separate case.

The survey questionnaire encompassed a wide range of questions and discussions, but the results here presented are focused on onboard security issues only. They are justifying the opinion that the ISPS Code, which is welcomed in Maritime Industry considering global security threats, must be implemented with special care and procedures well defined, explained, trained and checked as it was conceived by The Code at the very beginning.

Although on board safety and security issues are sometimes mutually exclusive, it should be clearly stated that security procedures should never jeopardize the crew's safety.

Further research is focused on analyzing onboard security vs. port security practice while berthing.

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