Statistical Review of the Annual Report on the Performance of Maritime Safety Inspection in Croatia

Tatjana Stanivuk[a], Boris Medić[a], Marta Medić[b]

This paper provides a detailed analysis of the annual statistical report on the performance of Croatia's Maritime Safety Inspection. Statistical data have been processed with regard to the number of employees at the Directorate for Inspection Affairs within the Ministry of Maritime Affairs, Transport and Infrastructure. A statistical analysis of the number of inspection surveys per area has been made, with tables and graphs providing a detailed account of the deficiencies detected on board vessels and the number of detentions in 2013. The results obtained provide an insight into the overall performance of the Maritime Safety Inspection in that year.

KEY WORDS
~ Vessels
~ Maritime safety inspection
~ Statistical analysis
~ Annual report

a. Faculty of Maritime Studies, Split, Croatia
e-mail: tstanivu@pfst.hr

b. University of Rijeka, Department of Mathematics, Rijeka, Croatia
e-mail: m.medic@yahoo.com

1. INTRODUCTION

Croatia is a maritime country with a very indented coastline and dense sea traffic. In addition to other issues, the Ministry of Maritime Affairs, Transport and Infrastructure of the Republic of Croatia is in charge of management and control of maritime demesne, seaports and vessels. The Ministry's Directorate for Inspection Affairs and the Directorate for Maritime Transport and Search and Rescue Operations are of particular importance for the subject of this paper.

The Republic of Croatia is a member of EMSA (European Maritime Safety Agency) and Paris MoU (Paris Memorandum of Understanding). In line with the requirements of these institutions and the national legislation, the officers of the Ministry of Maritime Affairs, Transport and Infrastructure are in charge of performing inspections of domestic and foreign vessels in the ports of the Republic of Croatia, with the purpose of enhancing the safety of navigation, safety of life at sea, and marine environment protection, at national, EU and international level.

Therefore it is important to gather data related to the inspections of domestic and foreign vessels and do a statistical analysis in order to get a realistic insight into the ways of performance and the results, i.e. the efficiency of the Directorate for Inspection Affairs.

Under the jurisdiction of Croatia's Ministry of Maritime Affairs, Transport and Infrastructure there are 8 Harbour Master's Offices with Inspection Departments, whose safety of navigation inspectors carry out supervision of domestic and foreign vessels and keep statistical records on the type, extent and nature of

the deficiencies observed. All these data are entered into two central computer systems: one system stores information on all inspected ships, boats and yachts in the Republic of Croatia, while the other stores exclusively the data on inspections of foreign vessels. The use of the latter system is compulsory for all member states of the EU and the signatories of PMoU. It enables reviewing the overall statistics and history of surveys of individual vessels, shippers, and members of the EU and PMoU. Supported by these information systems, the Ministry of Maritime Affairs, Transport and Infrastructure itself creates annual and other reports on the number of performed surveys, type and extent of the detected deficiencies, number of detentions, and related activities.

When inspecting foreign vessels, the inspectors in charge of the safety of navigation act exclusively in compliance with the international conventions and IMO (International Maritime Organisation) regulations governing the safety of navigation, safety of life at sea, and environment protection, such as SOLAS, MARPOL, LOAD LINE conventions, etc.

When inspecting domestic ships, boats and yachts, the inspectors in charge of the safety of navigation act in line with the international conventions as well as with the national laws and regulations including the Maritime Code, Regulation on the Inspection of the Safety of Navigation, Port Order Regulations, and the like (Maritime Code, 2004; Maritime Code, 2007; Maritime Code, 2008; Maritime Code, 2011; Maritime Code, 2013; Maritime Demesne and Seaports Act 2003; Maritime Demesne and Seaports Act, 2006; Maritime Demesne and Seaports Act, 2009).

2. STRUCTURE OF THE DIRECTORATE FOR INSPECTION AFFAIRS AT THE MINISTRY OF MARITIME AFFAIRS, TRANSPORT AND INFRASTRUCTURE

As it has been stated in the Introduction, the Directorate for Inspection Affairs consists of the headquarters in the capital of Zagreb and 8 Harbour Master's Offices. The optimum number of personnel engaged by the headquarters and individual Harbour Master's Offices has been defined by the Regulations on Harbour Master's Offices (Paris MOU – official web-site). Table 1 presents the optimum number of employees for each individual Harbour Master's Office as well as the actual situation on December 31, 2013.

Table 1.
Number of inspectors and authorised specialists in charge of navigation safety inspection – situation on December 31, 2013.

Inspectors and authorised inspection officers	Recommended by the Regulations	Situation on 31 December 2013	Recruited	Left the job
At Headquarters in Zagreb	20	3	1	0
At regional units (Harbour Master's Offices)	37	20	1	2
Pula	4	2	0	0
Rijeka	7	6	0	0
Senj	3	1	0	0
Zadar	5	3	0	1
Šibenik	5	1	1	1
Split	5	4	0	0
Ploče	3	1	0	0
Dubrovnik	5	2	0	0
TOTAL	57	23	2	2

In addition to inspectors and authorised specialists, navigation safety inspection is carried out – with limited authority – by 144 employees of the Harbour Master's Offices and their Branch Offices.

The tabulation shows a clear discrepancy between the optimum and the actual staff engaged by the Directorate for Inspection Affairs both at the Headquarters and at the individual Harbour Master's Offices. In addition to the optimum and actual personnel, Table 1 presents the statistics regarding the newly recruited employees and the ones who left the service or were retired. It can also be noticed that, besides the navigation safety inspectors, surveys are also performed by the authorised personnel under the Departments for Maritime Traffic and Search and Rescue operations. These employees are exclusively authorised for inspecting boats and yachts, both domestic and foreign.

3. INSPECTIONS OF SEA GOING SHIPS BY HARBOUR MASTER'S OFFICES IN 2013

Table 2 shows the overall number of inspections performed by individual Harbour Master's Offices (HMO). The data refer to Croatian flag ships and foreign ships.

Table 2.
Inspections of all domestic and foreign ships, performed by individual Harbour Master's Offices (HMO) in 2013.

REGIONAL UNITS	NUMBER OF INSPECTIONS	SHIPS WITH DEFICIENCIES	SHIPS WITH DEFICIENCIES IN %	SHIPS WITH DEFICIENCIES IN % WITH RESPECT TO OVERALL VESSELS WITH DEFICIENCIES	TOTAL NUMBER OF DEFICIENCIES	NUMBER OF DETENTIONS	NUMBER OF DETENTIONS IN %	DETENTIONS IN % OF ALL INSPECTED SHIPS	NUMBER OF INDIVIDUAL SHIPS
HMO PULA	99	44	44 %	10 %	254	9	17 %	9 %	85
HMO RIJEKA	239	136	57 %	32 %	622	16	30 %	7 %	218
HMO ZADAR	115	81	70 %	19 %	239	14	26 %	12 %	99
HMO ŠIBENIK	55	27	49 %	6 %	67	4	7 %	7 %	49
HMO SPLIT	86	61	71 %	14 %	347	1	2 %	1 %	71
HMO PLOČE	37	21	57 %	5 %	45	2	4 %	5 %	32
HMO DUBROVNIK	89	52	58 %	12 %	119	6	11 %	7 %	84
HMO SENJ	18	6	33 %	1 %	15	2	4 %	11 %	17
TOTAL	**738**	**428**	**58 %**	**100 %**	**1,708**	**54**	**100 %**	**7 %**	**655**

At national level, during all these inspection activities a total of 738 inspections were performed involving 655 inspected ships. During these surveys the inspectors detected 1708 deficiencies and detained 54 ships for breaching the regulations governing the safety of navigation at sea, i.e. 7 % of all inspected ships.

The Harbour Master's Office in Rijeka was the busiest regional unit (Table 2) with regard to its share in the overall number of the performed surveys and detentions at the national level, which is quite logical and expected, given the fact that Rijeka is Croatia's largest seaport (Ministry of Maritime Affairs, Transport and Infrastructure – official web-site).

Further statistical analysis of the performed inspections in 2013 (Tables 3 and 4) reveals that most of the surveys (73 %) were carried out on board domestic vessels flying Croatian flag, whereas only 27 % of the inspections were performed on board vessels flying foreign flags (Tomašević et al., 2007).

A very important information regarding the defeciencies of ships – therefore regarding the threatened safety of navigation – can be obtained by comparing the two tables (Tables 3 and 4). Namely, the inspections performed found a higher percentage of deficiencies on foreign ships (62 %) than on Croatian ships (57 %).

It is also interesting to note that the highest number of detentions of Croatian ships were performed by the Harbour Master's Office in Zadar, while the highest number of detentions of foreign-flag ships were performed by the Harbour Master's

Table 3.
Inspections of Croatian-flag ships by individual Harbour Master's Offices in 2013.

REGIONAL UNIT	NUMBER OF INSPECTIONS	SHIPS WITH DEFICIENCIES	SHIPS WITH DEFICIENCIES IN %	SHIPS WITH DEFICIENCIES IN % WITH RESPECT TO OVERALL VESSELS WITH DEFICIENCIES	TOTAL NUMBER OF DEFICIENCIES	NUMBER OF DETENTIONS	No. OF DETENTIONS IN % WITH RESPECT TO OVERALL DETENTIONS	DETENTIONS IN % OF ALL INSPECTED SHIPS	NUMBER OF INDIVIDUAL SHIPS
HMO PULA	75	26	35 %	9 %	147	7	17 %	9 %	63
HMO RIJEKA	154	84	55 %	28 %	360	9	22 %	6 %	135
HMO ZADAR	94	67	71 %	22 %	176	12	29 %	13 %	79
HMO ŠIBENIK	53	26	49 %	9 %	66	3	7 %	6 %	47
HMO SPLIT	54	39	72 %	13 %	215	0	0 %	0 %	43
HMO PLOČE	19	12	63 %	4 %	20	2	5 %	11 %	16
HMO DUBROVNIK	71	44	62 %	14 %	101	6	15 %	8 %	66
HMO SENJ	18	6	33 %	2 %	15	2	5 %	11 %	17
TOTAL	**538**	**304**	**57 %**	**100 %**	**1100**	**41**	**100 %**	**8 %**	**466**

Table 4.
Inspections of foreign-flag ships by individual Harbour Master's Offices in 2013.

REGIONAL UNIT	NUMBER OF INSPECTIONS	SHIPS WITH DEFICIENCIES	SHIPS WITH DEFICIENCIES IN %	SHIPS WITH DEFICIENCIES IN % WITH RESPECT TO OVERALL VESSELS WITH DEFICIENCIES	TOTAL NUMBER OF DEFICIENCIES	NUMBER OF DETENTIONS	No. OF DETENTIONS IN % WITH RESPECT TO OVERALL DETENTIONS	DETENTIONS IN % OF ALL INSPECTIONS	NUMBER OF INDIVIDUAL SHIPS
HMO PULA	24	18	75 %	15 %	107	2	15 %	8 %	22
HMO RIJEKA	85	52	61 %	42 %	262	7	54 %	8 %	83
HMO ZADAR	21	14	67 %	11 %	63	2	15 %	10 %	20
HMO ŠIBENIK	2	1	50 %	1 %	1	1	8 %	50 %	2
HMO SPLIT	32	22	69 %	18 %	132	1	8 %	3 %	28
HMO PLOČE	18	9	50 %	7 %	25	0	0 %	0 %	16
HMO DUBROVNIK	18	8	44 %	6 %	18	0	0 %	0 %	18
TOTAL	**200**	**124**	**62 %**	**100 %**	**608**	**13**	**100 %**	**7 %**	**198**

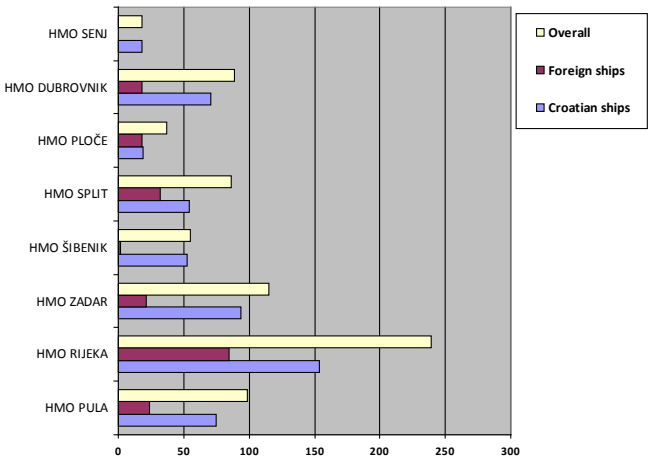

Figure 1.
Inspections of Croatian and foreign-flag ships by individual Harbour Master's Offices in 2013.

Office in Rijeka (as expected, given the fact that the Port of Rijeka handles the densest traffic of domestic and foreign vessels).

It can be clearly seen that Table 4 lacks statistical data referring to the inspections of foreign-flag ships by the Harbour Master's Office in Senj. The reason for this situation is that the Port of Senj is not a port intended for international traffic.

The graphic illustration (Figure 1) of the data presented in the above Tables straightforwardly leads to the conclusion that the Port of Rijeka performs most of the inspection surveys in the Republic of Croatia due to the highest rate of maritime traffic handled by this port. The Figure also shows that, due to the above mentioned reasons, the Harbour Master's Office in Senj carries out few inspections and these inspections refer exclusively to the Croatian flag vessels.

4. STATISTICAL CATEGORISATION OF DEFICIENCIES DETECTED ON BOARD SHIPS INSPECTED IN 2013

This section of the paper provides an overview of all the categories of deficiencies that navigation safety inspectors detect while surveying domestic and foreign ships. The overview presented is rather important as the data gathered show the most frequent deficiencies and their share in the overall number of deficiencies observed on board all the ships inspected. As it has been already pointed out, the categories of deficiencies are defined by the international conventions and by national laws and regulations (European Maritime Safety Agency (EMSA) – official web-site).

Table 5 presents 23 categories of the main deficiencies that are considered essential for the safety of navigation, safety of life at sea and marine environment protection. The data are presented numerically and as percentages for each individual category of deficiency, referring to the overall number of the deficiencies observed during inspection of all ships in 2013.

Most of the deficiencies observed (18.22 %) belong to the category of Ship's Certificates and Documents, followed by the deficiencies related to the Safety of Navigation amounting to 11.6 %, and Fire Safety Measures amounting to 11.66 % of the overall detected deficiencies. From the viewpoint of navigation safety, the percentages are rather high as these are essential deficiencies that are directly related to the safety of navigation, safety of life at sea and marine environment protection (Tomašević et al., 2007).

The related categories indicated in Table 5 are merged together in order to better understand the Figure. According to Figure 2 and Table 5, it is obvious that Safety of Navigation is the most neglected among the categories, which is unacceptable as the sea traffic rate increases daily. This is why the conventions and regulations governing the issue of navigation safety are becoming stricter and are constantly amended, and the inspectors pay particular attention to that category of deficiencies during their surveys with the aim of improving safety of navigation, safety of life at sea and marine environment protection.

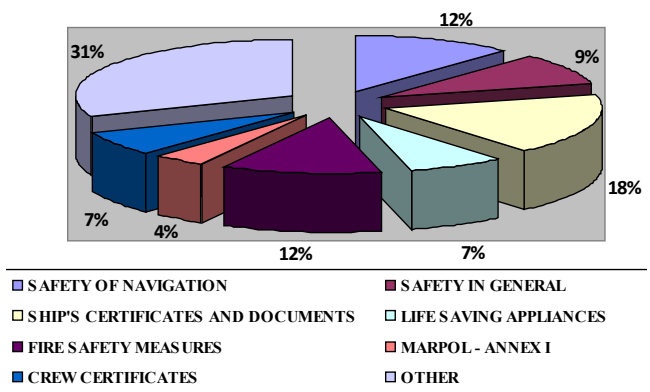

Figure 2.
Share of individual categories of deficiencies – all ships in 2013.

Table 6 presents the categories of deficiencies found on performing inspections of Croatian ships. Again, most of the deficiencies detected are related to the safety of navigation, safety of life at sea and marine environment protection – 50 % of all the deficiencies observed. Ship's Certificates and Documents is the category with the highest individual number of deficiences (24 %). This undesirable tendency is followed by the categories of Fire Safety Measures and Safety in General, each amounting to around 10 % of the overall detected deficiences.

Table 5.
Main groups of deficiencies – all ships inspected in 2013.

CODE	MAIN GROUPS OF DEFICIENCIES	NUMBER OF DEFICIENCIES	DEFICIENCIES IN % WITH REGARD TO OVERALL NUMBER OF DEFICIENCIES
0100	SHIP'S CERTIFICATES AND DOCUMENTS	308	18.22
0200	CREW CERTIFICATES	117	6.92
0300	CREW AND ACCOMODATION (ILO 147)	22	1.30
0400	FOOD AND CATERING (ILO 147)	13	0.77
0500	WORKING SPACES (ILO 147)	38	2.25
0600	LIFE-SAVING APPLIANCES	126	7.46
0700	FIRE SAFETY MEASURES	197	11.66
0800	ACCIDENT PREVENTION (ILO 147)	21	1.24
0900	SAFETY IN GENERAL	156	9.23
1000	ALARM SIGNALS	17	1.01
1100	CARGO OPERATION AND DANGEROUS CARGO OPERATION	6	0.36
1200	LOAD LINES	49	2.90
1300	MOORING ARRANGEMENTS	20	1.18
1400	PROPULSION AND AUXILIARY MACHINERY	62	3.67
1500	SAFETY OF NAVIGATION	196	11.60
1600	RADIO COMMUNICATION	33	1.95
1700	MARPOL – ANNEX I	73	4.32
1800	TANKERS	5	0.30
2000	SOLAS RELATED DEFICIENCIES	109	6.45
2100	MARPOL RELATED DEFICIENCIES	14	0.83
2300	MARPOL – ANNEX V	38	2.25
2500	ISM RELATED DEFICIENCIES	42	2.49
9900	OTHER DEFICIENCIES – not related directly to safety, health and marine pollution	28	4.32
TOTAL		**1690**	**100,00**

Table 6.
Main groups of deficiencies – Croatian ships in 2013.

CODE	MAIN GROUPS OF DEFICIENCIES	NUMBER OF DEFICIENCIES	DEFICIENCES IN % WITH REGARD TO OVERALL NUMBER OF DEFICIENCIES
0100	SHIP'S CERTIFICATES AND DOCUMENTS	267	24.28
0200	CREW CERTIFICATES	79	7.18
0300	CREW AND ACCOMODATION (ILO 147)	13	1.18
0400	FOOD AND CATERING (ILO 147)	4	0.36
0500	WORKING SPACES (ILO 147)	21	1.91
0600	LIFE-SAVING APPLIANCES	110	10.00
0700	FIRE SAFETY MEASURES	107	9.73
0800	ACCIDENT PREVENTION (ILO 147)	14	1.28
0900	SAFETY IN GENERAL	117	10.64
1000	ALARM SIGNALS	7	0.64
1100	CARGO OPERATION AND DANGEROUS CARGO OPERATIONS	1	0.09
1200	LOAD LINES	25	2.27
1300	MOORING ARRANGEMENTS	7	0.64
1400	PROPULSION AND AUXILIARY MACHINERY	32	2.91
1500	SAFETY OF NAVIGATION	93	8.45
1600	RADIO COMMUNICATION	16	1.45
1700	MARPOL – ANNEX I	36	3.27
1800	TANKERS	3	0.27
2000	SOLAS-RELATED DEFICIENCIES	82	7.45
2100	MARPOL-RELATED DEFICIENCIES	7	0.64
2300	MARPOL – ANNEX V	18	1.64
2400	PASSENGER SHIPS	4	0.36
2500	ISM-RELATED DEFICIENCIES	11	1.00
2600	BULK CARRIERS	2	0.18
9800	OTHER DEFICIENCIES – related directly to safety, health and marine pollution	3	0.27
9900	OTHER DEFICIENCIES – not related directly to safety, health and marine pollution	21	1.91
TOTAL		**1,100**	**100.00**

Table 7.
Main groups of deficiencies – foreign ships in 2013.

CODE	MAIN GROUPS OF DEFICIENCIES	NUMBER OF DEFICIENCIES	DEFICIENCES IN % WITH REGARD TO OVERALL NUMBER OF DEFICIENCIES
0100	SHIP'S CERTIFICATES AND DOCUMENTS	41	6.74
0200	CREW CERTIFICATES	38	6.25
0300	CREW AND ACCOMODATION (ILO 147)	9	1.48
0400	FOOD AND CATERING (ILO 147)	9	1.48
0500	WORKING SPACES (ILO 147)	17	2.80
0600	LIFE-SAVING APPLIANCES	16	2.63
0700	FIRE SAFETY MEASURES	90	14.80
0800	ACCIDENT PREVENTION (ILO 147)	7	1.15
0900	SAFETY IN GENERAL	39	6.41
1000	ALARM SIGNALS	10	1.64
1100	CARGO OPERATION AND DANGEROUS CARGO OPERATIONS	5	0.82
1200	LOAD LINES	24	3.95
1300	MOORING ARRANGEMENTS	13	2.14
1400	PROPULSION AND AUXILIARY MACHINERY	30	4.93
1500	SAFETY OF NAVIGATION	103	16.94
1600	RADIO COMMUNICATION	17	2.80
1700	MARPOL – ANNEX I	37	6.09
1800	TANKERS	2	0.33
2000	SOLAS-RELATED DEFICIENCIES	27	4.44
2100	MARPOL-RELATED DEFICIENCIES	7	1.15
2300	MARPOL – ANNEX V	20	3.29
2500	ISM-RELATED DEFICIENCIES	31	5.10
2700	DEFICIENCY RELATED TO MARITIME SUCURITY	3	0.49
2900	MARPOL – ANNEX IV	2	0.33
3000	MARPOL – ANNEX VI	4	0.66
9900	OTHER DEFICIENCIES – not related directly to safety, health and marine pollution	7	1.15
TOTAL		**608**	**100.00**

When comparing the categorisation of the deficiencies detected on board foreign ships (Table 7) with the categorisation of the deficiencies observed on board domestic ships, the results differ to a certain extent. It is obvious that most of the deficiencies on board foreign ships are related to Safety of Navigation (almost 17 %) and to Fire Safety Measures, amounting to 14 % of the overall detected deficiences. However, there are fewer deficiencies in Ship's Certificates and Documents than on board Croatian ships.

5. RESULTS OF INSPECTIONS OF FOREIGN SHIPS WITH REGARD TO SHIP'S AGE IN 2013

The ship's age and type are rather important parameters during inspection; they determine the frequency and scope of the survey. Accordingly, newly built ships up to 5 years old, depending on their type, belong to a group of low-risk vessels and are inspected once in 2 or 3 years, whereas older vessels belong to higher-risk groups and are surveyed more often and more thoroughly.

As expected, Table 8 shows that ships older than 20 years have the highest number of deficiencies and are most frequently inspected as they belong to the category of higher-risk vessels. 70 % of the overall deficiencies observed during inspections of all foreign ships refer to the ships older than 20 years.

Table 8.
Inspections of foreign ships by ship's age in 2013.

SHIP'S AGE	TOTAL NUMBER OF INSPECTIONS	NUMBER OF INDIVIDUAL SHIPS INSPECTED	INSPECTIONS WITH OBSERVED DEFICIENCIES	INSPECTIONS WITH DETECTED DEFICIENCIES IN % FOR ALL INSPECTED SHIPS RELATED TO THE AGE OF SHIPS	INSPECTIONS WITH OBSERVED DEFICIENCIES IN % FOR AALL INSPECTED SHIPS WITH DEFICIENCIES	TOTAL NUMBER OF DEFICIENCIES
0 to 5	20	20	6	30.00	4.84	29
6 to 10	36	35	15	41.67	12.09	51
11 to 15	23	21	12	52.17	9.68	42
16 to 20	7	7	4	57.14	3.23	8
over 20	114	106	87	76.32	70.16	478
TOTAL	**200**	**189**	**124**	**62.00**	**100.00**	**608**

6. CONTRIBUTION OF THE REPUBLIC OF CROATIA TO THE GLOBAL SAFETY OF NAVIGATION

Considering that PMoU is one of the first institutions established to improve the safety of navigation and protection of marine environment, the Republic of Croatia made every effort to join the institution and contribute to the safety of navigation and protection of marine environment both in Croatian and global waters.

The PMoU system uses the "FAIR SHARE" principle of distribution of inspections, depending on the number of calls at the ports of a member state. Given the current economic situation, the "FAIR SHARE" of the Republic of Croatia amounted to 201 inspections in 2013.

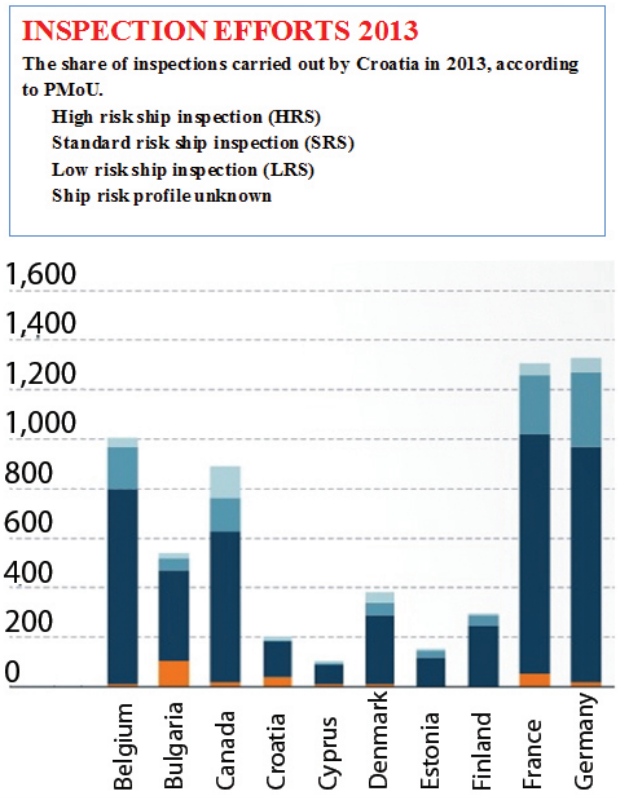

Figure 3.
The share of inspections carried out by Croatia in 2013, according to PMoU.

The above diagram shows that Croatia, as a PMoU member state, complied with the quota of 201 inspections, as allocated by "FAIR SHARE" system. Despite the lack of inspectors trained to perform such inspections, the Republic of Croatia fulfilled all obligations with regard to PMoU.

Table 9 presents the state of the Croatian fleet, with respect to the PMoU requirements for the safety of navigation.

Considering that the ships flying Croatian flag were ranked high on the PMoU "WHITE LIST" (earning the rank of the 10th out of 46 states), it is obvious that the Republic of Croatia has been concerned in a responsible and professional way for the safety of the vessels flying Croatian flag as well as of the vessels flying the flags of PMoU member states and the flags of other states. It is important to point out that, in addition to the "WHITE LIST", there are the "GREY LIST" and "BLACK LIST", showing Croatia's position at the global level.

7. CONCLUSION

The Republic of Croatia is the signatory of almost all relevant international conventions under International Maritime Organisation. As a member of the European Union and the Paris MoU, Croatia continuously observes and implements laws and regulations at national and international levels. Compliance with IMO and EU regulations, frequent inspections of vessels and implementation of increasingly stricter rules and conventions gradually result in improved safety of navigation, safety of life at sea and marine environment protection, as well as in increased awareness of shippers and shipowners.

Table 9.
"WHITE LIST" for 2013, according to PMoU.

WHITE LIST						
RANK	**FLAG**	**INSPECTIONS 2011-2013**	**DETENTIONS 2011-2013**	**BLACK TO GREY LIMIT**	**GREY TO WHITE LIMIT**	**EXCESS FACTOR**
1	France	278	0	27	12	-1,92
2	Norway	1 470	16	119	86	-1,79
3	Sweden	476	4	43	24	-1,69
4	Denmark	1 099	14	91	63	-1,68
5	Italy	1 243	17	102	72	-1,66
6	Hong Kong China	1 583	23	128	94	-1,66
7	United Kingdom	1 513	23	123	89	-1,62
8	Finland	421	4	39	20	-1,61
9	Germany	881	12	75	49	-1,61
10	Croatia	147	0	16	5	-1,59

In 2013 Rijeka was the busiest Harbour Master's Office in Croatia, inspecting the highest number of foreign and Croatian ships and, consequently, detecting most deficiencies on board inspected vessels. This was rather logical and expected, given the fact that Rijeka is Croatia's largest seaport handling the densest traffic of domestic and foreign vessels.

Most of the inspections took place on board ships flying Croatian flag (73 %). Inspections of foreign ships were performed less frequently (27 %). The inspections detected a higher number of deficiencies on board foreign ships. When gathering the data upon the inspections performed, it was found out that more deficiencies were observed on board foreign vessels (62 %) than on board Croatian vessels (57 %).

When taking into account all ships inspected, most of the deficiencies were observed in the categories Ship's Certificates and Documents (18 %) and Fire Safety Measures and Safety of Navigation (12 %). The large percentage of the detected deficiencies in these rather important categories resulted in detention of 7 % ships in total, i.e. 54 out of 738 inspected ships were detained. These vessels had to take appropriate action and eliminate deficiencies before they were allowed to sail.

Although the number of employees at Croatia's Ministry of Maritime Affairs, Transport and Infrastructure and at Harbour Master's Offices has been below optimum, the inspections of foreign and domestic ships have been performed frequently and thoroughly, and all deficiencies have been examined with great care, with the aim of enhancing safety of navigation, safety of life at sea and marine environment protection.

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