



HBMC I

Hellenic Bureau
for Marine
Casualties
Investigation

HBMC I's REPORT

FOR

2020

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Foreword

The Hellenic Bureau of Marine Casualties Investigation (HBMCI) was established by Law 4033/2011 (Government Gazette 264 A'/ 22 December 2011), within the scope of enforcement of the European Directive 2009/18/EC.

HBMCI conducts technical investigations after marine casualties or marine incidents with main task, through the analysis of the considered incident, to identify the contributing factors that led to it, to draw conclusions and to issue safety recommendations to the parties involved in the marine casualty, aiming to prevent or avoid future marine accidents.

The purpose of investigating marine casualties and incidents is not the setting or apportioning of blame or liability.

Terminology

The terms provided below are useful for the better understanding of the statistics included in this report.

- **AI Directive:** Directive 2009/18/EC
- **AIB:** Accident Investigation Body, as defined in article 8 of the AI Directive
- **CIC:** Casualty Investigation Code which is an IMO Resolution (MSC.255(84)).
- **EMCIP:** European Marine Casualty Information Platform; the European database for occurrences reported by the EU Member States, which is established according to the provisions of article 17 of the EU Directive 2009/18/EC
- **NDMCI:** National Database of Marine Casualties and Incidents; it is the national database where occurrences notified to HBMCI are recorded.
- **Severity of occurrences:** the severity of the occurrences is prescribed in the CIC circular MSC-MEPC.3-Circ3, also incorporated in national legislation by Law 4033/2011 (Official Government Gazette nr.264 A/2011), as amended.
 - *“Very serious casualties” are casualties to ships which involve total loss of the ship, loss of life, or severe pollution, the definition of which, as agreed by the Marine Environment Protection Committee at its thirty-seventh session (MEPC 37/22, paragraph 5.8), is as follows:*
 - *“Severe pollution” is a case of pollution which, as evaluated by the coastal State(s) affected or the flag Administration, as appropriate, produces a major deleterious effect upon the environment, or which would have produced such an effect without preventive action.*
 - *“Serious casualties” are casualties to ships which do not qualify as “very serious casualties” and which involve a fire, explosion, collision, grounding, contact, heavy weather damage, ice damage, hull cracking, or suspected hull defect, etc., resulting in:*
 - *immobilization of main engines, extensive accommodation damage, severe structural damage, such as penetration of the hull under water, etc., rendering the ship unfit to*

- proceed¹, or*
- *pollution (regardless of quantity); and/or*
 - *a breakdown necessitating towage or shore assistance.*
- *“Less serious casualties” are casualties to ships which do not qualify as “very serious casualties” or “serious casualties”[...].*
 - *A “marine incident” means an event, or sequence of events, other than a marine casualty, which has occurred directly in connection with the operations of a ship that endangered, or, if not corrected, would endanger the safety of the ship, its occupants or any other person or the environment.*

¹The ship is in a condition, which does not correspond substantially with the applicable conventions, presenting a danger to the ship and the persons on board or an unreasonable threat of harm to the marine environment.

Executive summary

The annual report of HBMCI has been in production since 2014 and aims to provide to the public statistics on accident investigation and the respective activity of HBMCI.

The statistics derive from two main databases, one at national level (NDMCI) and one at EU level (EMCIP). The latter one is much more detailed and allows for further analyses of the statistics, which evade the purpose of this report.

In terms of layout, Chapters 1 and 2 are based on NDMCI data, for 2020 and for the time period from 2013 to 2020 respectively.

Chapters 3, 4 and 5 derive from data acquired from EMCIP and have various time periods covered (annual for 2020 or multiannual from 2011 until 2020). The GIS images included in Chapter 5 derive from the respective module of EMCIP. It should be mentioned here that all data extracted from EMCIP concern mainly occurrences which have been reported by HBMCI.

Acknowledgements to the EMSA/AI project officer Mr. Enrico Gironella, for providing support on server issues for acquiring certain GIS images (maps).

1. Overview of occurrence reports made to HBMCI in 2020

According to article 6 of Law 4033/2011 (Official Government Gazette 264 A) and the respective article 6 of the AI Directive, HBMCI has to be notified for any marine casualty or incident, by the responsible Authorities of the Ministry of Maritime Affairs and the Aegean and the owner, manager, agent or Master of the involved vessel(s).

The notified occurrences are examined in terms of inclusion to the scope of HBMCI's responsibility (as defined in articles 2 and 25 of Law 4033/2011) and are thereafter classified as per severity.

For the year 2020, the occurrences notified to HBMCI, by any notification entity are in terms of scope inclusion and severity the following:

MARINE INCIDENT	LESS SERIOUS	SERIOUS CASUALTIES	VERY SERIOUS CASUALTY	OUT OF SCOPE	TOTAL
165	106	32	9	319	631

Index 1: occurrences notified to HBMCI in 2020

Regarding only the occurrences under the scope of responsibility of HBMCI, the following figure gives an overview of their severity classification, as mentioned in Index 1.

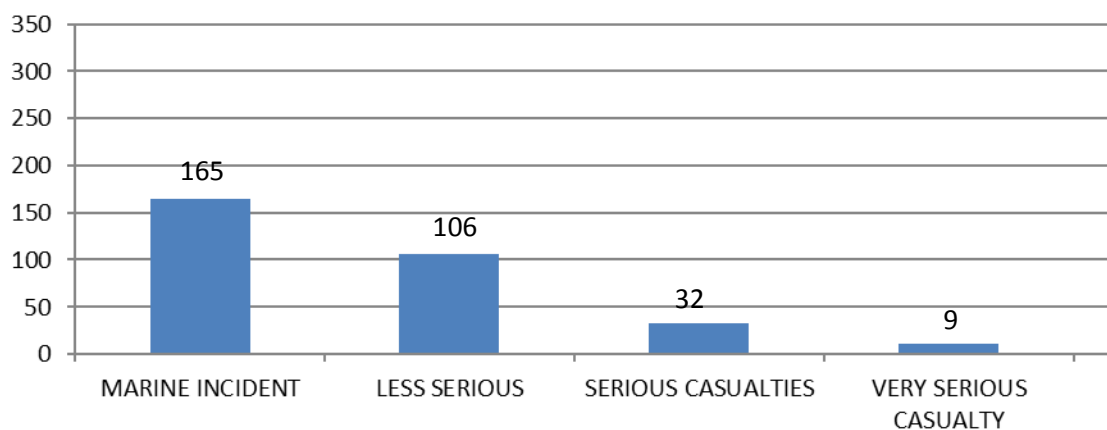


Figure 1: Occurrences reported to HBMCI in 2020 according to severity (under the scope)

The total number of occurrences reported to HBMCI, under the scope (Law 4033/2011) is 314. These occurrences are further analyzed according to the categories of the casualty event for each severity class in the following chapters.

1.1 Categories of very serious marine accidents for 2020

9 very serious casualties were reported to HBMCI in 2020, out of which 8 had to do with loss of life and 1 with vessel's total loss. All these 9 occurrences are under investigation from HBMCI, almost double the number of investigations launched in 2019 (5 investigations launched).

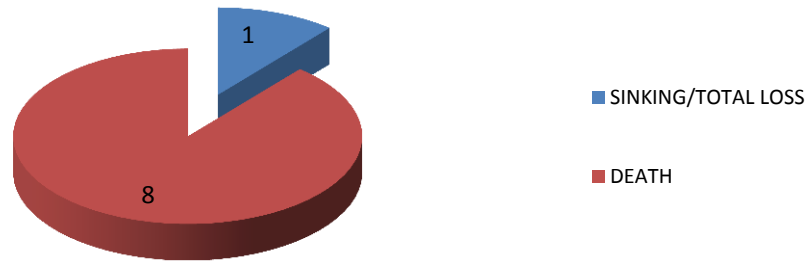


Figure 2: Dispersion of very serious marine accidents

***Important notice:** The number of very serious casualties concerning loss of life is under constant review, because in cases where the reasons of death prove to be clearly pathological (after the post-mortem report is issued), the relevant occurrences, if any, will be extracted from the scope of HBMCI.

It should be mentioned that the 8 casualties which concerned deaths of seafarers occurred on a variety of vessels (Ro-Pax, Bulk Carrier, General Cargo, fishing vessels), while the occurrence which resulted in the total loss of a vessel concerned a navy vessel which collided with a container vessel.

1.2 Categories of serious marine accidents for 2020

The 32 serious marine accidents that were reported to HBMCI in 2020 cover 9 different categories in terms of the main casualty event. Most of them have to do with fire and mechanical failures (8 cases for each event) and grounding and pollution are following in frequency (5 cases for each event).

It should be mentioned that each occurrence is represented in the statistics only with one main event, which is selected among all the events which may have taken place in the timeline of the occurrence.

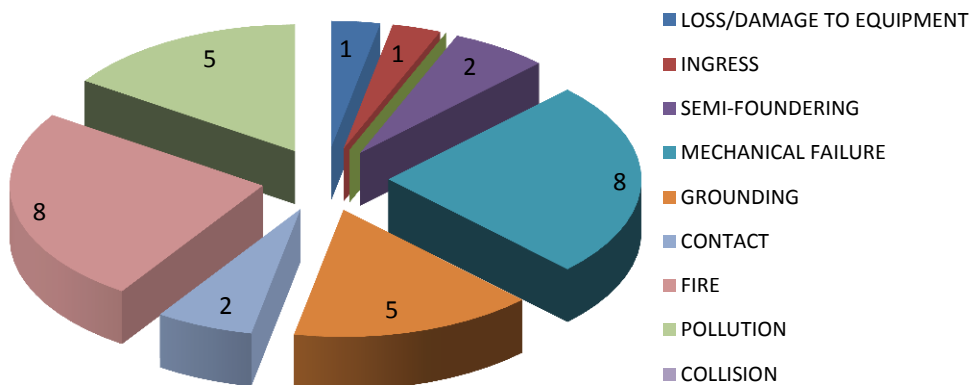


Figure 3: Dispersion of serious marine accidents

1.3 Categories of less serious marine accidents for 2020

The 106 less serious marine casualties which were reported to HBMCI in 2020, cover 10 different categories of main event, among which serious injuries to persons are most frequent. Thereafter, mechanical failures, groundings, contacts with fixed objects (e.g. docks, piers, etc.), damage to equipment and pollution are also encountered in significant numbers.

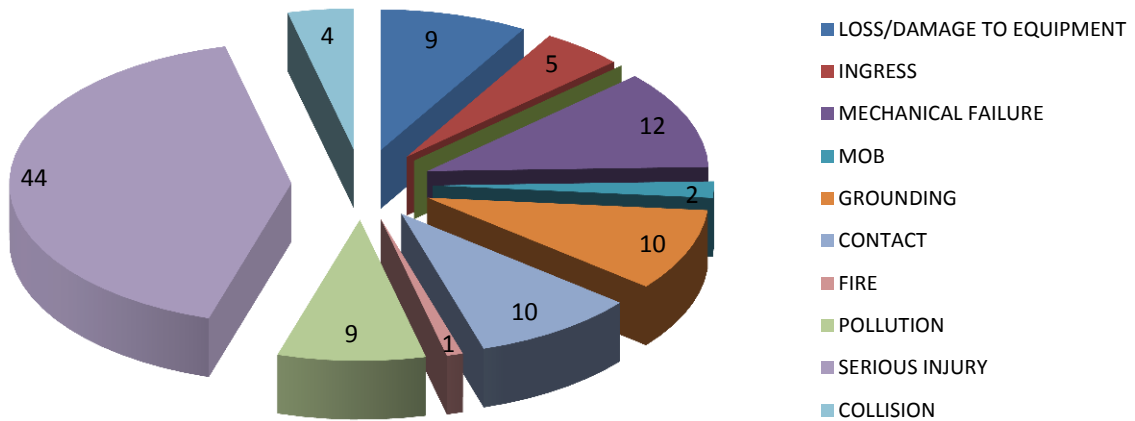


Figure 4: Dispersion of less serious marine accidents

1.4 Categories of marine incidents for 2020

In terms of the 165 marine incidents reported to HBMCI for 2020, the majority has to do with mechanical failures (100 occurrences), while damage to equipment is also frequent among the rest of the 6 categories of events in total.

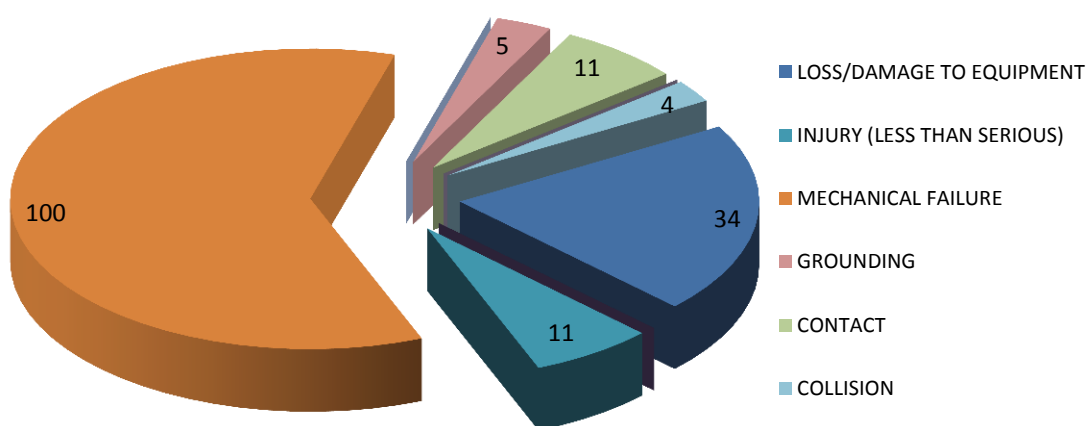


Figure 5: Dispersion of marine incidents

2. Overview of NDMCI occurrences from 2013 to 2020

2.1 Total number of occurrences per year

In 2020 the total number of reported occurrences to HBMCI were reduced by a considerable amount in relation to the previous year (approx. 41% reduction), while a reduction of the total number of accidents is also evident in comparison the previous years in which reporting capacity was more all less at the same levels (year 2015 and on).

This reduction should be examined under the scope of the restrictions due to the pandemic of COVID-19, which had an impact in the maritime domain. According to a relevant EMSA study² the impact on port calls for vessels flying the Greek flag was reduced by 20% for weeks 12 to 50 of 2020, while especially in terms of cruise and passenger vessels (passenger ships was the top category for occurrences reported by HBMCI to EMCIP from 2011 to 2019), the reduction of traffic activity has been significant. Thereafter, the reduction to the number of occurrences may well have been related to less vessel traffic within the year due to the COVID-19 restrictions.

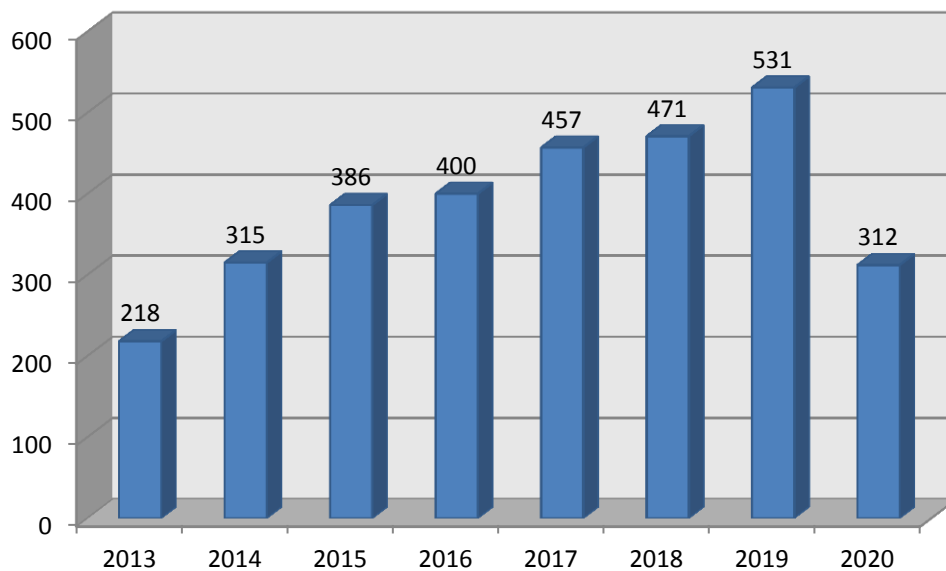


Figure 6: Annual figures of occurrences reported to HBMCI from 2013 to 2020

2.2 Number of occurrences' severity per year

In terms of relation among the 4 main classification categories of occurrence severity, there is a normal dispersion from marine incidents, which are the most in numbers to very serious marine accidents, which are a few. This is in analogy with the theory of statistics on accidents, which follows a pyramidal reduction from the bottom level of marine incidents to the top of very serious marine casualties.

²<http://www.emsa.europa.eu/newsroom/covid19-impact/item/4259-december-2020-covid-19-impact-on-shipping-report.html>

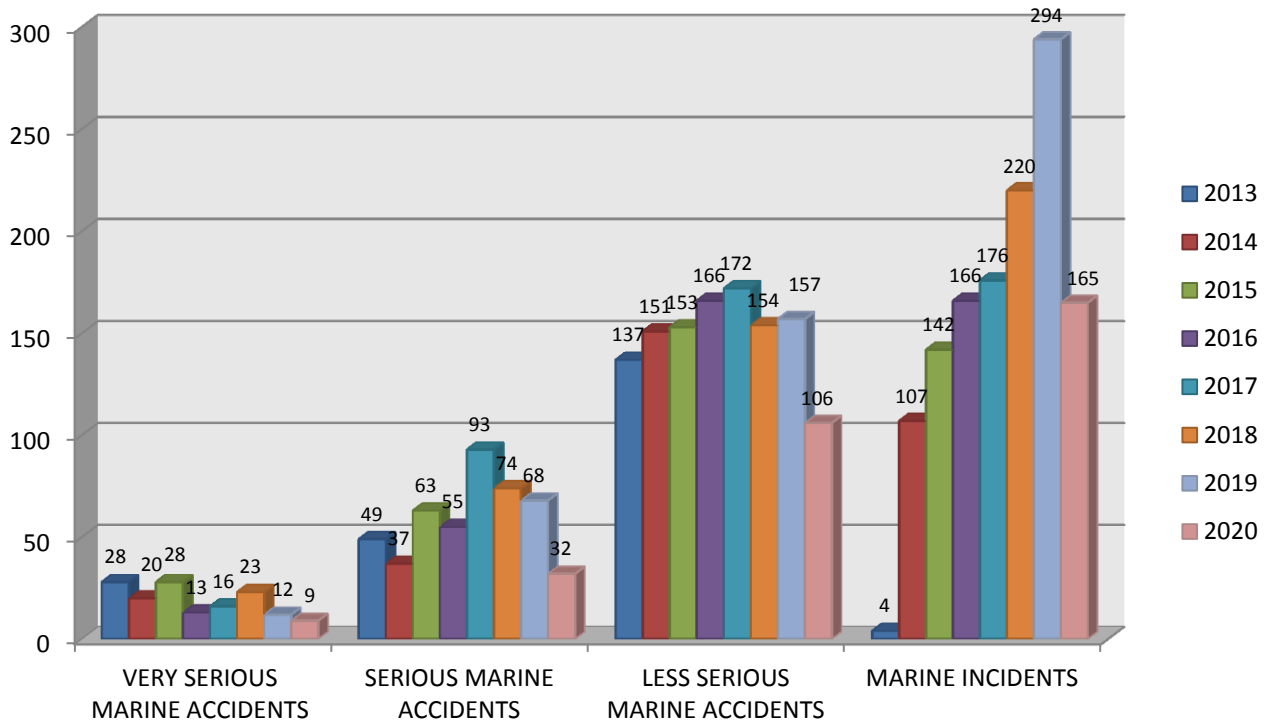


Figure 7: Dispersion of occurrences according to their severity, per year

It has to be noted though, that marine incidents in particular are deemed to be underreported since especially for some vessel types they are not recorded and reported at all (e.g. fishing vessels). However, on the positive side, marine incidents nowadays and ever since 2016 are reported to HBMCI in larger numbers than in the past.

3. EMCIP statistics

3.1 Occurrences reported by HBMCI for 2020

In 2020, HBMCI reported 232 occurrences in EMCIP so far. The number of total occurrences reported so far is different than the total number of occurrences reported in NDMCI, as there are still cases for which the occurrence report is pending, thus the necessary details for the EMCIP reporting have not been collected so far. Moreover, the scope of occurrences reported in EMCIP is different than the one of NDMCI, in terms of fishing vessels of less than 15 meters of length, due to the stricter framework which has been established by national law 4033/2011, in comparison with the AI Directive.

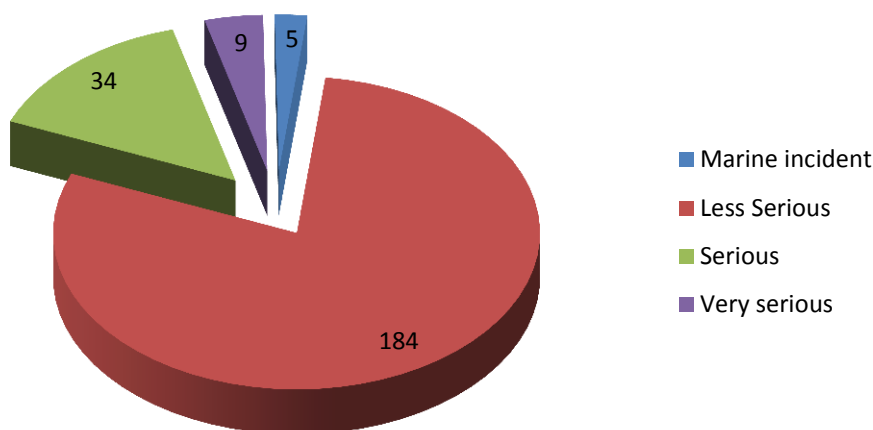


Figure 8: Occurrences reported by HBMCI to EMCIP for 2020

3.2 Occurrences in which Greece is SIS¹ for 2020

For the year 2020 one very serious occurrence (that is investigated by the Flag State of the vessel which is IMO member) and 3 occurrences of less serious severity and have been reported in EMCIP and have identified Greece and HBMCI as SIS and Interested Authority in respect.

3.3 Total occurrences reported by HBMCI by severity

The total number of occurrences reported by HBMCI in EMCIP, since 2011, is shown in the next figure in terms of severity per year. Like for the NDMCI decrease in the total occurrences for 2020, again the decrease in reported occurrences in EMCIP is hypothesized to be in direct connection with the impact of the COVID-19 restrictions in the maritime activities, in particular the decrease of marine traffic, which resulted in fewer occurrences.

¹SIS: Substantially Interested State, meaning these occurrences were reported to EMCIP by other EU Accident Investigation Bodies

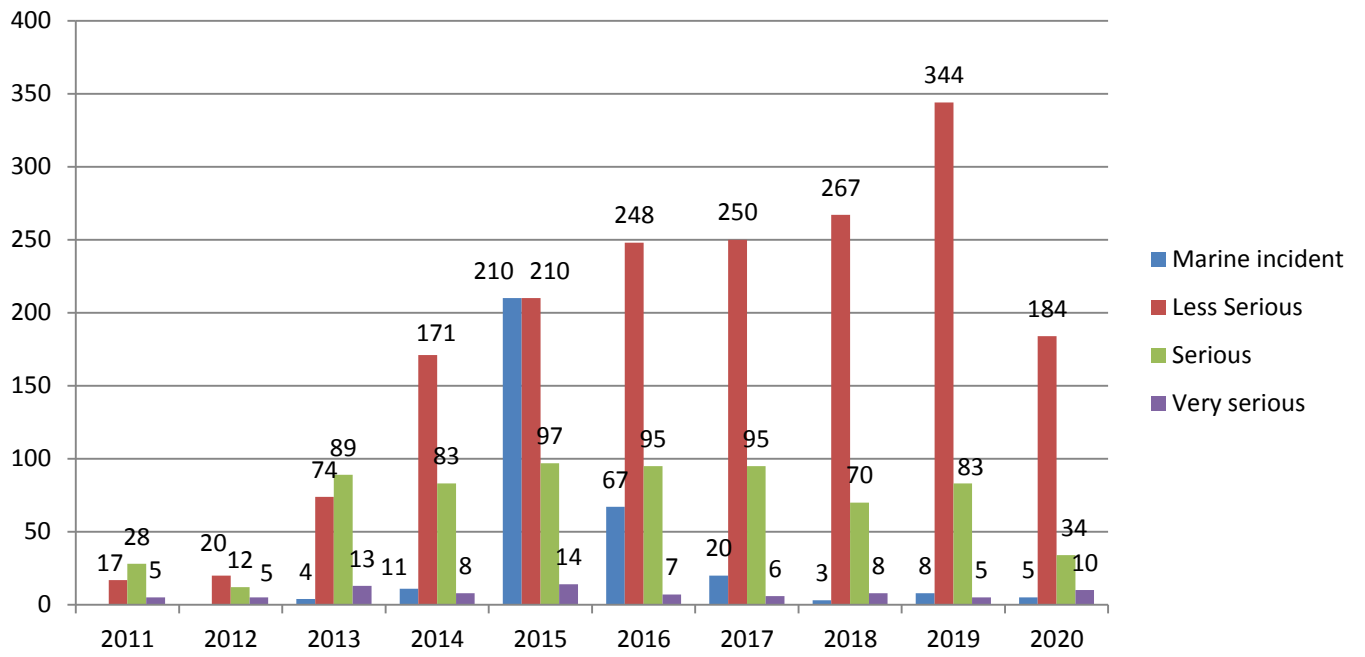


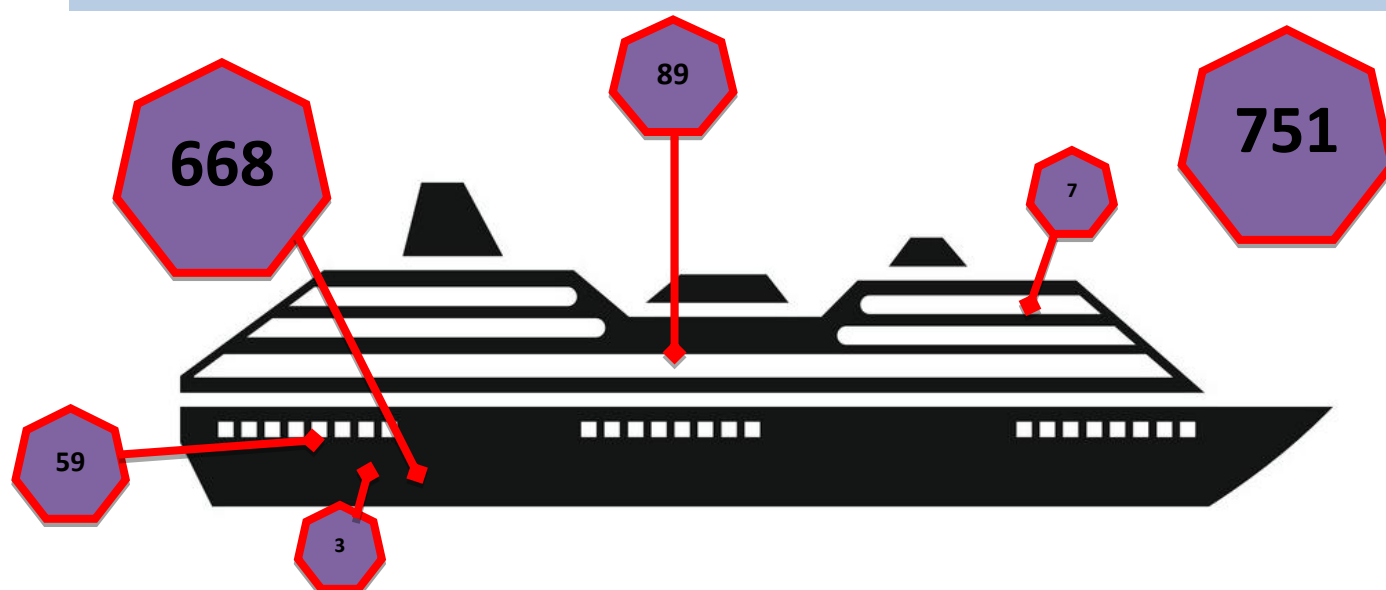
Figure 9: Occurrences reported by HBMCI in EMCIP, by severity

4. Occurrences reported in EMCIP by HBMCI per type of vessel and place on board

The following statistics have been introduced in EMCIP by HBMCI for the time period from 1-1-2013 until 31-12-2020. Place on board used in the following data is limited to level 1 of the relevant EMCIP values, while one occurrence may include more than one place on board reference, if the occurrence or its consequences extended to various places on board. For further details please refer to HBMCI.

The icons used to represent the various types of vessels are only indicative and do not necessarily depict any specific vessel.

4.1 Passenger ships (all types¹)

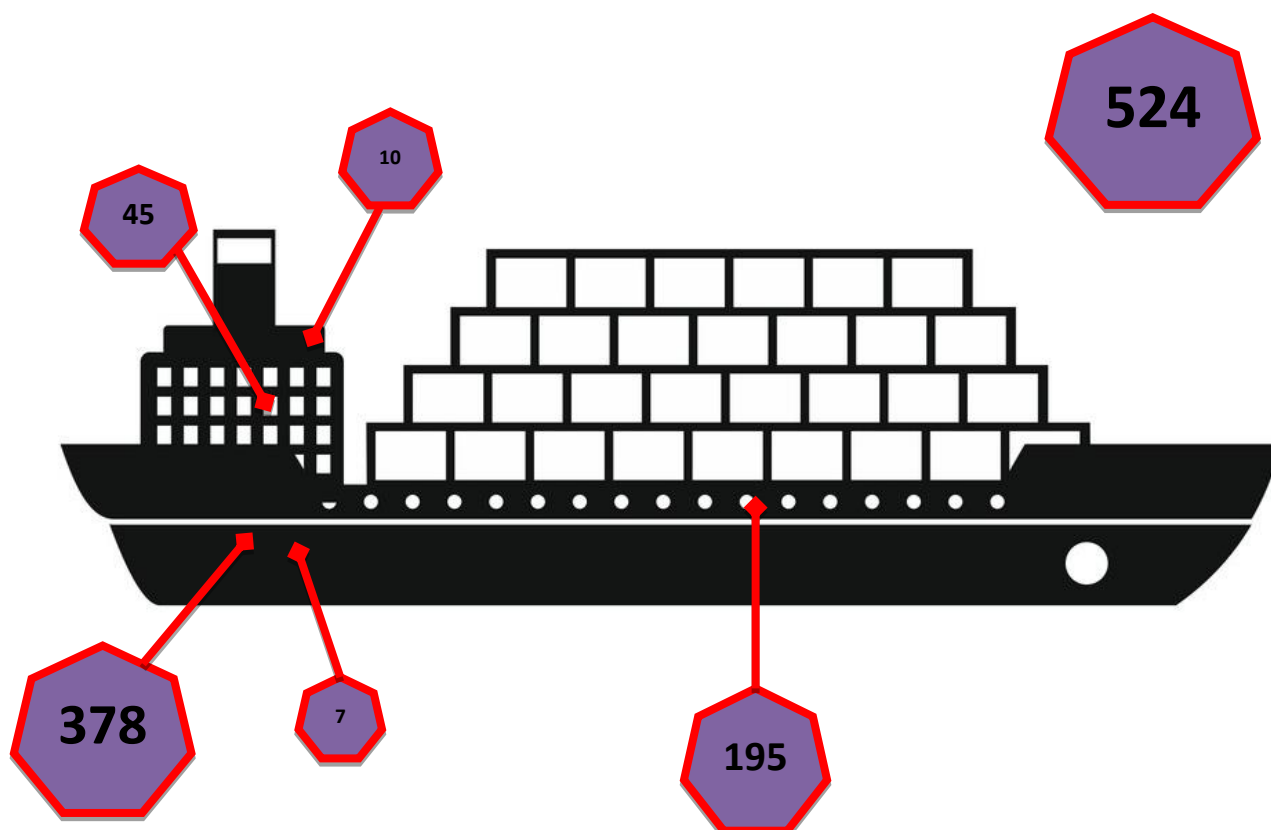


Place on board (level 1) / occurrence severity	Marine incident	Less serious marine accident	Serious marine accident	Very serious marine accident	Totals
Accommodation		71	16	2	89
Bridge		4	3		7
Cargo and tank areas		41	16	2	59
Engine department	1	564	101	2	668
Pumproom		1	2		3
Ship (other or not specified) ²	9	600	130	11	751
Totals	10	1.281	268	17	1.577

¹ Passenger ships' types (regardless of voyage type): Passenger, Ro-Ro Passenger, Passenger and General Cargo

² Ship (other or not specified) may include specific parts of the keel, the propeller/rudder/thruster, all vessel's quarters, bow, stern and the various ship's decks, except the ones of other categories.

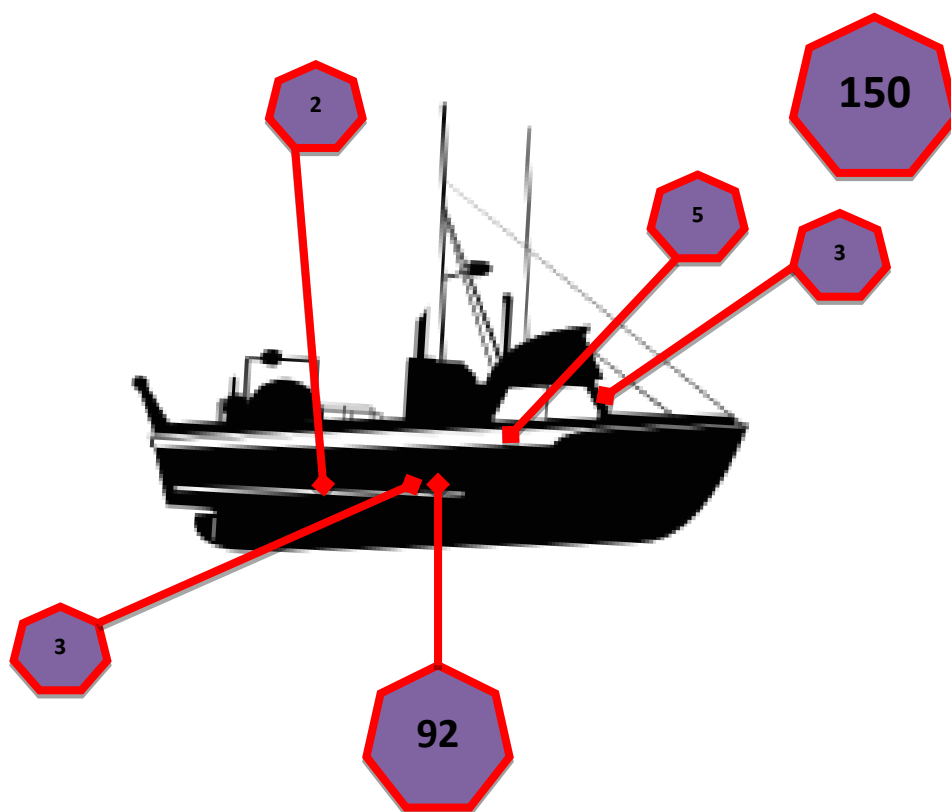
4.2 Cargo ships (all types¹)



Place on board (level 1) / occurrence severity	Marine incident	Less serious marine accident	Serious marine accident	Very serious marine accident	Totals
Accommodation	25	10	10		45
Bridge	5	4	1		10
Cargo and tankareas	82	35	59	19	195
Engine department	40	212	117	9	378
Pumproom	1	3	3		7
Ship (other or not specified)	167	219	116	22	524
Totals	320	483	306	50	1.159

¹ Cargo ships' types (regardless of voyage type): Bulk carrier, General cargo, Container vessel, Refrigerated cargo, Oil tanker, Chemical tanker, Combination carrier, Liquefied gas tanker (LNG / LPG), Livestock carrier, Cargo Barge, Ro-Ro cargo

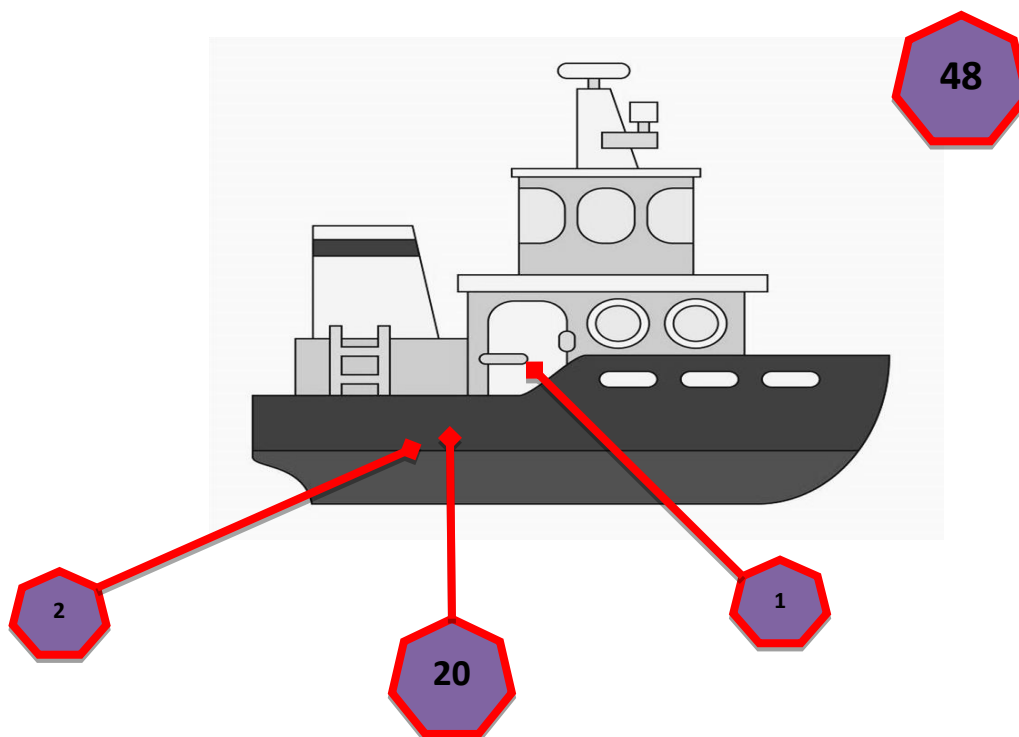
4.3 Fishing vessels (all types¹)



Place on board (level 1) / occurrence severity	Marine incident	Less serious marine accident	Serious marine accident	Very serious marine accident	Totals
Accommodation		2	3		5
Bridge		1	2		3
Cargo and tank areas		2			2
Engine department		23	65	4	92
Pumproom			3		3
Ship (other or not specified)		74	62	14	150
Totals	0	102	135	18	255

¹ Fishing vessels' types (regardless of voyage type): seiner, trawler, dredger, liner, multipurpose

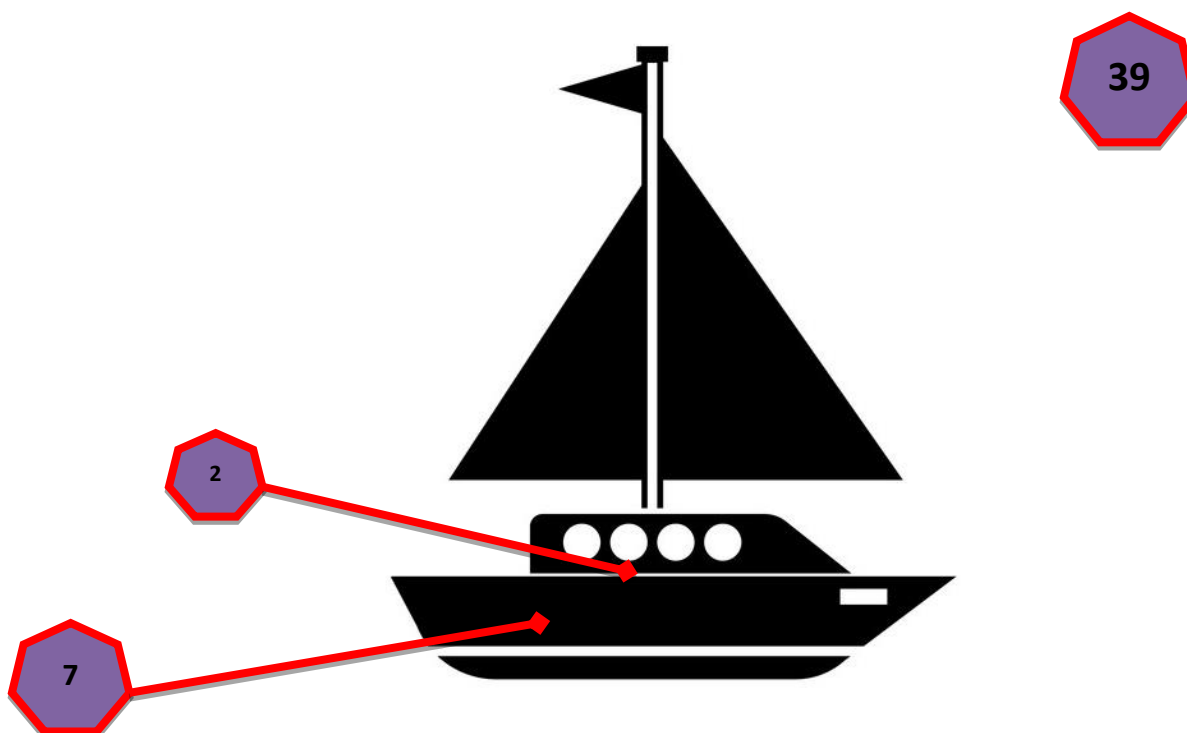
4.4 Service ships (all types¹)



Place on board (level 1) / occurrence severity	Marine incident	Less serious marine accident	Serious marine accident	Very serious marine accident	Totals
Accommodation		1			1
Cargo and tank areas		1		1	2
Engine department		13	6	1	20
Ship (other or not specified)		25	19	4	48
Totals	0	40	25	6	71

¹ Service ships' types (regardless of voyage type): tug boat, offshore supply vessel, research ship, multipurpose, other service ship

4.5 Recreational crafts (all types¹)



Place on board (level 1) / occurrence severity	Marine incident	Less serious marine accident	Serious marine accident	Very serious marine accident	Totals
Accommodation		1	1		2
Engine department		2	4	2	8
Ship (other or not specified)		29	11	6	46
Totals	0	32	16	8	56

¹ Recreational crafts' types (regardless of voyage type): motorboat, sail boat, other types of recreational crafts involved in occurrences reported by HBMCI (not necessarily under the scope of the AI Directive)

5. EMCIP GIS images

The GIS¹ module of EMCIP allows for an overview of the geographical dispersion of occurrences in the areas under focus. It should be mentioned here, that this dispersion is not related in terms of safety with the specific waters included in the demonstrated maps, as the number of occurrences depicted is subject to various factors and filters applied in the extraction of data (e.g. reporting performance of AIBs, time period under scope, etc.).

In the next pages, the maps included in the next pages provide an image of the geographical dispersion of the occurrences reported to EMCIP by HBMCI (time period 2011-2020), excluding the “historical” occurrences². Further information and details for these statistical maps may be sought through HBMCI.

5.1 Very serious marine accidents reported to EMCIP by HBMCI

5.1.1 World map

The very serious marine accidents reported to EMCIP by HBMCI, are projected geographically in the world map of the next figure.



Figure 10: Geographical dispersion of very serious marine accident reported to EMCIP by HBMCI (world map)

¹ GIS: Geographical Information System

² Historical: occurrences which took place before the AI Directive came in force, on 17-06-2011.

5.1.2 European territory

When focusing to the European territory, the geographical dispersion of very serious marine accidents reported to EMCIP by HBMCI is shown in the next figure.

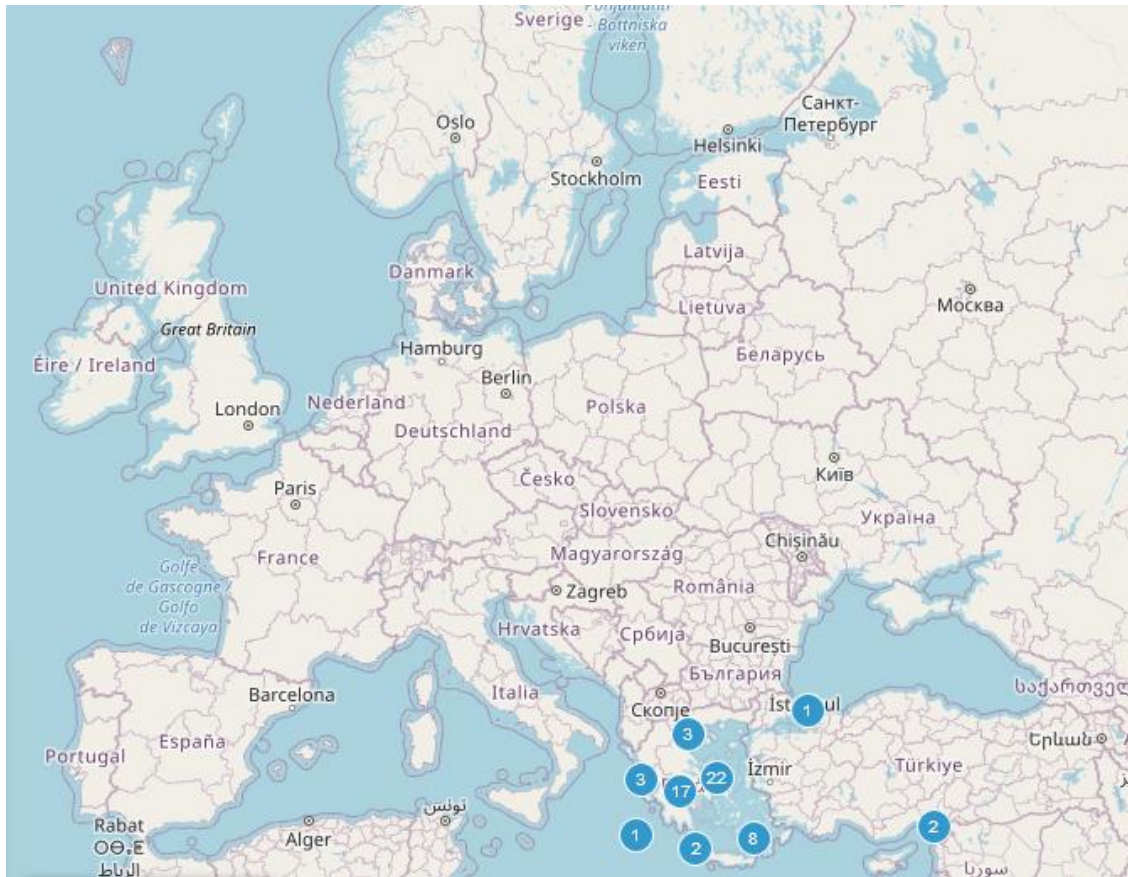


Figure 11: Geographical dispersion of very serious marine casualties reported to EMCIP by HBMCI (European territory focus)

5.1.3 Hellenic territory

At Hellenic territory focus, the geographical dispersion of very serious marine accidents reported to EMCIP by HBMCI is demonstrated in the following figure.

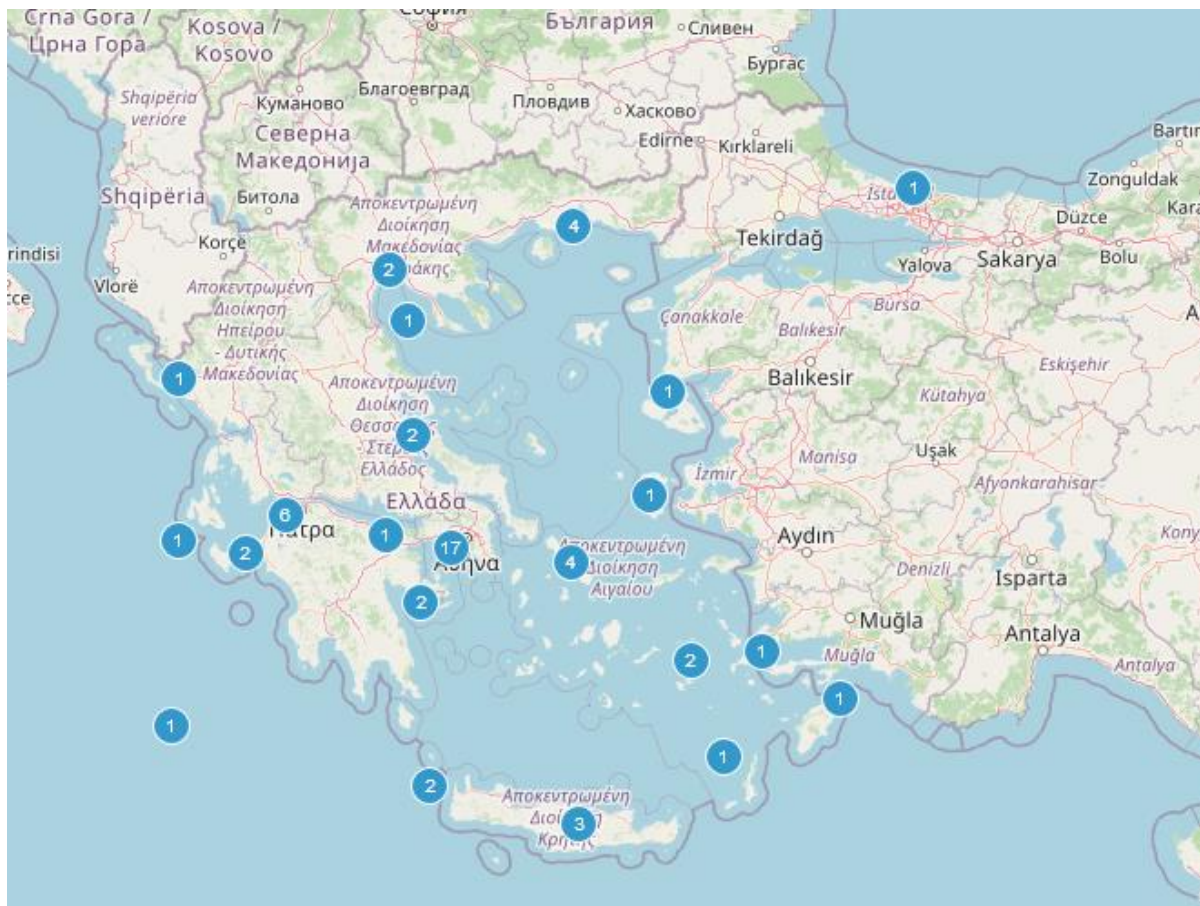


Figure 12: Geographical dispersion of very serious marine accidents reported to EMCIP by HBMCI (Hellenic territory)

5.2 Occurrences (except “very serious marine accidents”)¹ reported to EMCIP by HBMCI

5.2.1 World map

For the occurrences other than “very serious marine accidents”, the geographical dispersion in the world map is shown in the next figure, for a sum of 2769 occurrences.

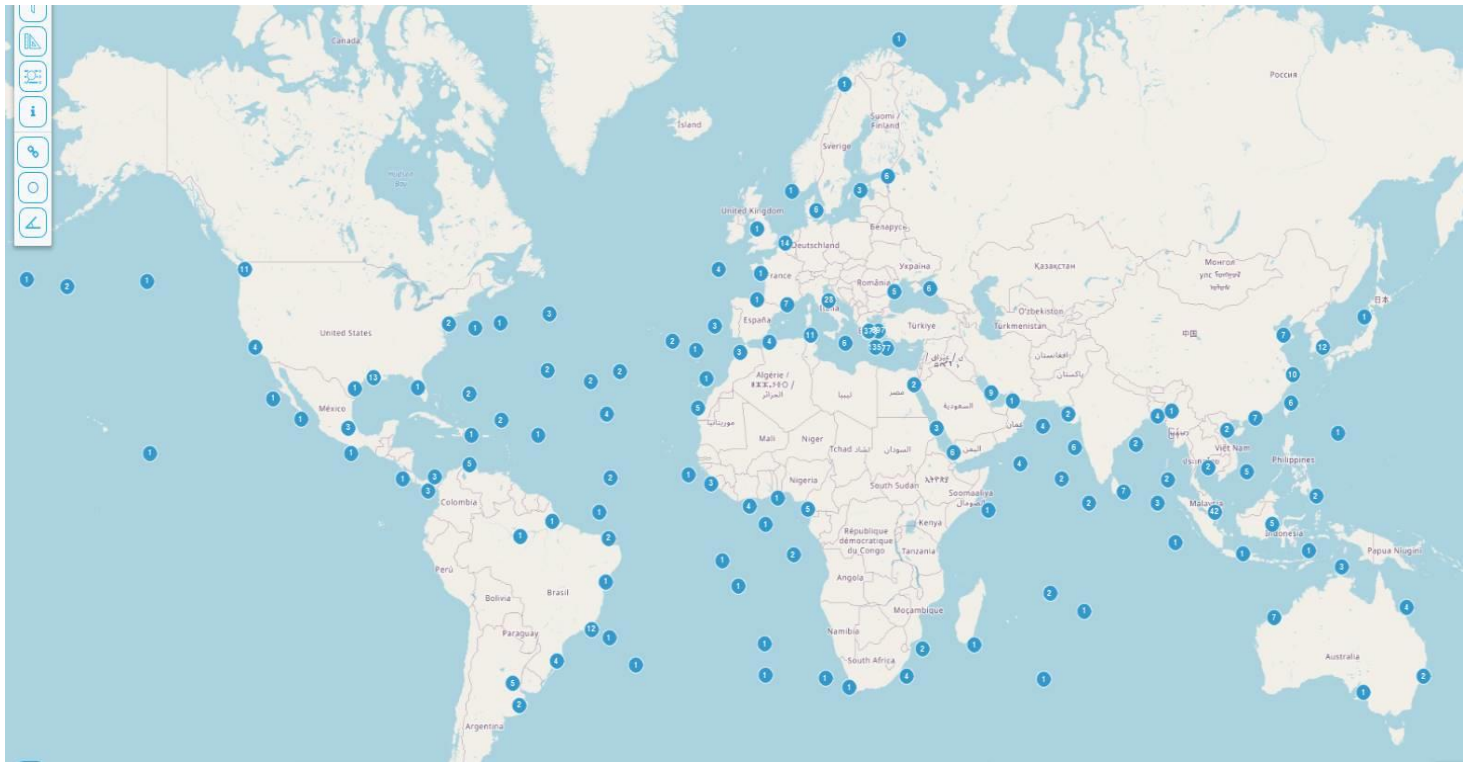


Figure 13: Geographical dispersion of occurrences other than “very serious” reported to EMCIP by HBMCI (world map)

¹ This category includes all marine incidents as well as all marine accidents except “very serious”

5.2.2 European territory

For occurrences other than “very serious marine accidents”, the geographical dispersion for the European territory is shown in the next figure.

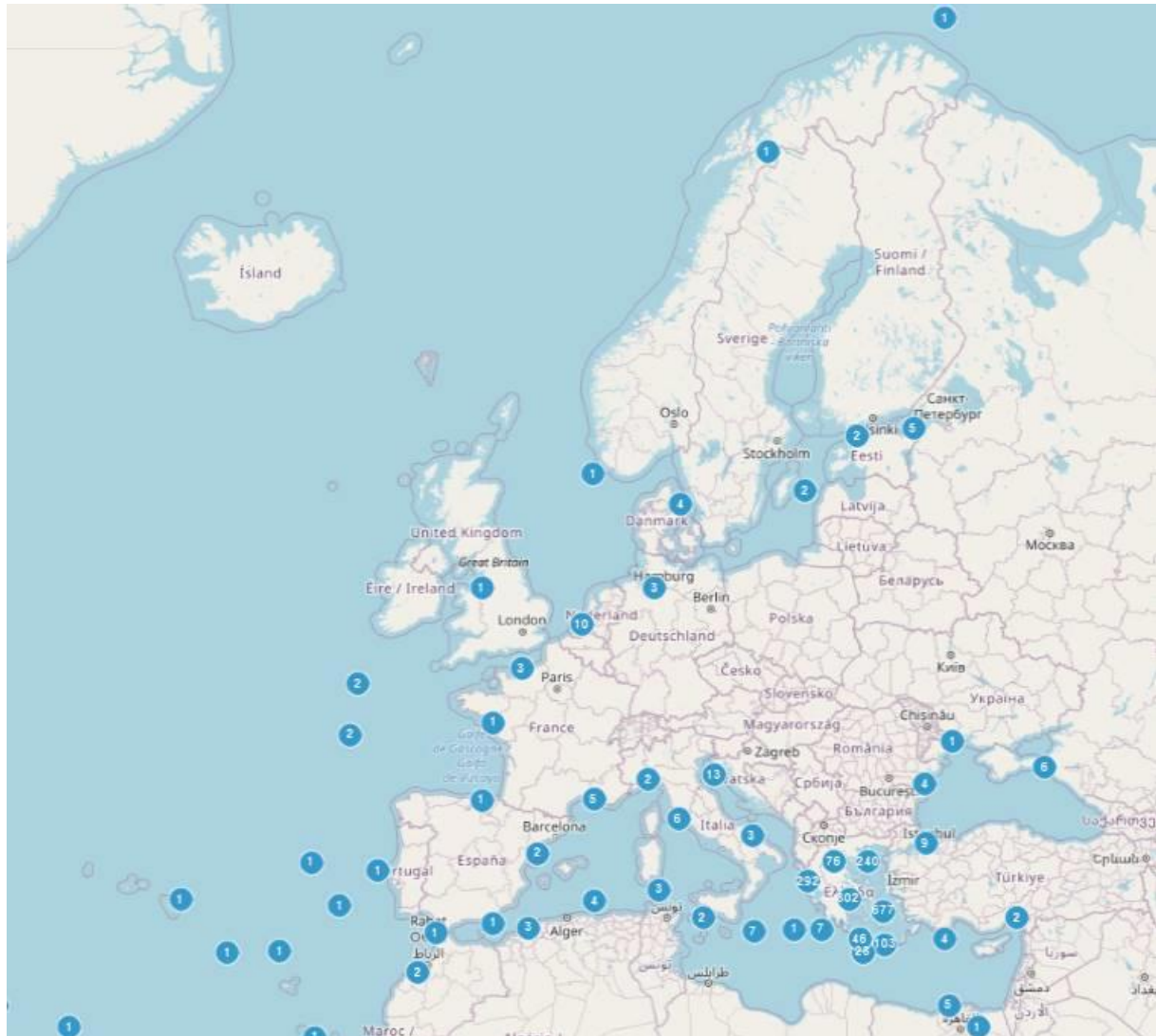


Figure 14: Geographical dispersion of occurrences other than “very serious” reported to EMCI by HBMCI (European territory)

5.2.3 Hellenic territory

Occurrences reported to EMCIP by HBMCI, which exclude “very serious marine accidents”, within the Hellenic territory are projected in the next figure.

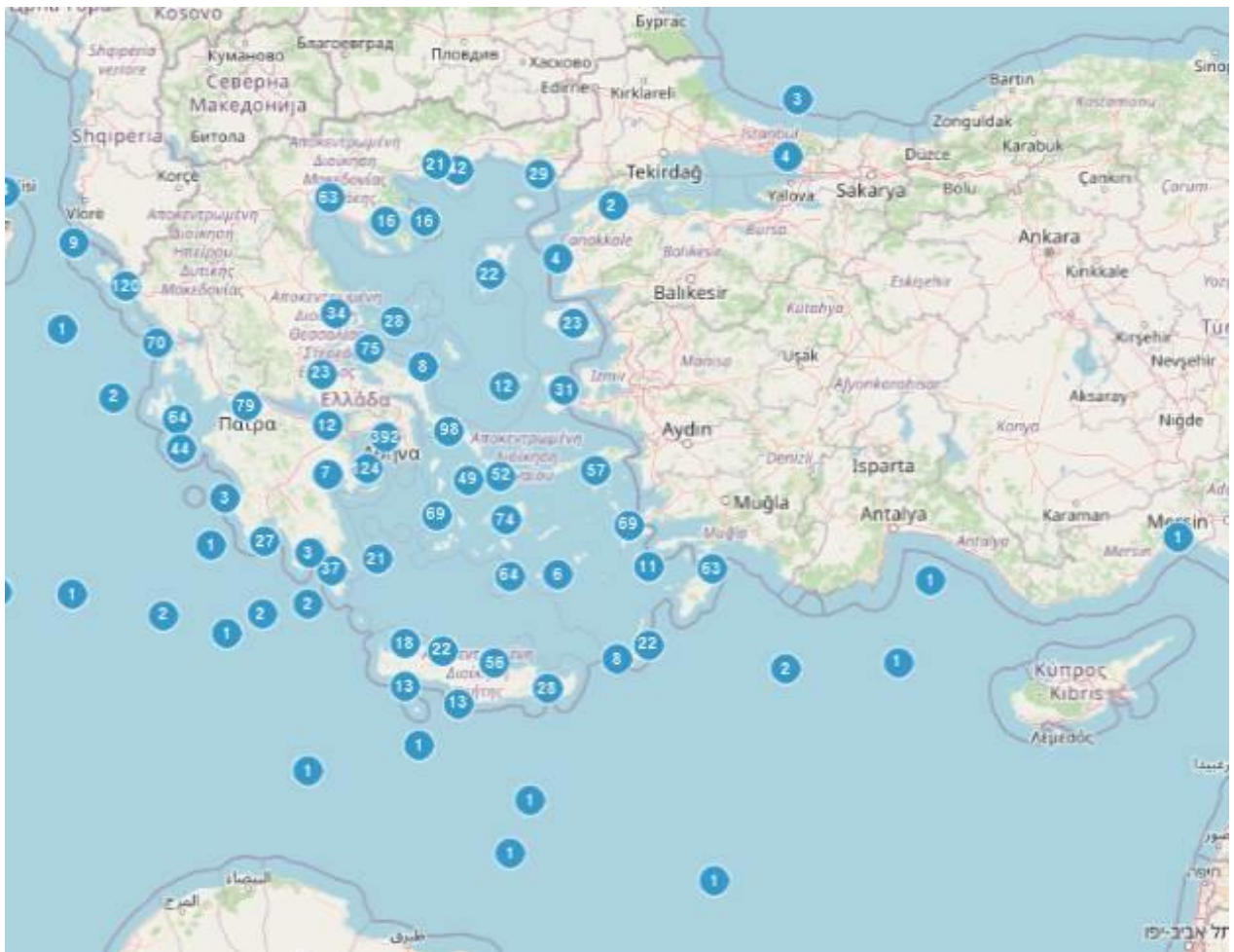


Figure 15: Geographical dispersion of occurrences other than “very serious” reported to EMCIP by HBMCI (Hellenic territory)

Epilogue

HBMCI's report was produced based on the updated statistics of the NDMCI and EMCIP, on the 15th of February 2021. HBMCI does not hold any responsibility in case these statistics are further updated in terms of altering data which affect properties of the occurrences (e.g. occurrence type, occurrence severity, etc.).

For further details and data requests from HBMCI, please address your application to HBMCI's contact information as displayed on the "Contact" page of the Bureau's website, following the link:

<http://www.hbmci.gov.gr/contact.htm> (Greek version)

<http://www.hbmci.gov.gr/contacten.htm> (English version),

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