European Maritime Safety Agency

MARINE CASUALTIES AND INCIDENTS

SUMMARY OVERVIEW 2011-2015

EMSA

TAKING A BROADER VIEW IN ACCIDENT INVESTIGATION

It is with great pleasure that I introduce this new publication based on EMSA's activities in the field of accident investigation. EMSA's role begins with support to the accident investigation bodies of the Member States, but it also goes much further. At the heart of EMSA's support role is EMCIP, the database of accidents that is populated by the accident investigation bodies which already contains details of over 12 000 incidents that have occurred since it was set up in 2011.

Learning from accidents is an essential part of any safety regime, but the value of looking across such a large fund of information, on a European scale, adds a context that can be used as a basis for sound decision-making.

Already data from EMCIP has contributed to studies on passenger ship damage stability and ro-ro vehicle deck fires that, within IMO's Formal Safety Assessment framework, will support on-going discussions at an international level.

As the database grows, by more than 3000 casualties and incidents per year, the future for EMCIP as a decision support tool is immense. The information contained in this publication, and in the more detailed overview of statistics that is available online, is just the start.

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Markku Mylly
Executive Director

Background

The framework for accident investigation in the EU is set out in Directive 2009/18 EC. The EU Member States each have accident investigation (AI) bodies which are established to be independent of potentially interested parties, including the maritime administration.

The AI bodies work within the Permanent Cooperation Framework (PCF) to establish common practices including a taxonomy for describing accidents and incidents. EMSA supports their work within PCF and the taxonomy has become the heart of the EMSA-run European Maritime Casualty Information Platform (EMCIP). In the short time since it was established, the Member States' accident investigation bodies have populated EMCIP with details of over 12 000 accidents and incidents and the conclusions of 584 investigations.

Every year EMSA uses the data in EMCIP, analysed according to the taxonomy, to publish the Annual Overview of Marine Accidents. The full overview is available for download from EMSA's website but a selection of the data has been extracted and is included in this brochure.

The scope of the AI Directive, and hence of the work of the AI bodies and of the data within EMCIP, covers all accidents and incidents that have an EU interest. This is described in the Directive as casualties and incidents that:

- involve ships flying the flag of one of the Member States
- occur within Member States' territorial sea and internal waters as defined in UNCLOS, or
- involve other substantial interests of the Member States (for example, involve EU citizens).

Around 85% of the ships involved in casualties and incidents recorded in EMCIP are EU Member States flagged.

Overview of key figures for 2015

3 296
ACCIDENTS AND INCIDENTS

115
FATALITIES

976
PERSONS INJURED

36
SHIPS LOST

64
POLLUTION EVENTS

125
INVESTIGATIONS LAUNCHED BY EU MEMBER STATE AI BODIES

Data overview

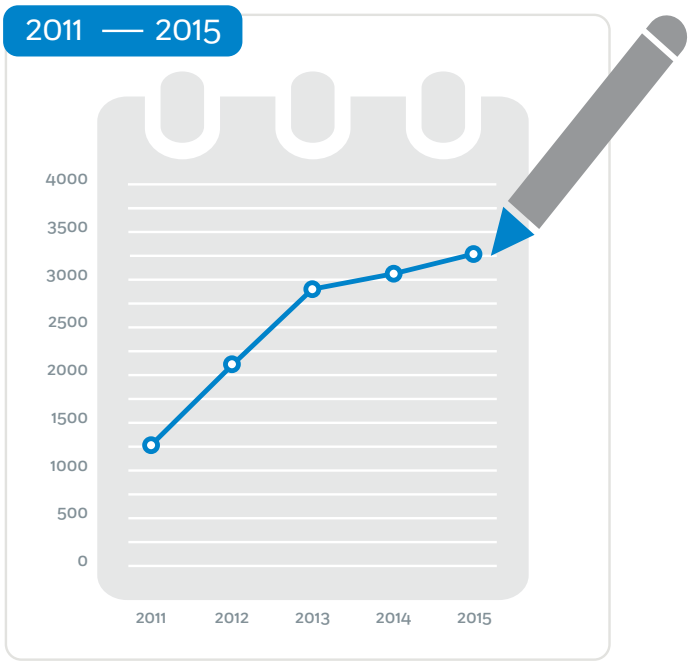
Comparisons with other data sources indicate that there is still some under-reporting as Member States' AI bodies progressively implement reporting to EMCIP.

However, the increase in numbers of casualties and incidents reported has become proportionally smaller each year, indicating that the system is approaching full implementation. Once that stage is reached, the true year-on-year trends will become more visible.

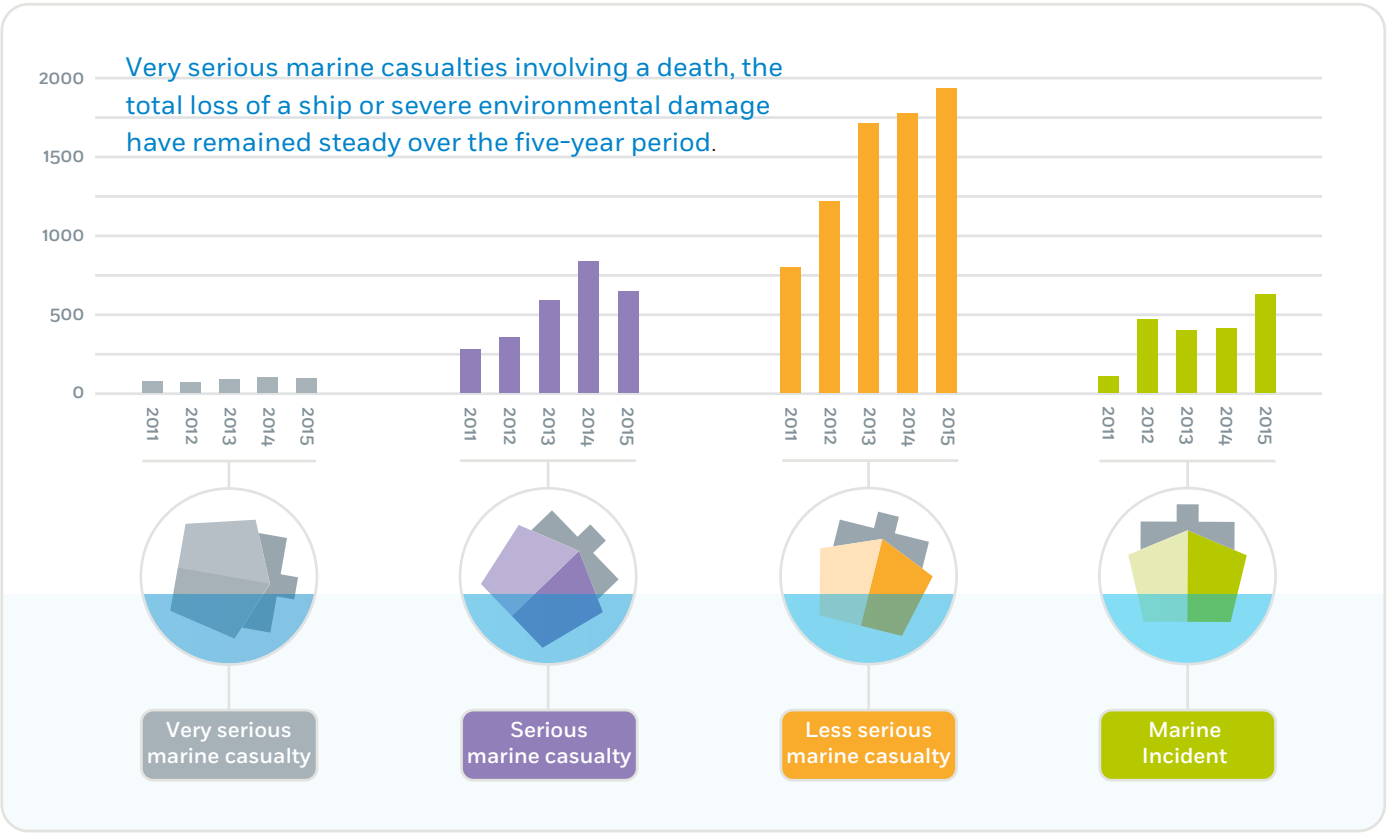
Under-reporting relates mostly to the less serious casualties and incidents, while more serious casualties remained at levels similar to previous years.

The chart illustrates this, while noting that the reduction of serious casualties is the consequence of a modification in the classification of injuries, as is the corresponding increase of less serious casualties and incidents.

Reporting of marine casualties & incidents



Number of marine incidents and casualties per severity



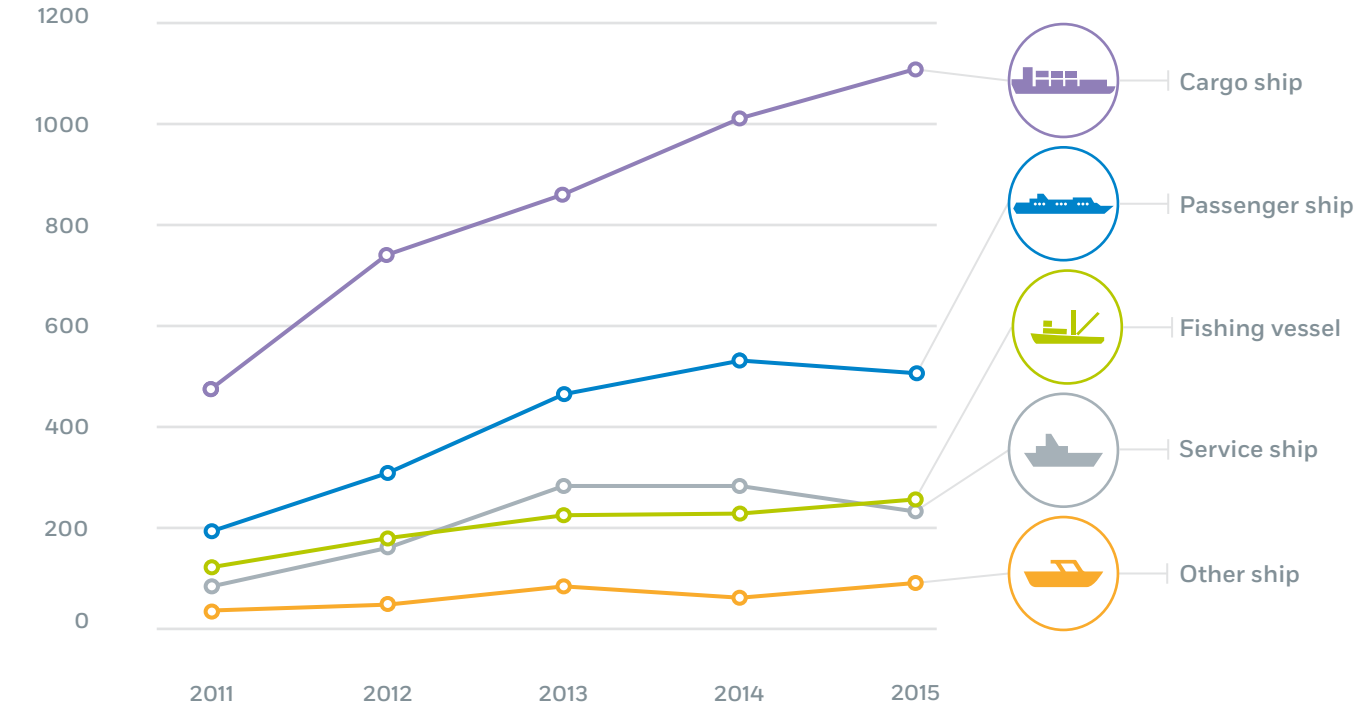
Casualties with ships

In EMCIP, marine casualties are separated into two different categories: a “casualty with a ship”, where a ship, persons on board, equipment or cargo is affected by an accident, and an “occupational accident”, where the accident affects only persons. Of the 3296 accidents and incidents recorded in 2015, 2198 were casualties with ships, and the remainder were occupational accidents.

While the year-on-year increase reflects the progressive implementation of reporting of the less severe accidents and incidents, the relative distribution between the main ship types remains similar. Of particular note are the 43 ships that were each involved in more than 10 casualties.

Over the period 2011-2015, half of the casualties with a ship were of a navigational nature, such as contacts, grounding/stranding or collision.

Casualty with a ship by ship category

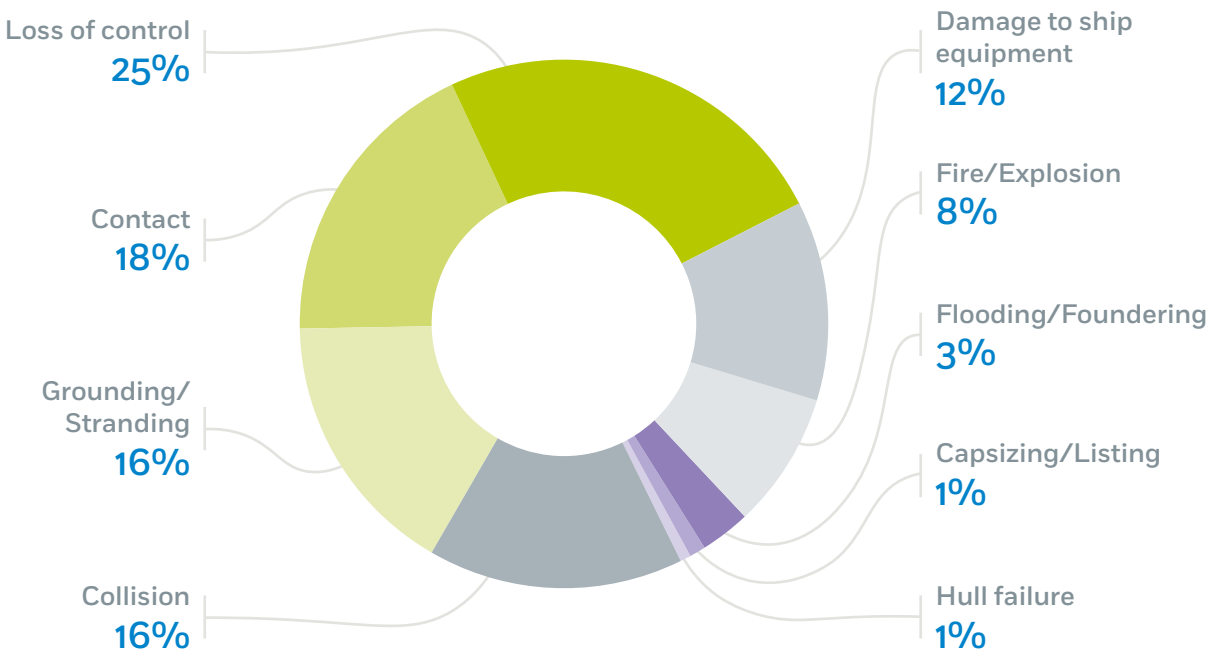


While transiting on a river in the south of Spain on 11/1/2014, the route of the MV CITADEL had to be diverted to avoid collision with a small boat and subsequently the MV CITADEL ran aground.

Casualties with ships (cont.)

Main causes of accidents

2011 — 2015



Top 5 main causes of accidents in 2015

In the night of 29/4/2013, M/V CONSOUTH and M/V PIRIREIS collided in the south west end of the Peloponnese, Greece. The M/V PIRIREIS sank within a few minutes and ten crew members lost their lives.

Occupational accidents

Around one third of all marine casualties and incidents are occupational accidents, i.e. affecting only persons. Of these, “stumbling and fall of persons” was the most frequent event (39%), followed by “loss of control” (19%) and “body movement without physical stress” (18%).

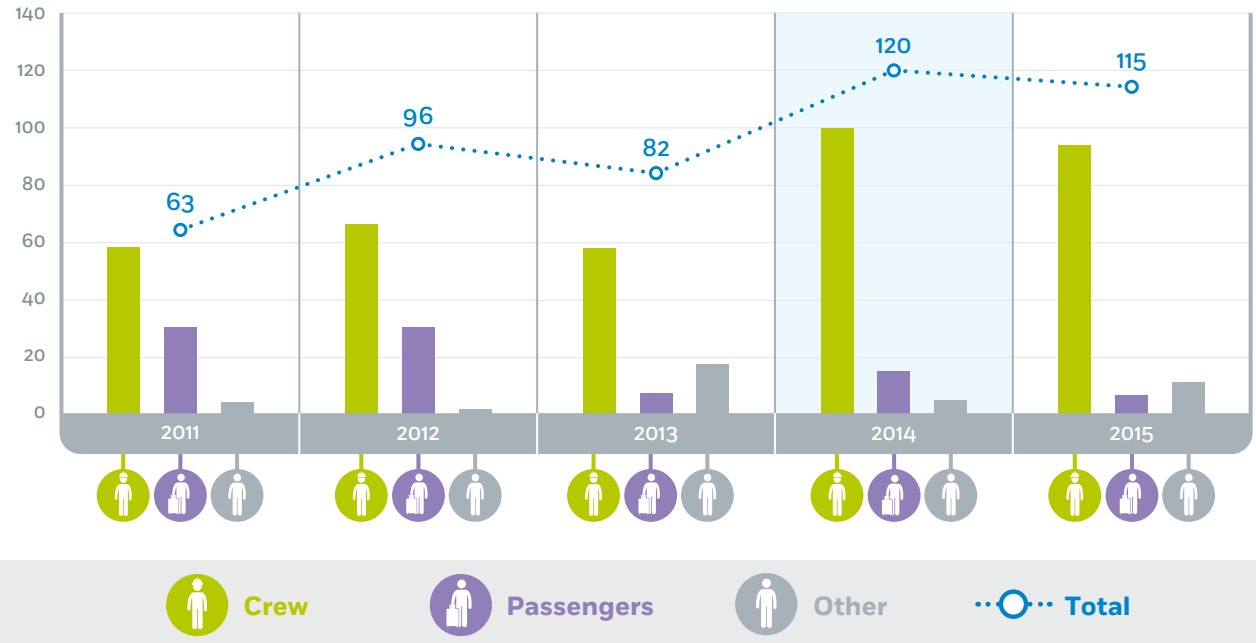
	2011	2012	2013	2014	2015
Slipping - Stumbling and falling - Fall of persons	150	272	351	**404**	401
Loss of control of machine, means of transport, handling equipment	75	135	192	179	**202**
Body movement without any physical stress	64	123	150	187	**219**
Breakage, bursting, splitting, fall, collapse of material agent	27	42	63	**103**	92
Body movement under or with physical stress	27	47	**68**	50	48
Deviation due to electrical problems, explosion, fire	14	34	45	45	**67**
Deviation by overflow, overturn, leak, flow, vaporisation, emission	1	6	15	18	**20**
Other / Unspecified	11	17	22	23	**49**

Seven seamen on board the chemical oil product tanker, BOMAR MERCURY, suffered from gas intoxication while the ship was moored to a buoy in the Geul port of Rotterdam on 21/7/2015.

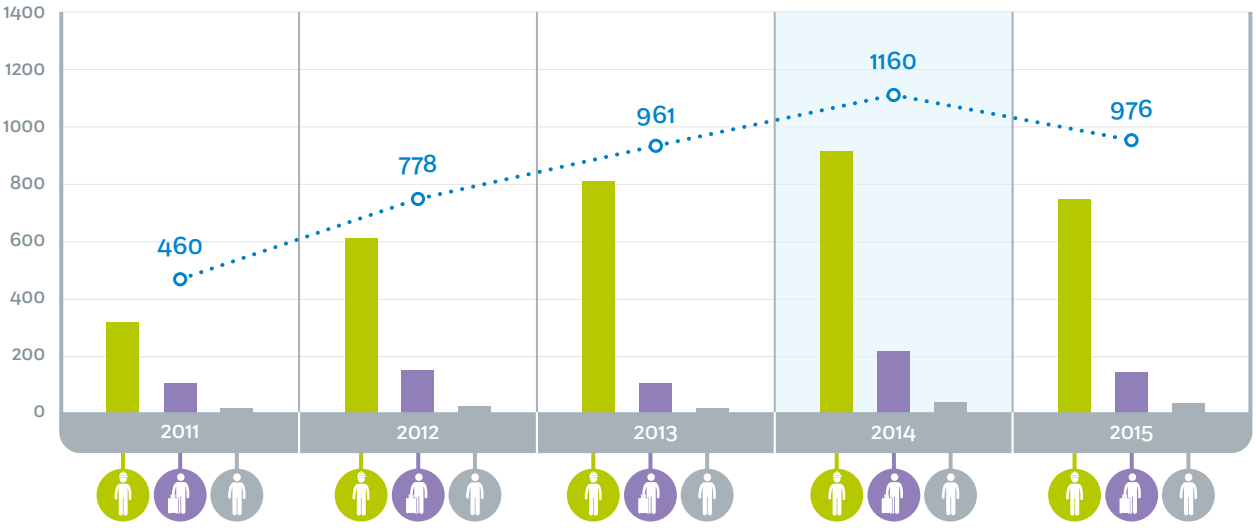
Consequences to persons

Fatalities as a consequence of a casualty with a ship mainly occurred following a collision (15%), a flooding/foundering (15%) or capsizing/listing (12%). Slipping/falls of persons was the main cause of fatalities due to occupational accidents. Similar patterns were seen with injury statistics.

Fatalities



Injuries



11 persons died, 12 went missing and 31 were injured after a fire broke out on board the NORMAN ATLANTIC on 28/12/2014