



Bundesstelle für Seeunfalluntersuchung
Federal Bureau of Maritime Casualty Investigation
Federal Higher Authority subordinated to the Ministry of Transport,
Building and Urban Development

2010 Annual Report



Distressed fishing vessel, BSU Investigation Report Ref.: 7/10 published on 01/11/2010
Source: Irish Coast Guard

Content

Foreword	3
Organisation	4
Investigation teams	5
Competence	6
Definitions	7
BSU – Publications.....	8
Safety recommendations.....	8
Main investigations.....	9
Inside BSU.....	11
Marine casualties in total.....	13
Marine casualties in German waters	13
Marine casualties on German vessels	14
Marine casualties from 2006 to 2010	15
Investigated marine casualties that were concluded with an investigation report in 2010.....	16
Investigated marine casualties that were concluded with an internal investigation report in 2010..	17
Ongoing investigations at 31 December 2010	18
Ongoing investigations at 31 December 2010, published between January and June 2011	19
Total reports and marine casualties reported in 2010.....	20
Breakdown of marine casualties by type of accident and vessel.....	21
Breakdown of marine casualties by cause of death and injuries	23

Foreword

2010 was a year in which the volumes transported by maritime shipping rose again, both nationally and internationally, after the international economic and financial crisis overcame its low point. Accordingly, the number of vessel movements also rose again. However, this did not necessarily lead to an increase in the frequency of accidents on the open seas.

In the course of operating a vessel, misjudgement of situations that give rise to or facilitate marine casualties occur time and again, regardless of the current economic trend.

After an accident, the analysis of technical recordings continues to be of increasing importance to determining the causes. With that in mind, it is important that the BSU arrives at the scene of the accident promptly with the investigation team. To ensure this, the BSU is available and at the ready around the clock seven days a week via its on-call service. For example, one major investigation in 2010 concerned the fire on the ro-ro ferry LISCO GLORIA. The cause of the accident had not been conclusively determined by the time this annual report was drawn up; however, thanks to the timely intervention of the BSU's on-call staff and the analysis of the voyage data recorder it was possible to make important initial findings with respect to this case.

Unfortunately, despite the generally high level of competence among crews, accidents involving pleasure craft continue to occur. Here, personal skills in relation to the area of operation and seaworthiness of the pleasure craft are misjudged.

Our goal has been and still is to identify the causes of a marine casualty and in so doing help prevent similar accidents in

future. The investigations do not serve to ascertain fault, liability or claims.

The pressures placed on the public purse and concomitant obligation of the public authorities to the taxpayer to save money have led to a reduction in staffing from 12 to 11 employees at the Federal Bureau of Maritime Casualty Investigation. Different administrative activities have been outsourced and, in the interest of centralised services, pooled with other authorities in order to exploit synergies, and thereby reduce cost.

An investigation by the Federal Audit Office has confirmed to the BSU that it has satisfied its mandate with the work it carries out.

On the other hand, obligations and expectations are rising in terms of a marine casualty investigation, not least because of new European and international standards. Complying with the necessary financial constraints, on the one hand, and the statutory obligations, on the other, will continue to be the aim of the BSU in the future. Here, professional competence, enthusiasm and the staff's willingness to learn remain essential prerequisites.

I am convinced that together with its employees the BSU will be able to continue the work it has carried out so successfully during the past year and I would like to use this opportunity to extend my thanks for the effort made. I would like to thank all of the BSU's marine casualty investigation partners for their confidence and hope that our positive working relationship will continue in the future in the interest of the common goal of enhancing maritime safety.

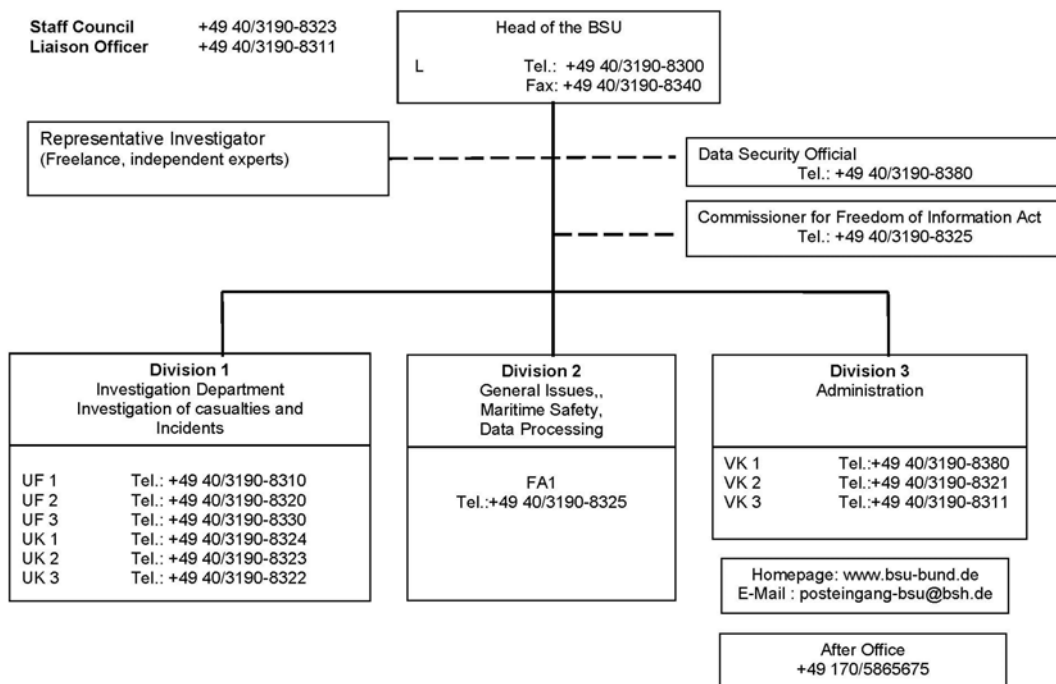
Jörg Kaufmann

Organisation

The Federal Bureau of Maritime Casualty Investigation is a federal higher authority based in Hamburg and is staffed by 11 employees. It has a single-level administrative structure and is under the direct supervision of the Federal Ministry of Transport, Building and Urban Development.

Necessary decisions are made quickly and independently by the BSU's director. In particular, the decision as to whether an investigation is initiated rests with him. He represents the BSU outwardly at national, European and international level. Moreover, he is responsible for the strategic planning and control. He is also responsible for the press, media and general PR work.

BSU organisational chart



Investigation teams

The BSU is on-call at all times and can be reached 24 hours a day, 7 days a week.

EMERGENCY PHONE NUMBER: +49 (0) 170 – 58 65 67 5

Accessibility is ensured by the staff of the Investigation Unit in Division 1. These are the people who initiate or coordinate the necessary first measures within the shortest possible time and who arrive at an accident scene should the need arise.

Division 2 provides the necessary support for technical matters, such as securing and analysing technical recordings; this takes place on board vessels and ashore.

Administrative support is provided by the staff of Administration in Division 3.



Investigation at the scene after a fire on board the ro-ro ferry LISCO GLORIA, BSU Investigation Ref.: 445/10,
investigation ongoing at 31/12/2010
Source: BSU

Competence

The Maritime Safety Investigation Law (SUG) forms the basis for the work of the BSU.

It defines the competence of the Federal Bureau of Maritime Casualty Investigation (BSU) for the investigation

- of marine casualties on or involving vessels of all flags
 - within German territory;
 - within the German Exclusive Economic Zone (EEZ);
 - in the case of traffic movements to and from ports on the navigable maritime waterways.

- of marine casualties on or involving sea-going vessels under German flag worldwide;

- if the Federal Republic of Germany has a substantial interest in the investigation of a marine casualty abroad.

Sea-going vessels as defined by the SUG also include 'sea-going' pleasure craft, meaning the BSU will also perform investigations on such vessels following marine casualties.



Capsized yacht off St. Peter-Ording, BSU Investigation Report Ref.: 533/09,
published on 17/01/2011
Source: WSA Tönning

Definitions

The term 'marine casualty' is defined by the Maritime Safety Investigation Law (SUG) as follows:

1. the death, disappearance or serious injury of a person;
2. the actual or presumptive loss, shipwreck, grounding, abandoning or collision of a vessel;
3. damage to the marine environment as a result of damage to one or more vessels or any other kind of material damage;
4. danger to a human being or a vessel, or the risk of heavy damage to a vessel, an off-shore structure or the marine environment.

Depending on the consequences, the generic term 'marine casualty' is divided further into:

Very serious marine casualty (VSMC):

Fatality, constructive total loss of a vessel, or an accident with more than 50 t of pollutant discharge

Serious marine casualty (SMC):

Accident which is not classified as a VSMC, but where support from outside the vessel is needed to cope with the consequences (medical assistance, towing support, fire fighting, and the like)

(Less serious) marine casualty (LSMC):

All marine casualties not classified as a VSMC or SMC

Incident:

Near misses with dangerous side effects and so-called minor cases with only marginal damage

BSU – Publications

All the reports published by the BSU are available for reading sorted by year of publication on the BSU website (www.bsu-bund.de) under 'Publications'.

Overview 2010

- In 2010, 17 marine casualty investigations were concluded with a main report.
- In 2010, 577 new incidents were reported to the BSU, including 116 marine casualties.
- After preliminary investigations, nine of these marine casualties were not investigated extensively and concluded with an internal report in 2010.
- 24 marine casualties were investigated extensively in the course of a main investigation.
- One main investigation was conducted jointly with another country and 23 main investigations by the BSU alone.
- 30 investigations were not completed in 2010 and are being continued in 2011.

The criterion for the decision as to whether accidents are either not investigated at all or only in the course of a preliminary investigation is whether new findings can be obtained from an investigation. Cases that are discontinued after a preliminary investigation are usually concluded with an internal report. Main investigations that contrary to expectations do not give rise to important conclusions with respect to preventing future accidents, for example, because matters pertaining to safety have been discussed previously in a similar accident, are usually concluded with a summary investigation report. This does not contain safety recommendations but may refer to previous recommendations of the BSU.

Safety recommendations

A marine casualty investigation of the BSU focuses exclusively on safety. Regardless of whether the case in hand concerns a container giant or a small pleasure craft, publication of a safety recommendation should assist addressees in preventing – or at least lessening the impact of – situations similar to those that led to an accident in the case under investigation in the future.

Therefore, a safety investigation by the BSU focuses not only on the events on board, but also looks at the organisation ashore. Consequently, in addition to the crew, addressees of safety recommendations could include pilots, vessel operators, shipyards, manufacturers of equipment, the Maritime Administration, the legislature, or others.

The BSU may issue preliminary safety recommendations before the publication of an investigation report. This is to prevent accidents if it has been found that a safety risk exists, for which notification must be provided immediately, i.e. before publication of the final report.

In 2010, the BSU issued safety recommendations in 17 final reports; preliminary safety recommendations were not published.

All the recommendations published by the BSU are available for reading sorted by year of publication on the BSU website (www.bsu-bund.de) under 'Publications'.

Main investigations

Of the marine casualties investigated in 2010, the investigations of a fatal accident on a vessel caught in a heavy storm in the waters off Hong Kong and a fire on a ro-ro ferry in the Baltic Sea off Fehmarn represented particular focal points; however, as of 31 December 2010 the final reports for the two investigations had yet to be published.

Very serious marine casualty in the waters off Hong Kong:

During a typhoon, a laid-up container vessel weighed anchor and set a course for the open sea. At about 2000, a heavy storm with wind speeds of 10 Beaufort and wave heights of 7-8 metres prevailed. The vessel rolled violently and the inclinometer on the bridge indicated swings to each side of up to 35°; consequently, the vessel was barely able to stay on course at the time. The heavy rolling resulted in all sorts of objects falling from the shelves on the bridge. This caused the floor to become slippery due to being littered with various papers and objects. At 0018 after the change of watch, the master and the third officer were on the bridge. Due to the heavy rolling of the vessel, the third officer fell and was thrown across the bridge several times.

The third officer passed away later that night due to the injuries he had suffered in the heavy sea conditions.



Bridge during the storm, BSU Investigation Report Ref.: 391/09 published on 01/06/2011
Source: Owner

On the night of 23 to 24 September 2008, another fatal accident occurred in the same waters on the container vessel CHICAGO EXPRESS when she ran into the offshoots of the tropical cyclone HAGUPIT. The ship's command attempted to weather the typhoon by slowing and steering into the sea. There were instances in which the 336 metre long vessel rolled at angles of more than 30° to each side. During one of the vessel's violent motions, the master and a lookout lost their footing and were thrown across the bridge, which resulted in the lookout suffering fatal and the master life-threatening injuries. Neither vessel nor cargo was affected.

Both vessels are large, modern container carriers with similar design features, which have a tendency to roll suddenly and abruptly with considerable accelerations from one side to the other in swell; this represents a particularly dangerous situation for the crew members on watch.

The investigation of the new accident has since been completed and the corresponding report was published on 1 June 2011. Due to this recurrence, the BSU considered the new accident very carefully so that in terms of design special attention is given to the safety of the crew in these situations during the planning of such vessels in the future and so that vessels already in operation are retrofitted to enhance safety.

In the meantime, the CHICAGO EXPRESS report has been forwarded to the relevant sub-committees by the International Maritime Organization (IMO) so that the issue is also addressed by these.

Fire on the ro-ro ferry LISCO GLORIA off Fehmarn:

The ro-ro (roll-on/roll-off) vessel LISCO GLORIA sailed from the port of Kiel at about 2000 on 8 October 2010. Her port of destination was Klaipeda in Lithuania. About two hours later, fire broke out northwest of Fehmarn on one of the vehicle decks. At the time, more than 200 people were on board the vessel, including crew members. Although it was night time and the fire spread quickly, there were no fatalities.

The BSU's on-call service was informed about the accident and went directly to Kiel, from where the remaining operational units also headed for the distressed vessel, in order to begin securing evidence that gave rise to the accident as quickly as possible. Since Kiel was the vessel's port of departure and coordination of the rescue operation was conducted by the Central Command for Maritime Emergencies in Cuxhaven, the BSU assumed overall control of the investigation in consultation with the flag State Lithuania.

Investigation of the accident is still ongoing due to its complexity. Therefore, it was not possible to provide details or make speculations about the course of the accident at the time this report was printed.



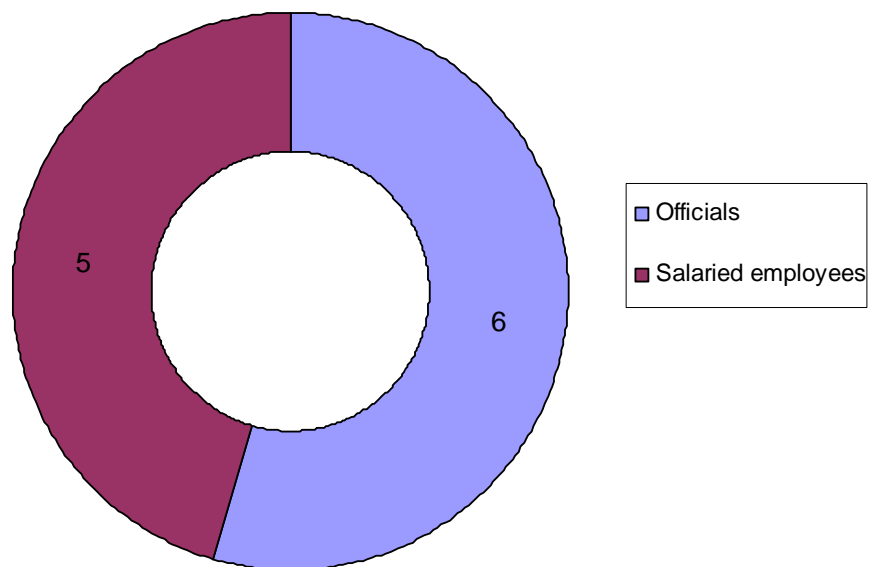
Fire on the ro-ro ferry LISCO GLORIA off Fehmarn, BSU Investigation Ref.: 445/10,
investigation ongoing at 31/12/2010
Source: Central Command for Maritime Emergencies Cuxhaven

Inside BSU

The efficient completion of tasks surrounding marine casualty investigation requires qualified staff, a high level of dedication and professionalism, but also modern and effective management, which in spite of the tense situation in terms of public spending has to carry out the statutory duties of the BSU in full.

Despite it being staffed by only 11 people, the occupational fields in the BSU are quite diverse. In this respect, the job profiles in the BSU include that of the navigator, marine engineer, lawyer, mechanical engineer as well as the commercial or typical management disciplines.

Total staffing 11



The need for international cooperation in marine casualty investigation is emphasised more and more. The employees of the BSU work together with other European and international marine casualty investigation authorities if the interests of different states are affected. Here, the BSU maintains close contact with foreign investigation authorities. In this regard, it works at international level with the Marine Accident Investigators International Forum (MAIIF) and at European level with the European Maritime Safety Agency (EMSA), which has its headquarters in Lisbon.

In particular, one task relating to the cooperation with EMSA is entering and maintaining data in a database (European Marine Casualty Information Platform – EMCIP) in which information about distressed vessels is recorded and stored, thus enabling EMSA to provide the European Commission with fundamentals for making decisions concerning the maintenance and improvement of traffic safety in maritime navigation. Globally, marine casualty data are also recorded in a database at the IMO (Global Integrated Shipping Information System – GISIS).

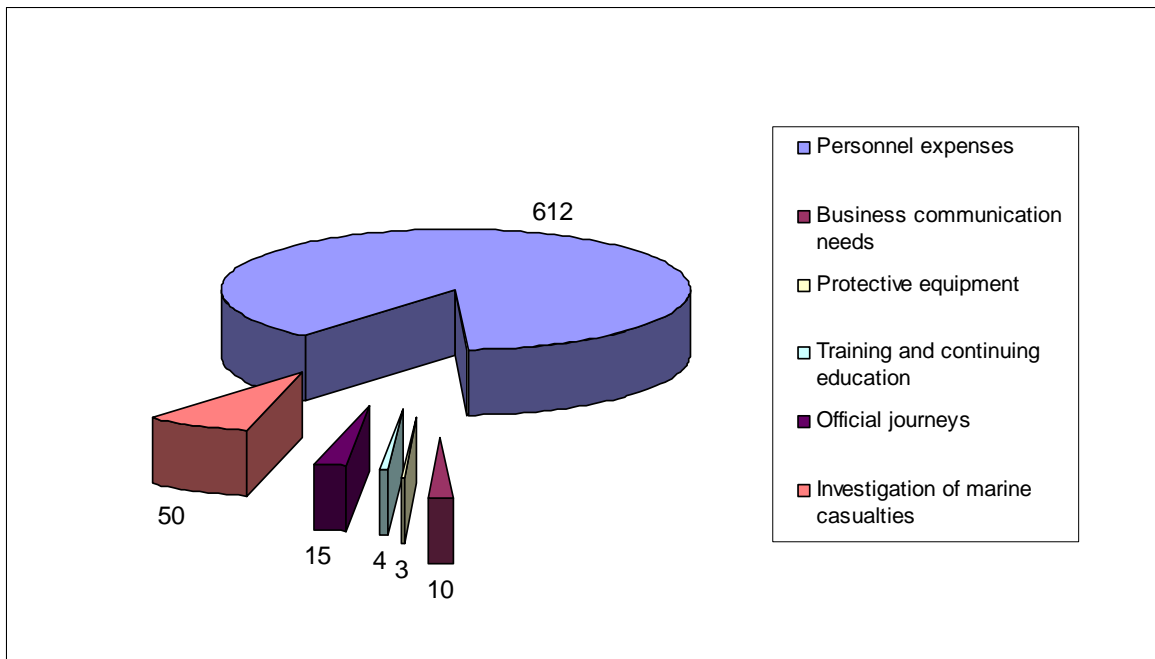
The core management tasks at the BSU are performed by three employees. This includes all the functions of organisation, personnel management, preparation and planning of the budget through to management of files.

The 2010 fiscal year closed with total expenditure of EUR 694,000.

At EUR 612,000, the largest item of expenditure in 2010 was personnel expenses, the share of which was 88% based on total expenditure.

Expenditure in 2010 is virtually the same as 2009, in which total expenditure amounted to EUR 692,000.

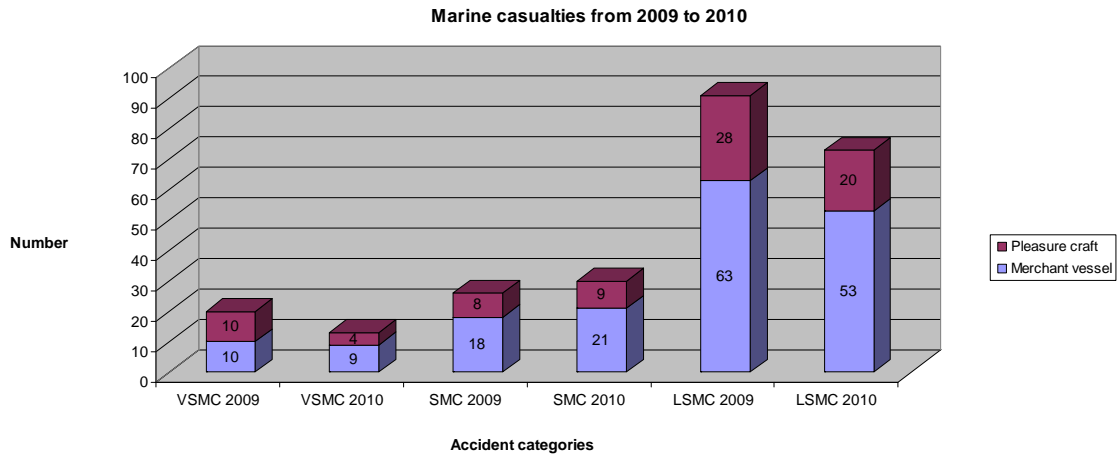
However, the level of expenditure is dependent on the necessary scale of the marine casualty investigations and, to that end, can vary from year to year.



BSU expenditure in 2010

Marine casualties in total

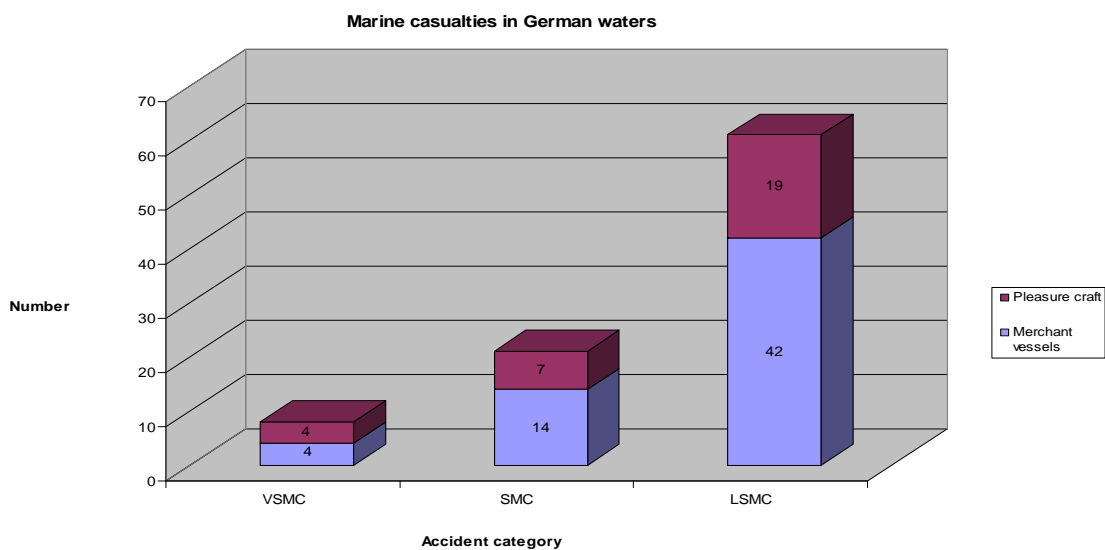
In 2010, a total of 577 incidents were recorded by the BSU; 116 of these were classified as 'marine casualties' as per the above definition. The development of the number of accidents as compared to last year is shown in the following diagram. Particularly relevant to the BSU is the development of serious and very serious marine casualties (SMCs and VSMCs).



Marine casualties in German waters

In 2010, 90 marine casualties occurred in German waters, these consisted of 61 LSMCs, 21 SMCs and 8 VSMCs. 60 of the 90 marine casualties reported concerned merchant vessels (including fishing vessels).

The vessel movements in the territory of the Federal Republic are virtually unchanged¹. There were 76 marine casualties involving merchant vessels in 2009 and 60 in 2010. Hence, the accident rate has declined slightly in 2010 and remains at an encouragingly low level.



¹ Source: Waterways and Shipping Directorates North and North West

Marine casualties on German vessels

38 marine casualties occurred on board merchant vessels under German flag, these consisted of 16 (26) LSMCs, 7 (6) SMCs and 5 (5) VSMCs as well as 10 (11) marine casualties on board fishing vessels (6 LSMCs, 3 SMCs, 1 VSMC). On 31 December 2010, there were 571 merchant vessels and 79 sea-going fishing vessels registered under German flag².

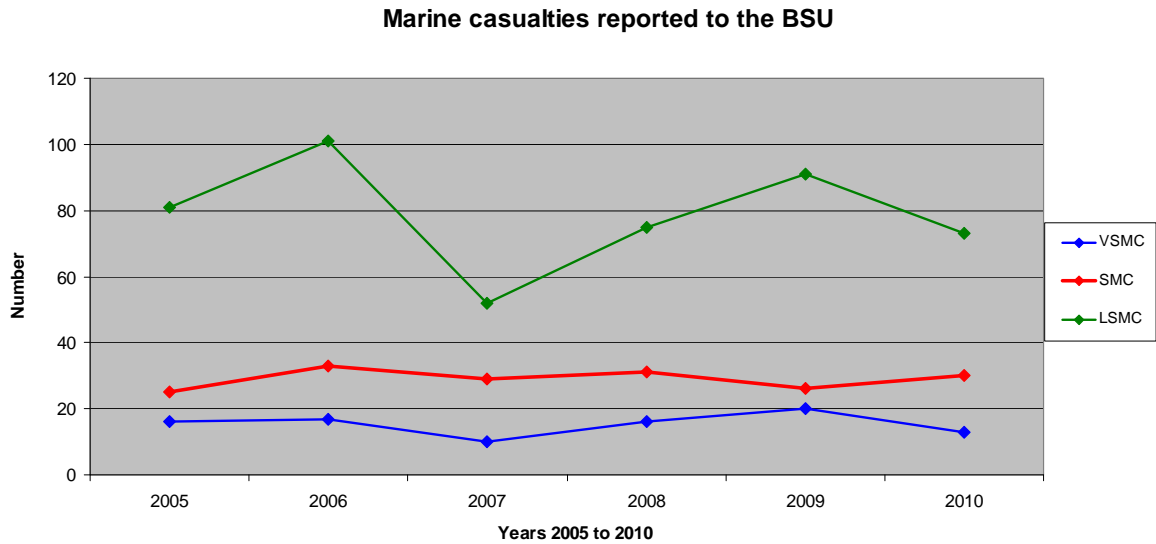
Previous year's figures in brackets



Collision in the Kiel Canal, BSU Investigation Ref.: 523/10, investigation ongoing at 31/12/2010
Source: BSU

² Source: Federal Maritime and Hydrographic Agency

Marine casualties from 2006 to 2010



The five-year review shows only slight fluctuations in the 'very serious' (VSMCs) and 'serious marine casualties' (SMCs), whereas the 'less serious marine casualties' (LSMCs) were subject to greater annual fluctuations. Compared to the average, no significant changes were recorded in 2010 with respect to VSMCs and SMCs. In relation to the number of sea-going vessels under German flag and the number of traffic movements within German territorial waters, the accident levels continue to remain encouragingly low.

Investigated marine casualties that were concluded with an investigation report in 2010

	Pub-lished	Report No.	Date of accident	Name of vessel	Type of vessel	Nationality	Scene of accident	Type of accident
1	15/01/2010	642/08 & 114/09	15/12/2008 30/03/2009	Santa Alina/ MOL Utility	Container vessel/ Container vessel	Germany Germany	Port of Lomé Port of Tanga	Personal accident Personal accident
2	01/02/2010	255/09	01/06/2008	Marfeeder/ APL Turquoise	Container vessel/ Container vessel	Germany/ Singapore	Outer Weser	Collision
3	01/02/2010	161/09	21/05/2009	Quintett	Motorboat	Germany	Lower Elbe	Personal accident
4	15/02/2010	015/09	20/01/2009	Taube	Sailing yacht	Germany	Coast of Morocco	Capsize
5	01/03/2010	020/09	12/01/2009	Hanse Vision/ Birka Express	Container vessel/ Ro-Ro cargo	Cyprus/ Finland	Kiel Canal	Collision
6	15/03/2010	218/09	17/06/2009	Yohjin	Ro-Ro cargo	Panama	Bremerhaven	Personal accident
7	01/04/2010	051/09	17/02/2009	Gitte/ Skania	Fishing vessel/ Ferry	Germany/ Bahamas	13 nm east of Rügen	Collision
8	15/04/2010	056/09	28/02/2009	Christa/ Odin	Motor vessel/ Pleasure craft	Germany/ Germany	Timmendorf/ Poel	Collision
9	15/06/2010	474/09	04/11/2009	Den Blå	Sailing yacht	Germany	Kiel Firth	Personal accident
10	02/08/2010	282/09	21/07/2009	YM Tianjin	Container vessel	Germany	Roadstead off Kaohsiung/ Taiwan	Personal accident
11	01/10/2010	557/08	28/10/2008	Covadonga	Chemical tanker	Panama	Brunsbüttel Lock	Personal accident
12	01/11/2010	496/09	21/11/2009	S. Gabriel	General cargo vessel	Germany	São Miguel/ Azores	Grounding/ Water ingress
13	01/11/2010	007/10	13/01/2010	Ortegal Uno	Fishing vessel	Germany	West of Ireland	Foundering
14	15/11/2010	350/09	24/08/2009	Schleswig-Holstein/ Mahdi	Ferry/ Motorised yacht	Germany/ U.S.	3 nm north-east of Puttgarden	Collision
15	01/12/2010	041/09	12/02/2009	Vasi/ Birthe Theresa	Chemical tanker/ Chemical tanker/	Cyprus/ Singapore	Kiel Canal	Collision
16	15/12/2010	478/09	04/11/2009	Ems Trader	Container vessel	Antigua & Barbuda	Port of Hamburg	Personal accident
17	15/12/2010	125/10	04/04/2010	CMA CGM Verlaine/ Odessa Star	Container vessel/ Container vessel	Germany/ Malta	Bay of Izmit, Turkey	Collision

Investigated marine casualties that were concluded with an internal investigation report in 2010

	Date	Report No.	Date of accident	Name of vessel	Type of vessel	Nationality	Scene of accident	Type of accident
1	Discontinued 21/01/2010	334/09	19/08/2009	Husky Racer	Container vessel	Great Britain	Elbe, Buoy 58	Fire
2	Discontinued 24/02/2010	524/09	15/12/2009	Finnmaid	Ro-Ro passenger vessel	Finland	Port of Rostock	Personal accident
3	Discontinued 13/01/2010	546/09	16/10/2009	Dirk-Dirk	Fishing vessel	Germany	Shetland Islands	Personal accident
4	Discontinued 30/04/2010	058/10	13/02/2010	Steenberg	Chemical tanker	Gibraltar	Kiel Canal, Kiel-Holtenu Lock	Personal accident
5	Discontinued 29/11/2010	060/10	14/02/2010	Jade C.	General cargo vessel	Isle of Man	Bremerhaven	Personal accident
6	Discontinued 15/06/2010	074/10	23/02/2010	Petersburg/ Oak Galaxy	General cargo vessel/ Chemical tanker	Antigua & Barbuda/ Panama	Port of Hamburg	Collision
7	Discontinued 13/07/2010	132/10	28/03/2010	Expresse	Catamaran	Germany	Nieby, Baltic Sea	Capsize
8	Discontinued 22/12/2010	141/10	18/04/2010	JRS Canis	Container vessel	Cyprus	Kiel Canal, km 71.5	Ground contact
9	Discontinued 16/07/2010	175/10	09/05/2010	Kapitän Stoewahse/ Rodlo	Pilot boat/ Bulk carrier	Germany/ Malta	Weser, Buoy 59	Personal accident

Ongoing investigations at 31 December 2010

	Report No.	Date of accident	Name of vessel	Type of vessel	Nationality	Scene of accident	Type of accident
1	557/08	28/10/2008	Covadonga	Chemical tanker	Panama	Brunsbüttel Lock	Personal accident
2	41/09	12/02/2009	Vasi/ Birthe Theresa	Chemical tanker/ Chemical tanker	Cyprus/ Singapore	Kiel Canal, km 95	Collision
3	51/09	17/02/2009	Gitte/ Skania	Fishing vessel/ Ferry	Germany/ Bahamas	16 nm east of Rügen (EEZ)	Collision
4	56/09	28/02/2009	Christa/ Odin	Fishing boat/ Pleasure craft	Germany/ Germany	Timmendorf (Poel)	Collision
5	094/09	29/03/2009	Kelbo	Sailing yacht	Germany	Off Majorca	Personal accident
6	168/09	26/05/2009	Hoegh London/ Maersk Racer/ Maersk Newark	Ro-Ro cargo/ Container vessel/ Container vessel	Norway/ Great Britain/ Liberia	Bremerhaven	Collision
7	230/09	27/06/2009	Renate Schulte/* Marti Princess	Container vessel/ General cargo vessel	Germany/ Malta	Turkish waters	Collision
8	231/09	29/06/2009	Aurora/ Transanund	General cargo vessel/ Container vessel	Cyprus/ Cyprus	Elbe, km 650.5	Collision
9	282/09	21/07/2009	YM Tianhin	Container vessel	Germany	Kaohsiung, Taiwan	Personal accident
10	286/09	20/07/2009	Cross Match	Sailing yacht	Germany	Off Bornholm	Personal accident
11	301/09	04/08/2009	Ece Nur K.	Chemical tanker	Turkey	Bützfleth	Personal accident
12	350/09	24/08/2009	Schleswig-Holstein/ Mahdi	Ferry/ Sailing yacht	Germany/ U.S.	Fehmarn Belt	Collision
13	391/09	15/09/2009	CCNI Guayas	Container vessel	Germany	Port of Hong Kong	Personal accident
14	457/09	19/10/2009	Noormann/ Pontoon HH2016	Tug boat/ Work pontoon	Germany/ Germany	Bodden waters off Rügen	Capsize
15	474/09	04/11/2009	Den Blå	Sailing yacht	Germany	Heikendorf beach	Personal accident
16	496/09	21/11/2009	S. Gabriel	General cargo vessel	Germany	Azores	Ground contact
17	510/09	02/12/2009	Spring Panda/ Liquid Gold	General cargo vessel/ Chemical tanker	Netherlands/ Liberia	Elbe, Buoy 115	Collision
18	520/09	16/10/2009	Frisia Lissabon	Container vessel	Liberia	Waters around Borkum	Personal accident
19	15.12.09	15.12.2009	Finnmaid	Ro-Ro passenger vessel	Finland	Port of Rostock	Personal accident
20	533/09	27/12/2009	Pingi	Sailing yacht	Germany	St. Peter-Ording	Personal accident

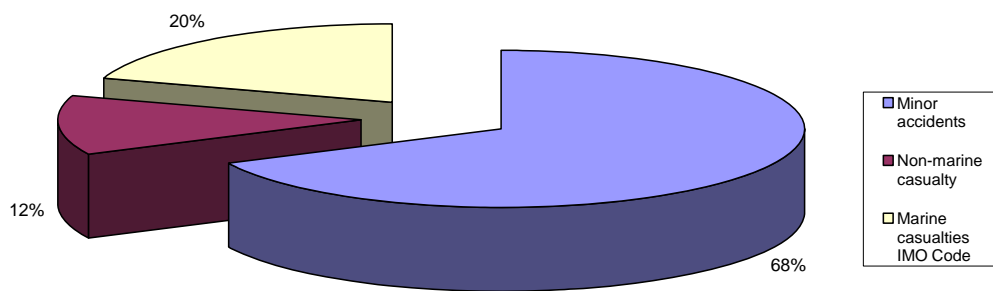
* Investigation by the flag State in cooperation with the BSU

Ongoing investigations at 31 December 2010, published between January and June 2011

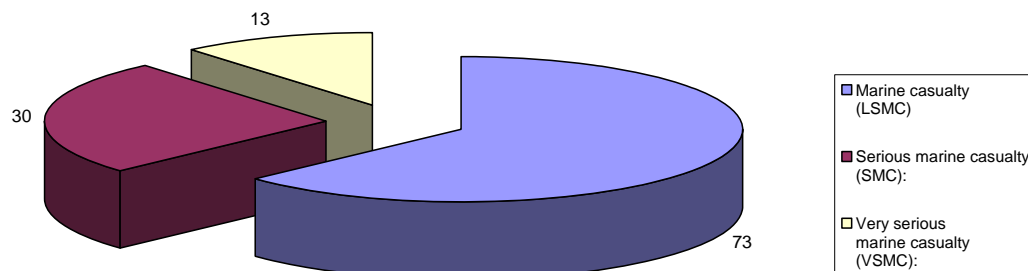
	Pub-lished	Re-port No.	Date of accident	Name of vessel	Type of vessel	Nationality	Scene of accident	Type of accident
1	15/01/2011	168/09	26/05/2009	Höegh London	Container vessel	Germany	Weser	Collision with three moored vessels
2*	15/01/2011	291/10*	19/02/2010	Bro Arthur	Chemical tanker	UK	Port of Hamburg	Personal accident
3	17/01/2011	533/09	27/12/2009	Pingi	Sailing yacht	Germany	Off St. Peter-Ording	Personal accident
4	01/02/2011	231/09	29/06/2009	Aurora/ Transanund	General cargo vessel/ Container vessel	Cyprus/ Cyprus	Elbe	Collision
5	01/03/2011	286/10	12/07/2010	CMV Navi Baltic/ J.R.Tolkien	Container vessel/ Sailing vessel	Cyprus/ Netherlands	Kiel Canal	Collision
6	01/03/2011	286/10	18/08/2010	Albert Johannes	Sailing vessel	Netherlands	Port of Wismar	Grounding
7	01/03/2011	286/11	22/08/2010	Skylge/ Sputnik 2	Sailing vessel/ Motor yacht	Netherlands/ Germany	Port of Stralsund	Collision
8	01/06/2011	215/10	23/05/2010	Wind Lift 1	Wind turbine in- stallation vessel	Germany	'BARD Offshore 1' wind farm	Accident involving shipboard crane
9	01/06/2011	391/09 incl. (520/09)	15/09/2009 (16/10/2009)	CCNI Guayas (Frisia Lissabon)	Container vessel (Container vessel)	Germany (Liberia)	Off Hong Kong (North Sea off Borkum)	Personal accident (Personal accident)
10	15/06/2011	286/09	20/07/2009	Cross-Match	Sailing yacht	Germany	Off Bornholm	Personal accident

Total reports and marine casualties reported in 2010

Total reports to the BSU

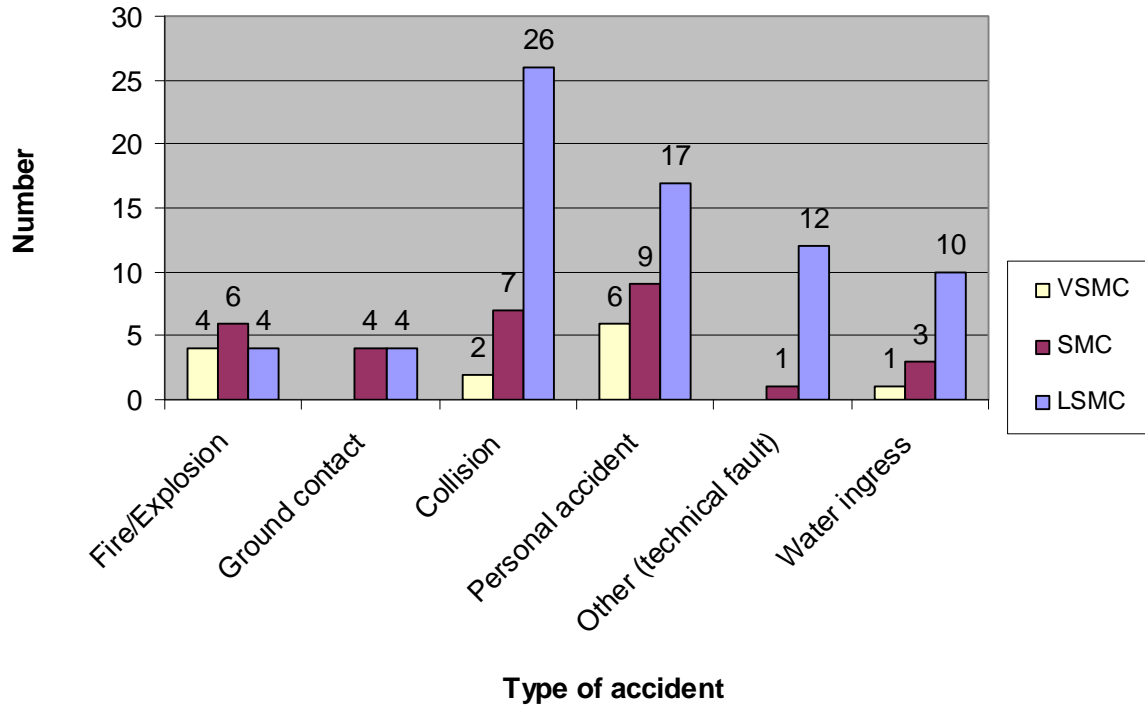


Marine casualties according to the IMO Code



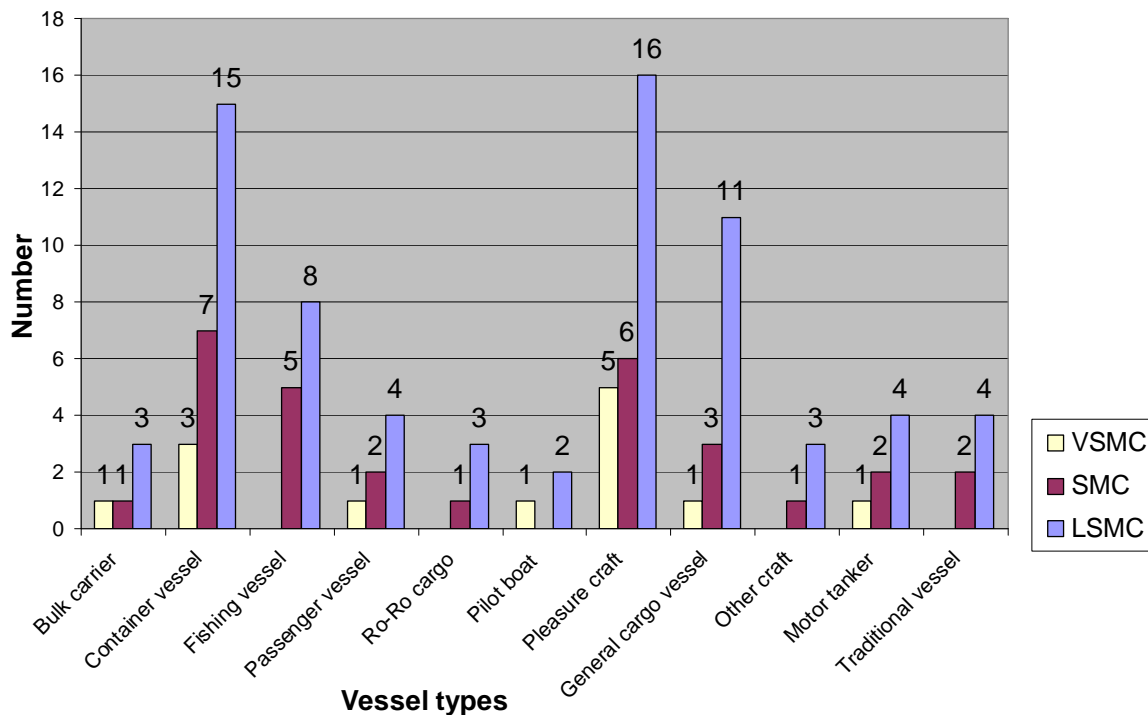
Breakdown of marine casualties by type of accident and vessel

Breakdown by type of accident



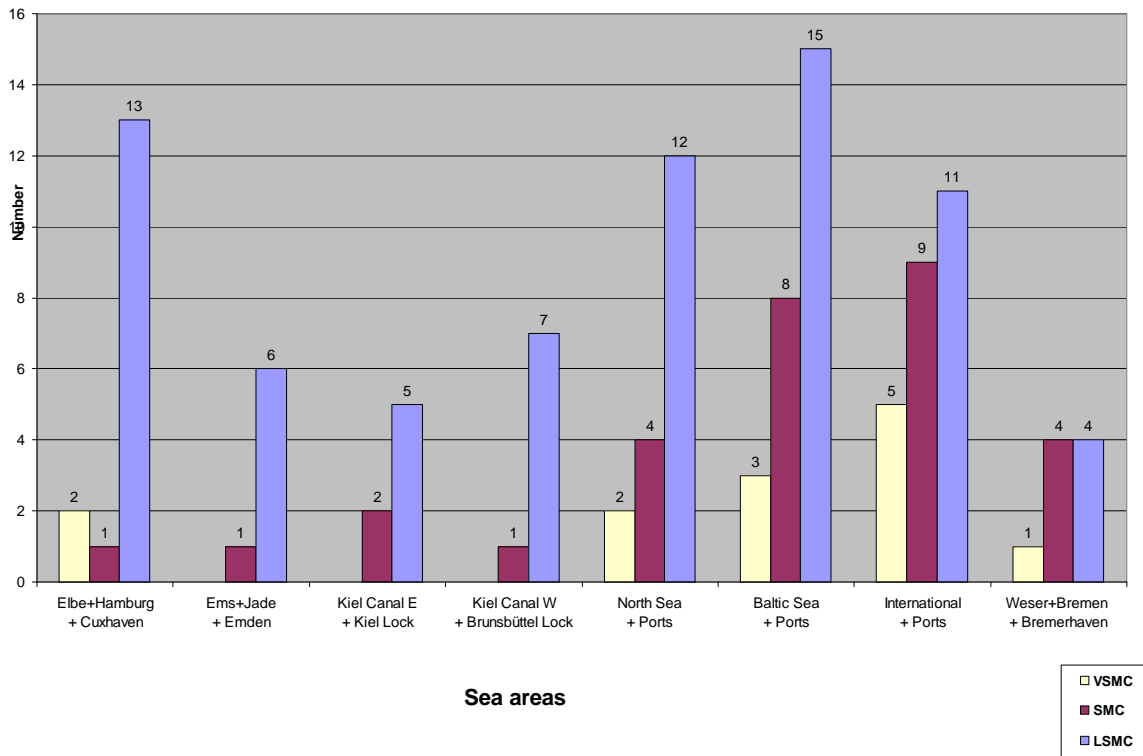
Breakdown of marine casualties by type of accident and vessel

Breakdown by type of vessel



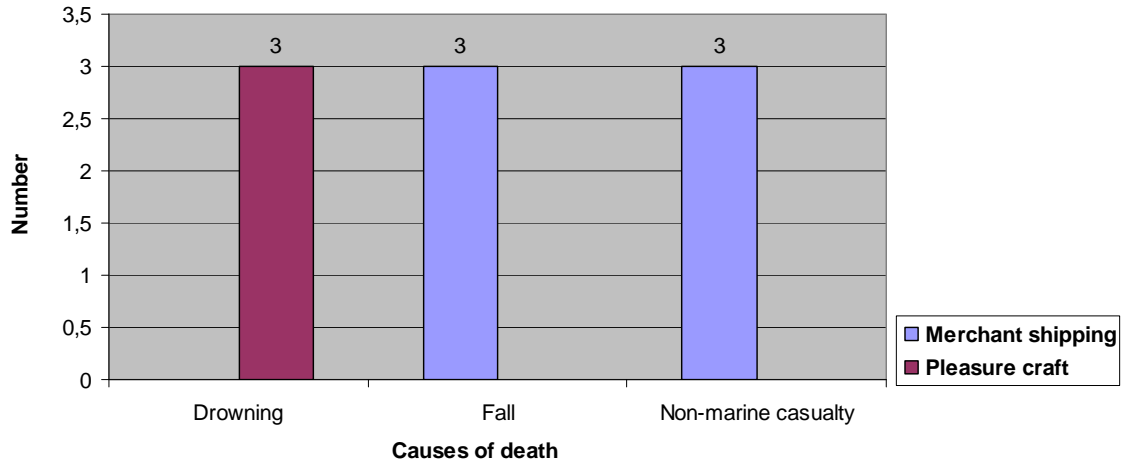
Breakdown of marine casualties by sea area

Breakdown by sea areas



Breakdown of marine casualties by cause of death and injuries

Breakdown by causes of death



Breakdown by injuries

