



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

Annual Report 2006



June 2007

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The BSU herewith publishes the statistics on accidents and serious incidents at sea together with a report on its activity in the past business year.

1 Preface

In the past year 2006 the number of accidents and incidents at sea reported in accordance with the Maritime Safety Investigation Act (German acronym SUG) and the Regulation on the Safety of Ships at Sea (German title Schiffssicherheitsverordnung – SchSV) rose again slightly, in conjunction with an increase in those marine casualties and incidents at sea to be classified as very serious or serious according to the Code for the Investigation of Marine Casualties and Incidents (IMO Code). The incidents that do not involve either personal injury or environmental damage and only a slight amount of property damage still account for the largest contingent, making up two thirds of all notifications. The high number of notifications, especially in the minor range, is an indication of the growing extent to which the BSU has become known and of the obligation to report incidents causing damage and danger in accordance with the Regulation on Safety of Ships at Sea. The very serious and serious marine casualties account for the same overall shares as in 2005 and have risen in absolute terms by 1 and 8 accidents respectively. The overall situation of marine casualties in German waters and on board vessels flying the German flag worldwide thus remains constant.

The very serious marine casualties resulted in the death of 17 seamen. The decline in the number of fatal accidents in the leisure craft area has dropped encouragingly, if one can use the word at all in this connection. The Safety Conference for seagoing leisure craft initiated by the Federal Ministry of Transport, Building and Urban Affairs (BMVBS) in April 2006 took up recommendations from the investigation reports of the BSU. The BSU's safety recommendations were considered further at the 45th German Traffic Court Conference in January 2007 in Goslar¹. There has been controversial discussion in the leisure craft sector since the beginning of 2007 about the need for additional measures. Although this discussion is not yet over, it does show that awareness for the topic is growing. The BSU considers that such an increase in awareness is in itself welcome.

As regards the fatal accidents in merchant shipping, the sinking of a fishing vessel with four fatalities was the sad climax of the past year. At the beginning of the year there were fatalities involving two further fishing craft, one on deck and the second due to a crew member being lost overboard.

Further accidents in merchant shipping in which crew members carrying out work on deck sustained fatal or very serious injuries or were lost overboard occurred at the end of 2006. In the whole of the past year there were three fatalities in merchant shipping due to loss overboard and two sustained during work on deck. One seaman was rescued alive from the water and another survived a work accident on deck with serious injuries. The BSU's investigations into these cases are still ongoing. Despite this, the BSU believes it is necessary to pay greater attention to this problem complex. Work on deck and hence access to the main deck while the ship is under

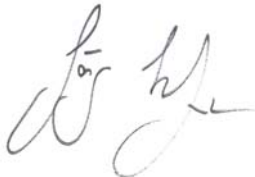
¹ Recommendations of Workgroup VIII, please see:
<http://www.deutsche-verkehrsakademie.de/pdf/2007/empfehlungen2007.pdf>

Ref.: 2006

way, whether for operational reasons or for reasons of ship's safety, are among the necessities of shipping. The associated risks must be countered effectively by personal protection measures. If access to the main deck is necessary during heavy weather, additional securing measures must be taken. The vessel command is responsible for this on the spot, but in the wider scope responsibility also rests with the owner or operator of the vessel who must establish corresponding procedures within the framework of his responsibility for safety management and provide the resources necessary to comply with such procedures.

In addition to recording and processing marine casualties and incidents in which damage has already occurred, the BSU is also engaged in investigating incidents that could cause damage, frequently termed "near misses". In such cases no concrete damage is yet sustained, but the risk potential for this exists. In addition to technical failures or near misses that did not lead to a damage,, 18 incidents concerning suction and wash effects were reported to the BSU last year. One incident on the Lower Elbe in autumn 2006 showed that this spectrum must be observed further in future. Vessels are being built with ever-greater dimensions and such large vessels also proceed along German river estuaries. They have to move within a narrow tidal window here and in so far must maintain an average speed. Moreover larger vessels also need to move at higher speeds in order to maintain manoeuvrability. And ultimately the minimum speed level is fixed by the parameters of the main engine at "dead slow ahead". Consequently suction and wash effects are not unrestrictedly attributable to the responsibility of a vessel command ordering excessive speeds, but are partly also due to the limiting conditions set out above.

Head of the Federal Bureau of Maritime Casualty Investigation



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2 Human resources development

The service position of Principal Inspector "UF 3" that became vacant in 2005 was filled again on 1 April 2006.



3 Internet presentation

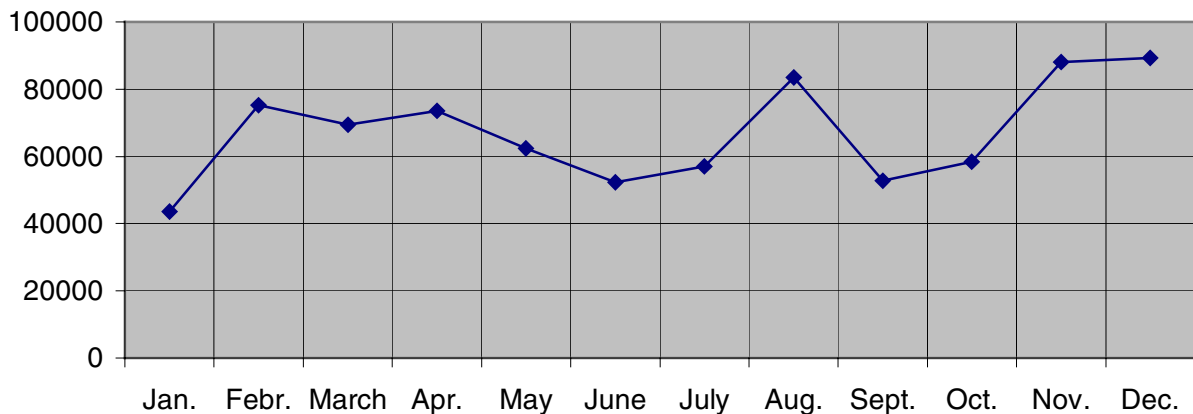
Publications are published in German and English on the BSU website www.bsu-bund.de.

Currently more than 760 subscribers receive latest investigation reports and press releases via the newsletter. (2004: 200 subscribers, 2005 : 500 subscribers)

The printed reports are only sent out in a small edition to the group of parties directly involved in the accident and those on the press distribution list.

In addition it is possible to obtain a printed version from the BSU on request or to download and print the report from the Internet.

Enquiries successfully processed per month in 2006



Jan.	Febr.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
43526	75197	69449	73609	62420	52342	57034	83499	52678	58480	88091	89272

Average per month:	2006: 67133	2005 : 47523	2004 : 23370
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The average number of enquiries processed per month has almost tripled by comparison with 2004. Three peaks are evident in August with 83,499 "clicks", in November with 88,091 and in December with 89,272.

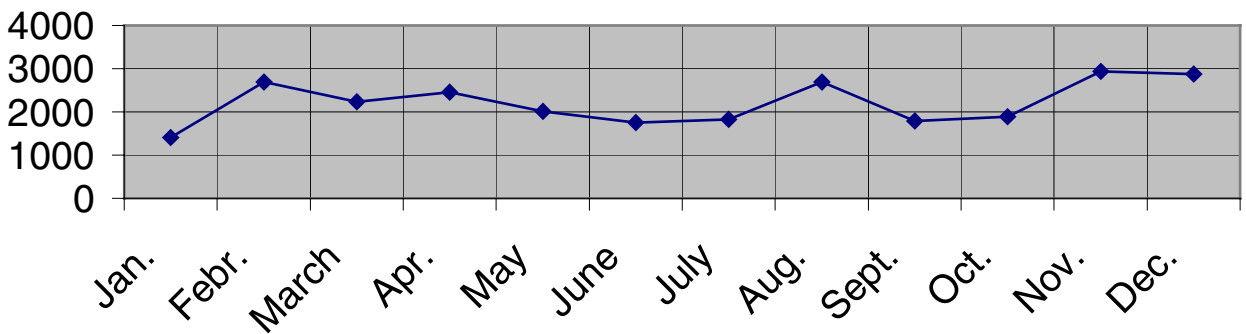
A detailed consideration reveals that in August report "347/05 – Collision of SY ALIADO with SY KATTEGAT" was clicked by more than 30 %. In November the report "327/05 – Drowning of the skipper of SY UNIKUM" and in December the report "288/05 – Capsizing of SY DE HOOP" were "clicked" most frequently.

The BSU's reports on leisure craft accidents are thus the most widely read documents in the leisure craft sector.

Ref.: 2006

Outside Germany the pages were clicked on average by 8 - 9 % of the total number of clicks.

Average number of enquiries answered per day

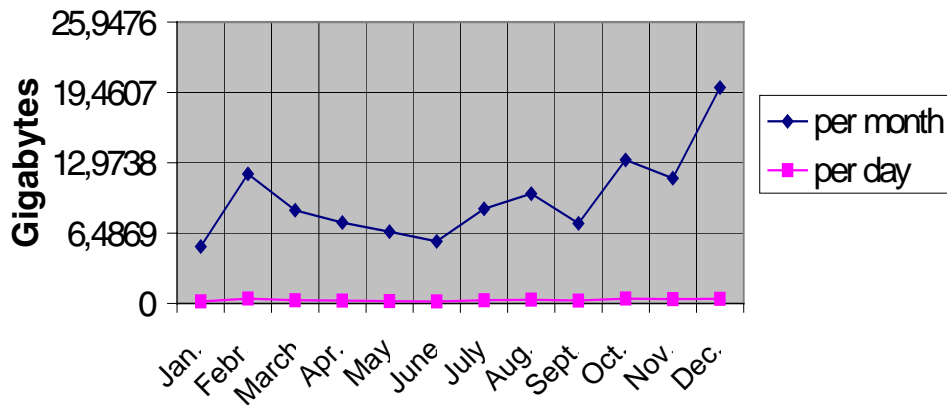


Jan.	Febr.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1405	2687	2240	2453	2014	1747	1831	2696	1785	1889	2937	2881

Average per day :	2006 : 2214	2005 : 1563	2004 : 768
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The number of enquiries answered per day shows the same tendency as those per month. An increase in overall use of the website and peaks resulting from the leisure craft accidents published in August, November and December are evident.

The volume of gigabytes dispatched



	Jan.	Febr.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Per month	5,245	11,956	8,596	7,463	6,623	5,727	8,719	10,139	7,378	13,237	11,553	19,922
Per day	0,173	0,437	0,284	0,254	0,218	0,195	0,288	0,335	0,252	0,437	0,394	0,427

Average per month 2006: 9,713 2005: 5,671 2004: 2,226

The volume of gigabytes dispatched and downloaded per month shows a distinct increase over the volume for 2005.

4 Public relations work and advanced training

The BSU contributes work to safety at sea with a view to preventing incidents and accidents as defined by § 1 Para 2 Maritime Safety Investigation Act (SUG). On the one hand information on such incidents is published constantly, and on the other hand BSU participates in lecture events. It is set out in Maritime Safety Investigation Act (SUG) § 15 in conjunction with FIUUG § 28 that the BSU can on request dispatch speakers to events addressing safety at sea or comparable events of the police or emergency services.

The lectures by BSU staff at police schools, participation in panel discussions and shipping lecture courses, lectures to nautical associations, sailing clubs and sailing schools also form part of BSU's activities. Sector-specific contributions were made to the 15th Conference of the Marine Accident Investigators International Forum (MAIIF) in Panama in August 2006.

According to § 12 Para 6 Maritime Safety Investigation Act (SUG) the BSU must ensure that the technical, sector-specific capabilities and expertise of the Lead investigators and other specialists are maintained and adapted in line with developments.

The BSU staff regularly attend upgrading and advanced training events held by SAF and BAKöV.

5 Marine casualty investigations

5.1 National and international regulations

The Maritime Safety Investigation Act (SUG) governs the responsibility of the BSU for investigating sea-going vessels sailing under all flags that sustain marine accidents within German territorial waters. This also includes traffic incidents on the way from and to ports in Navigable Maritime Waterways. Furthermore, the BSU investigates marine casualties involving vessels sailing under the German flag occurring throughout the world and further rights of assistance in international investigations arise when the BSU claims a "substantial German interest in the investigation".

Seagoing vessels in the meaning of the SUG also include seagoing leisure craft, so that the BSU conducts investigations following incidents on such craft causing damage or danger too.

The definition of a marine casualty is set out in § 1 Para. 2 SUG, where it is stated:

"incidents that have caused damage or danger" shall be events caused in the context of the operation of a ship in maritime navigation that have, in turn, caused or have led to

- 1 the death or disappearance of, or serious injury to, a human being;
- 2 the actual or presumed loss, constructive total loss, grounding, abandon, or collision of a ship;
- 3 damage to the marine environment as a result of damage caused to one or more ships, or any other kind of material damage;
- 4 danger to a human being or a ship; or
- 5 the risk of heavy damage to a ship, an off-shore structure or installation, or the marine environment.

These aforementioned points serve, depending on the consequences of the accident, to classify marine casualties in various groups. This classification is conducted in accordance with the IMO Res. A 849(20) - Code for the investigation of marine casualties and incidents - into **very serious marine casualty, serious marine casualty, marine casualties and incident at sea**. This classification then decides on whether an accident must or can be investigated. In the "can" cases it is crucial whether a lesson can be drawn from the investigation of the accident or a new finding gained to avoid accidents of a similar kind

According to IMO Res. A.849(20) the expression "serious injury" means an injury sustained by a person in context of an accident that leads to inability to work for more than 72 hours during the first seven days after occurrence of the injury.

All reports of accidents are fundamentally recorded and at least statistically evaluated.

Very serious marine casualties are always investigated, including all necessary IMO reports. For all other casualties work proceeds in accordance with § 11 Maritime Safety Investigation Act (SUG). The Head, or in his absence his Deputy, determines after consultation with the Lead Investigators whether an investigation is to be conducted and how extensive this should be.

Very serious marine casualty (VSC)



Sinking after fire and total loss

Serious marine casualty (SC)



Bottom damage after collision

Less serious marine casualties (LSC)



Loss overboard of containers and damage caused by containers

5.2 Heavy weather damage, suction and swell damage

In the year 2006 there were only three notifications concerning damage caused by heavy weather. In these cases e.g. containers were heavily damaged or lost overboard, and considerable damage occurred on the main deck.

Damage caused by suction and wash effects was reported 18 times. Eight of these cases were on the Kiel Canal and six cases on the River Elbe. The damage caused by suction and swell was mainly sustained by moored craft or mooring pontoons, or these broke loose, and increasingly damage to shore/bank reinforcements can be observed.



Swell damage to the Lühe quay on the Lower Elbe at Stade

In connection with the swell damage that occurred at the Lühe quay in December 2006 a 2-m-high wave ran over a parking lot by the water. Many bank reinforcement stones were ripped out and flung ashore. Owing to the time of year there were neither persons nor vehicles at the scene, so that this simply remained an "incident causing danger".

The investigation of the incidents causing damage or danger due to heavy weather, suction and swell were discontinued following the preliminary investigation.

5.3 On-call duty

Because of its on-call duty routine the BSU can be reached at all times.

The telephone numbers and office times of the BSU are:

Monday to Thursday:	07.30 am to 04.00 pm
Friday:	07.30 am to 02.30 pm
Telephone number:	+49 40-31 90-83 11 -83 12 -83 21
Fax number:	+49 40-31 90-83 40
After office hours: Mobile telephone number of the BSU investigator on duty	+ 49 <u>1 70-58 65 675</u>

5.4 Safety recommendations

The BSU can issue safety recommendations already prior to concluding an investigation if this appears expedient for preventive reasons due to the threat of imminent danger. The BSU did not avail itself of this opportunity in the year 2006. Generally the safety recommendations appear in the final reports.

In the year 2006 the BSU published safety recommendations in 13 investigation reports. In nearly all its safety recommendations the BSU draws attention once again to valid guidelines, rules and regulations and to the individual responsibility of the respective vessel command.

5.5 Key casualty areas

The fatal accidents in the leisure craft sector have dropped from 13 fatalities in 2004 to 8 fatalities in 2005 and now two fatalities in 2006. One of these fatalities occurred as a bathing accident while anchored, and the second fatality was analysed to lie more in the health situation in connection with the age of the skipper. Under these aspects we are pleased to note that there were no fatal leisure craft accidents in 2006 that originated from operating a leisure craft. However there were 11 personal injuries in leisure craft shipping, mainly due to slipping on deck, falling in the companionway, or carelessness during jibing.

The key casualty areas broken down by maritime regions in 2006 comprised the River Elbe with 16 % and the Kiel Canal with 20 %, as well as ports with 21 % of total accident reports.

As regards operating form, merchant shipping accounted for most incidents (77 %), followed by leisure craft with 18 % of notifications.

The percentage data merely indicate the ratio of the individual notifications to the total number of notifications, including petty cases. Accordingly these figures do not provide any information on the accident occurrence in relation to the total numbers of traffic operations.

5.6 Investigated marine casualties completed with an investigation report in 2006

Published	Report No.	Date of casualty	Name of vessel	Type of vessel	Nationality	Location of casualty	Type of casualty
01.02.06	45/04	01.03.04	Cosco Hamburg/ P & O Nedlloyd Finland	Container vessel/ Container vessel	P.R. China/ Germany	Lower Elbe	Collision
15.02.06	146/05	27.04.05	Werder Bremen	Container vessel	Germany	Santa Cruz/ Teneriffa	Personal accident
15.03.06	191/05	28.05.05	Andrea	Sailboat	Germany	Sweden	Personal accident
01.04.06	149/05	01.05.05	Ina 2	Sailboat	Germany	N-Wüstrow	Personal accident
18.04.06	306/05	09.08.05	Seehund I	Motor boat	Germany	Süderpiep	Capsizing
01.05.06	39/05	29.01.05	Stolt Fulmar	Motor Tanker	United Kingdom	Hamburg Blankenese	Collision
15.05.05	293/05	03.08.05	Atlantic	Traditional vessel	Germany	Peenestrom	Stranding
01.06.06	166/05	05.05.05	Sinfonie Sylt	Sailboat	Germany	Flensburger Fjord	Personal accident
15.06.06 summary	332/05	19.08.05	Halifax	Motor Tanker	Malta	Elbe, Buoy 58a	Grounding
01.08.06	347/05	25.07.05	Aliado/ Kattegat	Sailboat/ Sailboat	Germany/ Germany	Rudkobing/ Denmark	Collision
01.10.06 summary	115/06	27.03.06	NYK Espirito	Cargo Ship	Germany	Port of Hamburg	Collision
15.10.06	465/05	13.11.05	Ilka	Cargo Ship	Germany	Scottish waters	Grounding
01.11.06 summary	327/05	13.08.05	Unikum	Leisure craft	Germany	Rostock	Personal accident
15.11.06	176/05	23.05.05	Libra Rio Grande	General cargo Ship	Germany	New Orleans	Engine room fire
01.12.06	288/05	31.07.05	De Hoop	Traditional vessel	Germany	Travemünde	Capsizing
15.12.06	187/05	30.05.05	Punjab Senator	Container vessel	Germany	Sri Lanka	Fire in container

5.7 Investigated marine casualties completed with an internal report in 2006 or published by the lead investigating state and/or the BSU in spring 2007

Status: March 2007

Published	Report No.	Date of casualty	Name of vessel	Type of vessel	Nationality	Location of casualty	Type of casualty
01.03.06 Norway/ BSU*	18/04	19.01.04	Rocknes	Bulk carrier	Antigua & Barbuda	Bergen	Capsizing
Sweden/ BSU*	126/05	08.04.05	Washington Senator/ Lykes Voyager	Container vessel/ Container vessel	Germany/ United Kingdom	Taiwan Straits	Collision
20.03.06 Sweden/ BSU*	468/06	13.11.05	Ro-Ro-Ship Finnsailor/ General-Grot-Rowecki	Ro-Ro-Ship/ Bulk carrier	Sweden/ Malta	Kadetrinne	Collision
MAIB**	423/05	11.10.05	Lerrix	Cargo Ship	United Kingdom	outside Kadetrinne	Grounding
Internal Report	491/05	07.09.05	Art	Motor yacht	Germany	Spanish coast	Running aground
01.02.07	459/05	06.12.05	Maritime Lady/ Arctic Ocean/ Sunny Blossom	Cargo Ship/ Container vessel/ Chemical tanker	Gibraltar/ United Kingdom/ Bahamas	Brunsbüttel Buoy 58a	Collision
15.02.07	231/06	04.05.06	Lass Saturn/ Roald Amundsen	Cargo Ship/ Sailing school vessel	Germany/ Germany	Heikendorfer Roads	Collision
01.03.07	164/06	19.04.06	Lisa von Lübeck	Traditional vessel	Germany	Port of Hel (Danzig)	Personal accident
15.03.07	476/05	18.11.05	Comet/ Sven	Container vessel/ Container vessel	Germany/ Germany	Port of Hamburg	Collision

* Investigation report drafted jointly

** Investigation report of the flag state

5.8 Investigation reports in progress

Status: 6 March 2007

Planned pub.	Report	Date of casualty	Name of vessel	Type of vessel	Nationality	Location of casualty	Type of casualty
05/07	319/03	26.10.03	London ² Express	Container vessel	Germany	Atlantic	Personal accident
	009/06	10.01.06	Tor Dania/ Ems Tug + Ems Ponton 7	Ro-Ro-Ferry/ Tug and Tow	Norway/ Portugal	Elbe between buoys 1 and 3	Collision
	021/06	21.01.06	Oliver Jacob	Tanker	Germany	Cameroon, Kome-Kribi 1	Personal accident
	028/06	25.01.06	Heinrich S	Container vessel	Germany	Koper / ex. Yugoslavia	Personal accident
	039/06	02.02.06	Wolgastern/ Estraden	Tanker/ Ro-Ro vessel	Isle of Man/ Finland	Kiel Canal, Rader High Bridge	Collision
	068/06	23.01.06	Belen	Fishing vessel	Germany	La Coruna, Spain	Personal accident
	101/06	13.03.06	Jan Maria	Fishing vessel	Germany	West Ireland	Personal accident
	199/06	18.04.06	Planet V	Container vessel	Germany	Kiel Canal, km 23	Ground contact
	230/06	16.05.06	Samoa	Single-handed sailor	Germany	Island of Bornholm	Personal accident
	246/06	02.06.06	Germania	Fishing vessel	Germany	Heiligenhafen	Fire
	304/06	10.07.06	Hanjin London	Container vessel	Korea	Port of Hamburg, Eurogate	Fire/ Explosion
	305/06	12.07.06	Lass Uranus/ Xin Fu Zhou	Container vessel/ Container vessel	Germany/ P.R. China	Port of Hamburg (Finkenwerder)	Collision
	399/06	15.08.06	Blitzaktion	Sailboat	Germany	Danish coast	Foundering
	401/06	16.08.06	Skua	Sailboat	Germany	12 nm from Lyskeil, Sweden	Fire/ Explosion
	415/06	23.08.06	Elbe 3	Pilot tender	Germany	Elbe, Elbe buoy 1	Foundering
	474/06	09.09.06	Klenoden/ Hanjin Cairo	Container vessel/ Container vessel	Finland/ Germany	Port of Hamburg, Waltershof	Collision
	490/06	15.09.06	Atlantis	Sailboat	Germany	North Sea, East Frisian Islands	Ground contact
	537/06	27.10.06	Beluga Stimulation	Container vessel	Germany	German Bight, Weser	Personal accident
	558/06	05.11.06	Sara Maatje VII	Supply vessel	Netherlands	North Sea, oil platform Mittelplate	Personal accident
	564/06	08.11.06	Hoheweg	Fishing vessel	Germany	Nordergründe	Foundering
	586/06	17.11.06	Remo/ MSC Jilhan	General Cargo Ship/ Container vessel	Norway/ Panama	Baltic Sea Fehmarn	Collision
	601/06	02.12.06	Vera/ British Cygnet	Container vessel/ Tanker	Germany/ Isle of Man	Baltic Sea north of Fünen	Collision
	607/06	07.12.06	Wilma	General Cargo Ship	Antigua & Barbuda	Levensauer Bridge, Kiel Canal	Collision
	637/06	28.12.06	Cap Egmont	Container vessel	Germany	Pacific, off the coast of Japan 34°12'N 146°43'O	Personal accidents
	638/06	30.12.06	Maike	General Cargo Ship	Germany	Off the Dutch coast 53°35'N 005°02'O	Personal accident

² As a consequence of investigations by law enforcement agencies and sundry expertises this marine casualty is still being processed and will probably be published in September 2007

5.9 National cooperation – vessel accident database

As a consequence of different ways of further processing of the data collected from the vessel accident reporting sheets (Sea/Marine Accident Report Forms) within the the German Federal Waterways and Shipping Administration (WSV), there are no informative statistics for the field of inland shipping that are comparable on a national basis.

To simplify the analyses that are today partly conducted by hand and to introduce a standardised accident analysis, a uniform national vessel accident database is to be developed and introduced for maritime and inland shipping with a central data stock. For this reason the Federal Ministry of Transport, Building and Urban Affairs initiated a project group to design a vessel accident reporting sheet and build up a standard national vessel accident database by the decree LS 26/44.87.00/37 Va 04 of 13.04.2004. This is a project of the German Federal Waterways and Shipping Administration (WSV).

In addition to various members from the maritime and inland shipping areas, the BSU has been collaborating in this project group from the start.

The project relates to the Federal Ministry of Transport, Building and Urban Affairs and to all offices of the national WSV, in particular the Waterways and Shipping Directorates (WSD) and the Waterways and Shipping Offices (WSA) in respect of fulfilling their river and shipping police tasks, as well as to the waterway police of the German Federal States.

The content to be structured by the project concerns the provision of a user-oriented vessel accident database for maritime and inland shipping in order to optimise the recording and evaluation of vessel accident data.

The future vessel accident database is to be devised with consideration given to the organisational work procedures within the waterway police organisations of the German Federal States and the national German Federal Waterways and Shipping Administration (WSV), as well as the necessary IT resources.

Interfaces are also to be developed between the waterway police forces of the German States and the national WSV.

The collection, recording and analyses of the data must be regulated by law.

The database is to consist of various modules. The sketch below illustrates the considerations to date.

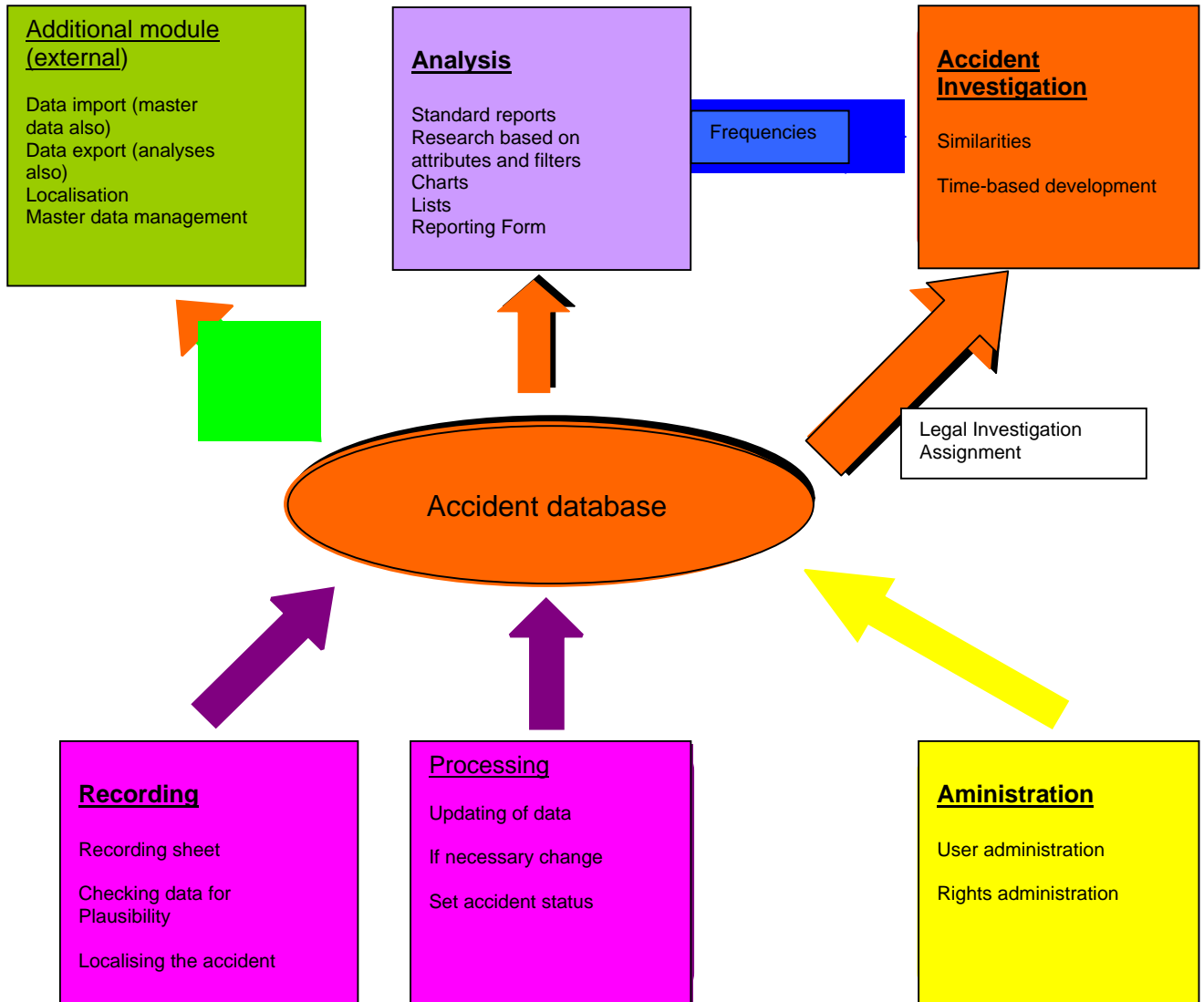


Chart from the preliminary examination of the project group Vessel Accident Database (German acronym SUDaBa)

The vessel accident database aims to support the user in various areas, such as:

- electronic compilation of accident reports (previously on paper)
- improvement of identification of accident accumulations under various aspects (e.g. type, location, etc.)
- search for similarities within accident accumulations
- provision of different analyses and diagrams on accident occurrences
- presentation of the time-based development of the accident occurrence

5.9 International cooperation

International Maritime Organization - IMO

The exchange of information relevant for the respective accident and cooperation with other states generally functions well. Cooperation is regulated as follows in accordance with IMO Resolution A.849(20) (code for investigating accidents and incidents at sea):

- notify the flag state, other substantially interested States in an investigation and the IMO,
- agree on the Lead Investigation State and the strategy of the joint investigation and co-ordination of the investigations by the Lead Investigation State,
- draw up a joint investigation report,
- attach deviating positions as an annex if these have not been taken into account.

European Union

At present (status 23 May 2007) a Directive is being elaborated at European level for investigating accidents in the maritime sector. Consultations on this were started during the German Council presidency in the EU. As soon as the Directive has been passed and thus becomes mandatory for the Member States, these states must implement it in national law within a set period.

The Directive is oriented to IMO Resolution A.849(20) that has already been transposed almost one to one in Germany in 2002 with the SUG.

European Maritime Safety Agency - EMSA

The European Maritime Safety Agency (EMSA) set up by the European Community as a consequence of the Erika accident integrates the BSU in its activities. The EMSA is there to advise the EU Member States in the field of ship safety in the broadest sense and also to coordinate in the field of marine accident investigation. An interactive "European Marine Casualty Information Platform" (EMCIP) has already been projected, into which a database is to be integrated.

MAIIF – EMAIF

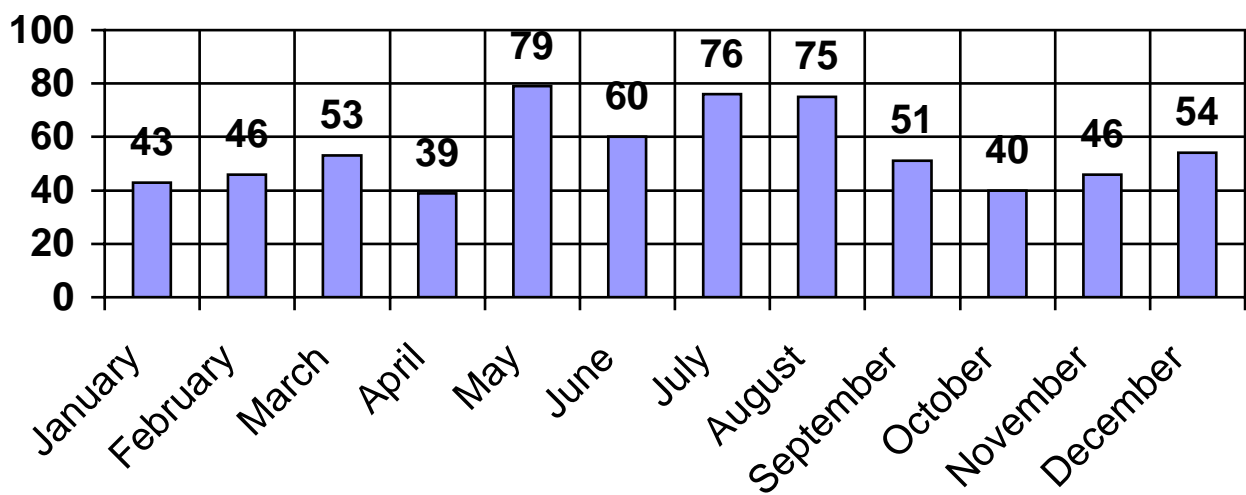
The BSU, since being established in 2002, has been working together with other marine casualty investigating authorities operating worldwide, associated with the Marine Accident Investigators International Forum (MAIIF). The BSU also collaborates with the sub-committee (EMAIF) of European states set up in Helsinki in March 2005. The second EMAIF session was held in Malta in March 2006; the third session is scheduled for mid-March 2007 in Southampton.

6 Annual statistics 2006

In the year 2006 altogether 16 investigation reports were published, one investigation was concluded with an internal report, and the BSU collaborated in three investigation reports published internationally. In a further case the BSU provided assistance in the investigation to the flag state. Work is currently in progress on 24 new cases from the year 2006 and one case from the year 2003.

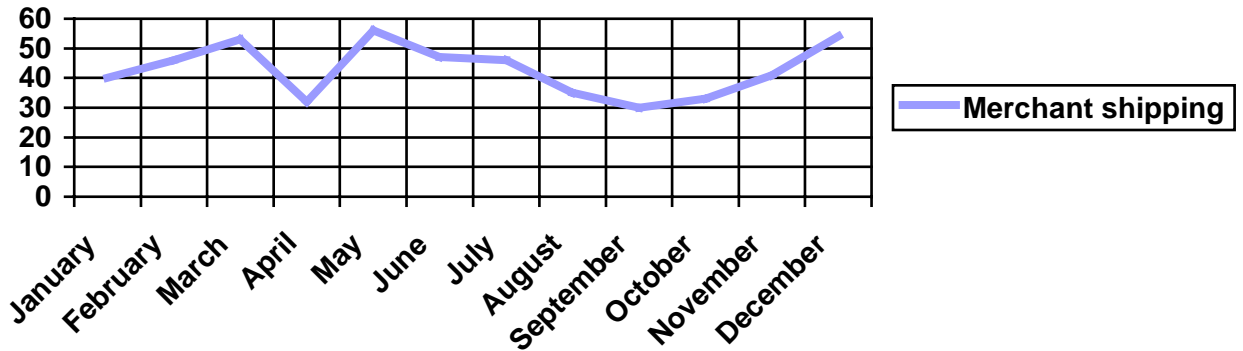
During the period 1 January to 31 December 2006 altogether 662 incidents causing damage or danger were reported, registered and processed. This represents an increase of over 20 % by comparison with the preceding year.

Number of reports by month



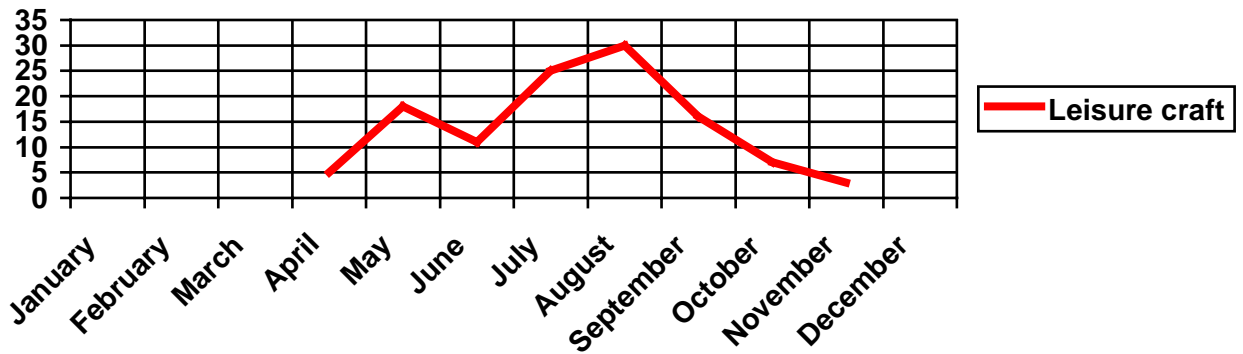
This total number of notifications includes 56 that do not fall under the generic term "incidents occurring in shipping operations that cause damage or danger". Such notifications, for example, "stumbled over the can of paint", "when bringing up the provisions the cook slipped down the steps", are to be classified more as normal accidents at work. These accidents at work do not fall within the scope of tasks of the BSU, but are instead investigated by the Marine Insurance and Safety Association (See-BG). The increase in the number of incidents reported is attributable primarily to the increase in notifications of these incidents that account for almost 65 % of reports.

Monthly distribution of the marine casualty reports



The distribution of the accident reports shows no significant increase during the winter months.

Monthly distribution of the marine casualty reports



An accumulation of accident reports during the months May to October is attributable to the fact that leisure craft are mainly be used in the summer months. The increase in the months July and August is attributable to the fact that most of the German Federal States have school holidays during these months.

In the year 2006 the number of marine accidents covered by IMO Res. A.849(20) increased from 122 to 151 cases, representing a rise of 24 %.

In the 151 accidents in the meaning of the IMO Code³ the number of **very serious marine casualties (VSC)** only increased slightly from 16 to now 17 cases. The number of **serious marine casualties (SC)** increased from 25 to 33 cases, representing a plus of 32 %.

In all, 12 cases with 17 (17) fatalities and 101 cases with 113 (55) injured persons were reported to the BSU. The figures in brackets are the figures for the preceding year. Consequently the number of fatalities remained the same, but the number of injured persons has more than doubled. Here too the increased reporting of incidence to the BSU by comparison with previous years is reflected. However there were no significant key accident areas.

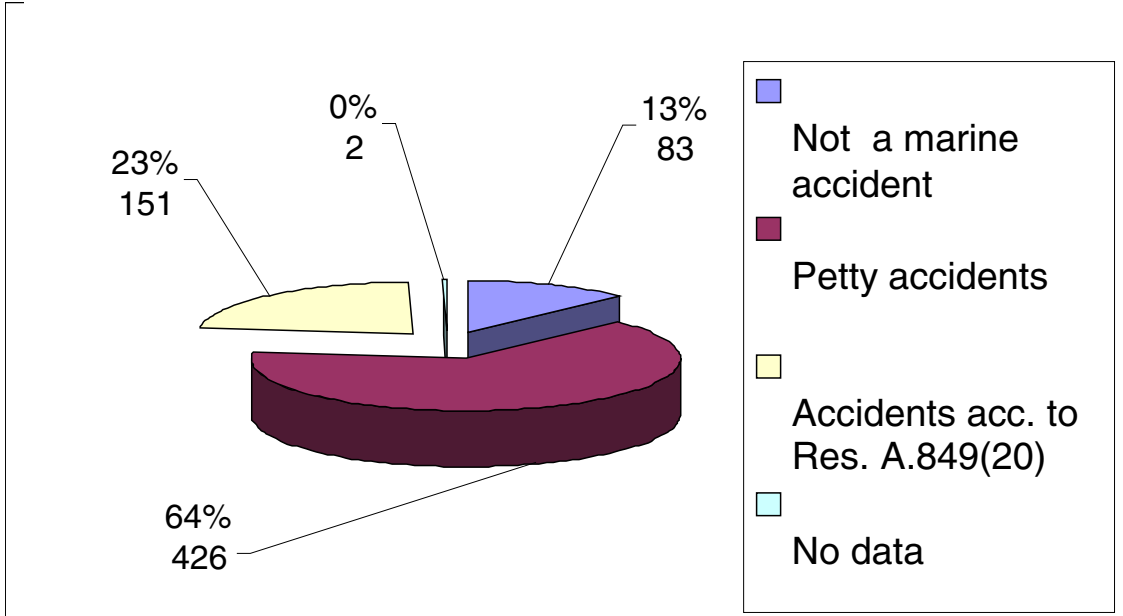
The marine casualties comprised 134 (158) reported accidents involving leisure craft. Consequently the number of incidents with leisure craft dropped by 15 %.

The statistics for the three years 2004 to 2006 show an accumulation of accidents during the hours 02.00 to 04.00 pm. As regards the age of the vessels, peaks are noted at vessels aged 5 to 9 years and vessels aged over 30 years.

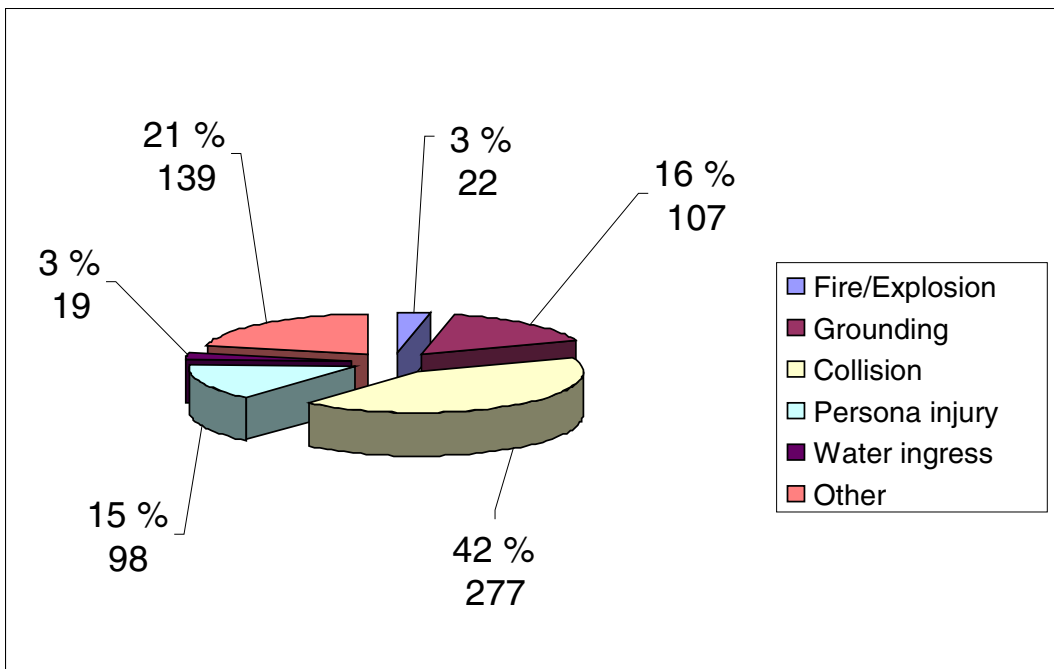
³ see section 5.1

6.1 Statistics on 662 accidents / incidents in 2006

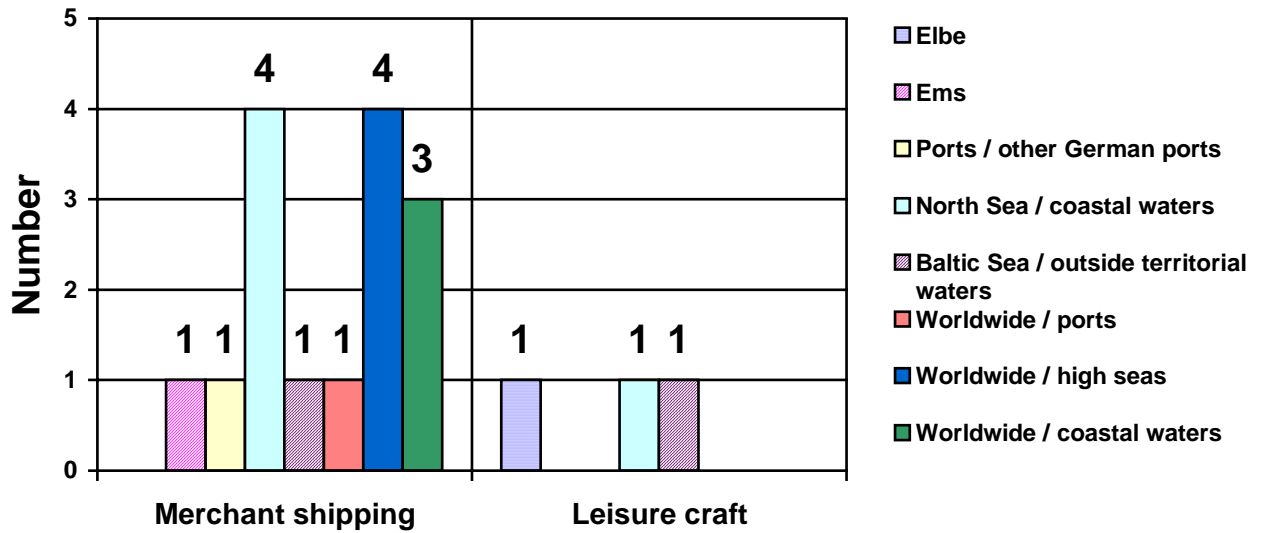
Accident classification of all notifications 2006



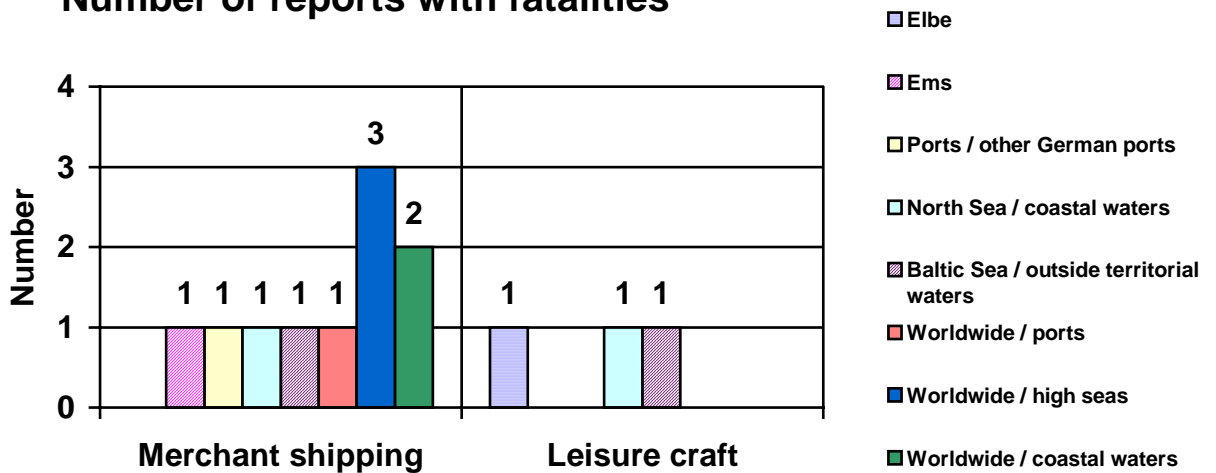
Types of accidents of all notifications



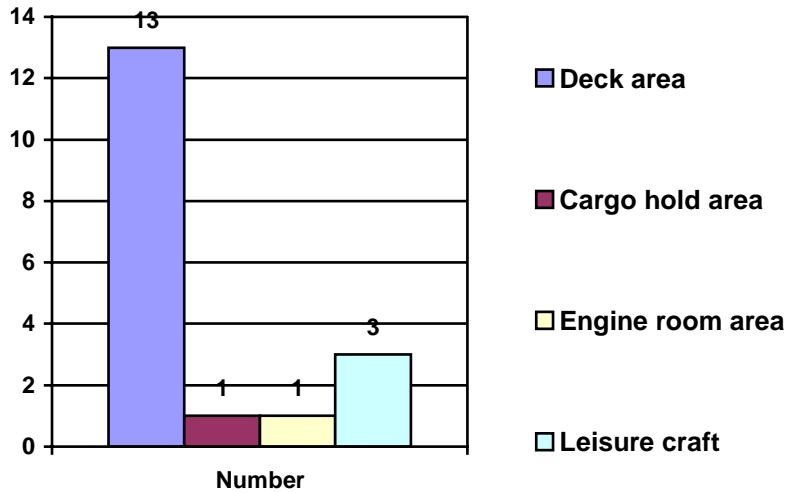
Number of fatalities broken down by water areas



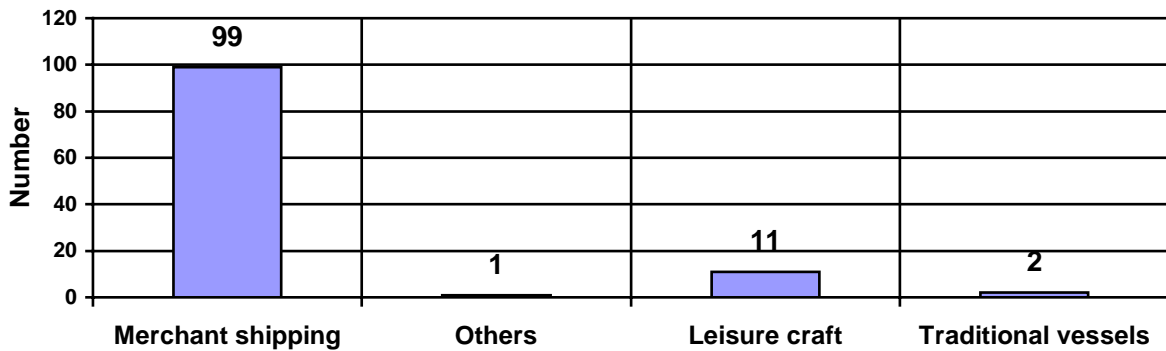
Number of reports with fatalities



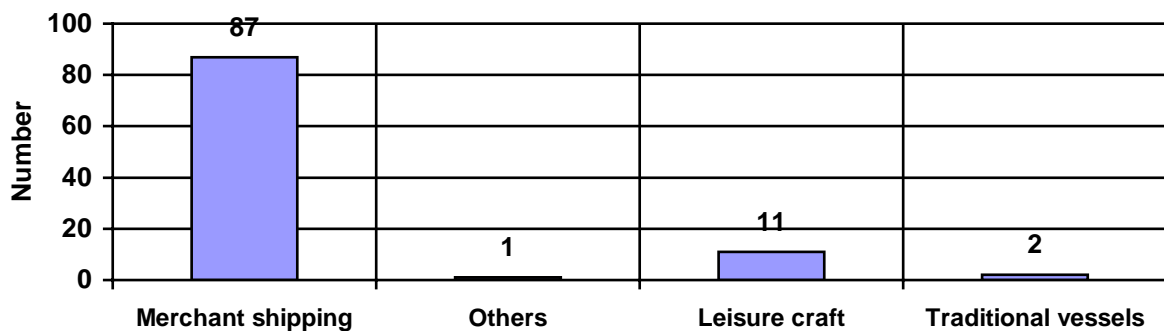
Loss of human life by location



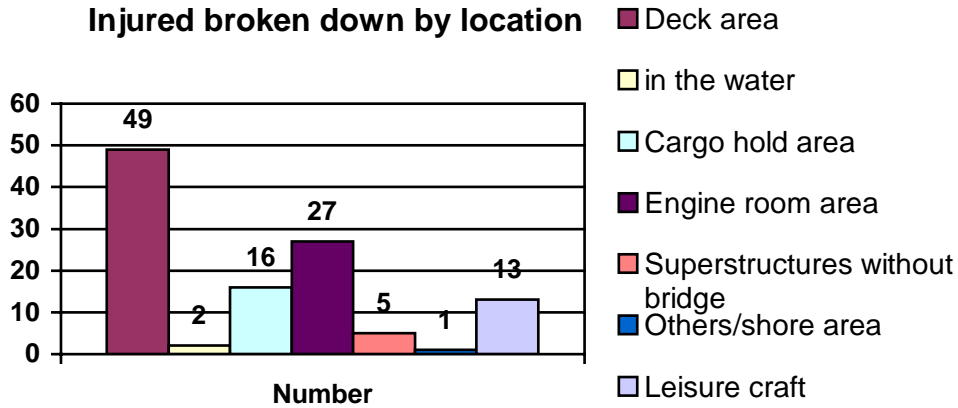
Number of injured persons



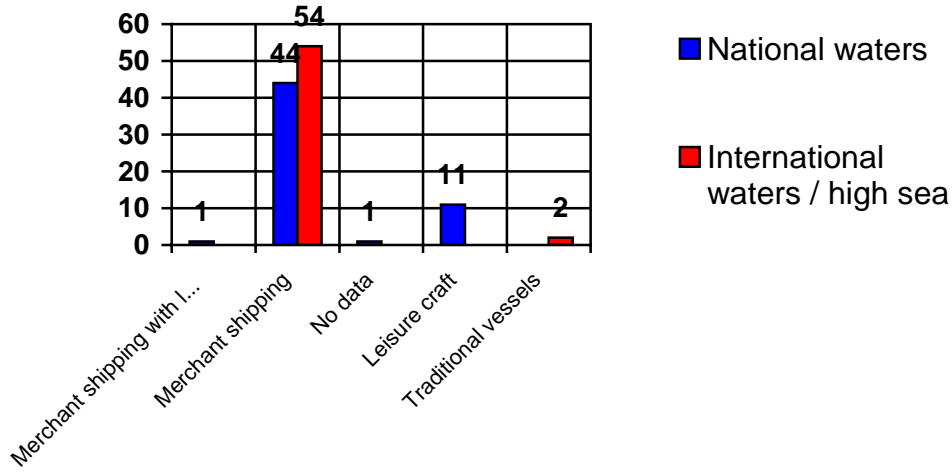
Number of cases reported with injured persons



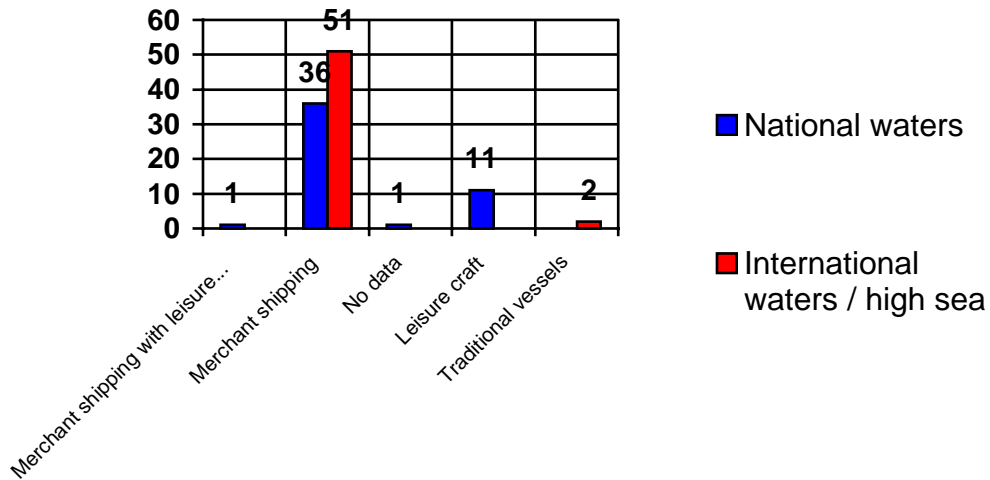
Injured broken down by location



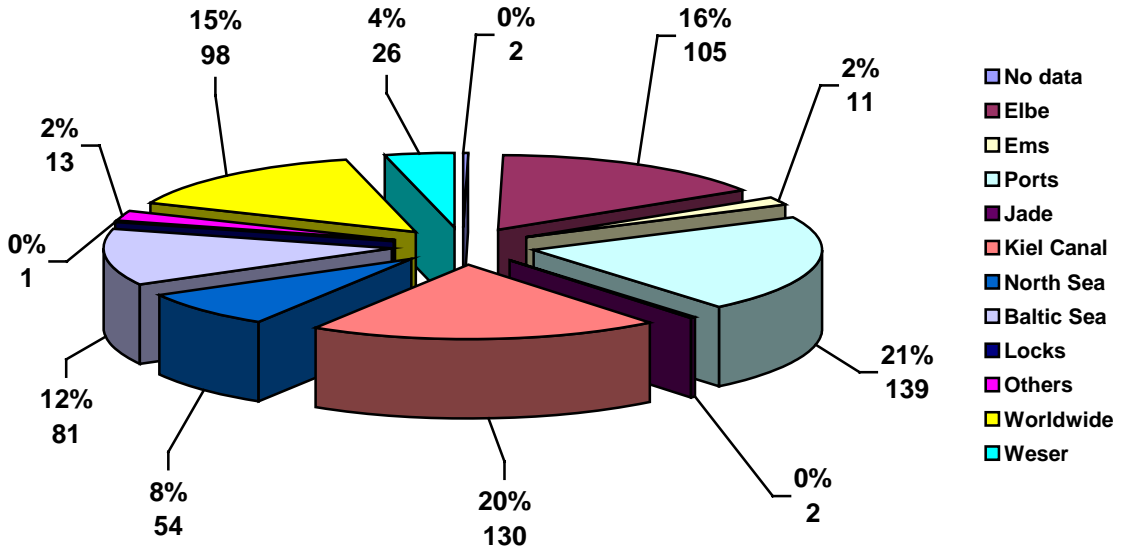
Injured broken down by trading area and operating form



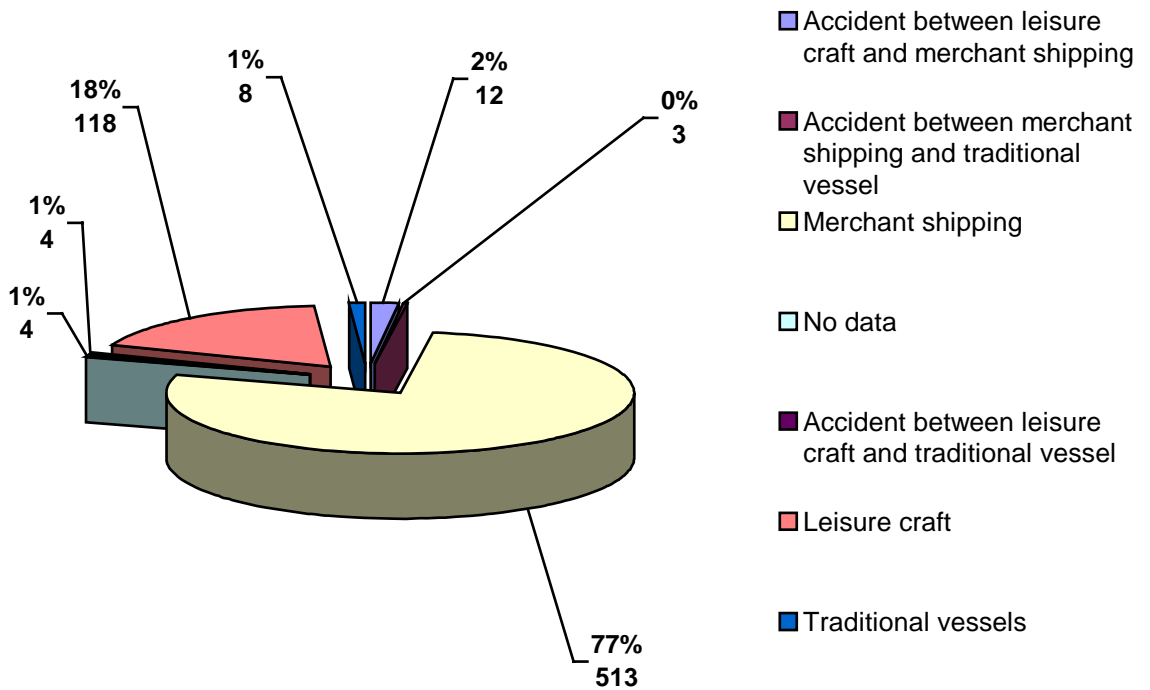
Number of cases with injured persons



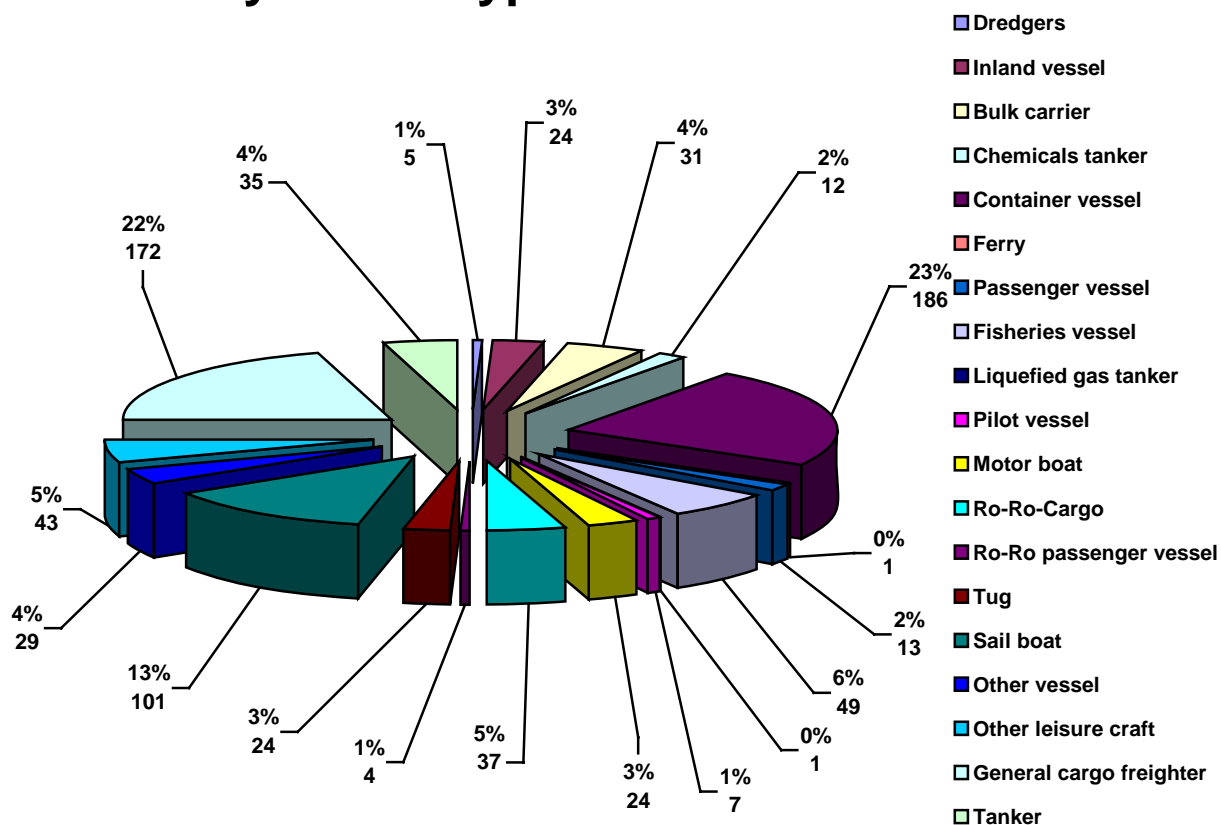
All notifications / incidents broken down by voyage area



Operating form of the vessels



Accident reports broken down by vessel types **



** Altogether 798 vessels were involved in the 662 notifications / incidents reported, divided between the above types of vessel.

Breakdown by flag and severity of accident of 798 vessels involved

Leisure craft

Flag	No accident	Petty accident	LSC	SC	VSC
Antigua & Barbuda		1			
Denmark		3			
Germany	18	71	28	7	7
France					1
United Kingdom		1			
No data		1			
Netherlands		4	3		
Norway		1			
Poland	1				
Russia		1			
Sweden		2			
South Africa				1	

Merchant shipping

Flag	No data	Petty accident	NA	LSC	SC	VSC
Antigua & Barbuda		43	1	13	1	1
Bahamas		11	1	1		
Belgium		2				
Belize		2				
Bermuda		1				
China		1		1	1	
Cook Islands		1				
Denmark		11		4		
Germany	1	138	41	34	17	9
Dominica		1				
Dominican Republic		2				
Equatorial Guinea		1				
Estonia		5				
Finland		10		1	1	
France		1		1		
Georgia		2				
Gibraltar		6			2	
Greece		1				
United Kingdom		16	2	3		
Honduras				1		
Iran		1				
Isle of Man		6	1	1		
Italy		1		2		
No data		1				
Cambodia		1	1			
Korea				1		
Croatia		2				
Liberia		13	4	1	1	
Lithuania		3				
Luxemburg		2		1		
Malaysia		1	1			
Malta		11	1			
Marshall Islands		7		2		
Monrovia		1				
Myanmar		1				
Netherlands	1	30	7	4	2	
Dutch Antilles		4		1		
Norway		8		2	2	
Panama		17		2	2	
Poland		5				
Portugal		1		2		
Russia	1	15	1	2	1	
Sweden		6	1	3		
Singapore		3		2		
Slovakia		1				
Spain		1				
St. Vincent & Grenadines		11	1	1		
South Africa			1			
Turkey				1		
Union of the Comoros		1	1			
Cyprus		18	1	2		

Type of accident

2006

Total loss	Water influx	Capsizing	Bottom contact/ Embankment contact	Collision	Fire/Explosion	Others	Personal accident	Accident with fatalities / personal injuries				
				Ship/ship	Ship/object	Engine room	Holds	Accommodations	Vessel command area		Fatalities	Injured

1 Bulk carriers

- .1 Bulk carriers from 500 to 1.599,99 GRT
- .2 Bulk carriers from 1.600 to 4.999,99 GRT
- .3 Bulk carriers from 5.000 GRT and more

									1			
	1		3		1					2	1	1
				5	9					5	2	1

2 General cargo ships

- .1 General cargo freighters from 100 to 499,99 GRT
- .2 General cargo freighters from 500 to 1.599,99 GRT
- .3 General cargo freighters from 1.600 to 4.999,99 GRT
- .4 General cargo freighters from 5.000 BRT/BRZ and more

			2	2	1					1		
			5	8	13					8	2	3
1	1		22	23	40	1		1		6		2
			3	8	10			1		9	2	1

3 Tankers

- .1 Tankers from 100 to 499,99 GRT
- .2 Tankers from 500 to 1.599,99 GRT
- .3 Tankers from 1.600 to 4.999,99 GRT
- .4 Tankers from 5.000 GRT and more

				1						1		1
			1	1								
			1	5	5					1		
				7	3					4	3	2

4 Chemical tankers

- .1 Chemical tankers from 1.600 to 4.999,99 GRT
- .2 Chemical tankers from 5.000 GRT and more

										2	1	1
			1	2	3					2	1	1

5 Container vessels

- .1 Container vessels from 500 to 1.599,99 GRT
- .2 Container vessels from 1.600 bis 4.999,99 GRT
- .3 Container vessels from 5.000 GRT and more

				1								
			3	8	4					5	1	1
1			12	37	17	1	1			28	63	4
												73

6 Liquefied gas tankers

											1	1
--	--	--	--	--	--	--	--	--	--	--	---	---

7 Tugs/pilot boats/dredgers

- .1 Tugs
- .2 Pilot boats
- .3 Dredgers

	2		1	10	8					3		
	1			4	1						1	1
	1				2					1	1	1

Total loss	Water influx	Capsizing	Bottom contact/ Embankment contact	Collision	Ship/ship	Ship/object	Engine rooms	Holds	Accommodations	Vessel command area	Other	Personal accident	Accident with fatalities or personal injuries
------------	--------------	-----------	---------------------------------------	-----------	-----------	-------------	--------------	-------	----------------	---------------------	-------	-------------------	---

8 Passenger vessels

			1	6							4	1	1
--	--	--	---	---	--	--	--	--	--	--	---	---	---

9 Ferries

											1		
--	--	--	--	--	--	--	--	--	--	--	---	--	--

10 Fishery vessels

3	5		6	12	3	4		1			13	3	7	4
---	---	--	---	----	---	---	--	---	--	--	----	---	---	---

11 Ro-Ro vessels

- .1 Ro-Ro cargo
- .2 Ro-Ro passenger vessel

			2	8	16	1		1			7	1		2
					2			1				1		1

12 Leisure craft

- .1 Motor boats
- .2 Sail boats
- .3 Other leisure craft

4	4		3	3	4	3					5	2	2	3
	4		25	38	5	1				1	20	6		6
3	3		12	12	1	2					11	2	1	3

13 Traditional vessels

			3	9	3							2		2
--	--	--	---	---	---	--	--	--	--	--	--	---	--	---

14 High speed craft

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

16 Inland vessels

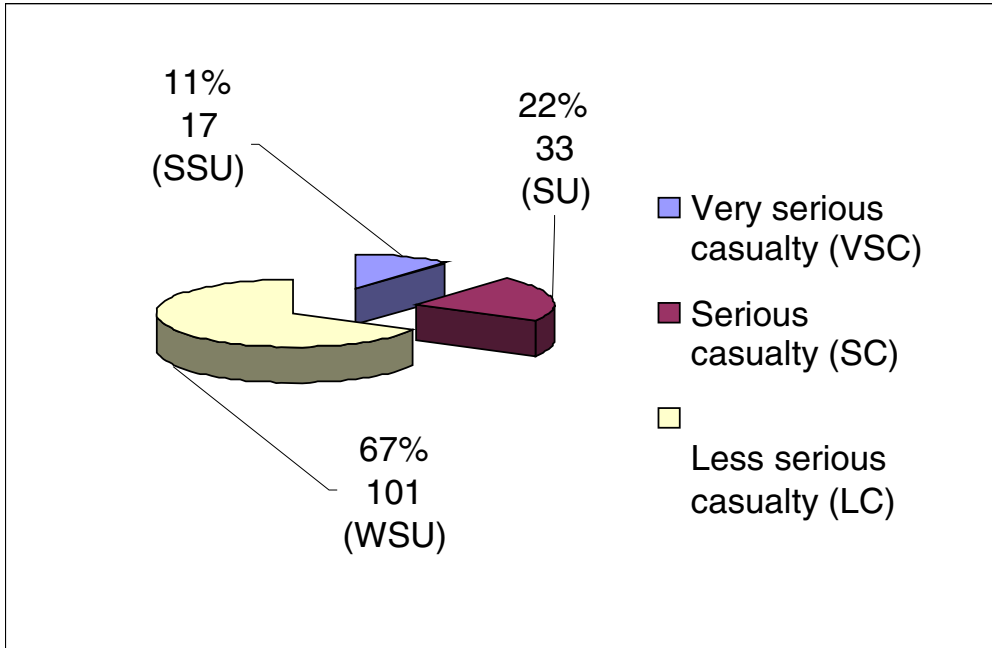
	1		1	6	8	1					7	1		1
--	---	--	---	---	---	---	--	--	--	--	---	---	--	---

17 Other craft

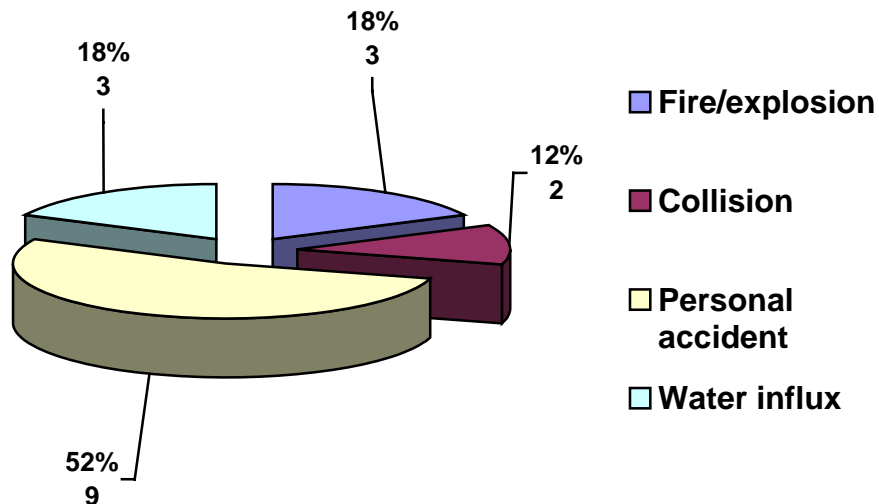
1			1	11	8			1			6	2		4
---	--	--	---	----	---	--	--	---	--	--	---	---	--	---

6.2 Statistics covering the 151 reported accidents according to IMO Res. A.849(20)

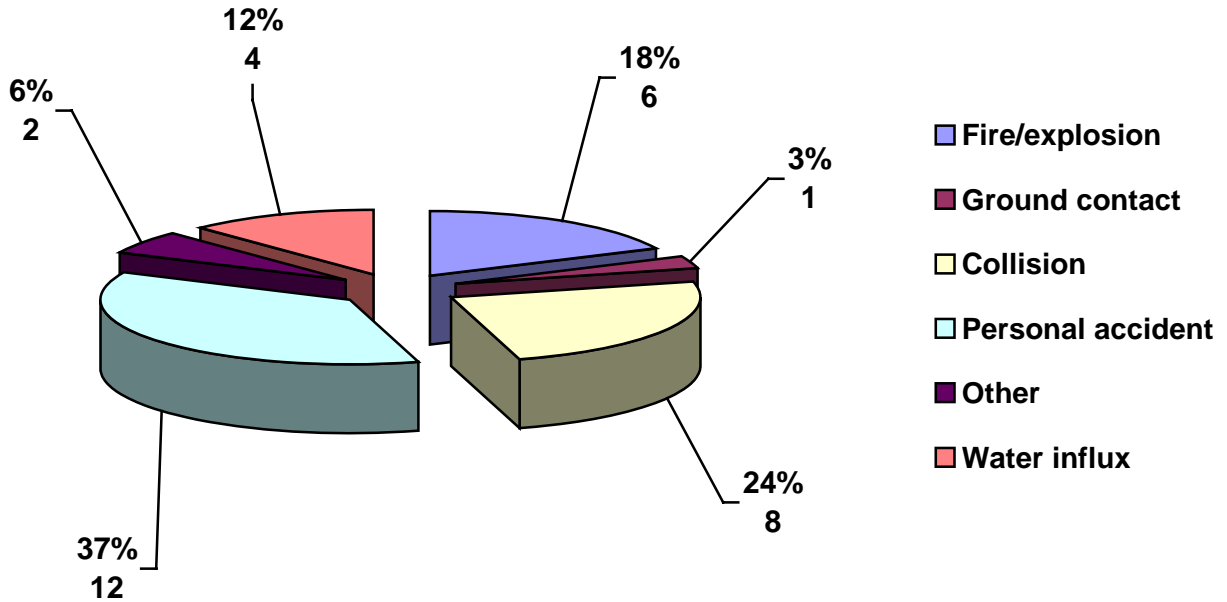
Accident classification by IMO Code



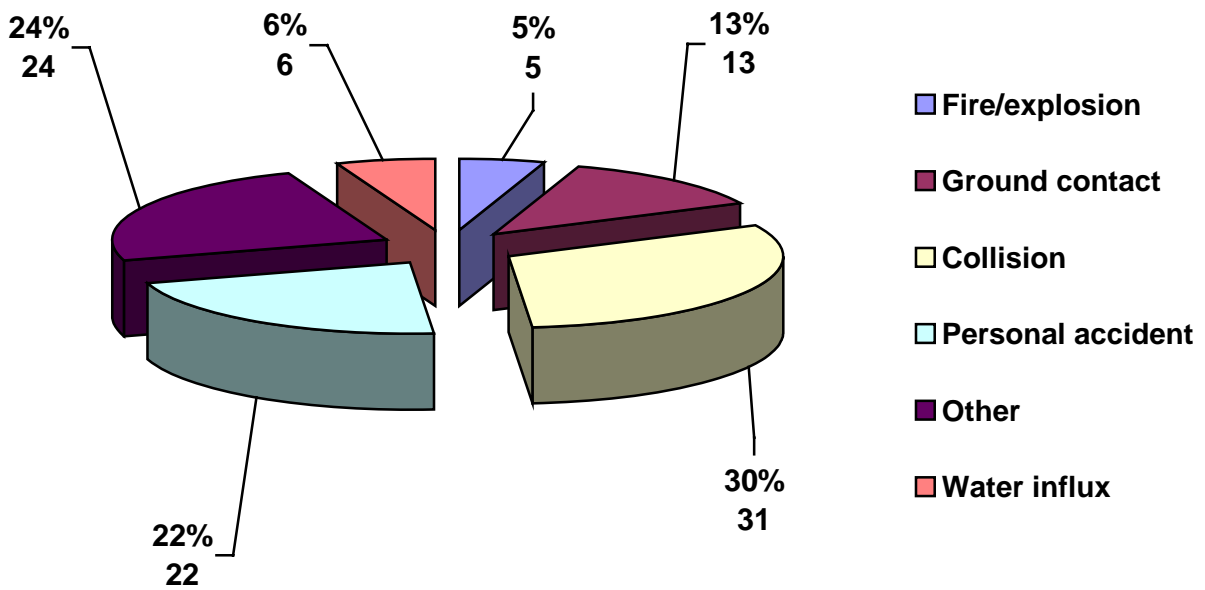
Breakdown of IMO accident category Very serious marine casualties (VSC)



Breakdown of IMO accident category serious marine casualty (SC)



Breakdown of IMO accident category less serious marine casualties (LSC)



6.3 Statistics 2004 to 2006 of accidents according to IMO Res. A.849(20)

Frequency of the accident types by IMO Code

	SSU			SU			WSU		
	2006	2005	2004	2006	2005	2004	2006	2005	2004
Collision vessel / vessel	0	2	2	5	7	3	22	20	19
Collision vessel / object	2	0	0	3	1	3	9	15	29
Foundering / total loss	5	4	2	2	1	2	2	2	0
Capsizing	0	0	1	0	0	0	0	3	5
Grounding/Stranding	0	0	0	1	7	2	13	15	9
Explosion/fire	3	1	0	6	3	2	5	7	2
Personal accident	9	9	8	12	5	5	22	5	11
Others	0	0	0	0	1	0	24	14	11

Breakdown of accidents by IMO Code A.849(20)

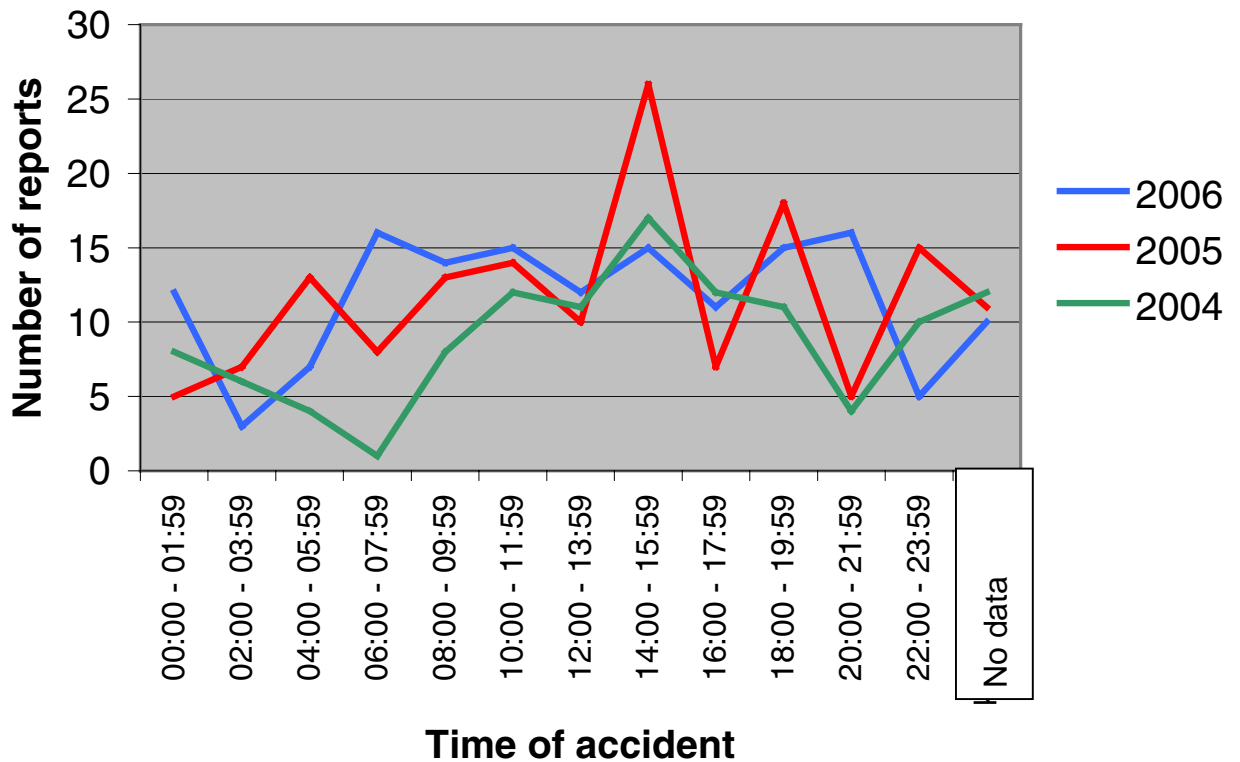
Breakdown by sea area altogether

	SSU			SU			WSU		
	2006	2005	2004	2006	2005	2004	2006	2005	2004
North Sea	2	1	1	5	1	4	15	8	15
Baltic Sea	1	5	3	6	3	4	14	12	14
EEZ	0	0	0	0	0	0	1	0	0
Ems	1	0	0	0	0	0	1	3	2
Weser	2	1	3	1	0	3	5	7	13
Jade	1	0	0	0	0	0	0	1	2
Elbe	1	2	2	2	5	2	16	20	16
Canal	0	0	0	2	4	2	15	16	14
Worldwide	9	7	4	10	12	4	20	14	8

Breakdown of accidents according to IMO Code

Times of accidents for vessels involved in the accidents

		2006	2005	2004
1	00:00 - 01:59	12	5	8
2	02:00 - 03:59	3	7	6
3	04:00 - 05:59	7	13	4
4	06:00 - 07:59	16	8	1
5	08:00 - 09:59	14	13	8
6	10:00 - 11:59	15	14	12
7	12:00 - 13:59	12	10	11
8	14:00 - 15:59	15	26	17
9	16:00 - 17:59	11	7	12
10	18:00 - 19:59	15	18	11
11	20:00 - 21:59	16	5	4
12	22:00 - 23:59	5	15	10
13	no data	10	11	12



Breakdown of accidents by IMO Code Age of vessels involved in the accidents

		2006	2005	2004
1	0 to 4 years	20	15	15
2	5 to 9 years	31	28	21
3	10 to 14 years	26	19	7
4	15 to 19 years	20	16	4
5	20 to 24 years	13	19	12
6	25 to 29 years	7	8	8
7	30 and more years	24	17	24
8	no data	39	30	25

