

MARITIME ACCIDENT REVIEW 2008



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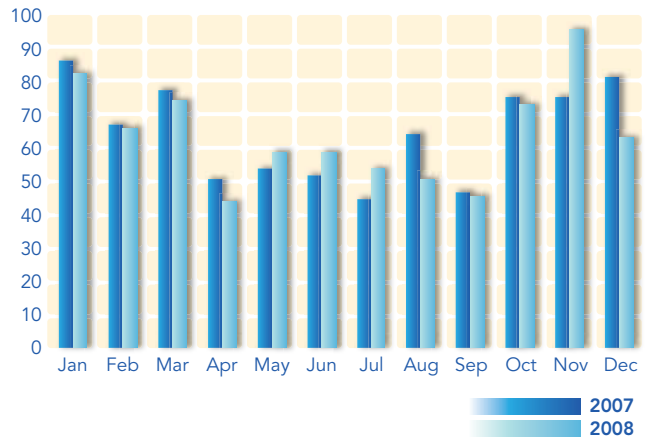
Summary of the 2008 Results

1.1 Overview

This is the second in an annual series of reviews which aim at making both the EU maritime community and EU citizens aware of what accidents are happening in and around EU waters (the term EU includes Norway and Iceland for the purpose of this review). The first annual accident review, in 2007, showed a significant increase in the number of vessels involved in accidents in comparison with 2006. An analysis of the 2008 figures shows that, although accidental pollution in and around EU waters has substantially decreased in recent years, loss of life (see section 3.1) and the number and cost of accidents remain significantly higher than 3-5 years ago, and deliberate pollution also remains at high levels. There are also significant concerns that, although the shipping downturn will give owners and operators the time to carry out much needed maintenance that was delayed during the boom period, many will not do so because they have reduced funds to pay such activities. The main message seems to be that, even though the shipping slump is providing a small amount of temporary respite from increasingly frequent and costly accidents, the fight to reduce the number, severity and cost of these accidents must continue unabated if seriously negative consequences on human activities, the environment and the European economy are to be avoided in the years ahead.

Although the annual total remained high, a significant development in 2008 was that, while the number of vessel accidents normally rises throughout the Autumn to reach a Winter high in December and January, December 2008

2007/2008 Number of Vessels Involved in Accidents (Time of Year)



showed a marked decrease over November. In fact, there were 74 accidents reported in November 2007, followed by 80 in December, whereas November 2008 saw 94 accidents followed by 62 in December. In support of this trend, the figures for January 2009 show that 60 vessels were involved in accidents, as compared with 81 in January 2008. The January 2008/2009 comparative figures also recorded that sinkings reduced from 13 to 3 and that loss of life reduced from 18 to 3. While weather, geography and other factors may have played a part in these improvements, this seems to indicate that there is a relationship between the number and seriousness of accidents in and around EU waters and the shipping boom and subsequent slump towards the end of 2008. These findings are consistent with a similar, recent global reduction in accidents noted by the International Union of Marine Insurance (IUMI), Intertanko and the International Tanker Owners Pollution Federation (ITOPF), whose figures also showed that tanker pollution has declined to such an extent that oil pollution from bunker spills is now greater than that from cargo spills (Source:

Tradewinds magazine, 27th March 2009). There is also evidence that deliberate pollution is at a high level (see section 3.2).

Prior to the fall off in the number of vessel accidents at the end of 2008, statistics were showing that a ship was twice as likely to be involved in a serious grounding, collision or contact accident in 2008 compared to five years before, and estimates also showed that the costs of these accidents had doubled (Source: DNV press release, 20.2.2008). However, even taking into account the slump, both the safety and cost situations have worsened significantly in recent years. On the safety side, the number of accidents has been rising over several years, and it seems that this is likely to have been linked at least partly to the shipping boom. However, to put this in both a safety and an environmental context, it should be remembered that there has not been a passenger ship disaster since the 1990s, and that there has not been a major oil spill since 2002. On the cost side, 2008 saw ship owner P&I clubs looking at the largest ever year-on-year increase in gross paid claims of 34.5% (Source: Lloyds List, 8.1.2009). The recent reduction in the number of accidents will not have a significant effect on this for some time as the costs of accidents which occurred in previous years are still being paid.

When considering the figures in this review, it should be borne in mind that 22,752 merchant vessels were recorded as visiting European ports in 2008 (up 3.9% from 2007), and that 694,000 port movements were recorded for these vessels (up 5.8% from 2007). Figures for the total number of ships and movements in and around EU waters are not yet available, but in the 2009 review, it

is expected that EMSA will be in a position to provide more detailed traffic figures, so that accident numbers and severity can be viewed in an improved context.

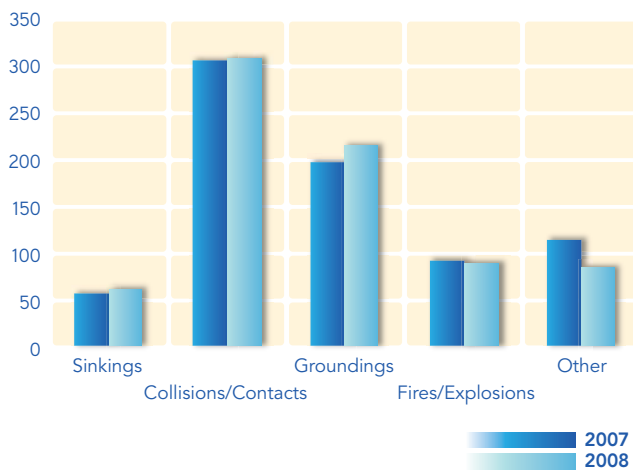
It should also be borne in mind that the review also does not look at the causes of accidents. The reason for this is that: many accidents are not the subject of investigations; information sources frequently do not specify the cause and; in the case of those which do, the information may not be accurate. However, it is acknowledged that the great majority of accidents have a human error component, and also that seafarers often make mistakes under difficult circumstances (eg bad weather, geographical/infrastructure restrictions, fatigue, task overload, training shortcomings, structural failure, engine failure, steering failure, etc.). It is also acknowledged that alcohol intake contributes to accidents. These things show through in accident reports provided to EMSA by EU Member States, and in the information obtained from other sources for this review. The full scope and purpose of the review can be seen in the Annex

1.2 Total Numbers for 2008

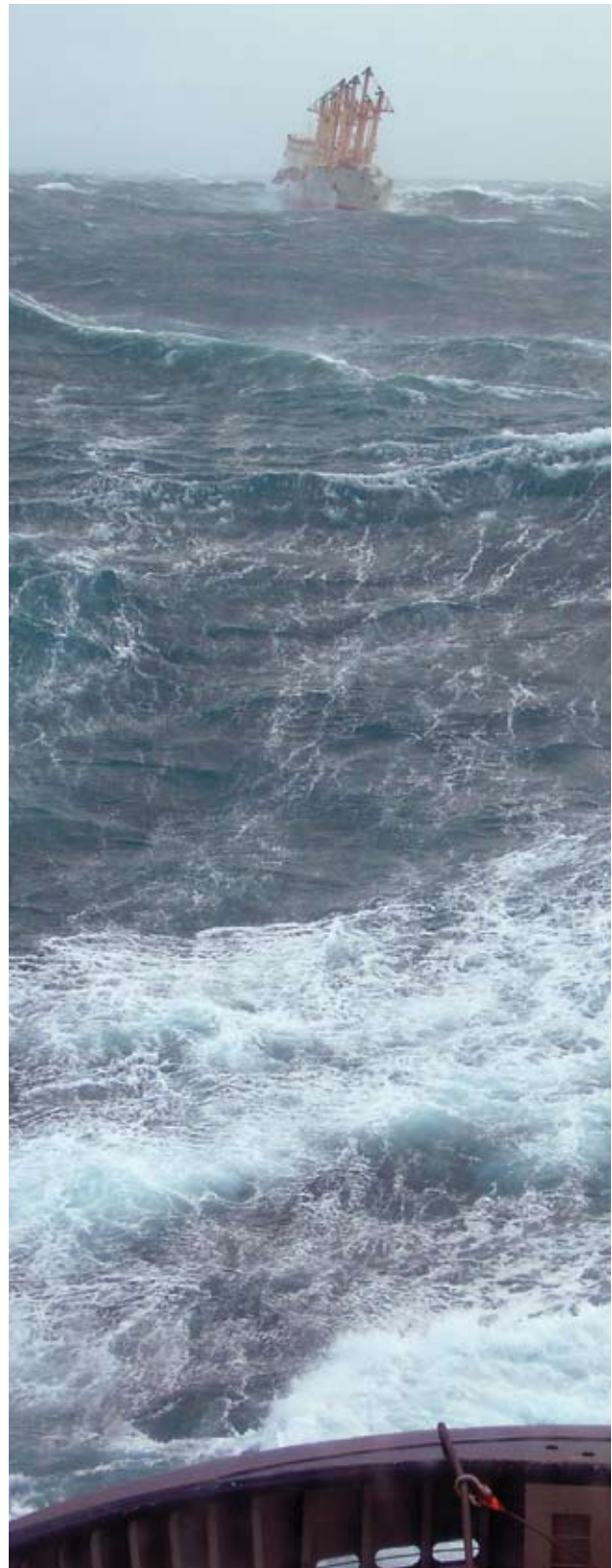
The latest figures show that 754 vessels were involved in 670 accidents (sinkings, collisions, groundings, fires/explosions and other significant accidents) in and around EU waters during 2008. This compares with 762 vessels involved in 715 accidents in 2007 (and 535 vessels involved in 505 accidents during 2006). However, if it was not for the significant decrease in December 2008, the number of accidents reported would have

exceeded those in 2007. 82 seafarers are reported to have lost their lives on ships operating in and around EU waters in 2008 (compared with the exactly the same number in 2007 and 76 in 2006) and, taking into account that many figures are not readily available, the best estimate of the amount of oil spilled in reported accidents further reduced to the order of 2-3000 tonnes in 2008 (in comparison with an estimated 7-8000 tonnes in 2007).

2007/2008 Number of Vessels Involved in Accidents by Type



The majority of vessels in the EMSA 2008 survey were involved in collisions and contacts (around 40%, which is the same as in both 2006 and 2007) and groundings (around 29%, as compared to 26% in 2007 and 22% in 2006), while sinkings accounted for around 8% of the total (compared with 7% in 2007 and 8% in 2006) and fires and explosions for around 12% (as compared with the same in 2007 and 9% in 2006). All other types of significant accidents combined represented around 10% of the total (compared with 15% in 2007 and 20% in 2006). Around 30 of the 82 lives reported as lost were in fishing vessel accidents, and this subject is dealt with in greater detail in section 3.1. The pollution situation is reviewed in section 3.2.



Rough weather affects ship safety

As suggested previously, many accidents happen in northern waters during the winter months when the weather is at its worst, with crews having to navigate ships under the most difficult of conditions, and often in confined waters. However, the time of year is not the only factor to take into account when looking at European accidents overall. During 2008, the months of January, February and December accounted for around 28% of vessels involved in accidents, while the figures for other quarters were March-May (around 23%), June-August (around 21%) and September-November (around 28%). Aside from the previously mentioned, and unusual, November high and December fall-back, the accident lows were in April (43) and September (45), but each of the summer months accounted for over 50 accidents each. When looked at more closely, it can be seen that around 47% of the May-August accidents relate to vessels involved in collisions and contacts. The main reason for this is that the number of tourist ferry sailings is at its height, and they occasionally come into hard contact with infrastructure while berthing, although the extent of damage is not usually significant. The worst months for loss of life were January (18), September (12) and December (18). The reason for the unusually high September figure was the loss of the general cargo ship Tolstoy (see section 2.1).

With respect to tonnage, around 42% of vessels involved in accidents were in the 500-5000 gt category (down from around 45% in 2007), most of which were general cargo ships, and around 18% were under 500 gt (the same as in 2007). As in 2007, less than 5% of vessels involved in accidents were over 50000 gt. Around 72% of

the vessels which sank were under 500 gt (down from around 75% in 2007), with around 66% of these being fishing vessels (up 1-2% from 2007). Around 40% of lives lost were on vessels under 500 gt (down from around 57% in 2007), with the majority being on fishing vessels.

When looking at country of registry, it was noted that over 38% of the vessels involved in accidents in and around EU waters flew non-EU flags, and that around 62% flew EU flags (almost the same as in 2007). For this calculation, fishing vessels were excluded.

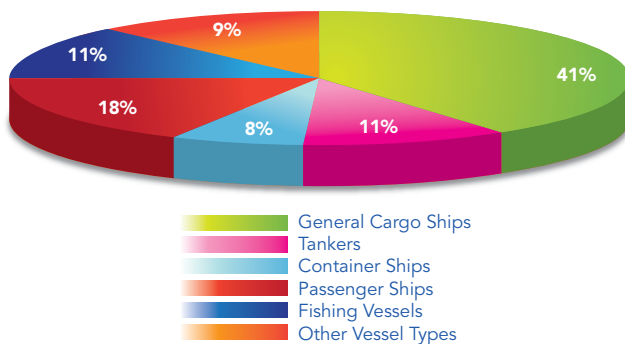
With respect to figures for classification societies, it was noted that almost 29% of the vessels involved in accidents in and around EU waters in 2008 were not certified by classification societies (slightly down on 2007), with over one third of these being fishing vessels. It is the responsibility of flag states to certify that the vessels under their jurisdiction satisfy international requirements, either themselves exercising flag state responsibilities, or by authorising a classification society. Vessels classed by EU recognised societies were involved in around 70% of the accidents, while those classed by non-recognised societies accounted for only 1%. It should be borne in mind that EU recognised classification societies class well over 90% of the world fleet in terms of tonnage, although the proportion is less in terms of vessel numbers.

When looking at the figures for management of vessels involved in accidents in and around EU waters, over 83% were EU managed (slightly up on around 80% in 2007). Almost 77% of lives lost were on EU managed vessels (the majority being fishing vessels).

While the great majority of vessel accidents do not result in serious consequences, there were one or two each month during 2008 which were significantly worse than the rest, and these are highlighted in Chapter 2.

1.3 Breakdown by Ship Type

2008 Accidents by Ship Type



Note: percentages per vessel type have been rounded down, hence the total of 98%.

1.3.1 Cargo Ships (General Cargo Ships, Bulk Carriers and Vehicle Carriers)

The cargo ships category includes general and refrigerated cargo ships, bulk carriers and vehicle

carriers. The great majority of commercial ships fall into this category. Consequently, it is no surprise that this was also by far the biggest category for shipping accidents in and around EU waters in 2008, with almost 41% of the total EU vessel accidents recorded (down from around 45% in 2007). General cargo ships accounted for almost 77% of the cargo ship accident total, while bulk carriers accounted for almost 13% and vehicle carriers for around 10%. A very large proportion of general cargo ships, and many bulk and vehicle carriers, are in the 500-5000 gt range and the majority of the vessels were involved in collisions/contacts and groundings, which accounted for around 39% and 37% of the accident total in this category respectively (down from around 40% and 33% in 2007).

The figures showed 307 cargo ships involved in accidents in 2008 (down from 330 in 2007). They also recorded that 10 general cargo ships sank (in comparison with 11 in 2007) but no bulk or vehicle carriers went down. 24 people died in accidents on cargo ships (up from 20 in 2007). The number of accidents involving refrigerated vessels was very small.



1.3.2 Tankers

This section includes tankers of all kinds, including oil, chemical and gas tankers. Tankers are a high interest category, given that the *Erika* (1999) and *Prestige* (2002) oil tanker disasters took place off the EU coast, and that they extensively polluted a large proportion of the western coastline. Only one small oil tanker sank in 2008 (in comparison with no sinkings in 2007), but the total number of vessel accidents increased significantly from 63 in 2007 to 76 in 2008 (up over 20%), which equates to around 11% of all EU vessel accidents (up from 8% in 2007).



As has been the case every year since 2002, there were no major tanker spills in and around EU waters in 2008. Within the tanker accident total, collisions/contacts accounted for around 41%, while groundings made up for around 26% and fires and explosions for around 14%. 9 people were reported to have lost their lives in accidents on tankers in 2008 (up from 3 in 2007). Oil tankers accounted for around 72% of tanker accidents, gas tankers for around 10% and chemical and other tankers for around 18%.

1.3.3 Container Ships

After some major container ship accidents around the EU coastline in 2006 and 2007, the number of vessels involved in accidents reduced in 2008, despite the shipping boom. This is good news for shippers and insurers, as container ship accidents can be particularly expensive in insurance terms. The reason for this is that, tonne for tonne, 'box ships' often carry very high value cargoes, and they are also increasing in size.

Should an entire cargo be lost or significantly damaged, the costs can be huge. With some



individual containers carrying millions of euros worth of goods each, even if a small number of high value containers are lost overboard, the insurance cost can be more than the loss of a general cargo ship. Added to this, larger and larger ships are carrying more and more bunker fuel on board, so the pollution risk that they pose is increasing.

Less than 8% of the vessels involved in accidents around the EU in 2008 were container ships (down

from around 10% in 2007). Almost 52% of box ship accidents were collisions or contacts (down from around 65% in 2007), but the proportion of groundings doubled at around 30% (15% in 2007), although there were none with the serious consequences experienced in the previous two years. A lower number of accidents were reported where containers were lost overboard in 2008.

1.3.4 Passenger Ships

This category includes ferries and cruise ships. There was no significant loss of life in passenger ship accidents during 2008, but there were several accidents where the consequences could have been a lot worse (see Chapter 2). This continues to be a cause for concern, because there were large numbers of passengers on the vessels, and any one of the accidents could have become a disaster. The accidents involving the ferries *Estonia* and the *Herald of Free Enterprise*, on which many hundreds of people lost their lives, are now in the past, but their legacy ensures that extensive efforts are still being made to ensure that passenger ships are built and operated more safely in the future.

Once again, the figures show that there is room for significant improvement, as this was again the second highest category for vessel accidents, and accounted for almost 18% of the total around the EU coast during the year (down from around 20% in 2007), although most of these did not result in serious damage. 134 passenger ship accidents were recorded in and around EU waters in 2008 (down from 149 in 2007). Within the 2008 total, ferries were involved in around 85% of accidents (up from 80% in 2007), while cruise ships accounted for around 15% (down from 20% in 2007). It should be borne in mind that the number of ferry journeys vastly exceeds those of the cruise ships which operate in and around EU waters. No ferries sank in 2008 (down from 3 in 2007), around 60% were involved in collisions or contacts, around 18% ran aground and around 12% had fires on board. After the sinking of the *Sea Diamond* in 2007, there were no cruise ships sinkings in 2008. 40% of the cruise ships were involved in collisions and contacts, 25% ran aground, 15% had fires on board and 20% fell into the 'other' category, which includes such things as passengers falling overboard, unusual listing, lifeboat accidents, etc.



1.3.5 Fishing Vessels

29 fishing vessels were recorded as sinking in 2008 (up from 27 in 2007), with the majority happening off the Atlantic coast. Most of these occurred off the UK, Spain, France and Ireland, and as with several other categories of accident, most happened in severe weather in the colder months of the year. Bearing in mind that only sinkings were recorded for fishing vessels under 50gt, the figures showed that fishing vessels accounted for almost 11% of all vessel accidents in and around EU waters (no change from 2007), and that fishing vessel sinkings represented around 48% of the total number of vessels which sank (slightly higher than in 2007). It should also be borne in mind that the EU fishing fleet has been reducing in size in for some years.

30 crew members were reported to have died in fishing vessel accidents during the year (one less than in 2007), which represented almost 37% of all deaths on board vessels in and around EU waters. The most serious individual fishing vessel accidents are described in Chapter 2 and section 3.1.



1.3.6 Other Vessel Types

Following the sinking of the anchor handler *Bourbon Dolphin* in 2007, the worst accident affecting other types of vessels in 2008 was the sinking of the dredger *Rozgwiazda* in the Baltic Sea off Poland (see Chapter 2), when 5 seafarers lost their lives, but there were also several others of a very serious nature. The category includes many different types of vessel, including tugs, offshore support vessels, anchor handlers, barges, research vessels, heavy lift vessels and dredgers.



When taken together, almost 9% of the vessels involved in accidents in and around EU waters were in this category (slightly lower than in 2007). Around 28% of sinkings (up around 8% from 2007) and 6% of lives lost (down around 15%) involved such vessels. Around 32% of the vessel accidents in the category were collisions or contacts (up 12% from 2007), almost 22% were groundings (down 3%) and around 15% were fires (down around 5%).



2

Types of Accidents

This section is divided into five parts (sinkings, groundings, collision/contacts, fires/explosions and other types of accident) in order that the differences can be clearly seen between the different types of accidents.

The first part of each section gives an overview of the figures, with a breakdown of the recorded accidents for the category in 2008, and the second part takes a look at some of the more significant accidents that happened throughout the year. Accident black spots can be seen in the regional breakdown in Chapter 4.

2.1 Sinkings

2.1.1 Overview

There were no disasters involving huge loss of life or pollution in 2008. However, the recorded figures show that 61 commercial vessels were reported to have sunk in and around EU waters (up from 55 in 2007 and 45 in 2006), with 29 of these being fishing vessels (up from 27 in 2007). Of the remainder, 10 were general cargo ships (as in 2007) and 21 were in the 'Other Vessel Types' category (up from 12), which includes tugs, offshore support vessels, anchor handlers, barges, research vessels, heavy lift vessels and dredgers. Sinkings accounted for just over 8% of the total number of vessel accidents (up from 7% in 2007). Despite having sinkings recorded in each of the bulk carrier, container ship, cruise ship and ferry categories in 2007, there were none in 2008. One small tanker sank (see section 2.1.2), which amended the clean tanker record in 2007.

Sinkings by Ship Type	2007	2008
General Cargo Ships	10	10
Bulk Carriers	1	0
Tankers	0	1
Container Ships	1	0
Cruise Ships	1	0
Ferries	3	0
Fishing Vessels	27	29
Other Vessel Types	12	21
Total	55	61

2.1.2 Most Significant Accidents

One of the most significant sinkings was that of the 4000 gt general cargo ship **Tolstoy**, which sank in strong winds in the Black Sea off Cape Emine, Bulgaria on 27th September, with the reported loss of 8 crew members. The freighter disappeared from radars with no Mayday call having been received, following which all ships in the area were notified and three of the crew members were eventually rescued. An empty life raft was found later, but there was no sign of the missing seafarers. At the time, it was reported that very strong winds and the fact that the vessel was overloaded with scrap metal were probably major contributors to the accident. It is of note that, before it sank, the freighter was trading in and around EU waters for many months after being de-registered.

Another high profile sinking was that of the 6500 gt general cargo ship **Ice Prince**, which sank in gale force winds off Portland Bill, southern UK, on 15th January after losing around 2,000 tonnes of its cargo of around 5,200 tonnes of sawn timber overboard. The vessel listed 25-40 degrees for two days before it finally sank. 12 of the crew were airlifted off and 8 were rescued by



Ice Prince sinks and leaves its wood on southern UK beaches

a lifeboat, following which a surveillance aircraft confirmed that an oil slick was appearing where the freighter went down. The wood later washed up on beaches all along the south coast of the UK and an unspecified proportion of the around 550 tonnes of fuel oil on board was spilled. All crew members were wearing lifejackets and immersion suits when they were rescued. From 15th January to the end of February, 25 satellite images were acquired by EMSA via CleanSeaNet to assist the UK authorities in monitoring the wreck site and any associated pollution.

Of the 29 recorded fishing vessel sinkings, among the most significant were those of the *Rosamar*, *La P'tite Julie*, the *Beverina*, the *El Cordero* and the *Simshar*, which resulted in the loss of a total of 29 crew members. These, and other accidents which involved significant loss of life, are described in Chapter 3.

10 general cargo ships sank in total. In two of these, 3 crew members were reported to have lost their lives after the 1300 gt *Farouk M* sank in bad weather south-west of Cyprus on 14th December and 2 crew members died after the 670 gt *Sundus* sank in storms between Italy and Libya on 8th December.

The 6300 gt passenger/ro-ro ferry *Assalama* hit rocks, took on water in the bow section and partially sank between the Canary Islands and Morocco while en route from Tarfaya to Fuerteventura, Spain, with 122 passengers and crew on board on 30th April. All 104 passengers and 18 crew members were rescued without loss of life or injury.

The first oil tanker to sink in and around EU waters since 2006 was the 450 gt single hulled oil products tanker *Savinosa*, which partially sank by the stern while berthed at the port of Tarragona, north-eastern Spain, on 9th September. Divers determined that the cargo tanks did not rupture, but it was reported that around 25 of the around 1,000 tonnes of fuel oil on board was spilled. The clean-up activities ensured that the slick did not reach the open sea.

An unusual sinking occurred when the 2500 gt jack-up lift ship *Titan 1* fell off the deck of the heavy-lift vessel *Ancora*, capsized and sank west of the UK, while en route from the US Gulf to the UK on 26th October. The *Ancora* sustained engine failure in the Atlantic, then rolled and listed for some time, as a result of which the

Titan 1 shifted to the portside of the deck, fell overboard and was lost.

Another unusual case was that of the floating dock **No. 255**, which broke along its longitudinal axis and sank at a shipyard at Midia, Romania, on the evening of 21st December, a few hours after two ships had been released from the dock. Fortunately, all workers on board were rescued and there were no injuries or pollution.

Other significant sinkings in 2008 were: the 4000 gt bulk cement carrier **Crete Cement** off Norway (with a pilot on board) on 19th November; the 3000 gt bulk carrier **Maystar** off Malta on 4th December; the 2000 gt general cargo ship **Jojo A** between Greece and Turkey on 6th January; the 1900 gt general cargo ship **Advance** off north-western France on 31st March and; the 1800 gt general cargo ship **Princess** off the Netherlands on 29th March.

2.2 Groundings

2.2.1 Overview

The reported figures showed that 217 vessels ran aground in and around EU waters in 2008 (up from 197 in 2007 and 117 in 2006). These accounted for almost 29% of the total number of vessel accidents (up from 26% in 2007). As in 2007, almost half of these were general cargo ships and the remainder were widely spread across the vessel categories, with tankers and ferries once again a long way behind in second and third positions respectively.

Groundings by Ship Type	2007	2008
General Cargo Ships	94	103
Bulk Carriers	14	12
Tankers	23	20
Container Ships	10	18
Cruise Ships	3	5
Ferries	21	21
Fishing Vessels	14	20
Other Vessel Types	18	18
Total	197	217

2.2.2 Most Significant Accidents

The most significant accident in this area during 2008 was that of the 36000 gt bulk carrier **Fedra**, which ran aground and lodged under a cliff after sustaining engine failure and dragging its anchor in a Force 11 storm off Europa Point, Gibraltar, on 10th October. This was close to the place where the **New Flame** sank in 2007, and the recovery effort was still going on at the time. Tugs attempted to secure towlines to the **Fedra**, but these repeatedly failed and efforts to repair the ship's engine also proved futile. Despite encountering significant difficulties in the weather, the 31 crew members were eventually all rescued. 5 were rescued by a Spanish maritime rescue helicopter and, when air operations became too dangerous as the storm intensified, 26 were taken off using a crane positioned on the cliff edge above the bow. As a result of being hit by waves against the cliff, by the morning of 11th October, the bulker had been torn in two close to the accommodation block, following which both sections of the ship remained trapped against the cliffs in the heavy seas. The **Fedra** had over 500 tonnes of oil on board at the time, and a significant proportion



Fedra breaking up during and after the storm off Gibraltar

of this was reported to have spilled into the sea, although reports vary with respect to how much reached land in Gibraltar and the rest of the bay. The removal of the wreck was still underway when this report went to print.

Nearby, in Algeciras Bay, Spain, the 24,600 gt bulk carrier **Tawe** also ran aground in the same storm as the Fedra with 22 crew members and around 210 tonnes of oil on board. On this occasion, all the crew members were rescued with relative ease, as the situation was much more stable and manageable than for the highly exposed Fedra. As a result of the accident, the bulker sustained hull damage and leaked some of its fuel oil onto the nearby coast, but it was eventually re-floated after the bad weather.

Following both accidents, and the resultant oil pollution, the Spanish authorities requested the assistance of EMSA in the clean-up. EMSA mobilised the locally based, contracted pollution response vessel **Bahia Tres**, and it was equipped, on scene and collecting oil on the morning of 11th October. At the same time, the CleanSeaNet oil slick detection service provided radar satellite images (Envisat and Radarsat 1) of the affected area over several days.

The biggest vessel to run aground in 2008 was the giant 90,000 gt container ship **LT Cortesia**, which created a scare when it ended up on the Varne Bank in heavy weather in the Dover Strait,

south-eastern UK, on 2nd January. Although the box ship was re-floated with the assistance of 3 tugs later the same day, the UK authorities said that they only had “one shot” at moving it at high tide, because the tide was due to drop over the next few days. The huge ship was carrying 42,785 tonnes of cargo (including 4,148 containers with unspecified hazardous materials) at the time of the accident, and had approached the straits in the normal way, before making an alteration to its route and running aground in an area which is a well-known hazard, and which is clearly marked on all shipping charts. The **LT Cortesia** is substantially bigger than the 53,000 gt **MSC Napoli**, which grounded further along the English Channel in 2007. Bearing in mind the significant difficulties encountered in salvaging the **MSC Napoli**, the UK authorities warned that attention should be given to how to handle today’s huge ships when they run aground.

The worst ferry grounding of the year was that of the 6000 gt passenger/ro-ro ferry **Riverdance**, which was hit by a freak wave off Blackpool, western UK, on 31st January. The vehicles on board shifted, it ran aground and was left high and dry with a 60 degree list on the popular tourist beach. All passengers and crew were airlifted off before it ran aground, but the vehicles remained on board. The ship became a tourist attraction, and the authorities had to set up a 400 metre exclusion zone to allow work to be carried out, such as pumping water into the empty ballast

tanks to reduce the list and removing the fuel. Initially, it was thought that it would be re-floated, but eventually, it was declared a total loss and had to be removed piece by piece.



Riverdance on its side before being broken up in UK

In another significant ferry accident, 140 passengers were evacuated in a major rescue operation after the 5200 gt catamaran fast passenger/ro-ro ferry **Bonanza Express** ran aground at Los Tarajales beach, Tenerife, Spain, on 2nd December. The ferry got into trouble as it reached the tourist port at Los Cristianos while bringing holidaymakers back from a daytrip to the nearby island of La Gomera. There was significant damage to the ferry, but the passengers were safely taken off and, after unloading the vehicles, it was eventually possible to re-float it on 4th December and tow it to Las Palmas for repairs.

Around 650 passengers had to be evacuated from the 29,000 gt luxury cruise ship **Mona Lisa**, which ran aground in the Irbe Strait (a main route from the Baltic Sea to the port of Riga, Latvia) on 4th May. The ship was eventually re-floated on 7th May, and the Latvian authorities later confirmed that the accident happened because the ship attempted to sail on the wrong side of a lighthouse. The **Mona Lisa** was chartered to replace the **Sea Diamond** after it sank off Greece

in 2007, and prior to its latest accident, had been involved in three collisions/contacts, two other groundings and a fire in the last twelve years. On 12th July 2003, it struck rocks near Spitsbergen while on an Arctic cruise, following which several hundred passengers were evacuated under Arctic conditions.

Around 600 people were evacuated after the 19,200 gt passenger/ro-ro ferry **Theofilos** hit a reef off the Aegean island of Oinousses, Greece, while en route to Piraeus from Lesvos on 28th June. As a result of the grounding, the ship sustained a 20 metre gash in its hull below the waterline. However, as the watertight compartments held and it only took on a small list, although an evacuation was initially prepared, the master decided to re-float the vessel and anchor it off Oinousses after initial investigations deemed it safe. The accident, which was initially attributed to human error, resulted in the spillage of an undisclosed quantity of oil, although it was reported that the spill was contained and no beaches were affected.

Other significant groundings included those of the 900 gt passenger ship **Giorgis**, which ran hard aground and was holed off the island of Poros, Greece, on 13th March, following which 278 passengers had to be rescued. One passenger said that the ship went "from full cruising speed to a dead stop," although the authorities said that it was no in danger of sinking. This and other accidents led the government to review ferry safety in Greece.

Also, an unusual grounding was that of the floating dock **Mar del Teide** on a beach in Chiclana de la Frontera, south-western Spain, after its towline broke in bad weather on 1st December. Due to heavy weather, it was several weeks before the dock could be re-floated and towed away.

2.3 Collisions/Contacts

2.3.1 Overview

The EMSA data reveals that 308 vessels were involved in collisions and contacts in and around EU waters during 2008 (up slightly from 304 in 2007 and from 217 in 2006), and that these accounted for just over 40% of vessel accidents. General cargo ships were by far the most frequent offenders, with around 34% of the total, followed by ferries (20%) and container ships (14%). Within the collisions/contacts total, around 54% of vessels collided with other vessels, while around 46% hit piers, locks and other infrastructure (causing minor-medium damage). Collisions/contacts is by far the most significant accident category, followed by groundings (see section 2.2).

Collisions/Contacts by Ship Type	2007	2008
General Cargo Ships	115	104
Bulk Carriers	17	16
Tankers	23	31
Container Ships	42	31
Cruise Ships	12	8
Ferries	61	69
Fishing Vessels	17	14
Other Vessel Types	17	35
Total	304	308

2.3.2 Most Significant Accidents

In safety terms, the worst collision of the year occurred when the 200 gt hydrofoil passenger ferry **Ettore M** hit the breakwater off the port of Trapani, western Sicily, southern Italy, on 7th August. 68 of the 144 passengers on board were injured and taken to hospital. As a result of the

accident, the ferry sustained a large hole in its bow and had to be dry docked for repairs. The accident was almost a copy of that involving the fast passenger ferry **Giorgione** on 9th August 2007, with the same type of ferry, the same rocks and almost the same date. On that occasion, one passenger was killed and the **Giorgione** sank after the accident.

In a similar but not so serious accident, 23 passengers were injured when the 100 gt passenger/ro-ro ferry **Eolo d'Oro** hit the dock while berthing at the port of Carloforte, Isola di San Pietro, Italy, on 23rd July. There was damage to the vehicles on board, but no significant damage to the vessel, which later resumed its normal service from Calasetta to Carloforte.

In another serious accident involving a passenger ship, the 15,200 gt passenger/ro-ro ferry **Schleswig-Holstein** hit the foundation of the Skanse Odde lighthouse near Fredericia, Denmark, listed and almost sank on 1st February. The lighthouse was reported to be significantly damaged.

In a similar accident, the 1800 gt general cargo ship **Yamburg** hit and completely destroyed a lighthouse near Svitringe Rende, northern Denmark, on 22nd November. The ship was damaged, but did not sink.

2008 was a difficult year for lighthouses. In another accident, the 69,000 gt cruise ship **Crystal Serenity** hit a lighthouse near the port of Piraeus, southern Greece, while carrying out berthing manoeuvres with 1,040 people on board on 5th October. There were no injuries or pollution, but the ship sustained a gash in its bow two metres above the waterline and also damaged the lighthouse infrastructure.

The 6000 gt passenger/ro-ro ferry **Jonathan Swift** was severely holed after crashing into the dock in windy conditions at the port of Holyhead, western UK, on 27th December. The ship overran the docking bay and crashed into one of the docking structures, causing extensive damage to the infrastructure and a passenger described the hole in the hull of the vessel as “big as a bus.” There were no injuries, but the ferry was taken out of action and put in dry dock for repairs.

The worst collision involving a tanker occurred when the 79,000 gt double hulled crude oil tanker **Edgeless** tore away from its moorings in over 110 km/hr winds and its bow crashed into an adjacent quay at the port of Marseilles, southern France, on 22nd January. As a result, the bow was severely holed and there was damage to the hull over several metres. In addition, a massive concrete block was knocked out of the quay and became stuck in the hole in the hull. The damaged section was raised further above the waterline by changing the ship’s trim to stern. The accident happened while the tanker was docked for a scheduled intermediate survey, so there was no cargo on board at the time.



Edgeless with a massive concrete block in its hull

In another serious passenger ship accident, the 36,200 gt passenger/ro-ro ferry **Mecklenburg-Vorpommern** sustained an 18 metre crack in its bow when it hit a pier in stormy weather at the port of Trelleborg, southern Sweden, on 26th January. All passengers were safely evacuated before the ferry was taken away for repairs at a ship yard.

Another particularly bad collision involving infrastructure occurred when the 38,000 gt heavy load carrier **Zhen Hua 23** broke its moorings in winds up to 130 km/hr and hit a dock at the port of Felixstowe, eastern UK, on 1st March. As a result, 3 of the new high-rise quayside cranes it was carrying fell overboard and crashed into older cranes on the dock. The old cranes were demolished, the new cranes were severely damaged and 12 to 15 ships were forced to remain anchored at sea after the port was closed due to the accident. The new cranes were the first part of a much needed consignment for Britain’s busiest container terminal at Felixstowe, which was significantly over-stretched at the time.

There were a number of other accidents which contributed to concerns about passenger ship safety. The 47,200 gt cruise ship **Zenith** hit and damaged the berthed 14,500 gt passenger/ro-ro ferry **Aegean Pearl** while it was manoeuvring to berth at the port of Piraeus, southern Greece, with 2,438 people on board on 28th July. As a result, passengers had to be transferred to another ship to continue their journey. The 8800 gt passenger/ro-ro ferry **Superferry II** hit the berthed 4100 gt passenger/ro-ro ferry **Theologos P** at the Aegean port of Andros on 23rd July, which resulted in injuries to 3 passengers. The 3500 gt passenger/ro-ro ferry **Mirtidiotissa** also hit rocks off Kithira, Greece, on 24th July and the 12,800 gt cruise ship **easyCruise Life** ran aground at Syros, Greece, on 13th June.

2.4 Fires/Explosions

2.4.1 Overview

According to the EMSA survey, there were 89 ship fires in and around EU waters during 2008 (slightly down from 91 in 2007 and up from 46 in 2006), and these again represented almost 12% of the total number of accidents recorded. General cargo ships accounted for almost 25% of the total (down from 30% in 2007), with container ships, cruise ships and bulk carriers only accounting for around 12% between them. The number of fires on tankers and ferries stayed exactly the same in 2008 as in 2007 at 11 and 14 respectively. Most of the serious fires and explosions happened in ship yards and ports.

Fires/Explosions by Ship Type	2007	2008
General Cargo Ships	28	22
Bulk Carriers	1	4
Tankers	11	11
Container Ships	3	4
Cruise Ships	3	3
Ferries	14	14
Fishing Vessels	16	14
Other Vessel Types	15	17
Total	91	89

2.4.2 Most Significant Accidents

Probably the worst explosion and fire on a ship in and around EU waters in 2008 occurred on board the 5000 gt liquid petroleum gas tanker *Friendshipgas*, at the Perama shipyard near Athens, Greece, on 24th July. 8 workers/crew members died and 4 others were injured in the blast, which was reported to have happened in a tank where welding work was being carried

out. The blaze was the second tragedy to strike the yard in less than a year (2 people were killed at Perama in July 2007), and police had to use tear gas against protesters when unions and opposition politicians organised demonstrations against insufficient attention to safety in the industry.

3 more people died when the 150 gt fishing trawler *Vision II* had a fire on board at the port of Fraserburg, northern UK, on 1st August. The local fire services fought the fire for some time, with the assistance of an RNLI life boat, but once it was brought under control, the two crew members and a visitor were found to have died in the blaze.

21 crew members were rescued, but an engineer died, when the 16,500 gt bulk carrier *Doxa* had a fire on board while it was berthed at the port of Rio de Arosa, north-western Spain, on 15th December. The local fire services were sent to the scene, but it took some time to extinguish the blaze.



The blaze on the UND Adriyatik took around a week to control

One of the worst fires on a ship at sea happened on the 26,500 gt vehicle ferry **UND Adriyatik**, which was in danger of sinking off the coast of northern Croatia while carrying around 200 heavy goods vehicles, 9 tonnes of hazardous material (including 2 tonnes of matches and 6 tonnes of truck grease), 1,000 tonnes of fuel, 9 passengers and 22 crew members from Istanbul to Trieste on 6th February. 4 crew members were injured with first and second degree burns, but the passengers and crew members were eventually rescued by the Greek passenger/ro-ro ferry **Ikarus Palace** and taken to Venice. At the time, it was feared that if the ship sank, it would be a significant pollution threat to the coastline and tourist beaches. The vessel completely burned out while it was held off the coast for several days with salvors on board, and it was finally towed to the port of Trieste, north-western Italy around two weeks later.

All passengers were airlifted off the 16,000 gt passenger/ro-ro ferry **Sea Wind** by helicopter when it had a fire on board while en route from Turku, Finland, to Stockholm, Sweden, with around 40 passengers and crew, railway carriages and heavy goods vehicles lorries on board on 2nd December. There were no injuries, but the damage to the ferry is reported to have been severe. The fire is believed to have been caused by a leak in the fuel system.

The 40,000 gt cruise ship **Rotterdam** had a fire on board while it was at the port of Wilhelmshaven, Germany, on 25th June. The source of the blaze was not reported, but 150 firemen fought the flames for several hours before it was extinguished. There were no injuries, but the damage was extensive.

The worst tanker fire occurred after the 4300 gt oil products tanker **Olivia** had a serious boiler explosion on board while it was at the port of Las Palmas, Canary Islands, Spain, on 11th April. The resultant blaze spread via the casing to some parts of the accommodation, and as a result, the tanker was declared a constructive total loss.

Another long lasting fire occurred on board the 500 gt offshore stand-by safety vessel **Viking Vulcan** at the port of Leith, Scotland, northern UK, on 15th June. The fire lasted for around a week and the vessel, which had been laid up out of service for around 10 years, was declared a total loss.

The most notable container ship fire occurred on board the 25,700 gt container ship **Maersk Newport** while it was berthed at the port of Algeciras, southern Spain, on 15th November. It is reported that the blaze took hold for some time before worsening after bottles of oxygen and acetylene in the cargo hold exploded. Stevedores working on the bow of the ship were trapped by the fire and had to climb down the port side with help from the crew of the VB Algeciras, one of three tugs at the scene. The remaining crew and port workers managed to evacuate with no injuries.

2.5 Other Types of Accident

2.5.1 Overview

All significant accidents which do not fall into the previous four categories are included in this section. This includes such things as structural failure, passengers or crew members lost

overboard, lifeboat accidents, heavy weather damage, significant cargo loss and infrastructure (eg crane) collapse. The figures do not include minor cargo losses, machinery failure, anchor losses, etc. Despite the fact that machinery failure frequently leads to groundings and collisions, and occasionally to sinkings around the world, EU waters are relatively well monitored and, with very few exceptions, the hundreds of breakdowns which happen each year are normally handled without significant consequences.

Other Accidents by Ship Type	2007	2008
General Cargo Ships	44	29
Bulk Carriers	6	7
Tankers	6	13
Container Ships	9	7
Cruise Ships	14	4
Ferries	17	10
Fishing Vessels	4	3
Other Vessel Types	15	6
Total	115	79

The total number of accidents reported in this category reduced significantly from 115 in 2007 to 79 in 2008, although there may be an issue related to comprehensiveness and consistency of reporting. Again, given their superior numbers, general cargo ships accounted for the majority of accidents in 2008 (almost 37% of the total). Tankers and ferries accounted for around 16% and 13% respectively.

2.5.2 Most Significant Accidents

2 crew members lost their lives on the 13,300 gt general cargo ship **MSC India** and a third was injured when a lifeboat they were working on



Ships are often hit by large waves

plunged into the sea off the coast of southern Sweden, near Karlskrona, on 9th January. The lifeboat fell between 15 and 18 metres.

24 of the 361 passengers on board the 600 gt passenger ferry **Polarstern** were injured when a large wave hit the starboard side of the vessel during a voyage from Helgoland to Norderney, Germany, on 4th August. An unspecified number of people who were seriously hurt were flown to a hospital in Emden. The accident occurred in Force 6 winds and 2.5 metre waves.

Many passengers were injured, and there was heavy damage to many of the 238 vehicles on board and also structural damage to the vessel when the 35,200 gt passenger/ro-ro ferry **Fantastic** was caught in a Force 10 storm off north-western Italy, on 30th October. It is reported that the ferry sustained engine problems and damage to a stabilising fin during the passage from Barcelona to Genoa, following which vehicles moved inside the ferry and it took on a 20 degree list. It later hit the quay when attempting emergency manoeuvres to berth at Molo Gianio, damaging underwater port entrance electric cabling and water piping in the process.

The worst container loss accident of the year happened when the 13,000 gt refrigerated cargo ship **Horncliff** was hit by violent waves in a Force 10 storm 360 km off the Isles of Scilly, south-western UK, on 6th February. The ship sustained a 0.5 metre hole in its hull, 3 people were injured and 90 containers were lost overboard.



3

Consequences of Accidents

3.1 Lives Lost

3.1.1 Overview

The reported figures show that, 82 lives were lost on commercial vessels in and around EU waters in 2008 (exactly the same as in 2007, but up from 76 in 2006). Almost 37% of these were in fishing vessel accidents (slightly down on 2007), around 25% were on general cargo ships (as in 2007) and around 13% were in the 'Other Vessel Types' category (down from 22% in 2007). The main increase was recorded on tankers, which accounted for around 11% in 2008 (up from less than 4% in 2007).

Lives Lost by Ship Type	2007	2008
General Cargo Ships	20	21
Bulk Carriers	0	3
Tankers	3	9
Container Ships	0	2
Cruise Ships	4	2
Ferries	6	4
Fishing Vessels	31	30
Other Vessel Types	18	11
Total	82	82

3.1.2 Most Significant Accidents

8 crew members lost their lives when the 4000 gt general cargo ship **Tolstoy** sank in strong winds in the Black Sea off Cape Emine, Bulgaria on 27th September (see sub-section 2.1.2). No Mayday call was received and all that was found was an empty life raft with no sign of the missing seafarers.

8 crew members were also lost and 5 were hospitalised after the 78 dwt fishing trawler

Rosamar sank in heavy seas with 5-6 metre waves in the Bay of Biscay around 40 km north-west of the port of San Cibrao, north-western Spain, on 5th December. The survivors were airlifted to a hospital and told the authorities that the trawler sank very quickly.

6 crew members lost their lives after the 100 gt fishing trawler **Beverina** sustained engine breakdown, took on water and sank in high winds and heavy seas around 5 km off the port of Liepaja, Latvia, on 2nd December. As in many such cases, the stormy conditions made the search and rescue operation very difficult.

In a third trawler accident, one crew member was rescued, but 6 were reported lost after the 24 metre fishing trawler **La Petite Julie 1** sank off L'île Vierge, Brittany, on 7th January. The French authorities said that a collision with a larger vessel was the most likely cause of the sinking.

5 seafarers were lost after the 750 gt bucket dredger **Rozgwiazda** capsized and sank in bad weather in the Baltic Sea off Gaski, Poland, on 17th October, while being towed by the tug **Stefan**. A lifeboat from the vessel was subsequently recovered empty. The vessel was carrying 25 tonnes of fuel at the time, and the resultant slick threatened the coastline, but there was no extensive pollution.

2 crew members were rescued, but 5 were lost when the 230 gt trawler **Cordero** sank in 7 metre waves and 100 km/hr winds around 30 km off Cabo Prior, north-western Spain, on 15th January. A life raft was found during the search and rescue operation, but with no survivors.

4 crew members died and one was severely injured after the swordfish boat **Simshar** had an explosion and fire on board and sank off the coast of Malta on 11th July. As the fire kept them from accessing life saving equipment, all 5 crew members abandoned ship in a raft made from floats, but only one survived the 7 days before being rescued by a search vessel.

4 workers lost their lives and 4 others were injured in an accident on the 118,000 gt oil platform **Saipem 7000** in international waters

2 crew members were lost as a result of exposure to cargo related fumes on board the 2000 gt general cargo ship **Sava Lake** when it was in the English Channel en route from Denmark to Portugal with a cargo of steel turnings on 19th January. It was taken into the port of Dover and 30 fire fighters finally cooled down the cargo to an acceptable temperature so that the freighter could leave 4 days later.

Not to be forgotten are the hundreds of deaths associated with small vessels sinking when



The bucket dredger Rozgwiazda sank off Poland



The Saipem 7000 platform

off the port of Almeria, south-eastern Spain, on 17th September. The accident happened when a derrick failed and the polypropylene pipe it was supporting came loose and hit the workers during the construction of a pipeline between Algeria and Spain. The injured workers were airlifted to hospital in Almeria by helicopter and 2 helicopters combed a large area around the accident site to search for a missing man, but without success, despite calm weather and good visibility.

illegal immigrants try to reach the European Union by sea, although they are not a part of commercial shipping, and are therefore outside the scope of this publication. Most of these try to access the EU via the Canary Islands, the Spanish mainland, Italy, Malta and Cyprus. In 2008, around 350 people died in just 5 of the largest accidents (up to 150 off southern Italy, 70 south of Sicily, 70 south of Malta, 50 between Morocco and Spain and 35 off southern Spain).

3.2 Pollution

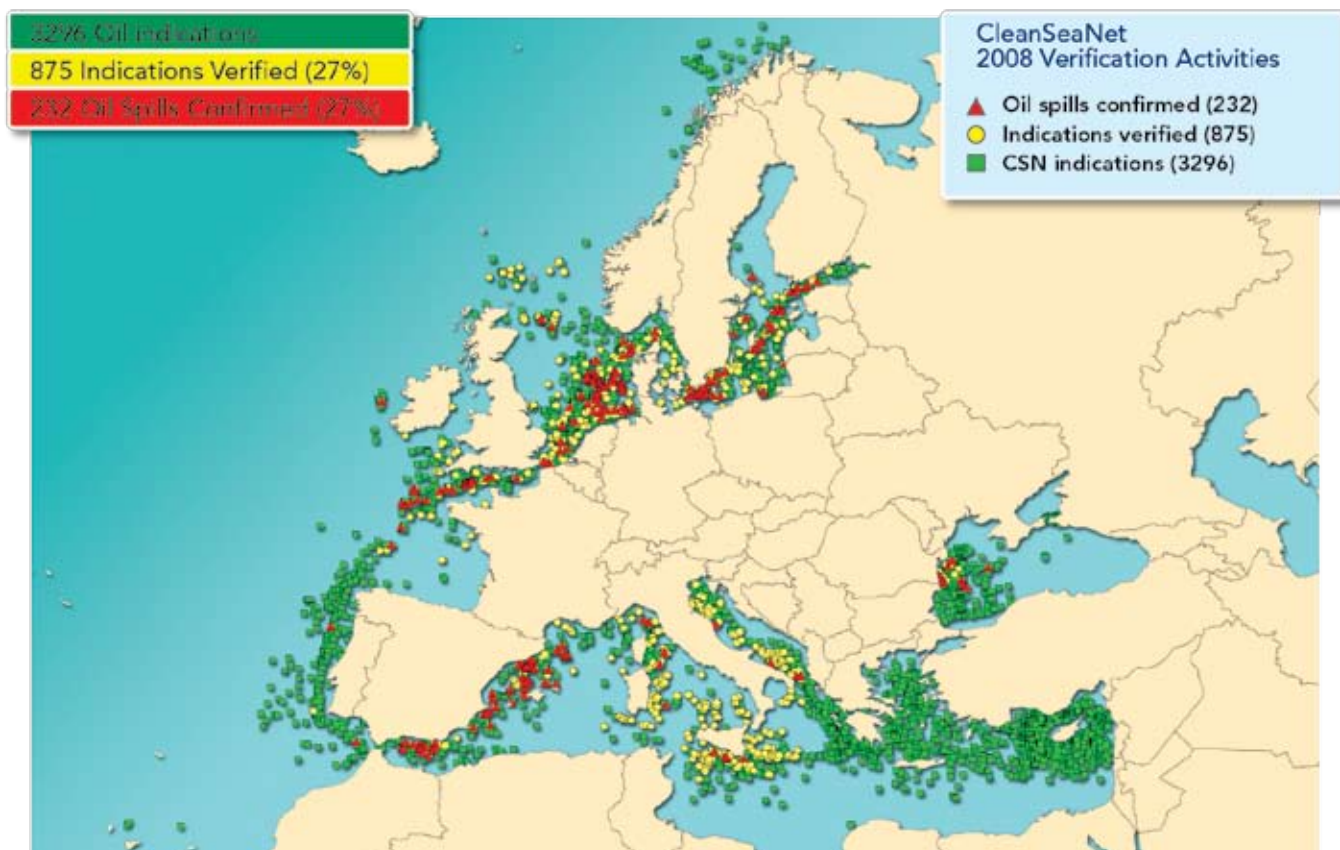
3.2.1 Overview

The oil tanker industry kept its clean record intact during 2008, with no oil pollution disasters in and around EU waters, although there were a significant number of oil tanker accidents. There were also no major bunker spills or other highly significant pollution events. However, EMSA's daily research still recorded a number of smaller spills of different sizes, and these are described in sub-section 3.2.2.

When taking into consideration these smaller events, while not having details of the much larger number of very small spills, a reasonable estimate for the total amount of oil spilled

accidentally in and around EU waters in 2008 would be in the region of 2-3,000 tonnes, in comparison to the estimated 7-8,000 tonnes in 2007. It is always useful to draw comparisons with previous major individual accidental spills such as the *Haven* (144,000 tonnes of Italy in 1991), the *Sea Empress* (72,000 tonnes off Wales in 1996), the *Erika* (20,000 tonnes off France in 1999 and the *Prestige* (63,000 tonnes off Spain in 2002). So, once again, it can clearly be seen that the situation has radically improved in recent years. The move towards ensuring that all oil tankers have double hulls continues to be seen as one of the most significant drivers behind improvements in this area.

The CleanSeaNet system is progressively providing a clearer picture of the position



on both accidental and illegal pollution, and significant numbers of potential slicks are spotted on a daily basis. As it is believed that deliberate discharges account for a progressively greater proportion of pollution than accidental events, this has now become a major issue to be addressed.

3.2.2 Pollution Events of Significance

Following the grounding and break-up of the 36000 gt bulk carrier **Fedra** (carrying over 500 tonnes of fuel and other oil) off Europa Point, Gibraltar, on 10th October (see sub-section 2.2.2), and the grounding of the 24,600 gt bulk carrier **Tawe** (carrying over 200 tonnes of fuel oil other oil) nearby in Algeciras Bay, Spain, in the same storm, several hundred tonnes of oil were spilled into the sea, with some ending up on beaches and along the coast. Spill estimates were around 300 tonnes for the Fedra and much less for the Tawe. Soon after the accidents, oil slicks were spotted drifting in the bay and EMSA was called in to provide pollution response services. The EMSA contracted oil pollution response vessel **Bahia Tres** was quickly mobilised and began collecting oil from the sea surface, while the EMSA CleanSeaNet system provided satellite images of the area.

Around 400 tonnes of fuel oil was reported to have been spilled in and around the Loire estuary, western France, and began washing up on estuary beaches after a pipe ruptured during the loading of an oil tanker at the Total Donges refinery on the night of 16th March. The pollution is reported to have occurred in a

sensitive wetland area. The response operations involved local rescue teams, floating dams, skimmers and a 200-person clean-up team, with chunks of solidified oil washing up on beaches and fuel floating along 20 kilometres of the river.

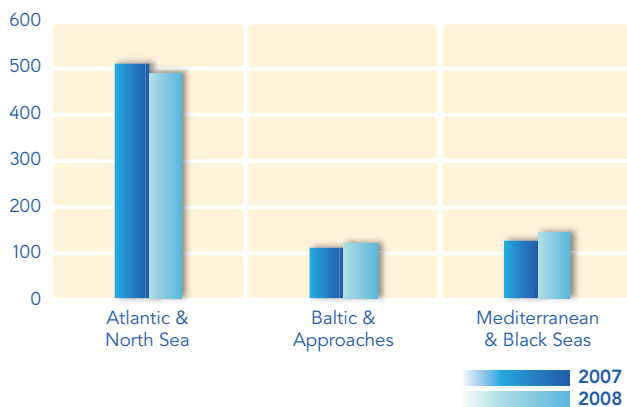
The 58,000 gt crude oil tanker **Minerva Helen** was reported to have spilled around 200 tonnes of oil into the sea at the Provstenen oil terminal, Copenhagen, Denmark, during the transfer of oil from an oil deposit on land on 18th January. The accident happened due to a defective hose and the oil immediately began to drift north along the coast of Oresund between Denmark and Sweden. Danish pollution response vessels were sent to the scene and, as much of the oil began lumping together, it had to be recovered lump by lump.



The effects on the coast can be devastating if spilled oil is not cleaned up at sea

Following the sinking of the 6500 gt general cargo ship **Ice Prince** (see sub-section 2.1.2) in gale force winds off Portland Bill, southern UK, on 15th January, an unspecified amount of the over 400 tonnes of fuel oil on board leaked from the wreck, but very little reached the coastline.

2007/2008 Vessels Involved in Accidents by Region



4.1.2 Accident Analysis

The EMSA figures showed that 485 vessels were involved in accidents in the Atlantic and North Sea areas during 2008 (as compared with 528 in 2007 and 357 in 2006), which represents around 64% of the total number in and around EU waters (down from 70% in 2007).

Collisions/contacts were again by far the most frequent accident type, with over 40% of accidents attributed to this category (the same as in 2007) although most did not result in significant damage. Of the 61 sinkings recorded in 2008, around 77% (up from 75% in 2007) occurred in these sea areas off the north-western and western EU coastlines. Also, this sea area accounted for almost 50% of the 82 lives recorded as lost in and around EU waters (down from around 62% of the 82 lives lost in 2007). The waters off France, Ireland, Spain and the UK accounted for almost 64% of the total number of sinkings in and around EU waters, with the majority of these being fishing vessels.

Types of Accident	2007	2008
Sinkings	41	47
Groundings	128	128
Collisions/Contacts	218	197
Fires/Explosions	55	59
Other Types	86	54
Total	528	485

In terms of the total number of accidents, the records showed that the waters around Germany, Norway and the UK accounted for over 64% of the regional total, and for over 41% of the European total. The UK, in particular, has a very long and varied coastline, and this incorporates parts of the Irish Sea, North Sea, English Channel and Atlantic coasts. In addition, it receives much of the worst weather coming from the Atlantic and has huge volumes of shipping operating around some parts of its coastline. Overall, the figures for this area did not show any particular type of accident as being more common than others. Norway also suffers from the combination of a long and complex coastline with many periods of bad weather, and here the number of groundings greatly exceeds other types of accidents. In the case of Germany, most of the accidents were collisions and contacts and happened in confined channels (see sub-section 4.1.3).

4.1.3 Accident Blackspots

With respect to accident blackspots, the English Channel between the UK and France presents a significant traffic problem as: large numbers

of ships travel along it in both directions every day; it is crossed by a significant number of ferries of varying speeds; large numbers of fishing vessels operate in different sections and; it is also used by many leisure craft and other types of vessels.

Although there are a number of major ports around the north-western EU coastline (eg Rotterdam, Antwerp, Felixstowe, Hamburg, Le Havre, etc.), and some offer greater navigational challenges when entering than others, one area stands out as the most difficult. The combination of frequent bad weather, locks, shallow waters and other obstacles in the approaches to the port of Antwerp via the River Scheldt results in a significant number of accidents each year. This shows through in the accident figures reported for Belgium and the Netherlands, and in 2008, this area contributed significantly to the collisions and contacts which made up almost 65% of the accidents recorded for the two countries.

Among the canals and other narrow channels around the EU which are navigable by sea going vessels, the Kiel Canal in Germany is the most worthy of mention in terms of accidents, although the great majority do not result in serious consequences. In 2008, the combination of human error and equipment failure occurring in a canal with multiple locks, a narrow two stream channel and difficult weather conditions led to a significant number of ship collisions, contacts with infrastructure and also groundings.

4.2 The Baltic Sea and Approaches

4.2.1 Overview

The great majority of the Baltic Sea coast is within the EU, and it includes the coastlines of Sweden, eastern Denmark, north-eastern Germany, Poland, Finland, Estonia, Latvia and Lithuania. For part of the year, some of the more northern parts of the Baltic, including the Gulf of Finland, are frozen over, and icebreakers are needed, although this varies from year to year.

Types of Accident	2007	2008
Sinkings	3	5
Groundings	49	52
Collisions/Contacts	23	35
Fires/Explosions	16	17
Other Types	15	11
Total	106	120

Most of the shipping traffic is in the southern and central parts, and ship voyages and cargo volumes are increasing, not least due to the transport of crude oil from Russia. The greatest concentration of shipping traffic is in the south-western approaches between Denmark and Sweden and the Gulf of Finland.

4.2.2 Accident Analysis and Blackspots

The EMSA records show that 120 ships were involved in accidents in the Baltic area in 2008 (up from 106 in 2007 and 68 in 2006), which represents around 16% of the European total

for the year (slightly up from 15% in 2007). Once again, groundings were the most common accident type, and accounted for over 43% of the regional accident total. The biggest percentage change occurred in collisions and contacts, which increased by over 52% relative to the figures recorded in 2007. 5 sinkings were recorded, which is a significant increase over 2007, but still by far the least among the three regions described in this review. The lives lost in this region accounted for just over 20% of the total in and around EU waters.

Overall, the Danish and Swedish coastlines accounted for over 73% of the Baltic accident total, and for almost 80% of the groundings. Most of the accidents in the region happened in the heavily trafficked approaches around eastern Denmark, which can be more difficult to navigate than many other areas. The navigation risks increase significantly, when ships are operating in bad weather and/or without a pilot. To improve safety, the Danish authorities recommend that ships navigating through the area should comply with IMO Resolution MSC.138(76) when determining pilot requirements.

Although far less significant than the Baltic approaches, the EU sector of the Gulf of Finland, which encompasses the most heavily trafficked parts of the Finnish and Estonian coastlines, also has a disproportionately high number of accidents. Historically, this has been frozen for much of the winter, but in recent times, it is seeing much less ice than is normal. The recorded figures showed that the Finnish and Estonian coastlines accounted for around 15% of the Baltic accident total.

4.3 The Mediterranean and Black Seas

4.3.1 Overview

The coasts of Greece, Cyprus, Malta, Slovenia, Italy, southern France and eastern Spain comprise the EU coastline of the Mediterranean Sea, while the coastlines of Romania and Bulgaria make up the EU part of the Black Sea. The region is very heavily trafficked in a number of areas, with much of the through traffic going in two main directions. Firstly, the main east-west lanes between the Indian and Atlantic Oceans pass between the Suez Canal and the Straits of Gibraltar. Secondly, the main north-south lanes from the Black Sea pass through the Aegean Sea between Greece and Turkey. The requirement to move oil westwards from both the Black Sea and Gulf regions means that there is also significant tanker traffic. Both the Mediterranean and Black Seas are enclosed bodies of water, and while the sea conditions are generally calmer than in more northerly waters, storms and heavy seas can occur in both from time to time.

Types of Accident	2007	2008
Sinkings	11	9
Groundings	20	37
Collisions/Contacts	63	76
Fires/Explosions	20	13
Other Types	14	14
Total	128	149



4.3.2 Accident Analysis and Blackspots

The figures show that 149 commercial ships were involved in accidents in the Mediterranean/Black Sea area during 2008 (up from 128 in 2007 and 110 in 2006), which represents over 17% of the EU total. The largest accident category was collisions and contacts, which accounted for around 51% of the regional accident total in 2008 (very slightly up from 2007). The next largest accident category was groundings, and these made up around 25% of the total (up from around 15% in 2007). Sinkings accounted for only around 6% (down from almost 9% in 2007). The lives lost in accidents on board ships in the region accounted for almost 30% of the total in and around EU waters in 2008.

Over 75% (up from around 65% in 2007) of the shipping accidents recorded in the EU part of the Mediterranean Sea occur in the complex

waters around Greece. As in 2007, a large proportion of these involved passenger/ro-ro ferries contacting infrastructure while operating between the Greek mainland and its many islands, although most of these did not result in serious damage.

Although they do not have significant numbers of accidents, the areas around Gibraltar and Algeciras Bay, southern Spain, and the waters between southern Italy and Sicily also see occasional significant accidents.

Once again, there were relatively few recorded accidents in EU Black Sea waters. These accounted for around 7% of all accidents in the EU parts of the Mediterranean/Black Sea region. This probably relates more to relatively low traffic volumes off Bulgaria and Romania, than to under-reporting.



MARITIME ACCIDENT REVIEW 2008
ANNEX



The Scope and Purpose of the Review

EMSA gathers daily information on maritime accidents, and this enables Agency staff and interested parties in the other European Union institutions to have an up to date picture of the real situation around the coastline at all times. This includes the Atlantic coast (including the North Sea and the English Channel), the Baltic Sea and the EU related parts of the Mediterranean and the Black Sea. The information comes from multiple sources, including the media monitoring service

although comprehensive reporting cannot be fully guaranteed due primarily to the possibility of under-reporting from some sources.

The review focuses on significant accidents in and around EU waters (the term EU includes Norway and Iceland for the purpose of this review) involving commercial vessels of all ages and sizes (including fishing vessels) which occurred during the year, although



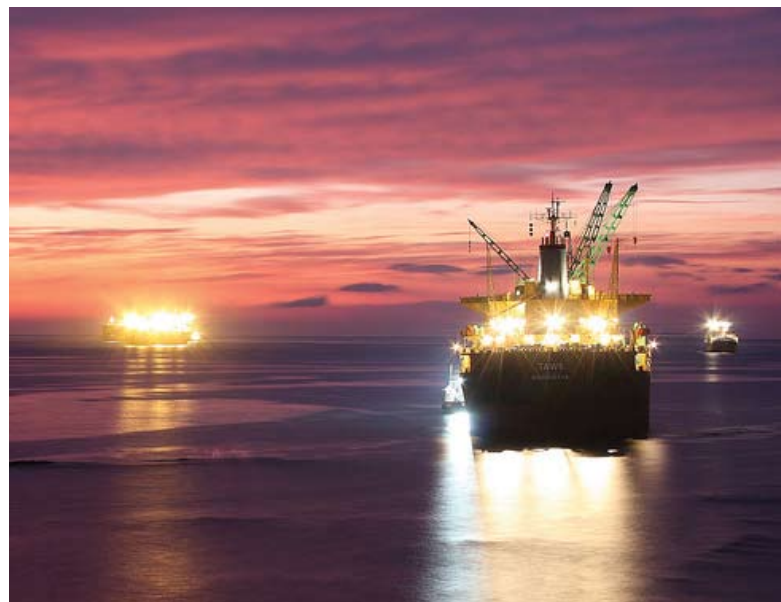
of the European Commission, reliable accident information sources, recognised shipping information systems, the maritime and general media and a wide range of internet based publications. In order that a wider audience can benefit from the information obtained, the key points have been summarised in this review. The acknowledgements at the end of the review show the most prominent information sources. It is believed that the figures represent a relatively accurate overview of the accidents that happened in and around EU waters during 2008,

only sinkings have been recorded for vessels under 50 gross tonnes (gt). For the purpose of the review, significant accidents include all total/partial sinkings, collisions, groundings, fires and explosions on board ships while underway, under tow, anchored, berthed or under construction/maintenance. Unless otherwise stated, figures refer to the number of vessels involved, as opposed to the number of accident events (eg two or more vessels can be involved in a single collision event and one vessel can collide, ground and/or sink in a

single accident). It should also be noted that on the relatively rare occasions when a vessel has been involved in more than one event at the same time (sinking, collision, grounding, fire, etc.), only the event judged to be the most significant is recorded. For example, if a vessel collides and then sinks, it is recorded as a sinking, or if a vessel has a collision and then runs aground, it is recorded under the category which causes the greatest damage



collisions in particular, EU waters are relatively well monitored and, with very few exceptions, the hundreds of breakdowns which happen each year are normally handled without incident. Figures for loss of life have also been inserted, although there is a risk of under-reporting for fishing vessel accidents, in particular, in some parts of the EU. As the review focuses on commercial vessels, the figures do not include the significant numbers of lives lost when illegal



and/or which is judged to have had the greatest effect. In addition to those mentioned above, other types of significant accident have also been included (eg crew members/passengers lost overboard, significant cargo loss, major heavy weather damage, structural failure and infrastructure collapse).

The figures do not include machinery failures (ie those which had no further impact), minor cargo losses, anchor losses, etc. Although machinery failure occasionally leads to groundings or

immigrants try to reach the EU by sea. As it focuses on accidents around the EU coastline, it also does not deal with the many significant accidents/incidents with an EU maritime interest that happen around the globe, such as the many EU vessels hijacked by pirates off Somalia.

Further Information

The EMSA website contains further information on this and all the other activities of the Agency, and it can be accessed at:

<http://www.emsa.europa.eu>

Although the information comes from a large variety of sources, EMSA would, in particular, like to thank the following information providers for their input to this review:

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Statistics/tables/graphs/charts generated by EMSA



About EMSA

The European Maritime Safety Agency is one of the European Union's decentralised agencies. Based in Lisbon, the Agency provides technical assistance and support to the European Commission and Member States in the development and implementation of EU legislation on maritime safety, pollution by ships and maritime security. It has also been given operational tasks in the field of oil pollution response, vessel monitoring and in the long-range identification and tracking of vessels.

Maritime Accident Reviews

Launched in 2008, EMSA's Maritime Accident Review is an annual series of reviews which aim at making both the EU maritime community and EU citizens aware of what accidents are happening in-and-around EU waters. The reviews provide information on a range of accidents at sea, such as sinkings, groundings, collisions or contacts, and fires or explosions, together with some analysis of trends. The Maritime Accident Review 2008 is the second in the series.

