

Report on ship accidents in the Baltic Sea area for the year 2004

(updated September 2006)

Introduction

Data on ship accidents in the Baltic Sea area has been collected since 2000 according to the agreed reporting format. In 2004 a new reporting format was developed and agreed to be used for the reporting of accidents for the year 2004. It was also agreed that the Secretariat will take over the collection of annual information and development of the map on ship accidents as well as prepare the annual report on ship accidents in a way which would facilitate discussions and conclusions on prevention and response to accidents.

All Contracting States have provided their data for 2004. The complete data reported on ships accidents for 2004 is contained in **Annex 1**.

Total accidents

According to the reports from the Contracting States there were 145 ship accidents in the HELCOM area in 2004.

As can be seen from **Figure 1** the total number of accidents has increased significantly in 2004 compared to 2000-2003.

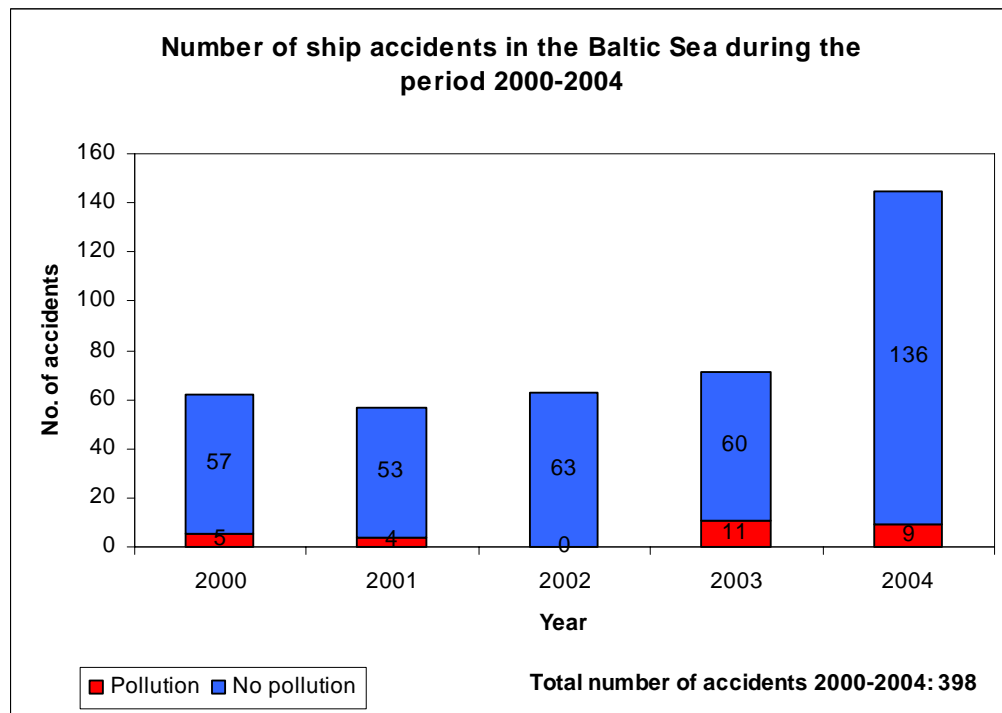


Figure 1

The spatial distribution of the reported accidents in 2004 can be seen in **Figure 2**.

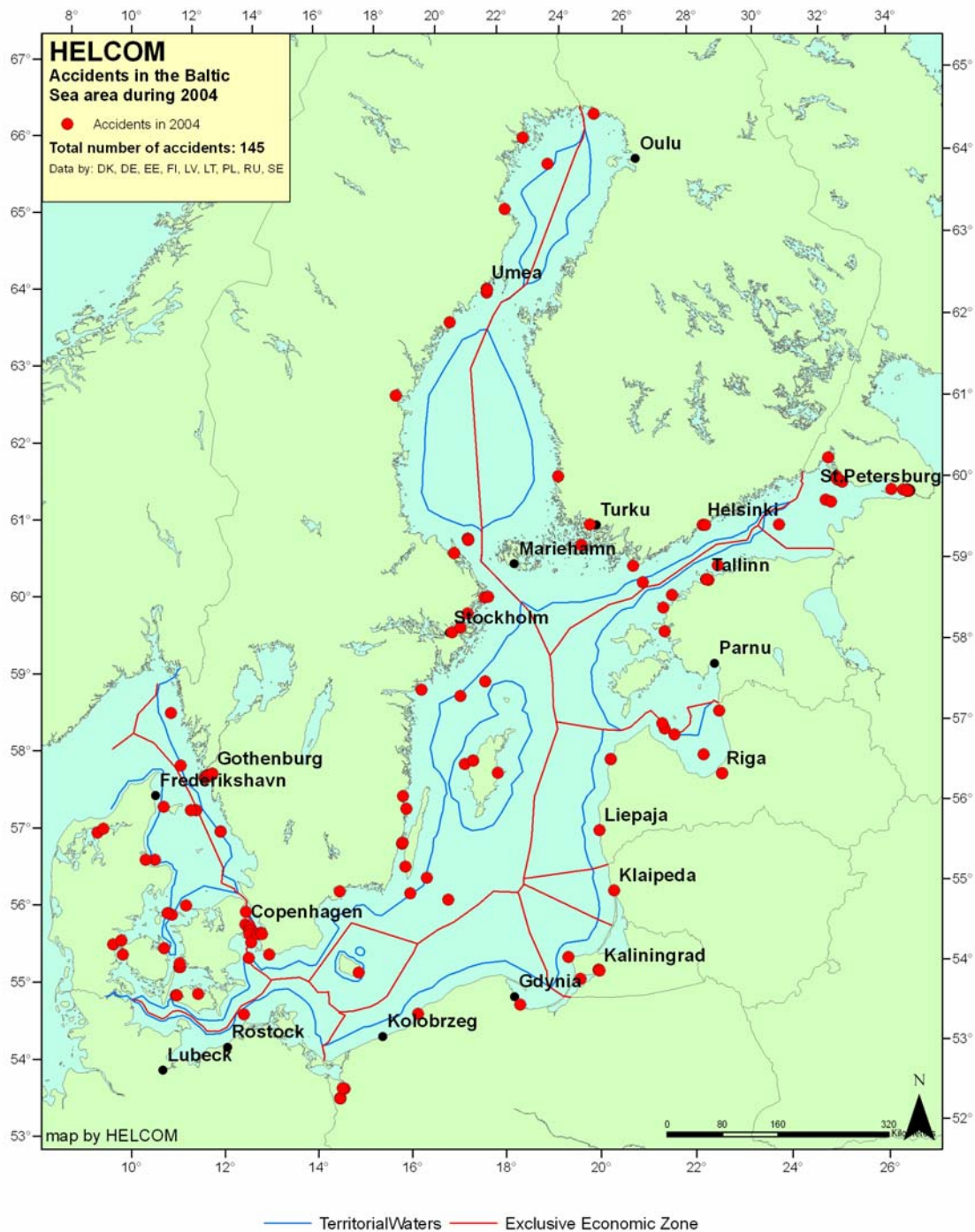


Figure 2

Looking into the types of accidents in the Baltic Sea area (**Figure 3**) it can be noticed that groundings (40%) and collisions (30%) constitute the most significant part of the reported events. The 2004 accidents' typology corresponds very well with the data from the whole period of 2000-2004 (**Figure 4**); thus, it can be stated that groundings and collisions are the most common types of accidents observed in the Baltic Sea area and requiring further actions.

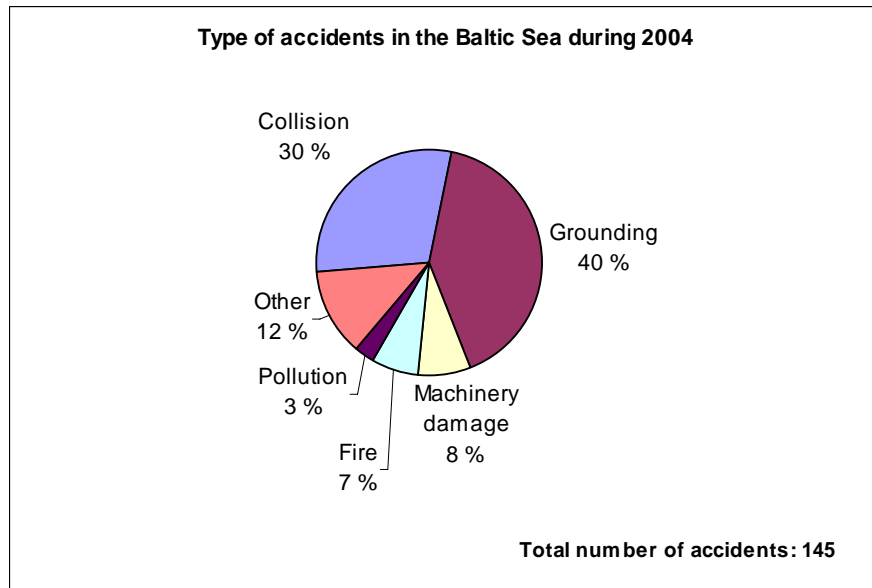


Figure 3

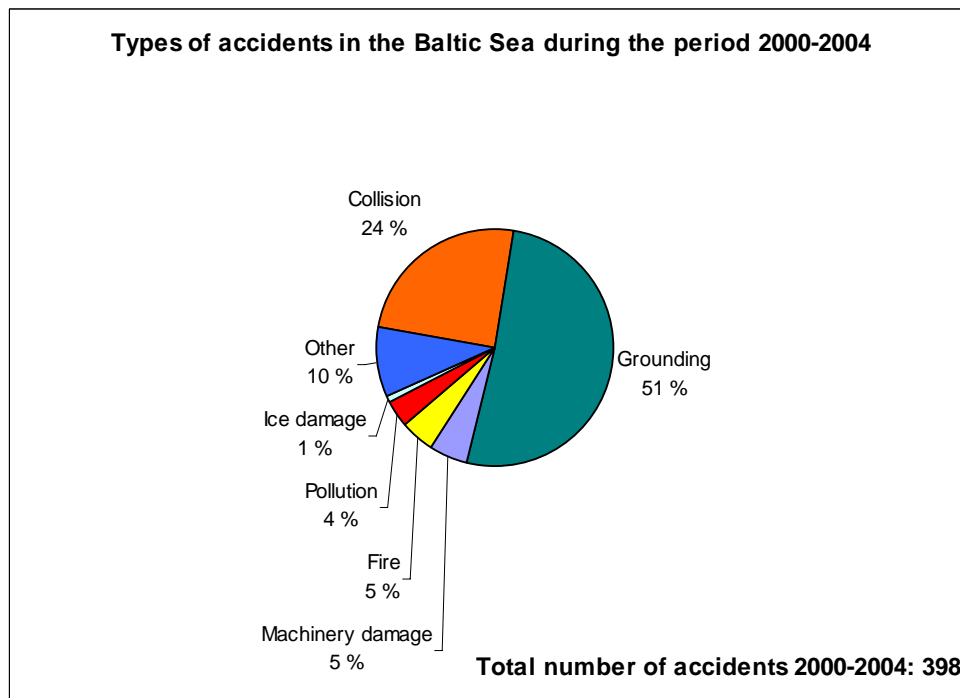


Figure 4

Types of vessels involved in the accidents

As can be seen from **Figure 5** cargo vessels, ferries and tankers are the main groups of vessels involved in accidents.

Figure 6 illustrates the composition of the vessels which have been entering the Baltic during July-September 2005. The differences in composition of the vessels entering the Baltic and those involved in accidents are understandable as the internal Baltic Sea traffic is not reflected in Figure 6. There is no clear indication that some types of vessels tend to be involved in accidents more frequently than others and therefore, require more attention. This aspect can be explored more carefully when data on the structure of the whole Baltic Sea shipping is available.

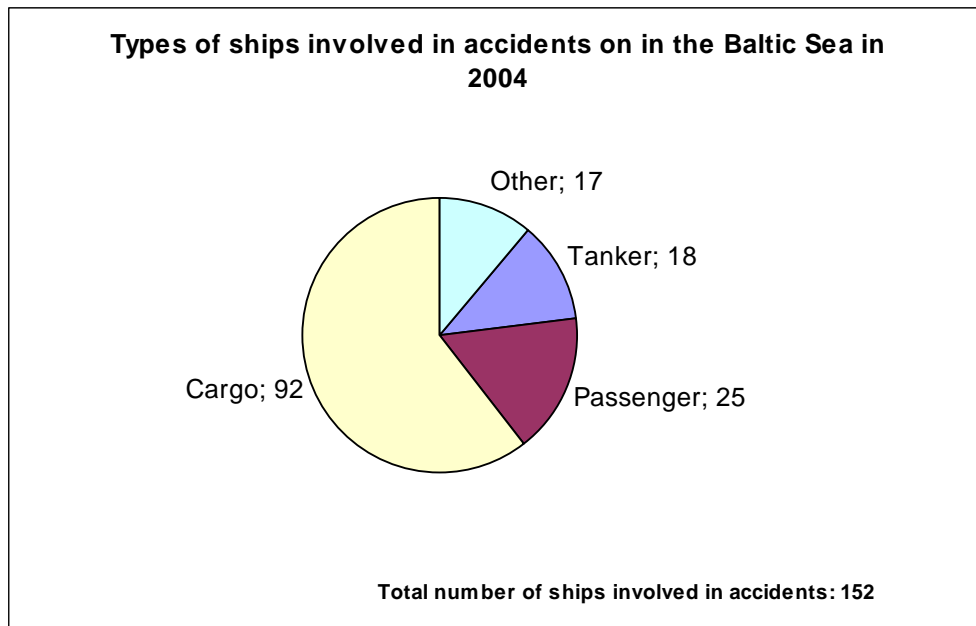


Figure 5

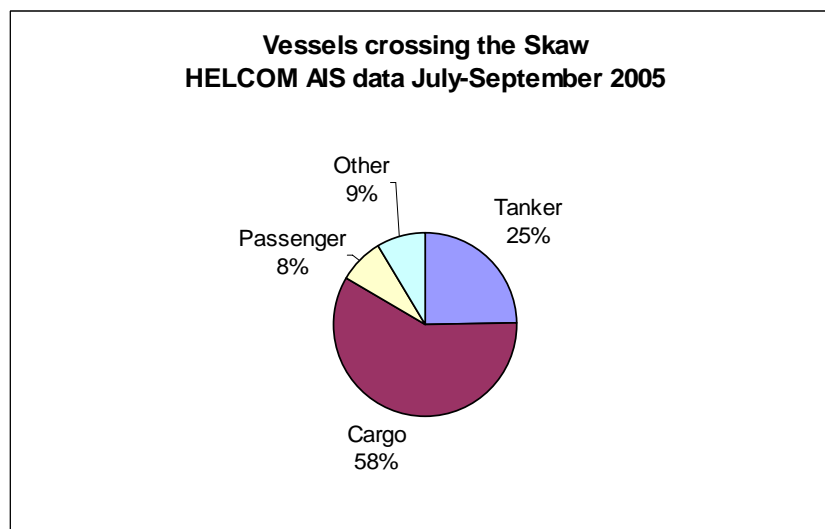


Figure 6

As tankers are often the issue of high concern the map on tanker accidents in 2000-2004 (**Figure 7**) is also presented here.

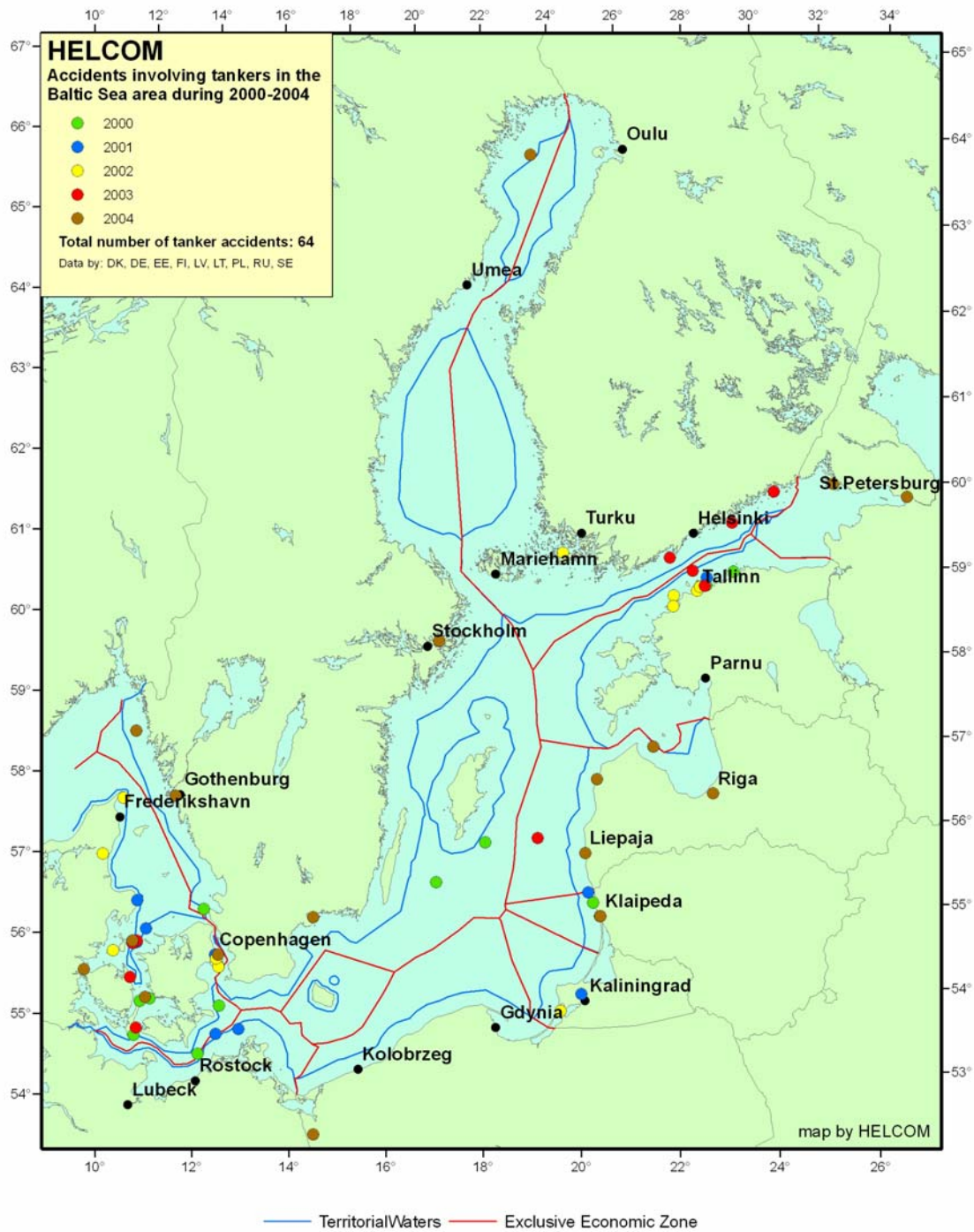


Figure 7

Causes of accidents

The main reason for an accident to happen is human factor (45 %), followed by technical failure (21 %) according to the reports of the Contracting States (**Figure 8**).

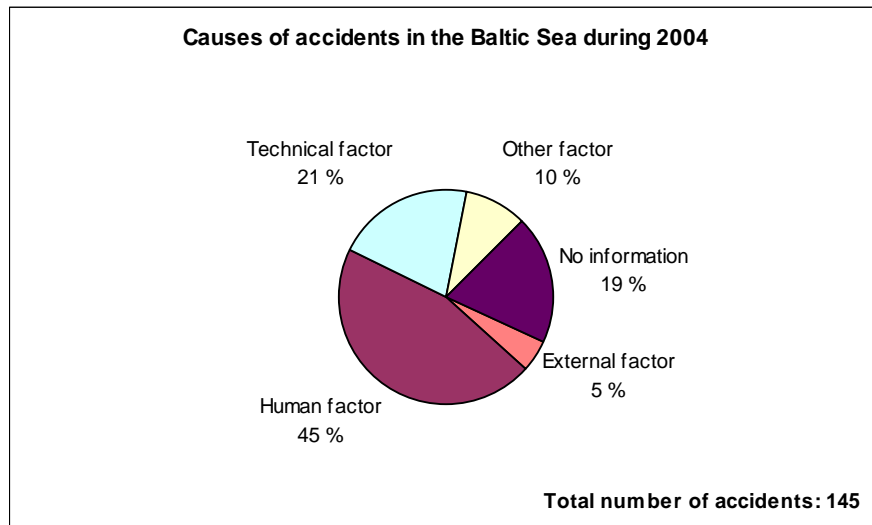


Figure 8

Human factor seems to be the main cause (44%) also in accidents causing pollution (**Figure 9**).

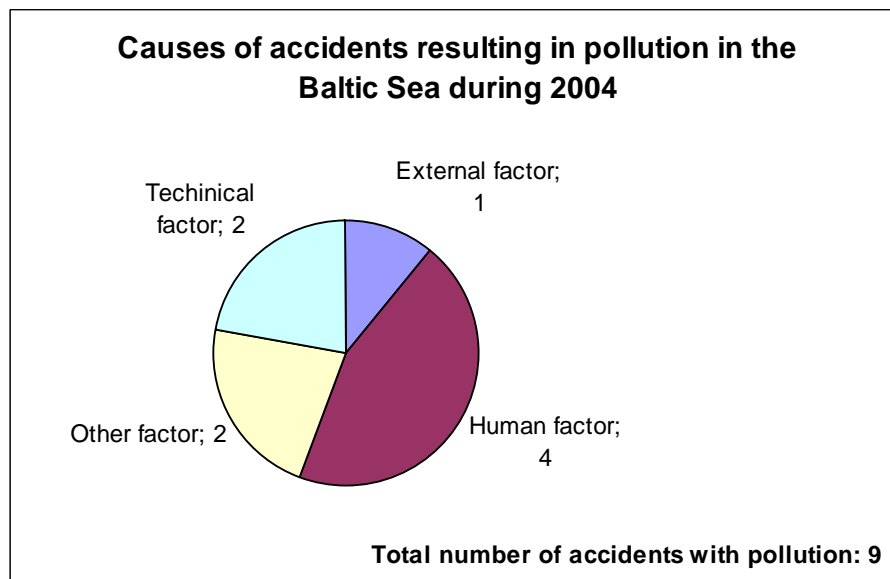


Figure 9

Groundings

Accounting for more than 40 % of the total number of accidents in 2004, groundings are the main type of accidents in the Baltic. This situation is not unique in 2004 but can be followed through the years 2000-2004 as well (51%). Some growth trend could be identified in the total number of groundings in the Baltic (**Figure 10**) but the increase in 2004 might be related to the same reasons as the growth in the total number of reported accidents.

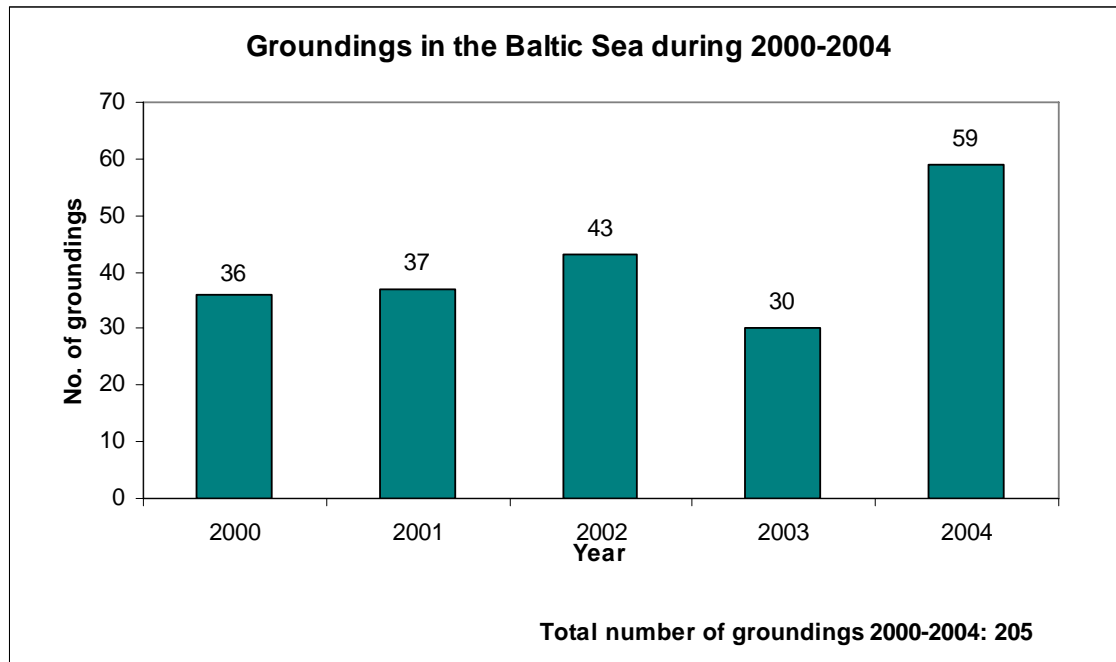


Figure 10

The map of the reported groundings in 2000-2004 (**Figure 11**) clearly indicates the areas of primary concern:

- Danish straits
- Gulf of Finland, especially the Estonian coast
- Åland archipelago area
- Swedish coast of the Baltic Proper
- Ports

The other areas where groundings have occurred deserve attention of the relevant states as well.

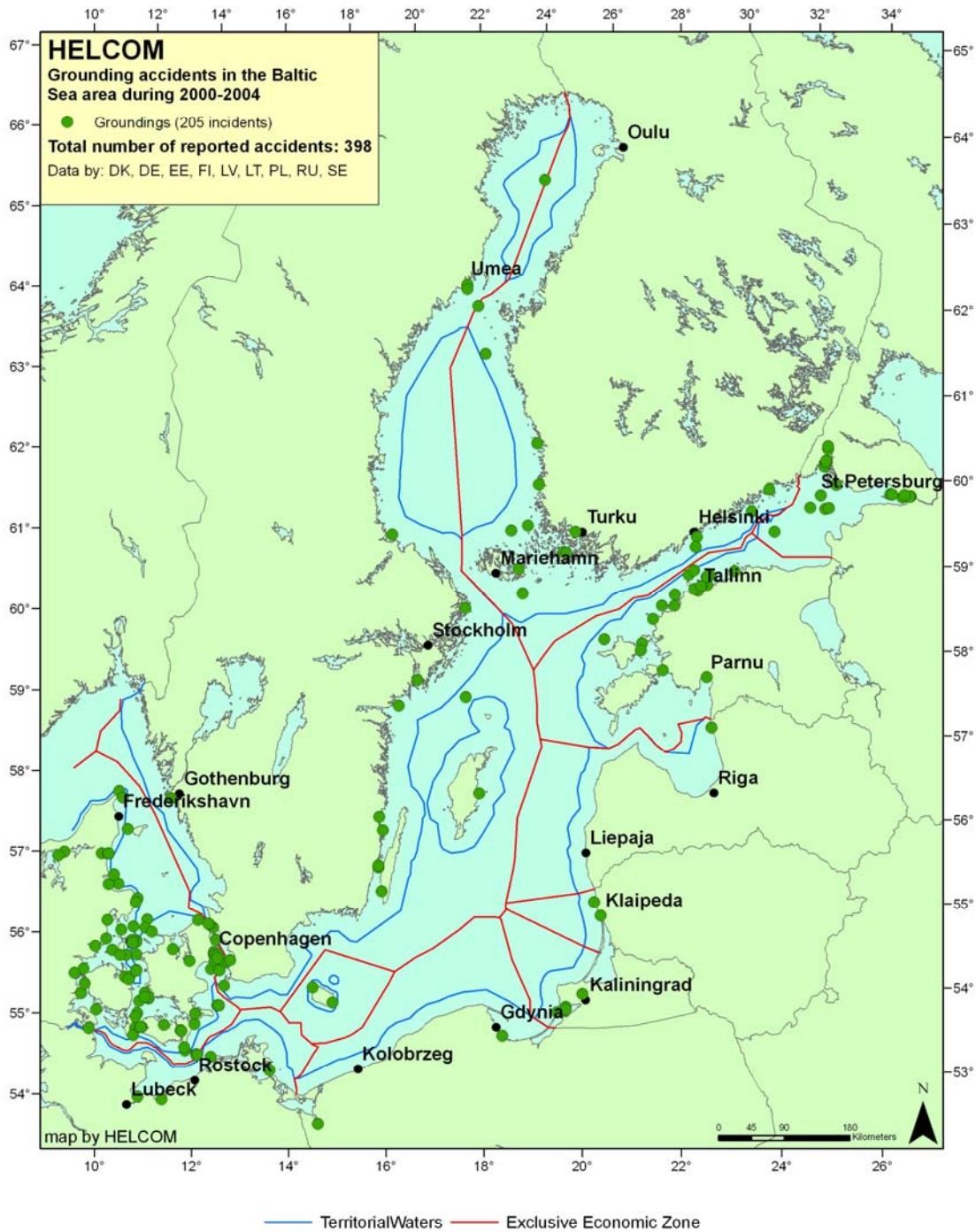


Figure 11

Groundings in the Danish straits and adjacent area (**Figure 12**) account for a half of all groundings registered in 2000-2004. Moreover, the statistics do not show any decrease in the number of groundings in the area in recent years (**Figure 13**).

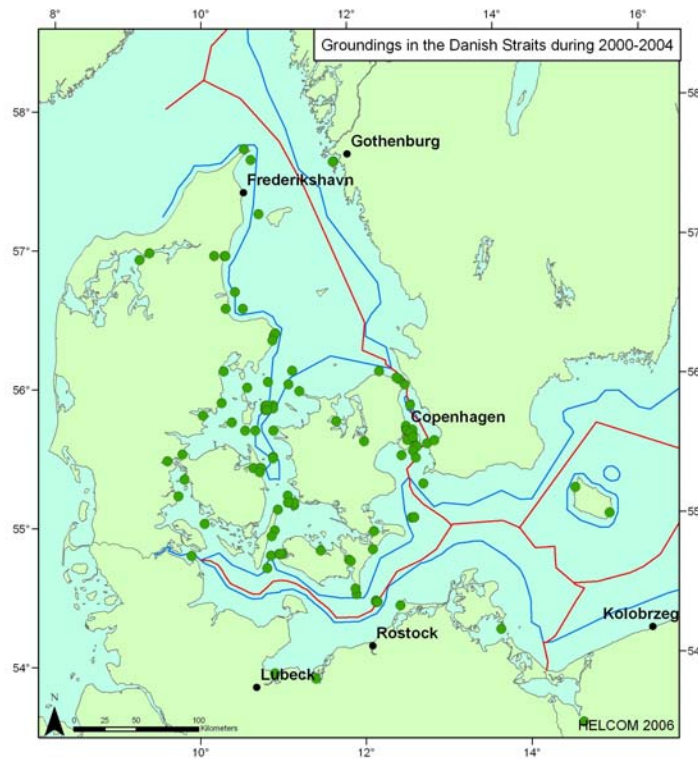


Figure 12

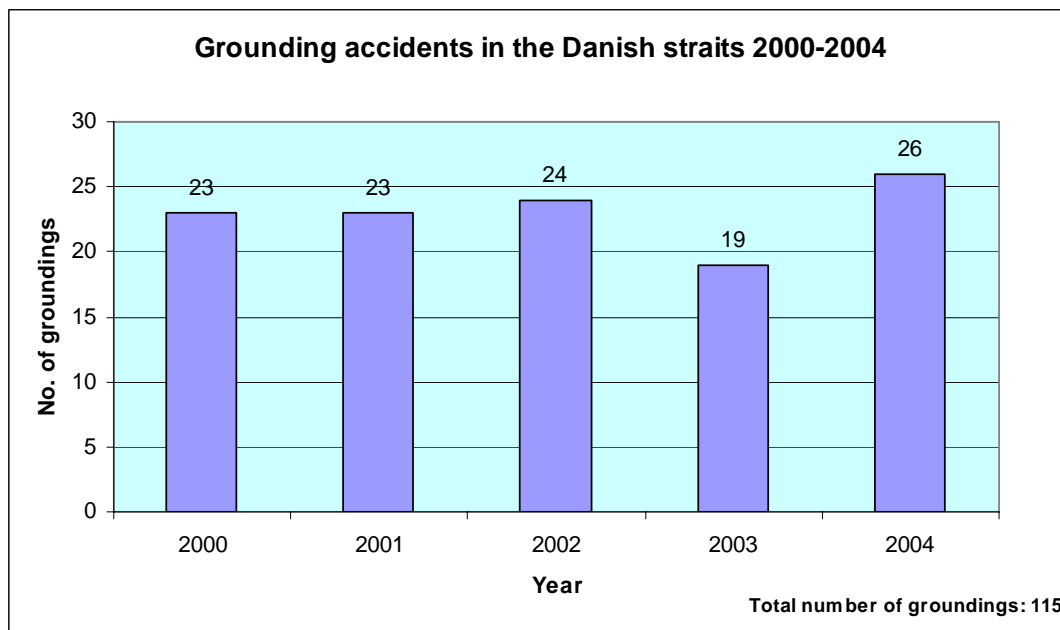


Figure 13

At the same time the number of groundings in the Gulf of Finland area (**Figure 14**) shows a decrease during last years (**Figure 15**) despite the growth of the oil export through the area. It could be discussed whether this has happened due to trilateral Finnish-Estonian-Russian measures.

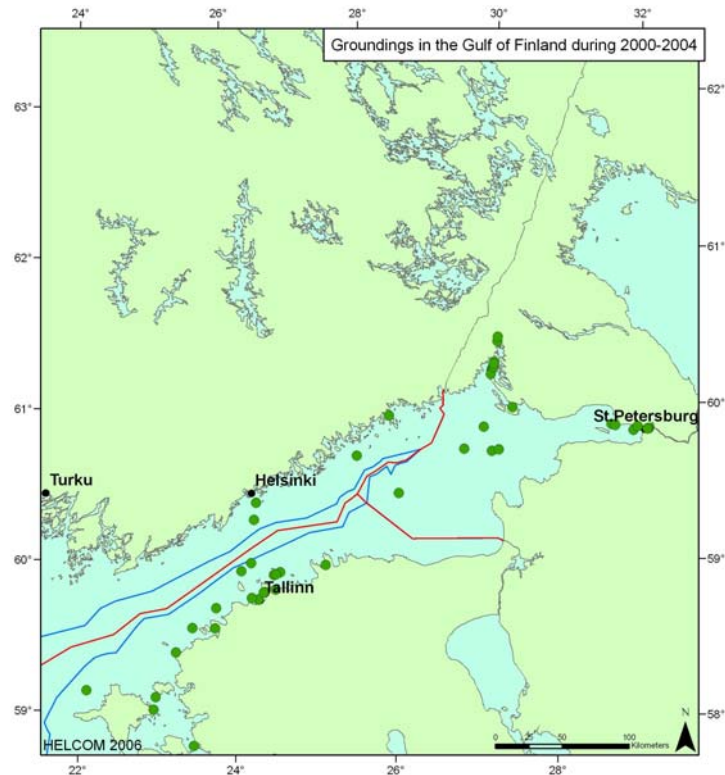


Figure 14

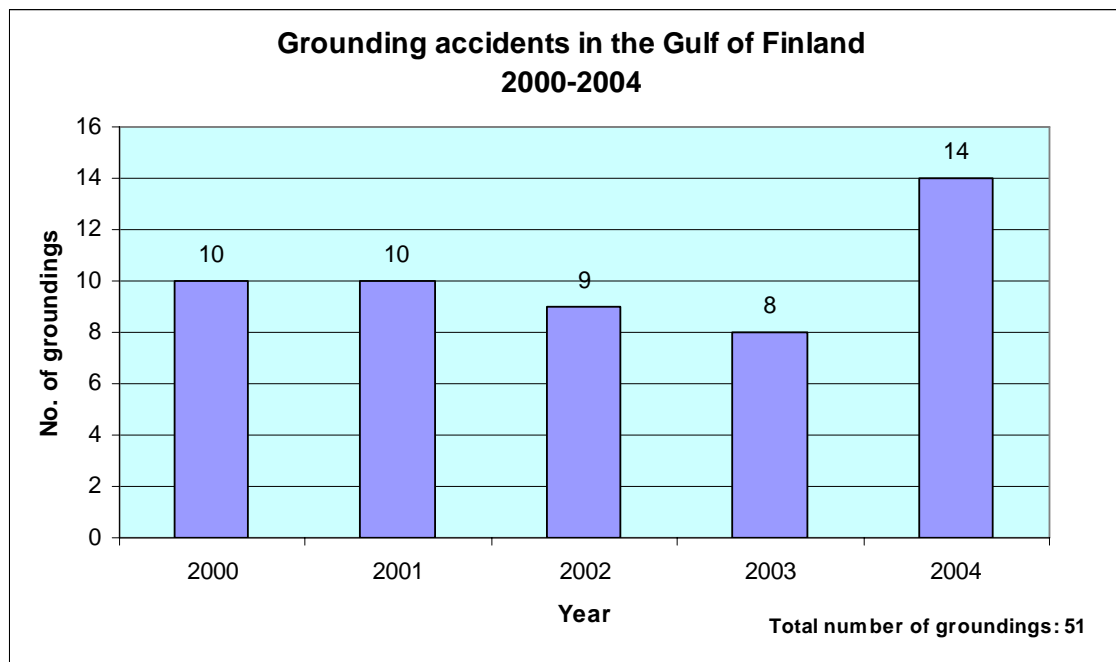


Figure 15

Comparison of the draught of the vessels involved in grounding with the draught of the vessels passing Bornholm (**Figures 16 and 17**) indicate a possible trend to more frequent

grounding of deep draught vessels but firm conclusions cannot be made at this stage due to two main reasons:

- missing information on 44 % of grounding cases
- composition of vessels passing Bornholm (as well as the time period) do not necessarily reflect the composition of the whole Baltic Sea shipping.

Therefore, a deeper look into the issue is needed in order to identify the vessels of primary interest to anti-grounding measures.

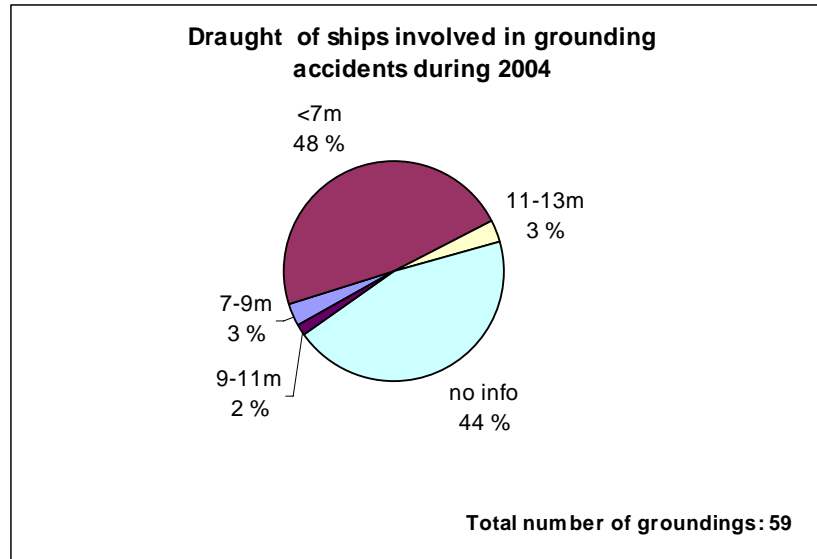


Figure 16

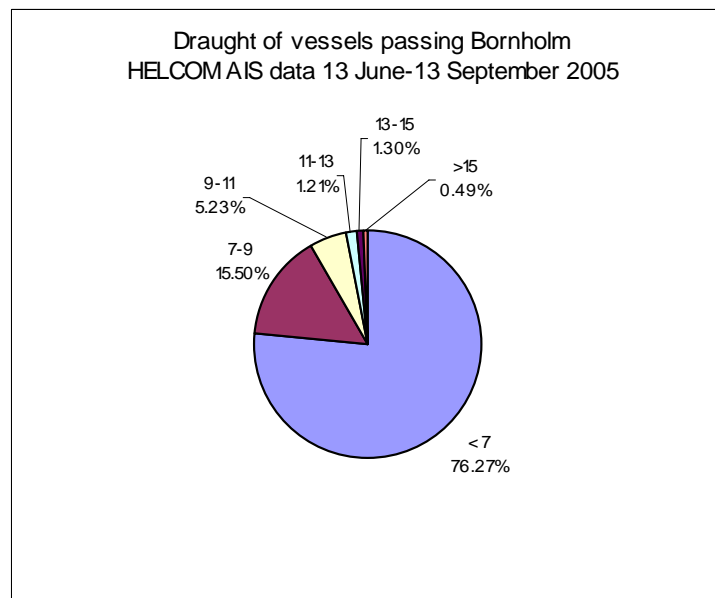


Figure 17

The problems with reporting are also preventing a deeper analysis of the relation between groundings and the presence of pilot onboard (**Figure 18**). Having in mind that groundings most often take place in the Danish straits, where pilotage for certain ships is recommended, the issue clearly deserves a deeper analysis.

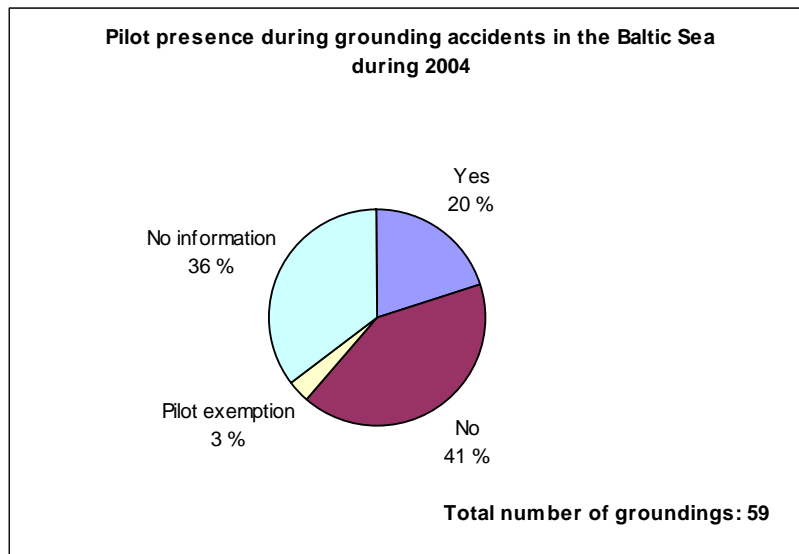


Figure 18

Collisions

Amounting to 43 cases or 30 % of all accidents in 2004 and 98 cases (24%) in 2000-2004, respectively, collisions are the second most frequent type of shipping accident in the Baltic. Moreover, the number of collisions has been increasing significantly during last years. (**Figure 19**).

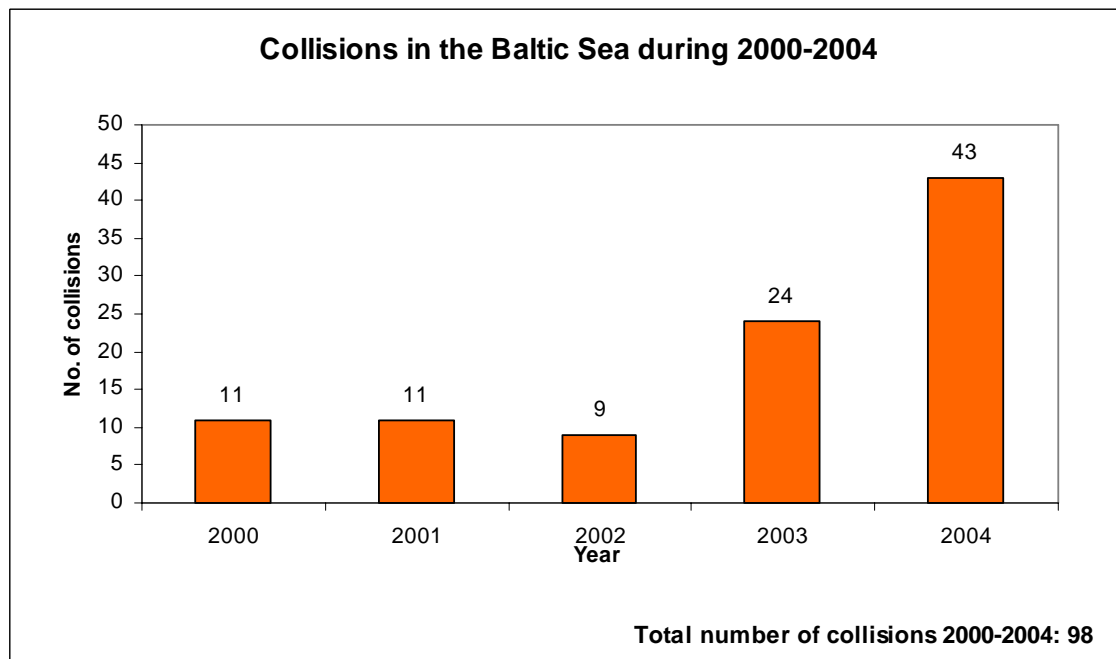


Figure 19

Spatially collisions are not so clearly accumulated in few areas as groundings but the Danish straits and the Gulf of Finland can be clearly identified as areas having the highest risk for ships to collide (**Figure 20**) and some trend of growth in the number of collisions in these areas can be identified. (**Figures 21-24**).

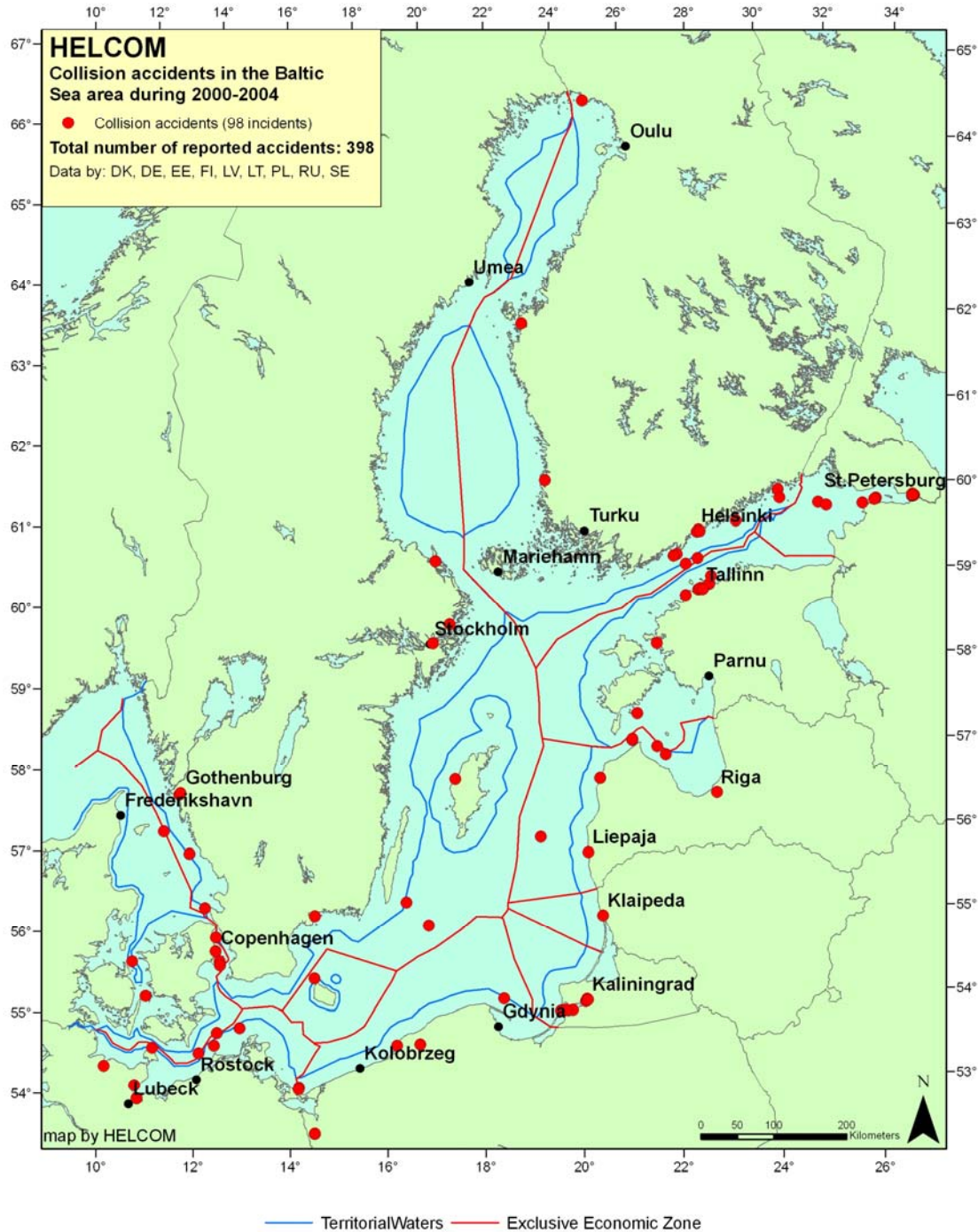


Figure 20

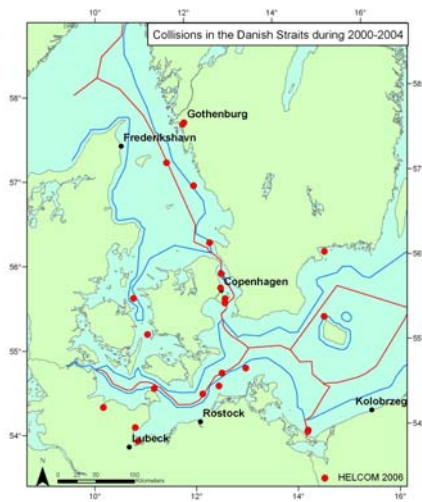


Figure 21

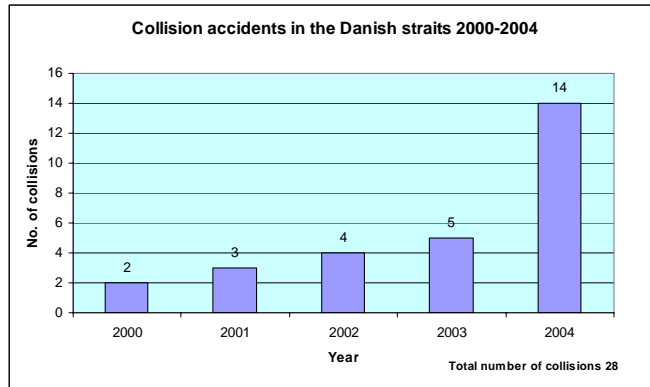


Figure 22

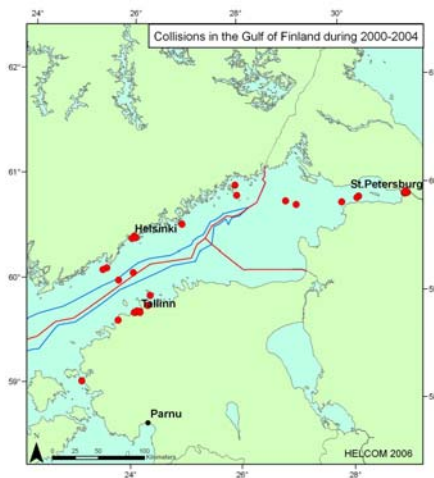


Figure 23



Figure 24

Since July 2005 HELCOM AIS has been able to provide additional information for the analysis of each individual collision case by respective Contracting States and the findings of such investigations would be useful to be discussed during HELCOM MARITIME meetings with a view to identify the possible need and possibilities of HELCOM actions in this area.

Accidents with machinery damage

Machinery damage is the third most frequent type of accident in the Baltic Sea area during 2004. The number of reported machinery damage cases has more than doubled in 2004 compared to 2003 (**Figure 25**) and the reasons for that remain to be discussed.

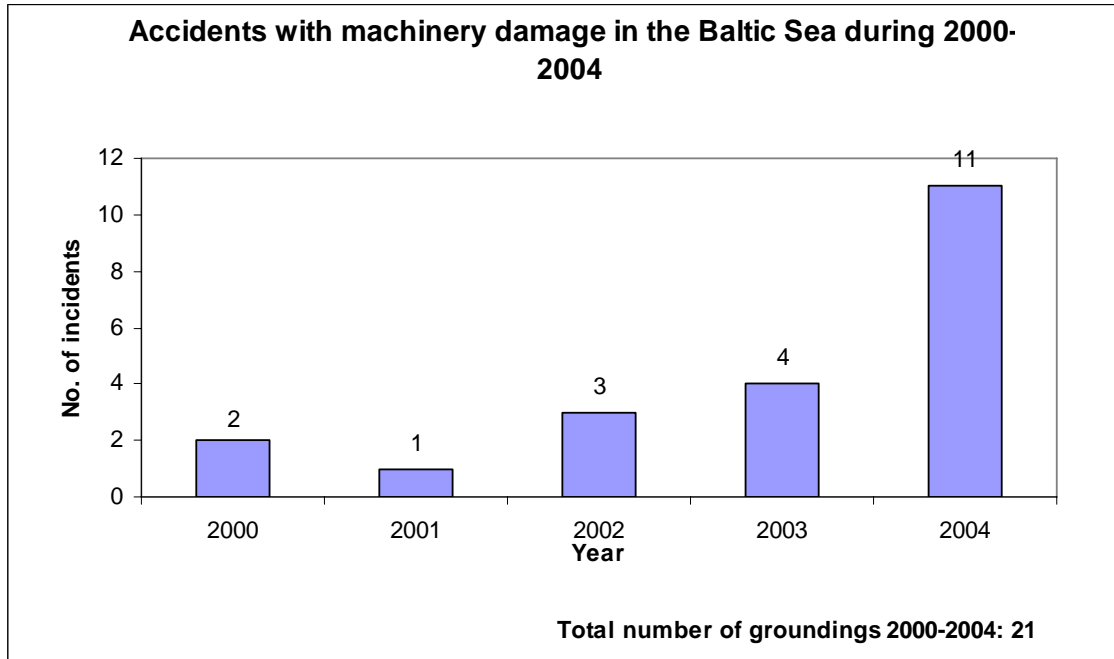


Figure 25

Accidents with pollution

Accidents with pollution traditionally get more attention of the competent authorities and media. According to the 2000-2004 data, 7 % of the reported accidents end up with some kind of pollution (**Figures 26 and 27**).

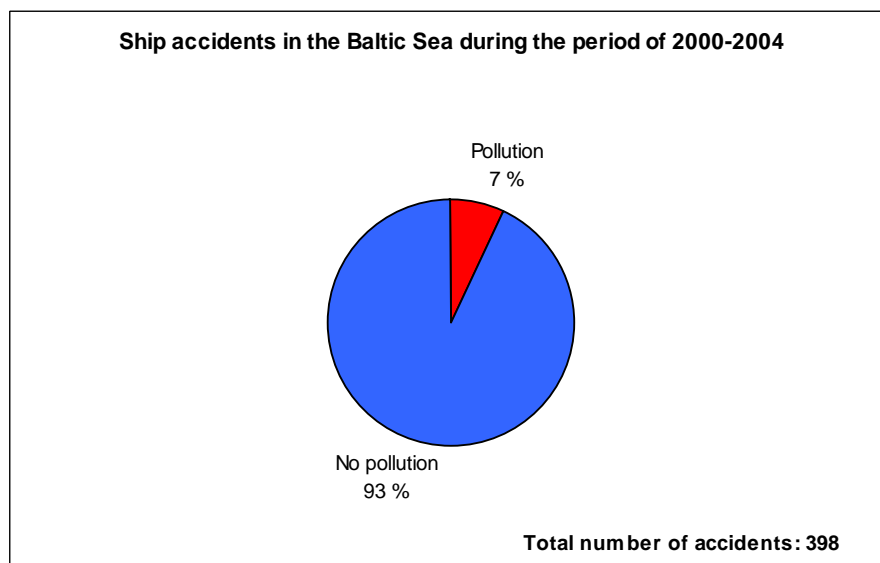


Figure 26

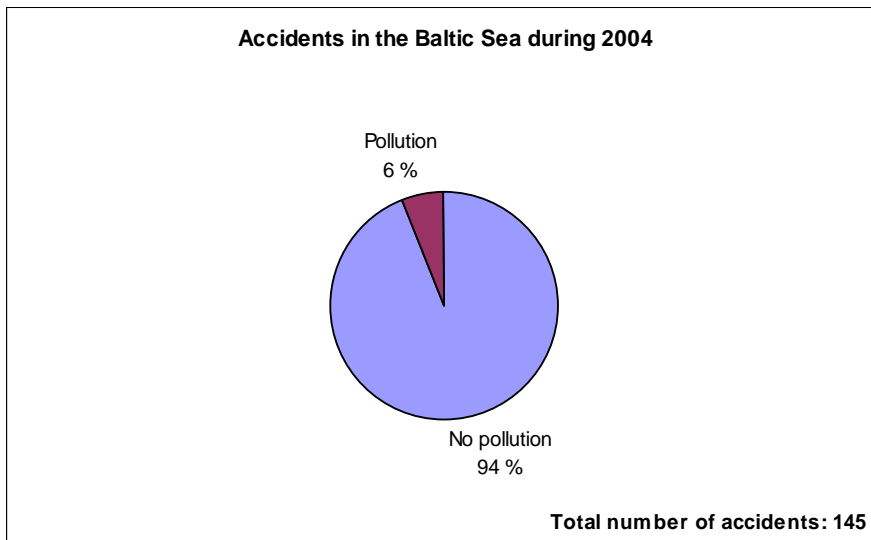


Figure 27

The spatial distribution of the accidents in 2004 causing pollution can be seen in **Figure 28**.

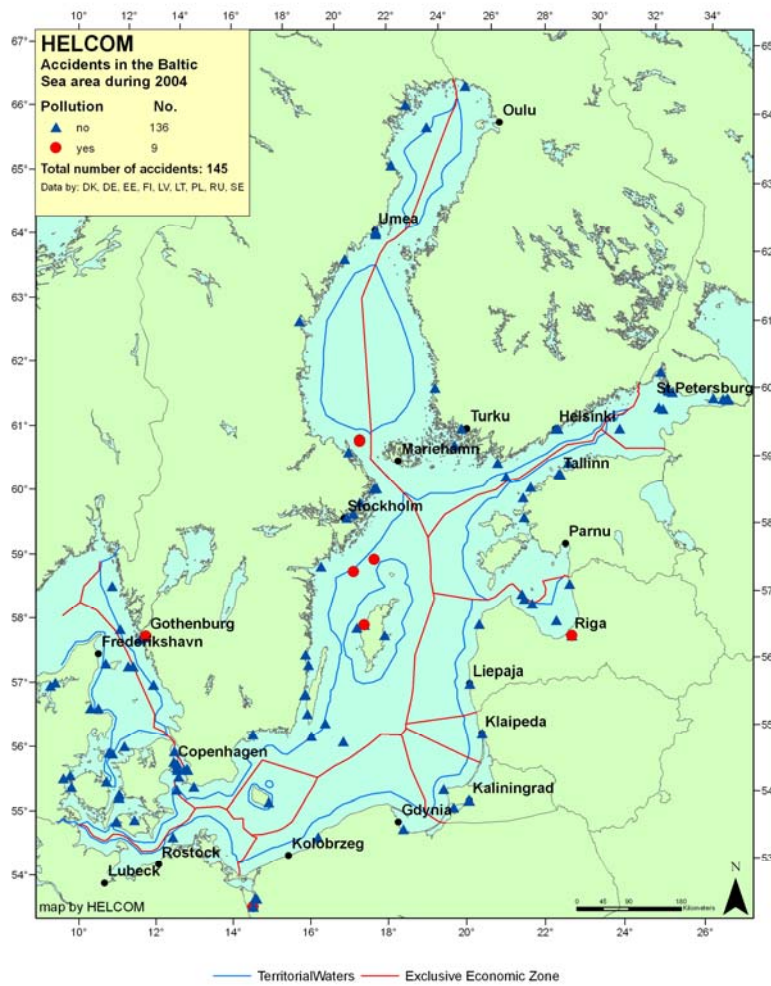


Figure 28

Annex 1

Country	Date	Time	Latitude	Longitude	Ship name	Ship type	Size (gt)	Size (dwt)	Draught (m)	Cargo	Type of accident	Cause of accident	Aggravating factor(s)	Pilot on board	Offence	Damage	Need of assistance	Type of pollution	Pollution amount	Pollution
Denmark	24.10.2004	20:21	55,2000	11,0833	Bergitta, IMO: 9197715, int. and Msc Eyra, IMO: 8201648, P	crude oil tanker and container ship	56207 and 21586		ni		collision	ni								
Denmark	23.11.2004	9:41	57,2333	11,5500	Ileksa, IMO: 9149938, MT and Cepheus, IMO: 9292943, UK	general cargo and container ship	4955 and 6454		ni		collision	ni								
Denmark	11.5.2004	22:37	55,7333	12,6167	Katrine Krog, IMO: 6922779, DK and Ladoga 11, IMO: 761460	general cargo and general cargo	1055 and 1588		ni		collision	ni								
Denmark	15.11.2004	13:30	55,3667	9,8000	Tvillingen, IMO: ni, DK	barge	less than 20				grounding	ni								
Denmark	09.7.2004	0:34	55,2000	11,1000	Petimata OT TMS, IMO: 7813016, BG	bulk carrier	23363				grounding	ni								
Denmark	30.8.2004	18:32	55,8833	10,9333	Saint Nicholas, IMO: 8316261, MT	bulk carrier	22009				grounding	ni								
Denmark	09.12.2004	8:16	55,2500	11,1000	Mastrogi orgis, IMO: 7915656, PA	bulk carrier	41643				grounding	ni								
Denmark	30.9.2004	12:08	55,9000	10,8333	Fotini Lady, IMO: 9267132, LR	crude oil tanker	42058				grounding	ni								
Denmark	13.10.2004	0:06	55,5500	9,7667	Luzon Spirit, IMO: 9017082, BS	crude oil tanker	57448				grounding	ni								
Denmark	08.2.2004	9:46	56,6000	10,5500	Katharina D, IMO: 9006265, AG	general cargo	2450				grounding	ni								
Denmark	13.4.2004	20:57	55,6500	12,7000	Wani Pride, IMO: 9252931, GI	general cargo	2061				grounding	ni								
Denmark	11.5.2004	8:35	56,6000	10,3333	Nyffjell, IMO: 7517533, BS	general cargo	1896				grounding	ni								
Denmark	5.6.2004	3:32	54,8500	11,5000	San Remo, IMO: 6507983, VC	general cargo	1283				grounding	ni								
Denmark	07.7.2004	1:20	57,2833	10,7667	Sarah, int. ship register, NO	general cargo	2390				grounding	ni								
Denmark	11.7.2004	2:31	55,9000	10,8500	Stadiong Racht, IMO: 9202508, NL	general cargo	16639				grounding	ni								
Denmark	12.8.2004	21:39	54,8333	11,0000	Stroomba NK, IMO: 9133537, NL	general cargo	1682				grounding	ni								
Denmark	04.10.2004	16:08	56,9500	9,2000	Volgobal T 149, IMO: 8866981, RU	general cargo	2457				grounding	ni								
Denmark	02.11.2004	12:58	57,0000	9,3333	Clarity, IMO: 8012815, VC	general cargo	986				grounding	ni								
Denmark	08.12.2004	17:33	54,8333	11,0167	Line, int. ship reg.:7508271, NO	general cargo	2973				grounding	ni								
Denmark	19.3.2004	10:49	55,0333	15,1333	Berzupe, IMO: ni, ni	ni	ni				grounding	ni								
Denmark	23.4.2004	20:05	56,0000	11,2667	Tokkarosh, IMO: ni, ni	ni	ni				grounding	ni								
Denmark	15.6.2004	4:45	55,5000	9,5833	Roger, IMO: ni, ni	ni	ni				grounding	ni								
Denmark	17.1.2004	1:02	55,7000	12,7000	Razna, IMO: 8129632, LR	oil product tanker	5154				grounding	ni								
Denmark	17.11.2004	7:32	55,4500	10,7500	Alfono, IMO: 7622053, CY	refrigerated cargo	10338				grounding	ni								
Denmark	28.8.2004	11:53	57,2333	11,4167	Inge Birthe	fishing vessel					loss	ni								
Estonia	02.01.2004		59,4667	24,7167	Salmona, LYQS, LT	general cargo	1044		3.1	ballast	collision	external factor	hard winds	yes	weather restriction	minor hull damages	no			
Estonia	29.09.2004		54,5694	12,5139	Kurkse, ESEU, EE	general cargo	2658		4.9	container	collision	human factor	absent	no	operation of the ship	minor hull damages	no			
Estonia	16.11.2004		58,9083	23,4222	St. Ola, ESUD, EE	passenger ferry	4833		4.1	passangers, cars	collision	external factor	hard winds	no	weather restrictions	minor hull damages	no			
Estonia	11.10.2004		59,4500	24,7722	Tallink Autoexpress, ESGN, EE	passenger ro-ro cargo	4859		2.5	passangers, cars	collision	human factor	whirlpool, caused by propeller	no	operation of the ship	minor hull damages	no			
Estonia	17.07.2004		60,1639	24,9306	Lembitu, ESEZ, EE	ro-ro container carrier	7606		4.9	container	collision	technical factor	tension and stress	no	operation of the ship	hull and quay struct damaged	no			

Russia	12.5.2004		59,9353	30,3300	Mv Volgonef -39, Russia	oil tanker	3621		2,4	in ballast	grounding	human factor	restricted waters	yes	navigation rules	damage to hull				
Russia	20.5.2004		59,9333	30,3350	Mv Nevskiy-20, Russia	bulker	2250		3,2	sand 2500 t	grounding	technical factor	no	no	no					
Russia	13.11.2004		60,0167	29,9167	Volgo-balt-105, Russia	Dry cargo vessel	2457		3,5	metal 2702 t	grounding	human factor	no	yes	navigation rules	damage to hull, leakage				
Russia	6.10.2004		59,9500	26,8667	Amur-2521, Russia	Dry cargo vessel	3086		4,1	metal 3025 t	grounding	human factor	no	no	navigation rules	damage to hull, leakage				
Russia	29.8.2004		59,9333	30,3200	mv Le Diamant, France, 7325629	passeng. ship	8282		4,9	-	grounding	human factor	no	yes	navigation rules	no				
Russia	14.12.2004	12:1:19 00 6:14:24	54,6483	20,0717	Corona, Antigua and Barbuda, 7435620	General cargo	1305		5,1	Coal 1944t	grounding	human factor	-	yes	Operation of ship	no				
Russia	12.8.2004		60,0667	28,3167	Shuya, Russia	Dry cargo vessel	2889		5,2	steel 3842 t	grounding	human factor	no	no	navigation rules, ship order	no				
Russia	14.4.2004	11:35	60,6333	28,5667	EIRA, Finland	General cargo	14665		F-5.2. Aft-6.3	Ballast	grounding	human factor	no	yes	Operation of the ship	Damage of hull				
Russia	10.8.2004		60,3167	28,6500	Purga, Russia	Tugboat	164				grounding	n.i.		no						
Russia	16.10.2004		59,9667	30,2000	Nevsky-26, Russia	Dry cargo vessel	6622				grounding	n.i.		yes						
Russia	9.8.2004	13:1:19 00 1:12:00	60,2817	28,7400	Izhors-kay, Russia	scow	870		2,9	Firm soil	other	human factor	Inadmissible risk, a faulty choice of a route, the risk of sailing along which excitds the expected profit	no	To make a navigational mistake	15000000 rubl.				
Russia	31.1.2004		57,2500	23,7583	mv Ladoga-17, Russia 7614666	General cargo	1590		4,1	wood 1895 m3	shift deck cargo	human factor	stormy weather	no	lashing cargo	loss of deck cargo				
Russia	3.1.2004		54,9467	19,8700	Balkhash, Russia	Non-self Propelled dredger	1815		2,15	no	sunk	human factor	Heavy waves	no	Weather restriction	Total loss				
Russia	8.10.2004	5:1:190 12:00:00	60,3667	28,6333	Tuman, Russia	tug	331		3,36	no	Winding of a cable round the propeller	human factor	Touching of vessels when one or more of them are in motion	Yes, tanker	Non observance of the standard practical techniques and ship preparation of the sea	no				
Russia	28.10.2004	19:1:19 00 11:16:48	60,3367	28,6333	Yuniter, Russia/Stena Contender, Liberia	Tug/oil tanker	Tug-728, tanker-120000		Tug-6,4/tanker 14.5	Tug-no/tanker 105105 t of oil	Winding of a cable round the propeller and loss of life	other factor	Touching of vessels when one or more of them are in motion, inadmissible risk seamen of tanker	No-tug, yes-tanket	Non observance of the standard practical techniques and ship preparation of the sea	no				
Sweden	29.11.2004	8:00	56,1833	16,8667	DIMF, DE	container ship	5056		7.1	unknown	collision	human factor		no		less serious casualty				
Sweden	16.02.2004	4:40	56,9500	12,1167	J8B255, VC	dry cargo	1525		4.05	bulk	collision	human factor		no		serious casualty				
Sweden	18.05.2004	7:10	60,3333	18,4333	SJOY, SE	other vessel	974		3.80	other cargo	collision	human factor		no		Less serious casualty				
Sweden	06.02.2004	19:24	59,5333	18,5833	OJCS, FI	passenger ferry	58376		7.12	cars, passangers	collision	human factor		pilot exemption ce		less serious casualty				
Sweden	16.02.2004	4:40	56,9500	12,1167	SGQU, SE	passenger ferry	19504		5.84	cars, passangers	collision	other cause	operational fault with other ship	no		serious casualty				

Sweden	03.08.2004	7:55	59,3167	18,1333	OIZD, FI	passenger ferry	35154		6.2	cars, passangers	collision	other factor	too small crew generally or for the task	pilot exemption		less serious casualty				
Sweden	13.01.2004	18:30	56,1000	14,8333	ZNVF8, GB	gas tanker	8234		8.4	unknown	collision with vessel	human factor		yes		less serious casualty				
Sweden	22.07.2004	14:00	57,7000	11,9500	SHCN, SE	ro-ro container carrier	16947		5.37	ballast	contacts quay, bridges	other cause		yes		less serious casualty				
Sweden	18.01.2004	21:00	57,6833	11,9167	OXJM2, DK	passenger ferry	30800		7.3	unknown	contacts, quays, bridges	human factor		pilot exemption		less serious casualty				
Sweden	12.10.2004	23:30	57,6333	18,2667	SJLC, SE	passenger ferry	5632		2.61	cars, passangers	contacts, quays, bridges	human factor		pilot exemption		less serious casualty				
Sweden	03.04.2004	16:27	56,0000	16,4500	SBAW, SE	dry cargo	1689		3.75	unknown	fire/explosion	technical factor	electric system	no		less serious casualty				
Sweden	19.01.2004	14:44	65,1500	22,8000	SMTW, SE	oil tanker	8770		7.31	oil/oil products	fire/explosion	in disrepair		no		less serious casualty				
Sweden	17.10.2004	4:38	55,3000	12,6667	SICD, SE	passenger ferry	33613		6.75	cars, passangers	fire/explosion	technical factor	equipment on board	no		less serious casualty				
Sweden	27.12.2004	12:40	57,6833	11,8333	DNDM, DE	dry cargo	3992			dry cargo/general cargo/container	fire/explosion in engine room	unknown		no		less serious casualty				
Sweden	07.06.2004	7:10	55,5000	12,7333	SSAH, EG	bulk carrier	24106		11.09	buk	grounding	human factor	no safety routines in connection with navig./manoe	no		less serious casualty				
Sweden	23.11.2004	8:35	58,6333	18,8000	C6OL1, BS	bulk carrier	21630		11.5	bulk	grounding	human factor	available navigation aids not used	no		serious casualty		heavy oil	30 metric ton	yes
Sweden	16.11.2004	18:50	58,6167	17,2000	V2AG4, AG	dry cargo	1495		3.39	ballast	grounding	human factor	task not well planned	no		less serious casualty				
Sweden	18.07.2004	3:00	56,6500	16,3667	OUZE6, DK	dry cargo	494		3.4	ballast	grounding	human factor		no		less serious casualty				
Sweden	23.11.2004	6:25	57,4333	18,8167	SENG, SE	barge	2198		4.08	dry cargo/general cargo/container	grounding	external factor	heavy weather, natural disaster etc.	no		total loss				
Sweden	17.03.2004	11:55	56,6667	16,3833	SLDY, SE	dry cargo	1220		4.5	bulk	grounding	human factor		no		less serious casualty				
Sweden	09.12.2004	21:20	63,6667	20,3500	OIJJ, FI	passenger ferry	6850		4.6	trailers	grounding	technical factor	propulsion system	yes		less serious casualty				
Sweden	02.10.2004	23:35	57,1000	16,5500	V2AR6, AG	dry cargo	2047		4.87	dry cargo/general cargo/container	grounding	human factor		no		less serious casualty				
Sweden	25.04.2004	8:30	63,6333	20,3333	V2EE, AG	other vessel	1889		4.87	dry cargo/general cargo/container	grounding	human factor		no		Less serious casualty				
Sweden	25.12.2004	17:54	57,6500	11,7833	J8B28, NL	dry cargo	1999		4.95	bulk	grounding	human factor		no		less serious casualty				
Sweden	24.11.2004	19:35	63,6833	20,3500	SLXY, SE	passenger ferry	10536		5.15	cars, passangers	grounding	other factor	conditions were not favorable for the operation	pilot exemption		serious casualty				

Sweden	31.03.2004	10:00	63,3167	19,1500	DPHR, IM	dry cargo	3850		5.86	dry cargo/general cargo/container	other casualties	technical factor	propulsion system	no		less serious casualty				
Sweden	03.06.2004	17:30	55,3333	13,1333	SEAU, SE	passenger ferry	18060		5.8	cars, passangers	other casualties	human factor	routines, procedures	pilot exemption		less serious casualty				
Sweden	22.12.2004	13:20	57,6000	18,0500	SGPH, SE	passenger ferry	29746		6.4	cars, passangers	other casualties	technical factor	equipment on board	no		less serious casualty				
Sweden	11.04.2004	23:00	57,6333	18,2667	SJLC, SE	passenger ferry	5632		2.61	empty	pollution	technical factor	(remote) control/automatic control/warning equipme	no		less serious casualty		other pollution	0.05 metric ton	yes
Sweden	09.09.2004		55,6000	12,9833	SBKI, SE	passenger ferry	1029		2.35	passangers	pollution	human factor		no		less serious casualty		diesel, petrol		
Sweden	31.03.2004	7:15	57,7000	11,9500	SBFG, SE	ro-ro container carrier	21100		6.6	empty	pollution	other cause	arrangement of the engine room/location	no		less serious casualty		diesel oil (fuel)	0.01 metric ton	yes