



Report on shipping accidents in the Baltic Sea area for the year 2005

Introduction

Data on shipping accidents in the Baltic Sea area has been collected since 2000. In 2004 a new reporting format was developed and used for the reporting of accidents starting 2004. **For that reason the data for 2003 and the subsequent years are not fully comparable. The changed reporting is interpreted as a reason for the increased number of accidents in 2004 and 2005, when compared to 2003.**

All Contracting States have provided data on shipping accidents for 2005. The complete reported data is contained in **Annex 1**.

According to the agreed procedure all accidents (including but not limited to grounding, collision with other vessel or contact with fixed structures (offshore installations, wrecks, etc.), disabled vessel (e.g. machinery and/or structure failure), fire, explosions, etc.), which took place in territorial seas or EEZ of the Contracting Party and involved tankers over 150 GT and/or other ships over 400 GT irrespectively if there was pollution or not are reported.

Ship traffic in the Baltic

The IMO regulation requires AIS to be fitted aboard all ships of 300 gross tonnage and upwards engaged on international voyages, cargo ships of 500 gross tonnage and upwards not engaged on international voyages and all passenger ships irrespectively of size.

To get a full picture of the shipping safety in the Baltic the basic information on the shipping intensity is of importance. **Figures 1 and 2** illustrate the intensity of the ship traffic in the Baltic according to the type of vessels and their draught. A snapshot illustrating the spatial distribution of shipping activities in the whole Baltic can be seen in **Figure 3**. The numeric data used in developing the maps is generated by the HELCOM AIS network and presented in **Tables 1 and 2**.

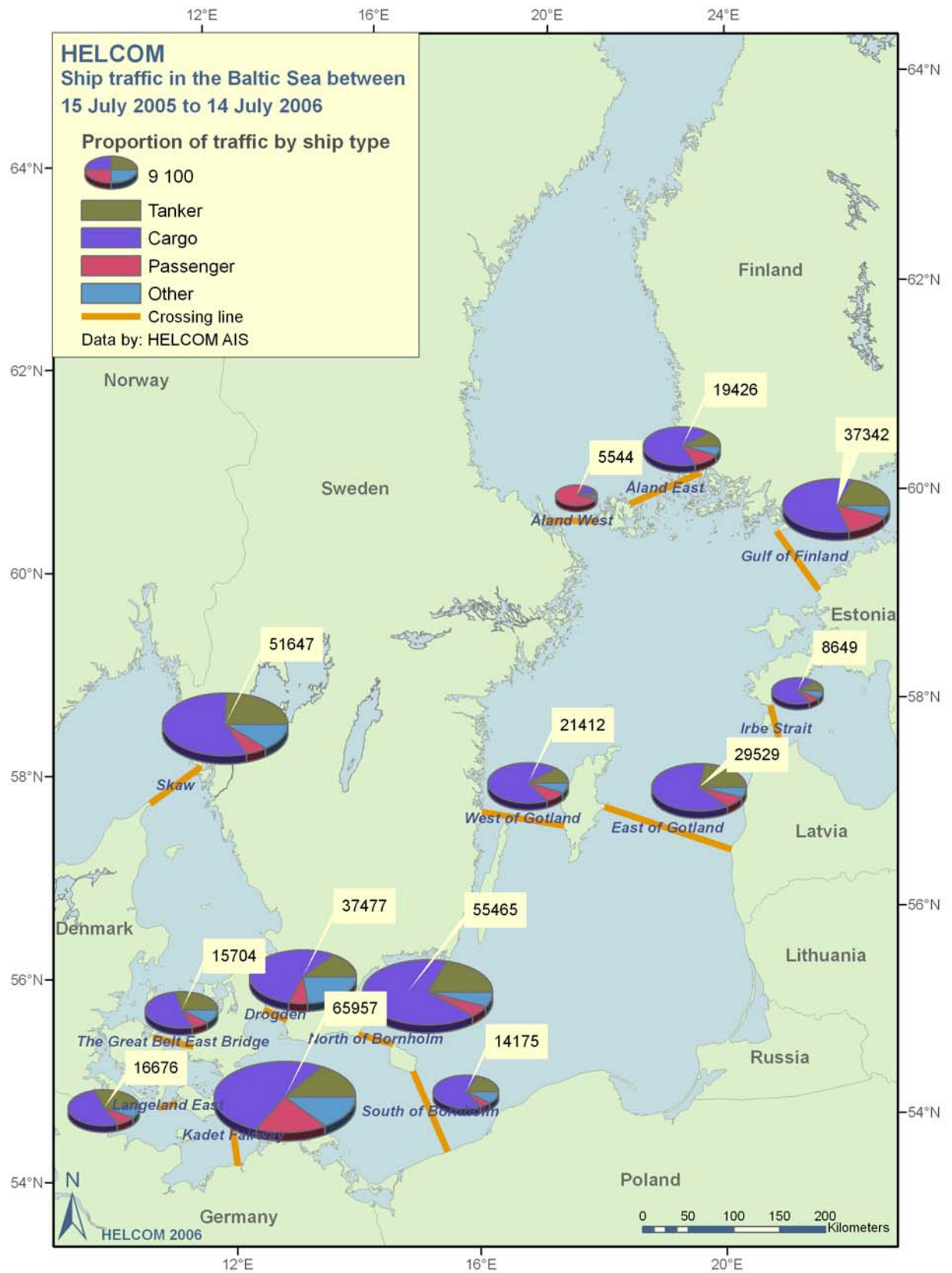


Figure 1

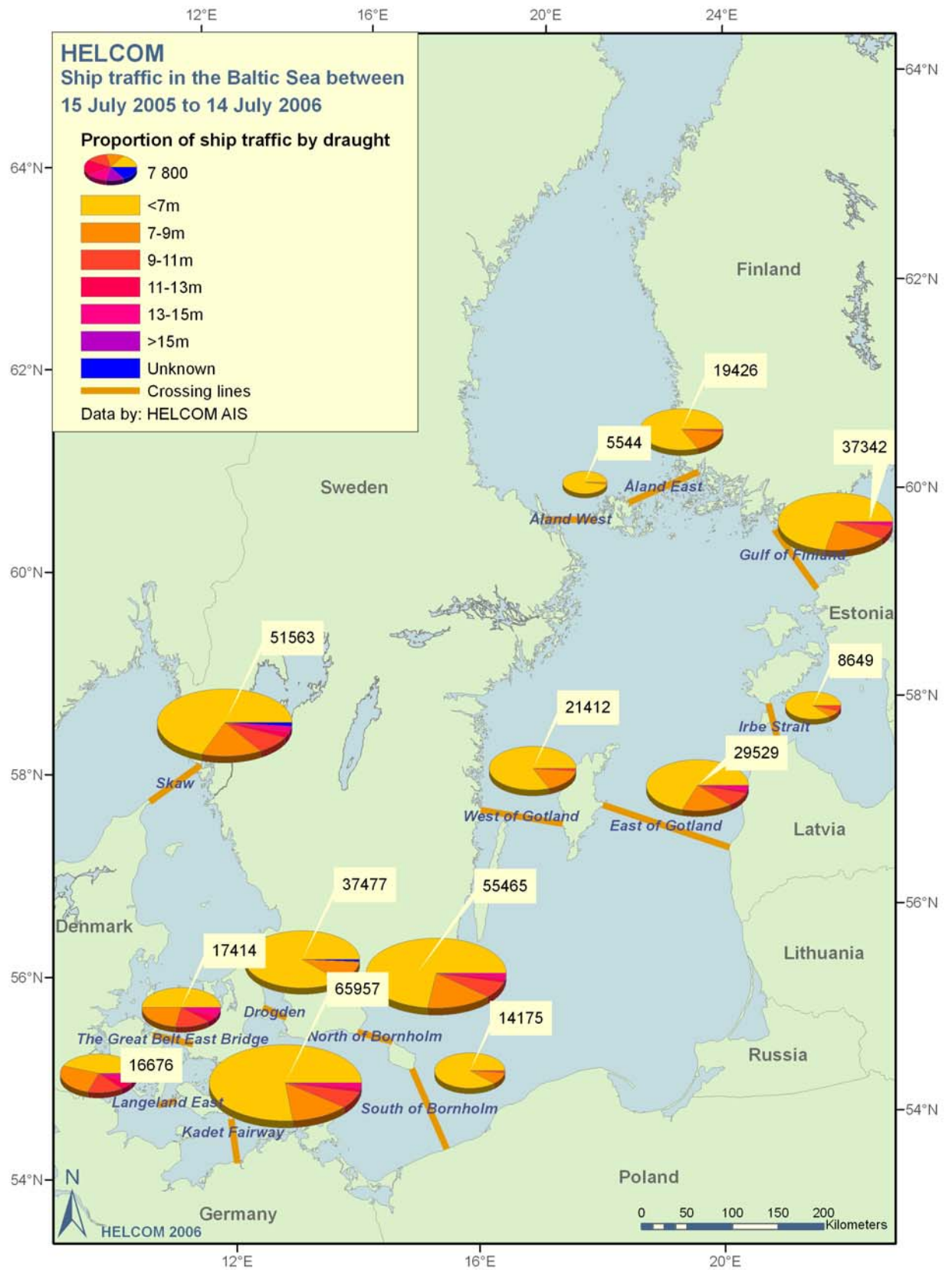


Figure 2

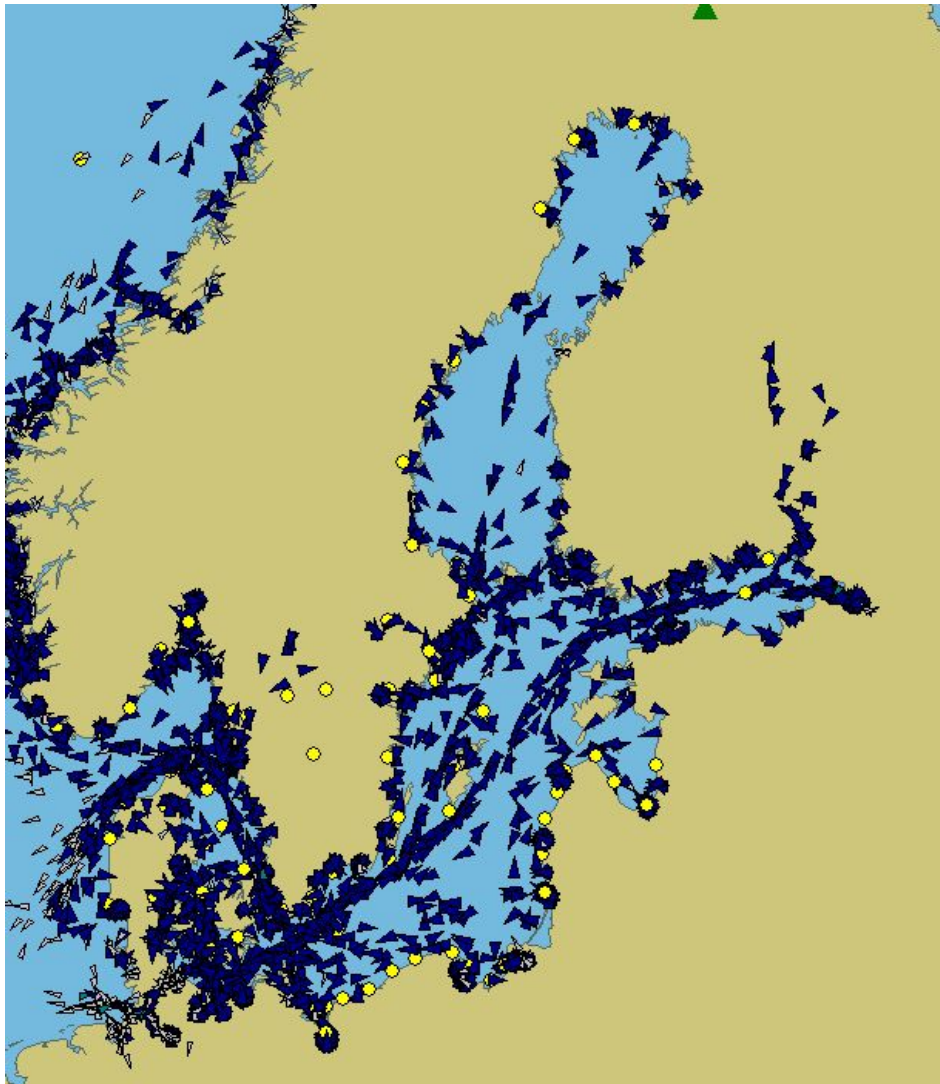


Figure 3

Location	Type of ship				
	Tanker	Cargo	Passenger	Other	Total
Skaw	12714	29943	3233	5757	51647
The Great Belt East Bridge	5088	9119	1497	1710	15704
Drogden	4717	21174	2939	8647	37477
Langeland East	5167	8718	1593	1198	16676
Bornholm North	10286	39579	2576	3024	55465
Bornholm South	2400	9652	777	1346	14175
Kadet Fairway	9127	34518	13930	8382	65957
Gotland West	2111	16139	1789	1373	21412
Gotland East	6528	19431	1988	1582	29529
Åland West	1881	14138	2286	1121	19426
Åland East	162	709	4477	196	5544
Gulf of Finland	6829	23176	5382	1955	37342
Irbe Strait	922	6438	663	626	8649

Table 1

Location	Draught							Total
	<7m	7-9m	9-11m	11-13m	13-15m	>15m	Unknown	
Skaw	34406	9794	4104	1081	1037	483	658	51563
The Great Belt East Bridge	8553	3712	3086	813	954	165	131	17414
Drogden	32996	3711	99 *	15 *	7 *	277 *	372	37477
Langeland East	7498	3877	3181	817	982	195	126	16676
Bornholm North	39571	10231	3365	753	906	250	389	55465
Bornholm South	12577	1194	214	12	43	12	123	14175
Kadet Fairway	50383	9377	3733	820	982	185	477	65957
Gotland West	17554	3200	342	71	35	66	144	21412
Gotland East	19938	5952	2203	460	609	169	198	29529
Åland West	16077	2842	278	53	17	25	134	19426
Åland East	5411	93	7	0	0	5	28	5544
Gulf of Finland	25943	7844	2149	352	603	159	292	37342
Irbe Strait	7447	636	393	81	0	16	76	8649

*) For ships passing the Drogden the maximum draught is 8 m; therefore these numbers are probably due to a reporting error.

Table 2

Total accidents

According to the reports from the Contracting States there were 151 ship accidents in the HELCOM area in 2005 (**Figure 4**).

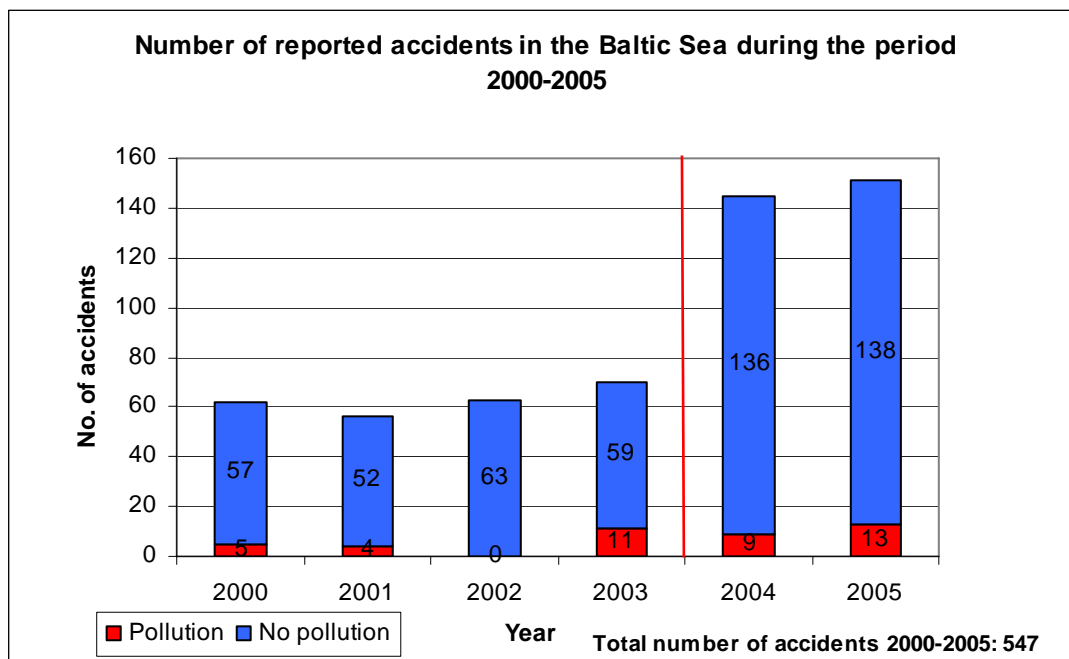


Figure 4

The spatial distribution of the reported accidents in 2005 can be seen in **Figure 5**.

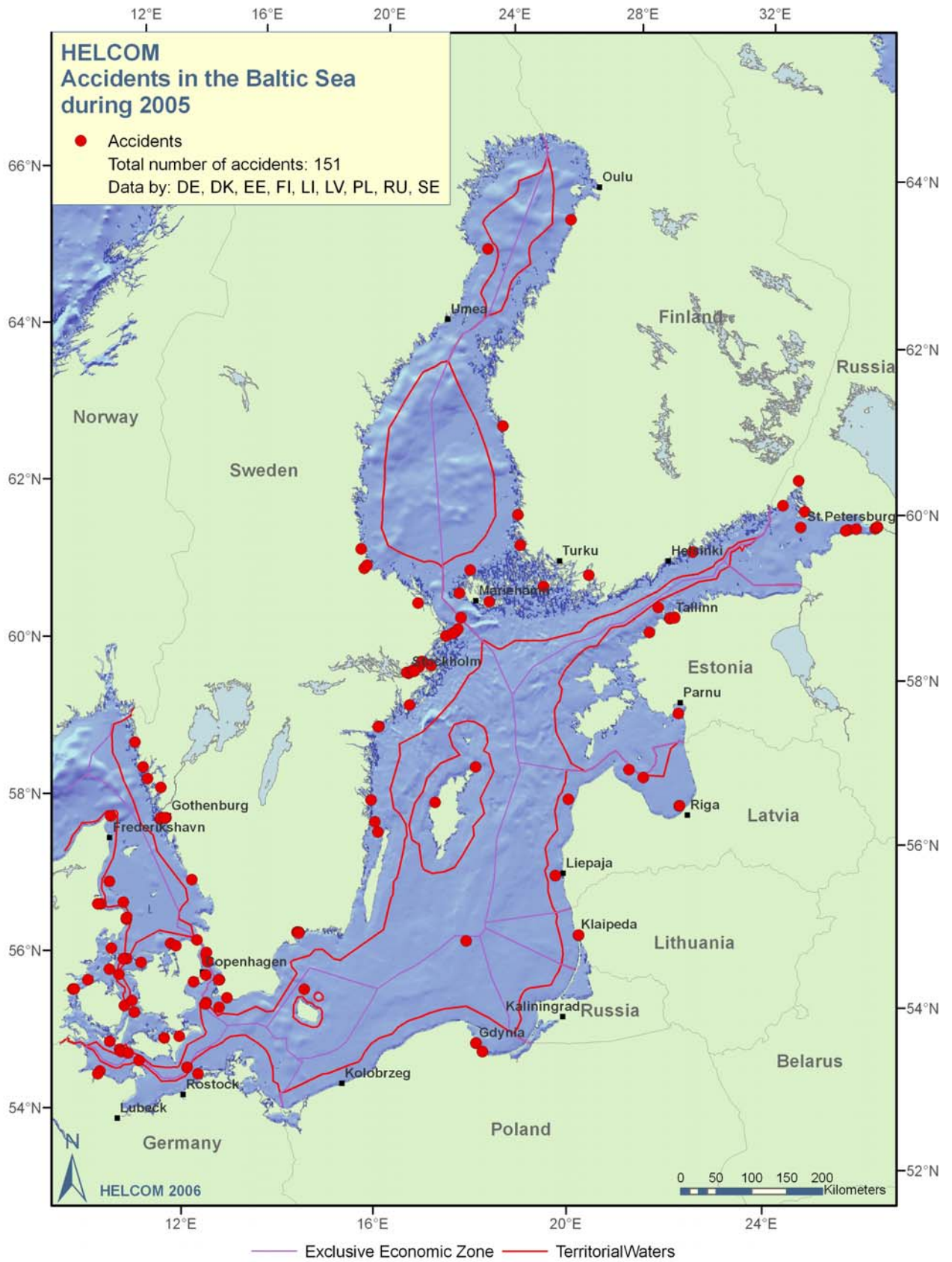


Figure 5

Groundings (36%) and collisions (38%) are the most common types of accidents in the Baltic Sea in 2005 (**Figure 6**). The share of groundings has decreased (40 % in 2004) and the share of collisions has increased (30 % in 2004) compared to 2004.

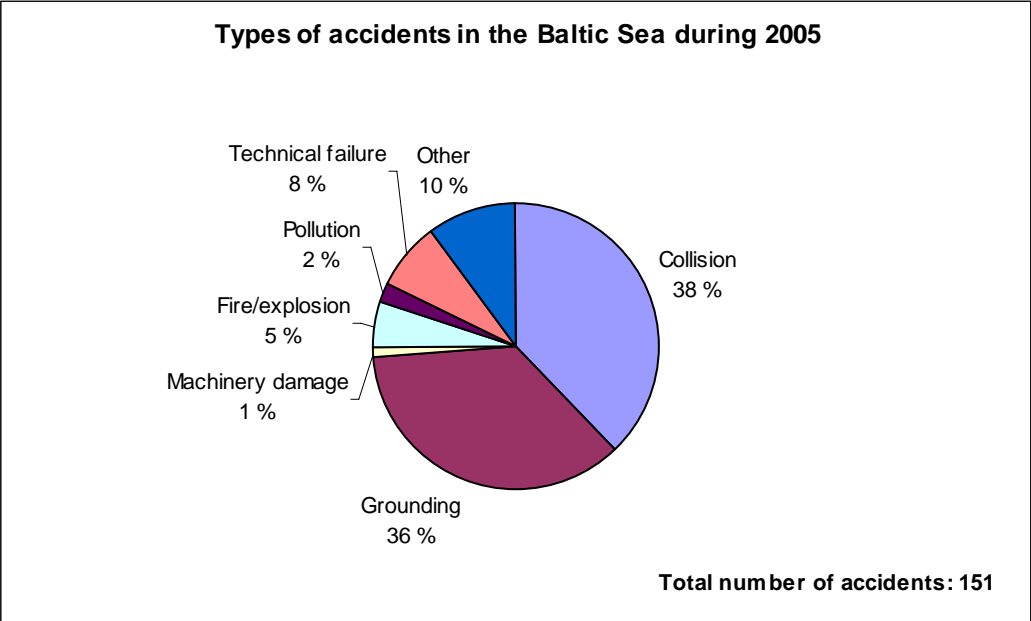


Figure 6

Types of vessels involved in the accidents

As can be seen from **Figure 7** cargo vessels, tankers and ferries are the main groups of vessels involved in accidents.

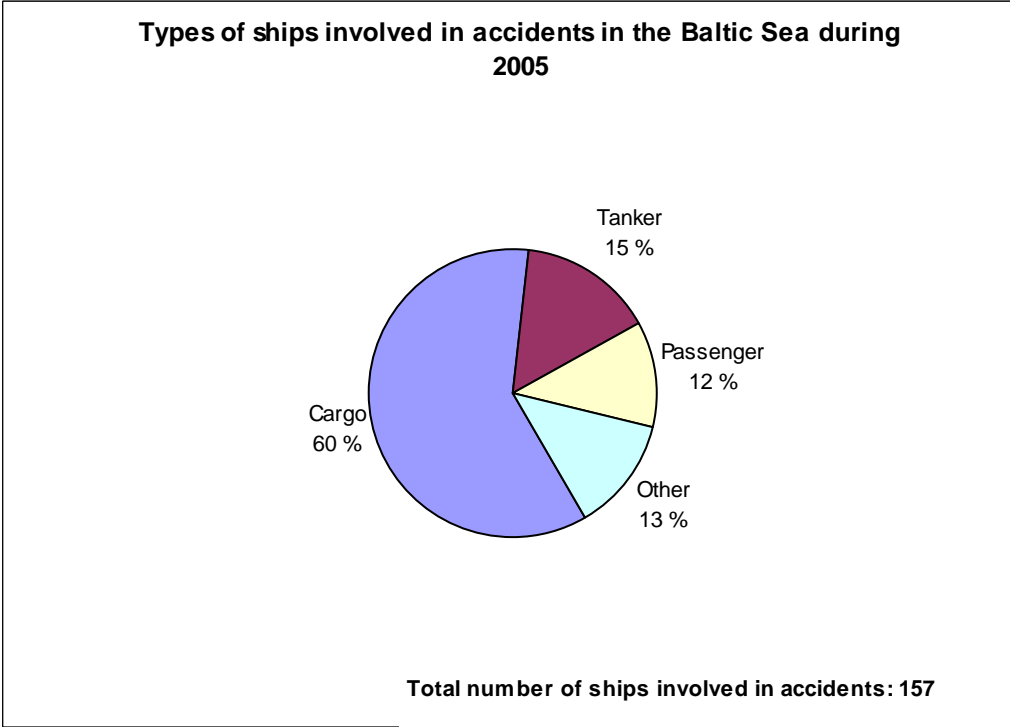


Figure 7

As tankers are often the issue of high concern the map on tanker accidents in 2000-2005 (**Figure 8**) is also presented here.

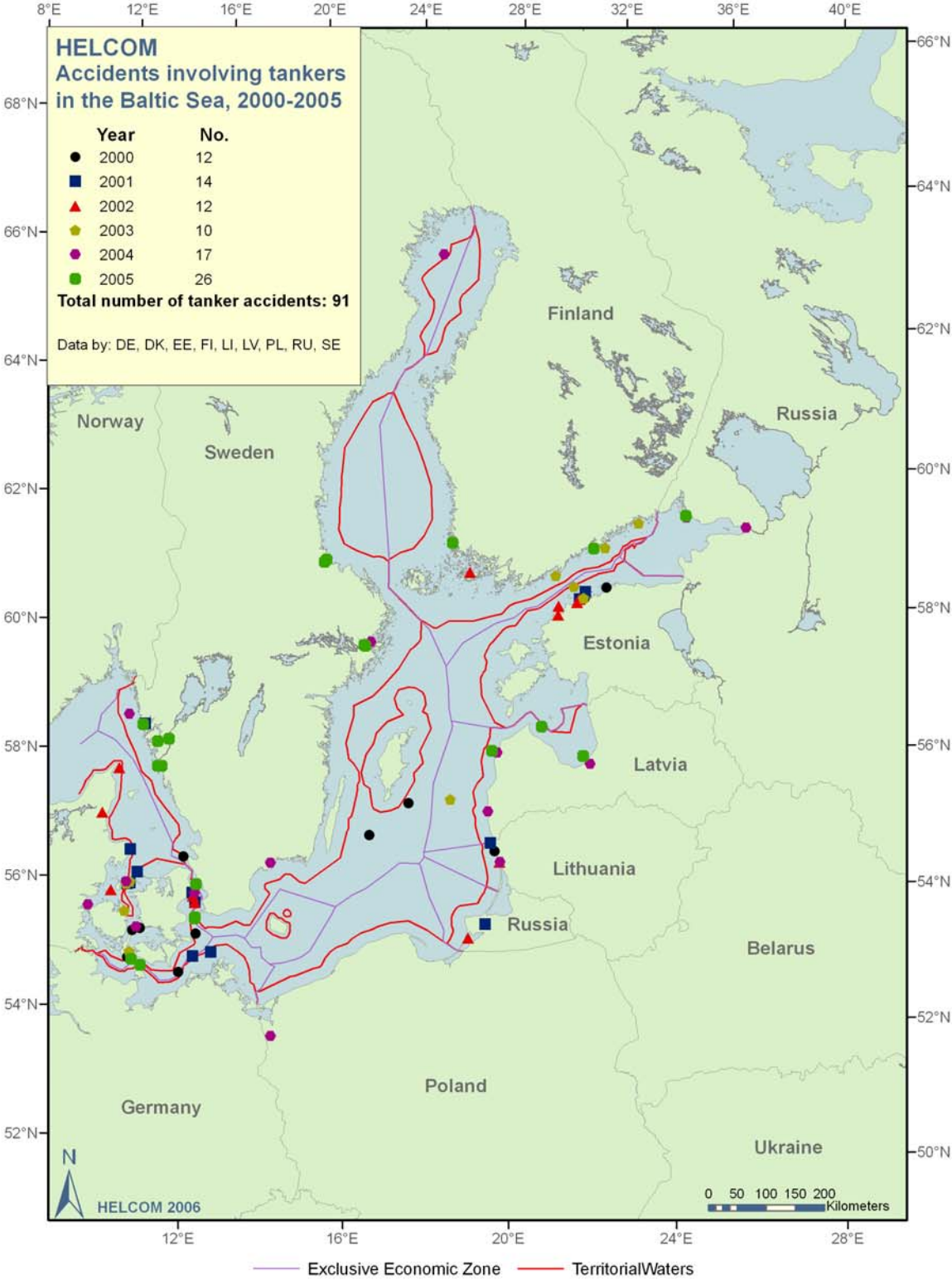


Figure 8

Causes of accidents

The main reason for an accident to happen is human factor (42 %), followed by technical failure (23 %) according to the reports of the Contracting States (**Figure 9**).

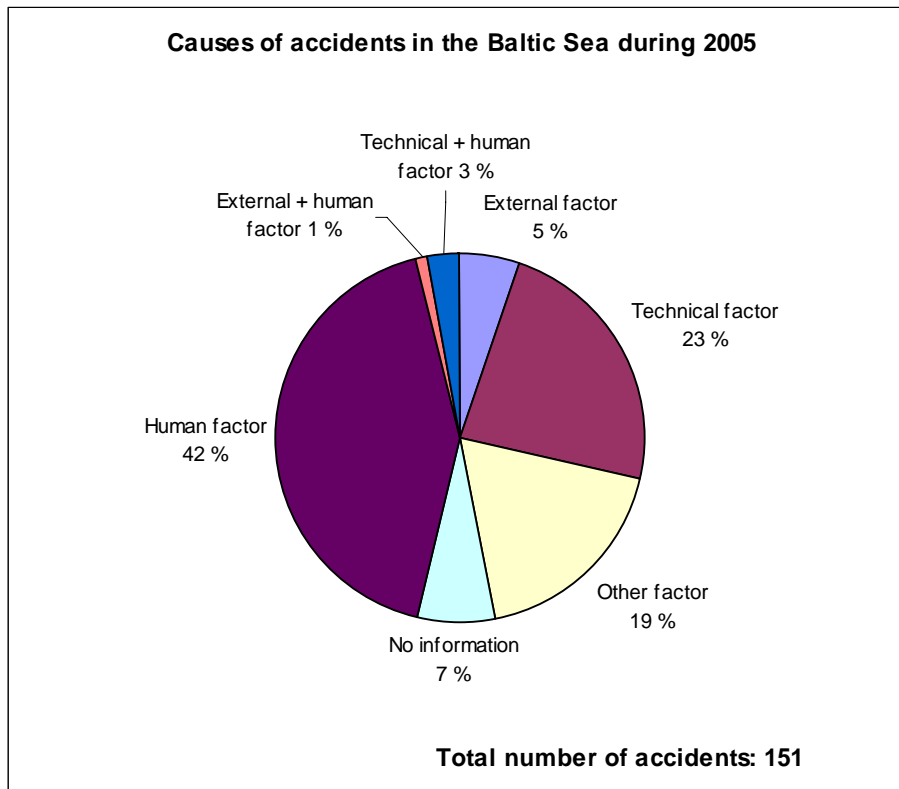


Figure 9

Human factor seems to be the main cause (nearly 50%) also in accidents causing pollution (**Figure 10**).

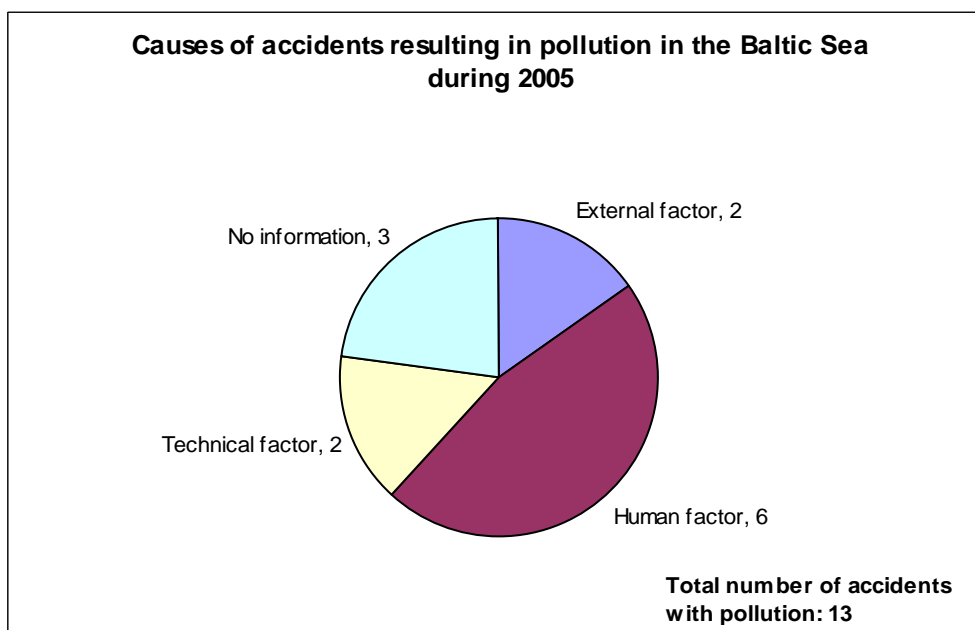


Figure 10

Groundings

Accounting for 36 % of the total number of reported accidents in 2005, groundings are one of the main type of accidents in the Baltic (**Figure 11**).

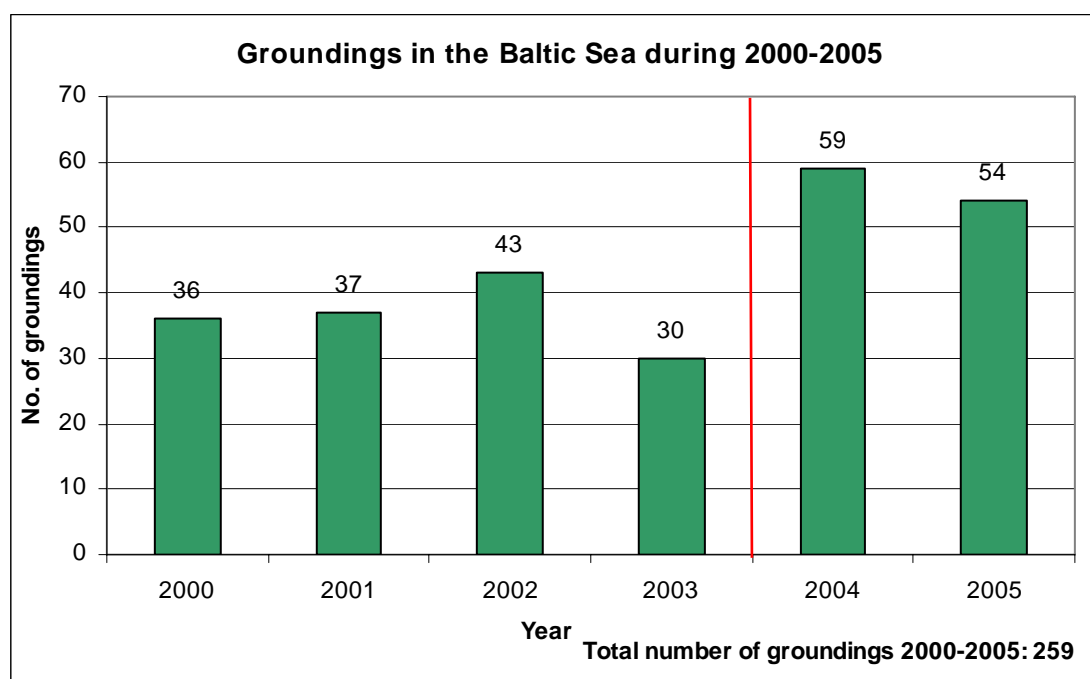


Figure 11

The map of the reported groundings in 2000-2005 (**Figure 12**) 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 the attention of the relevant states as well.

The map of groundings in 2005 (**Figure 13**) points to the Danish straits, the Swedish coast of the Baltic Proper and the Åland archipelago area as well as the ports in the Gulf of Finland.

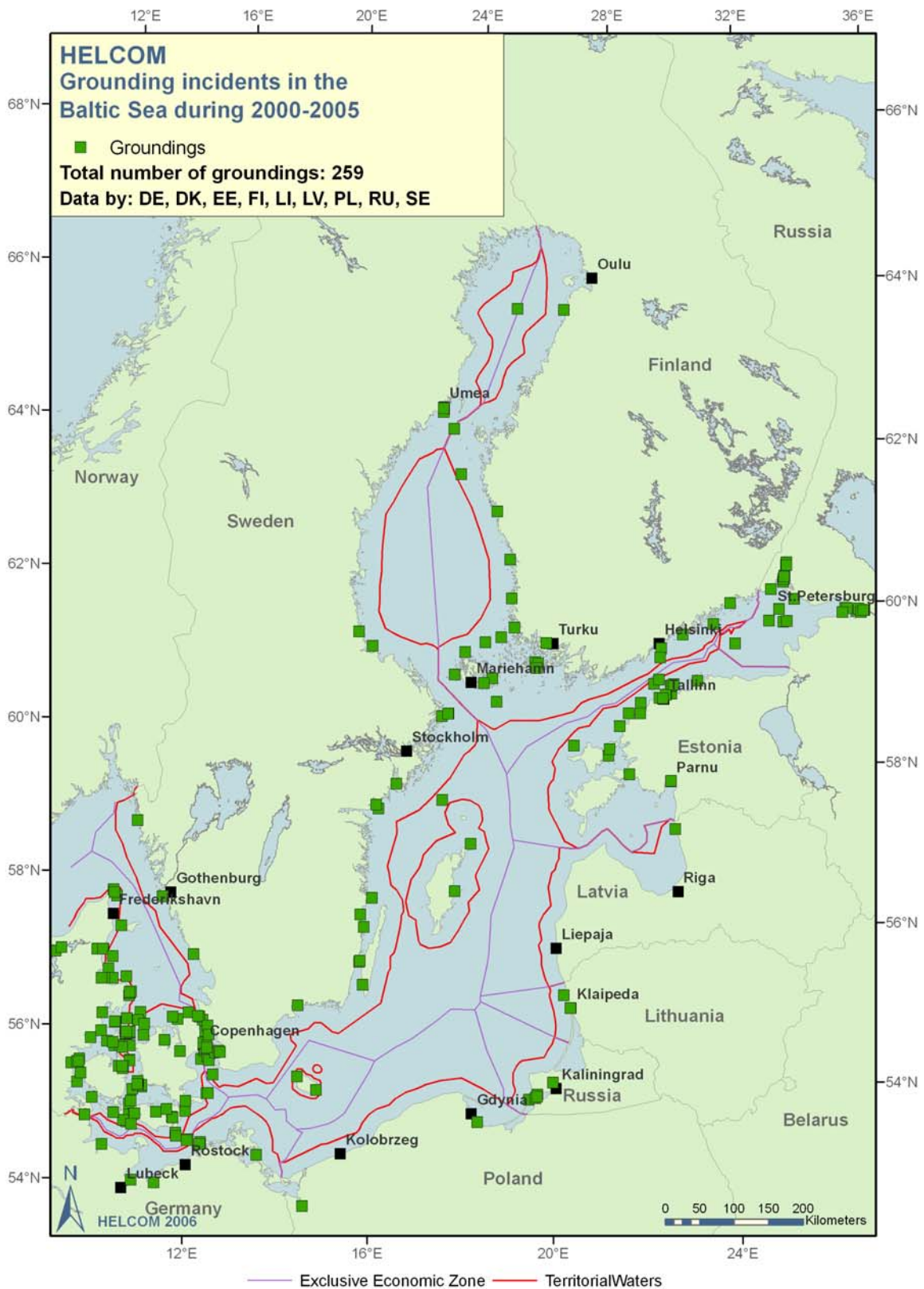


Figure 12

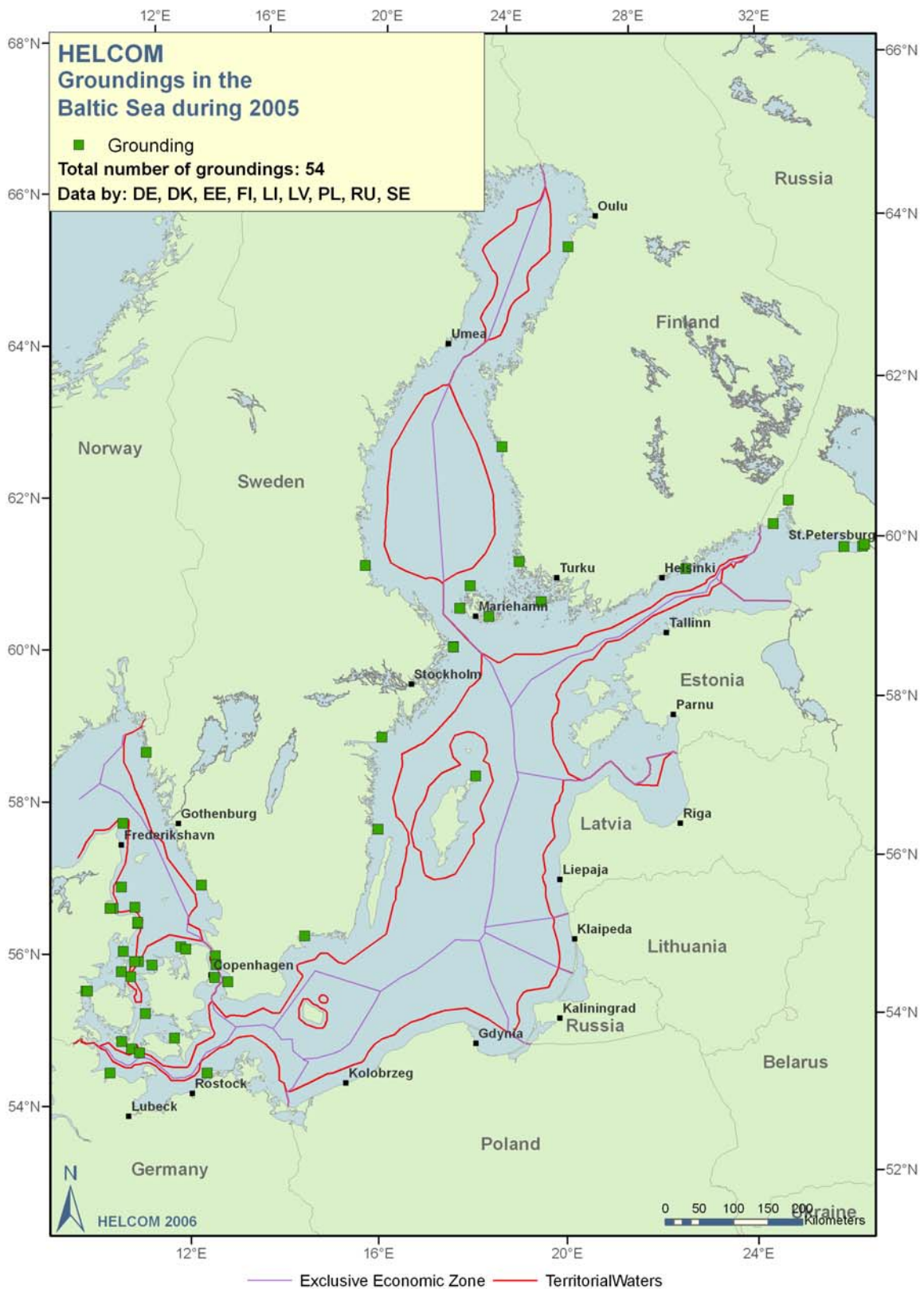


Figure 13

Groundings in the Danish straits and adjacent area (**Figure 14**) account for more than a half of all groundings registered in 2000-2005. Moreover, the statistics do not show any decrease in the number of groundings in the area in recent years (**Figure 15**).

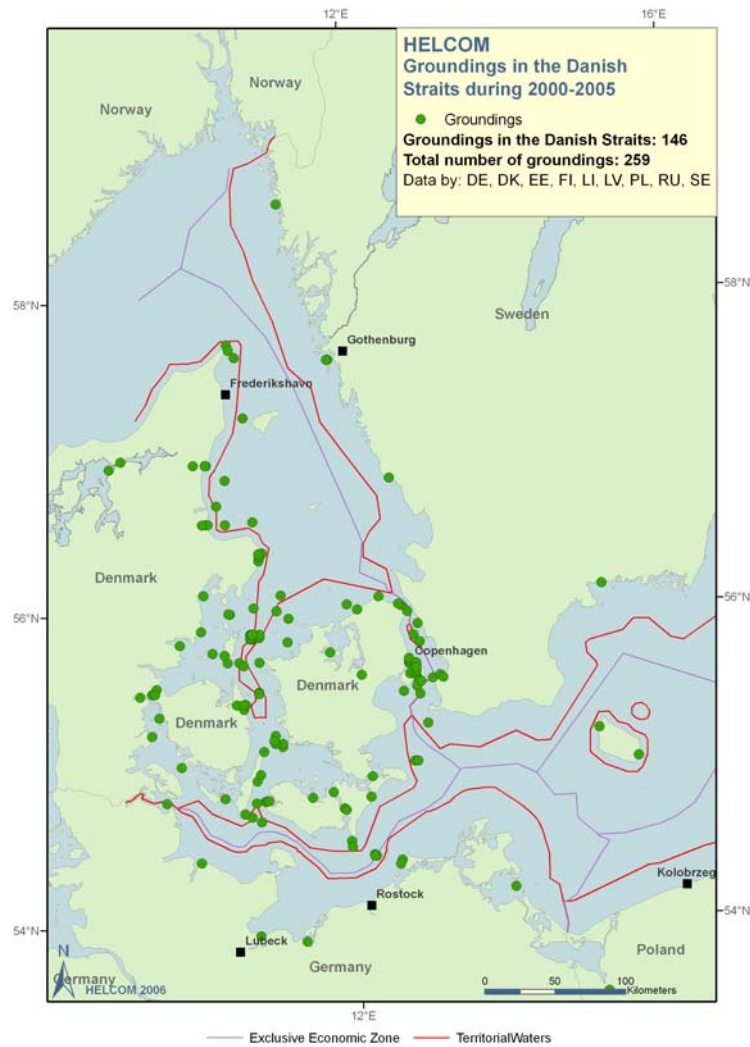


Figure 14

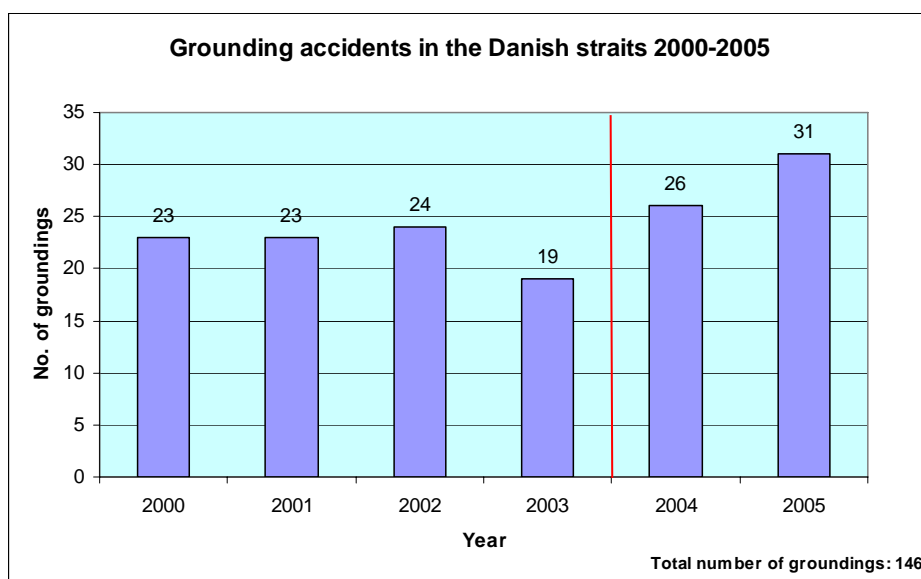


Figure 15

Groundings in the Gulf of Finland area illustrated by **Figures 16 and 17**.

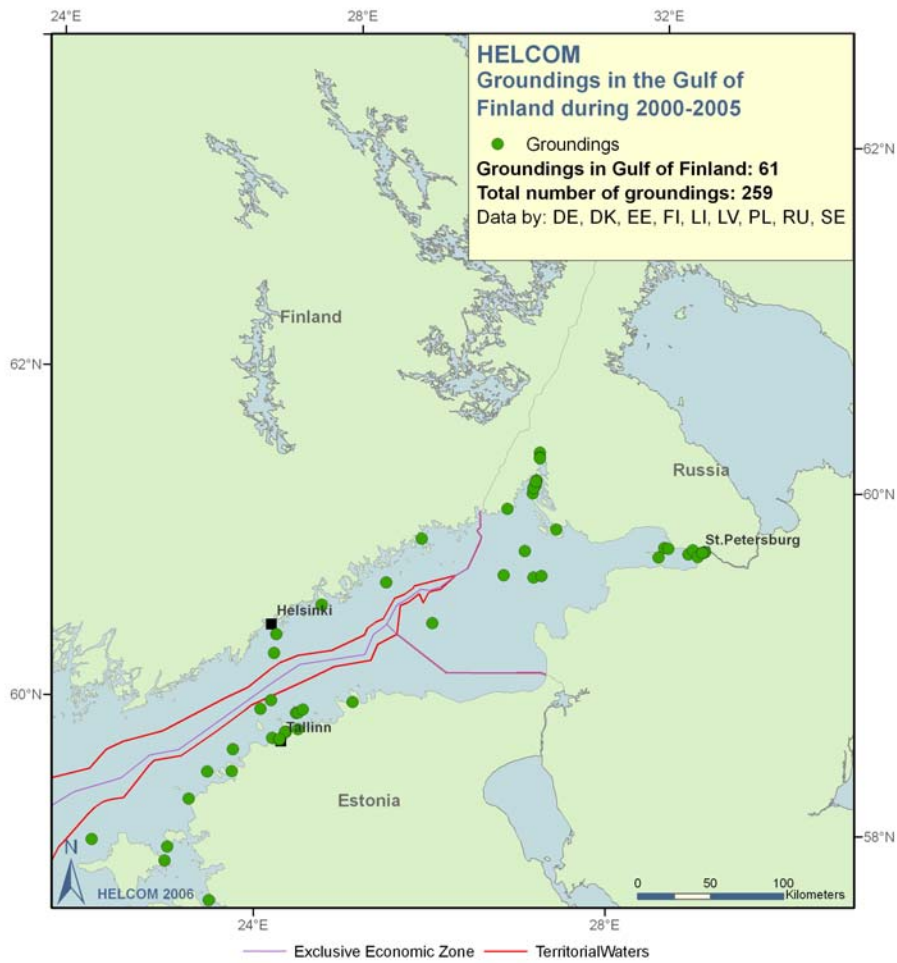


Figure 16



Figure 17

Figure 18 illustrates the pilot presence on board during grounding accidents in 2005. Significantly improved data provides a good basis for further analysis of the relation between groundings and the absence of pilot on board.

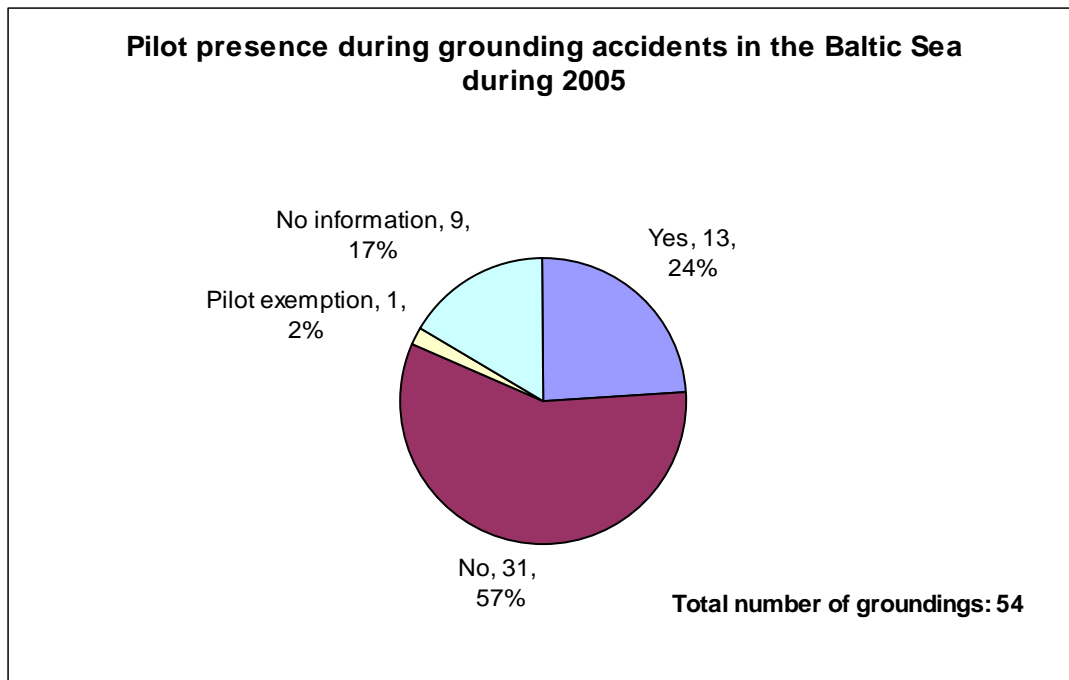


Figure 18

Collisions

Amounting to 57 cases or 38 % of all accidents in 2005 and 153 cases (28%) in 2000-2005, respectively, collisions became the most frequent type of shipping accident in the Baltic in 2005. Moreover, the number of reported collisions has been increasing significantly during last years (**Figure 19**).

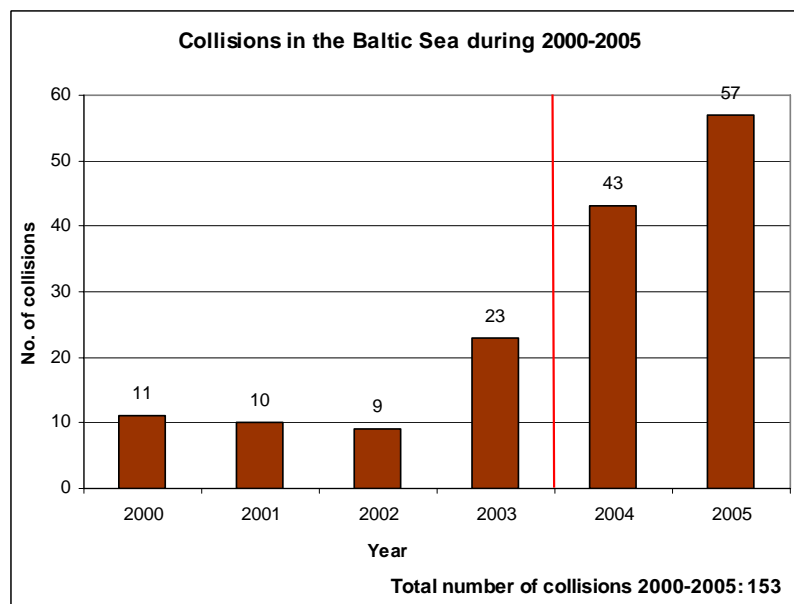


Figure 19

Ship to ship collisions account for 60% of all collision cases in 2005 and the rest of the cases were collisions with fixed and/or floating structures, e.g. piers, navigation signs etc. (**Figure 20**).

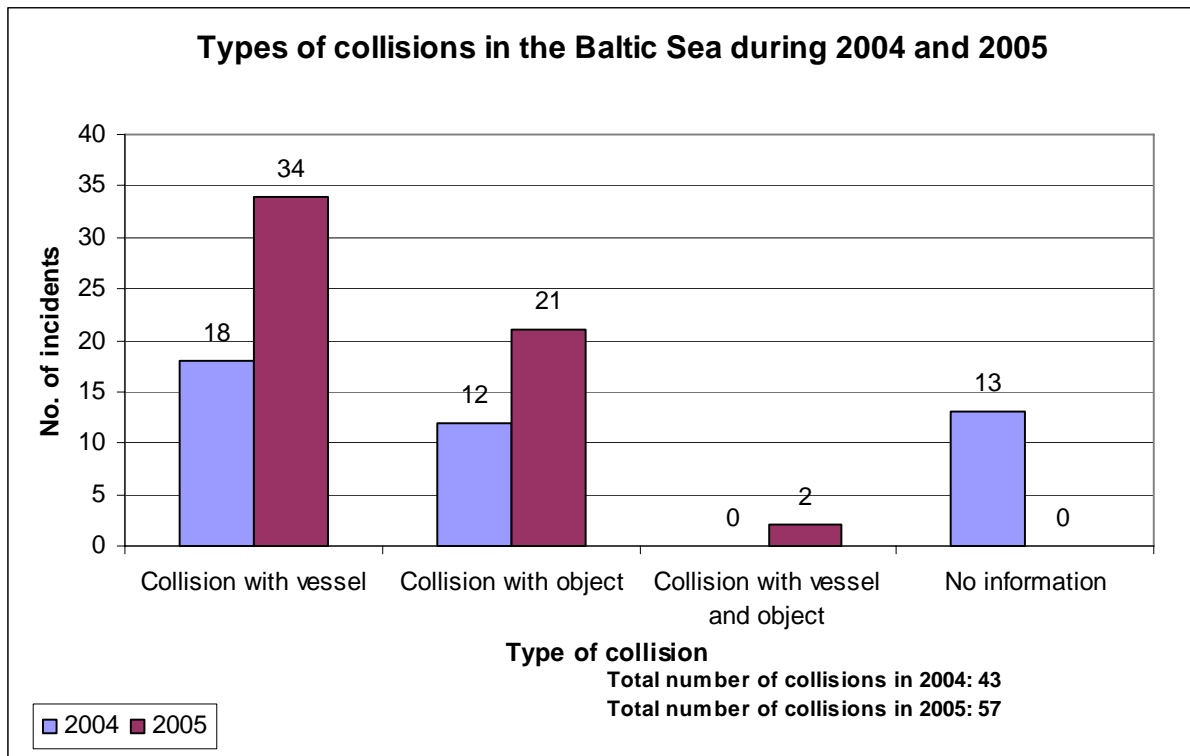


Figure 20

Spatially collisions are not so clearly accumulated in few areas as groundings but the maps of collisions during 2005 (**Figure 21**) and during 2000-2005 (**Figure 22**) are pointing to the Danish straits and the ports (approaches to ports) as the most risky areas for ships to collide. Some trend of growth in the number of collisions in these areas can be identified (**Figures 23-26**).

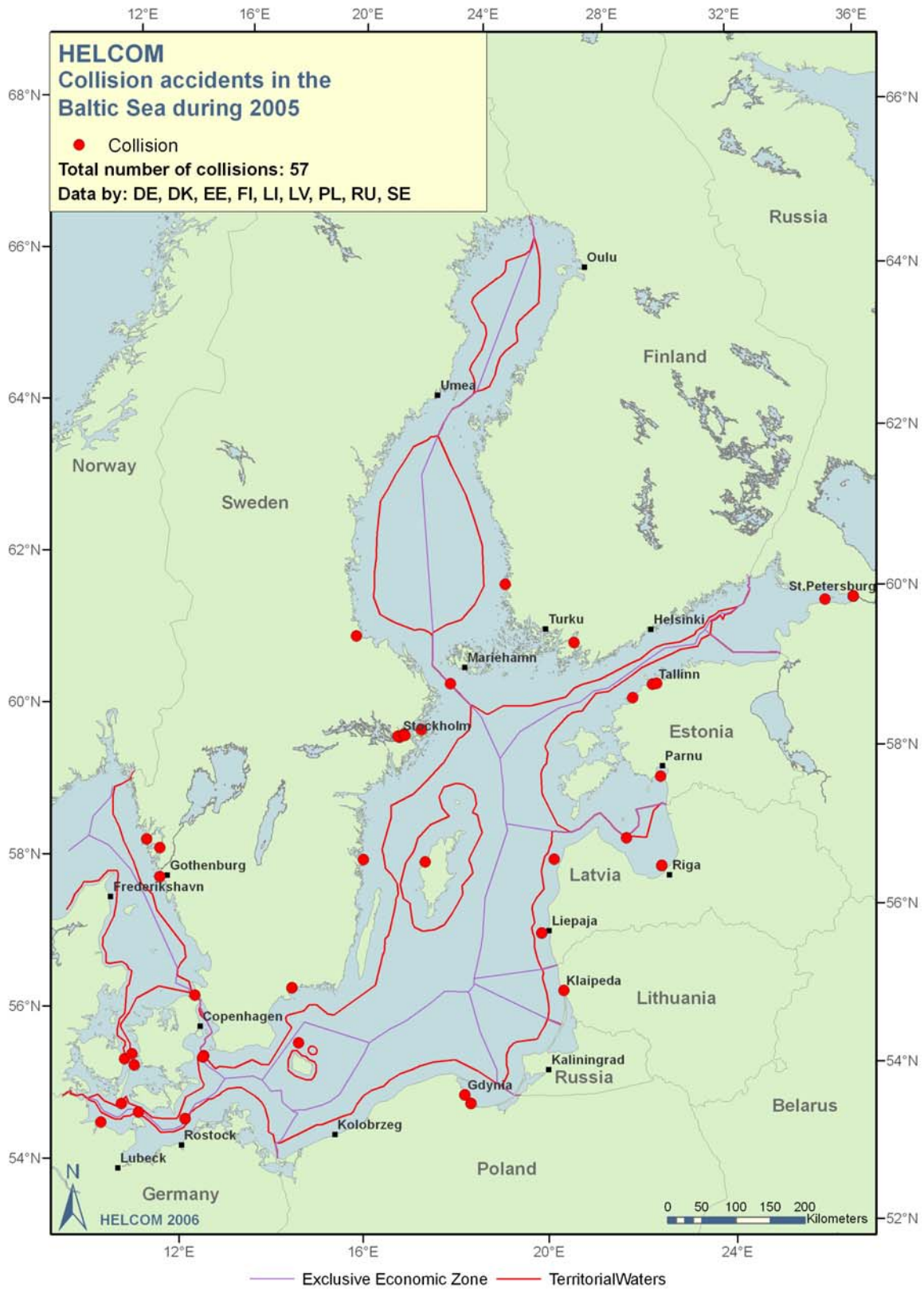


Figure 21

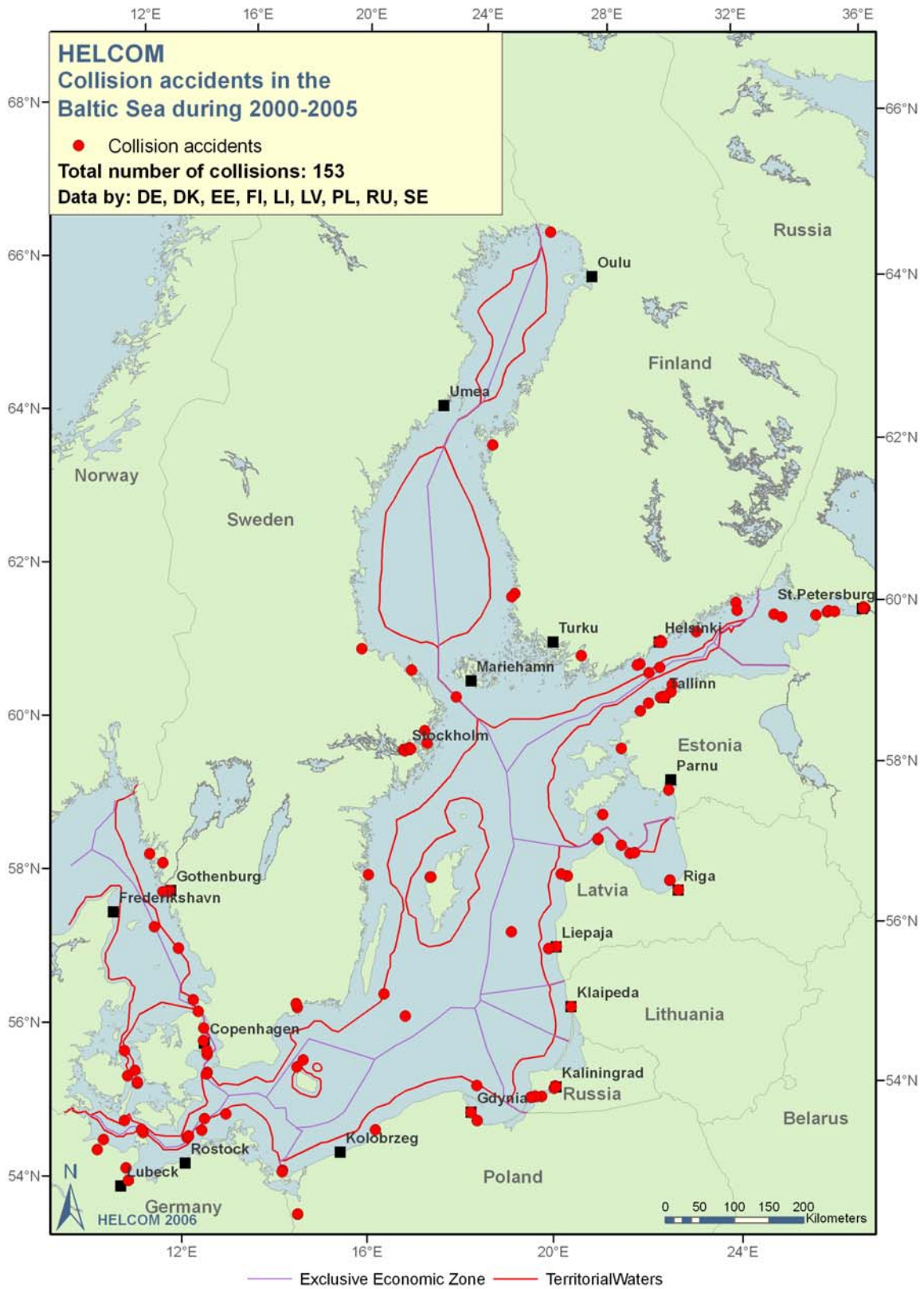


Figure 22

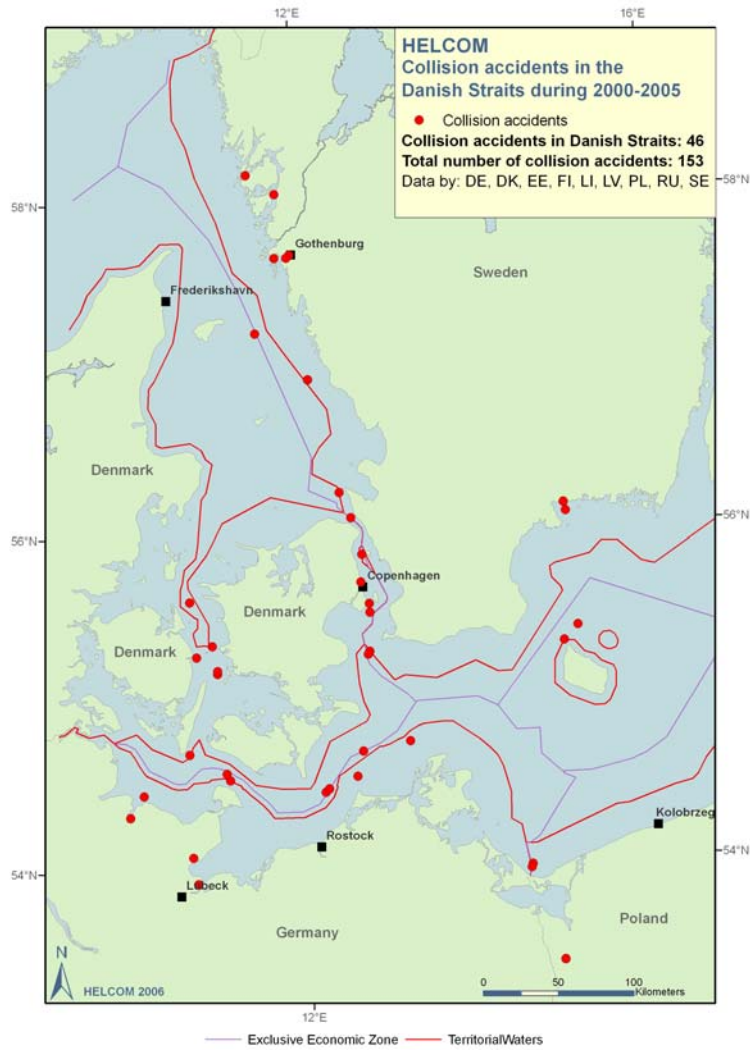


Figure 23

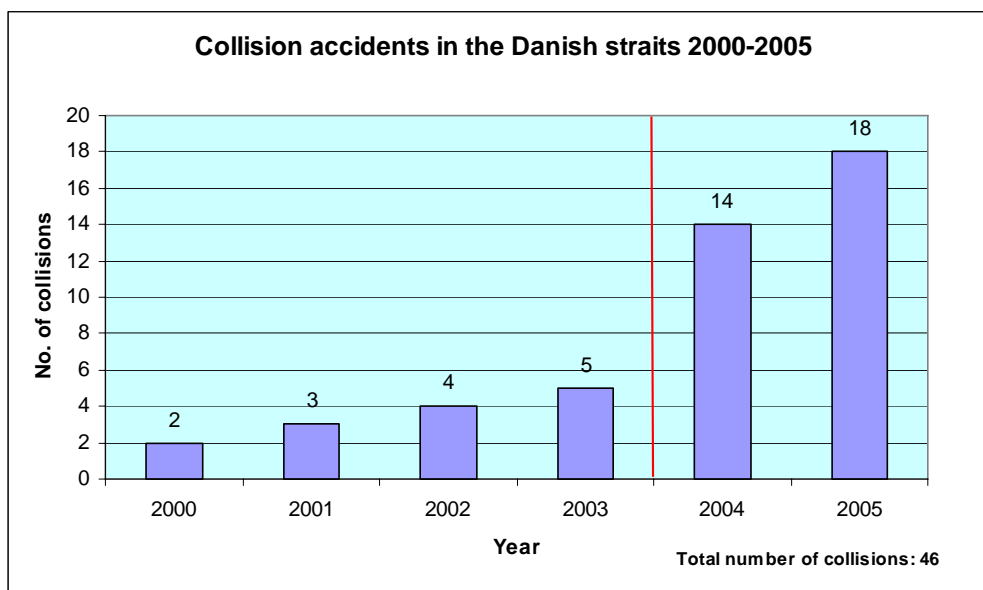


Figure 24

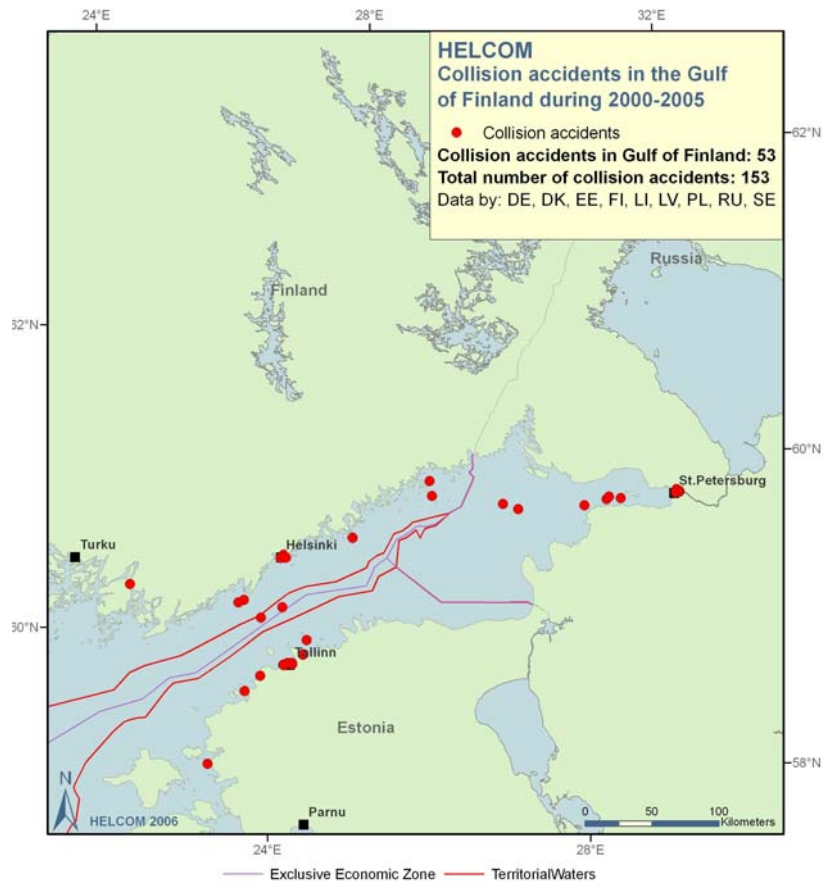


Figure 25



Figure 26

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 pollution

Accidents with pollution traditionally get more attention of the competent authorities and media. According to the 2000-2005 data, 8-9 % of the reported accidents end up with some kind of pollution. The spatial distribution of the accidents in 2005 causing pollution can be seen in **Figure 27**. 13 accidents with pollution were reported in 2005, as presented in **Figure 28** and **Table 3**.

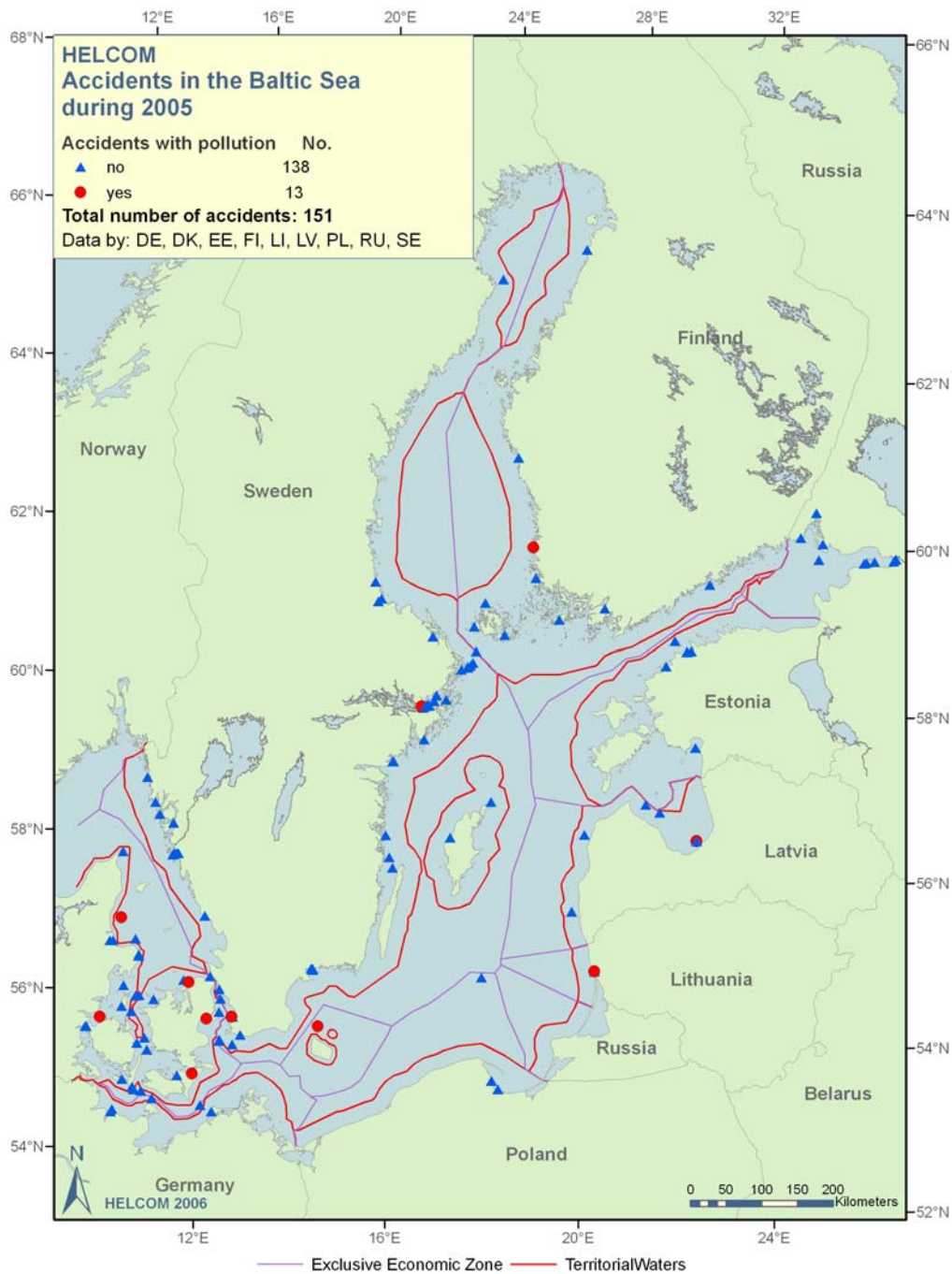


Figure 27

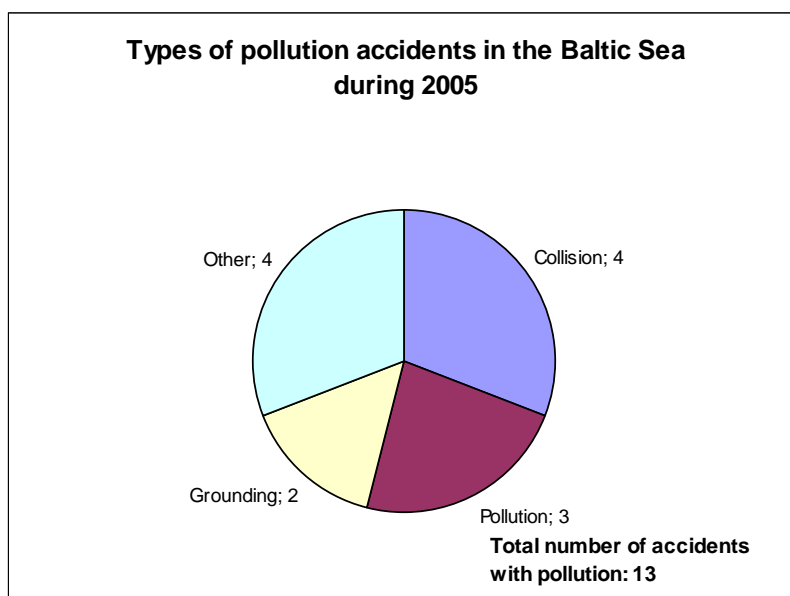


Figure 28

Country	Date	Ship(s), ID, flag	Ship type(s)	Size (GT)	Cargo	Type of accidents	Cause	Type and amount of pollution
Denmark	15.02.05	KCL Banshee, IMO: 8221363	Cement carrier	3615		Grounding	Extreme weather conditions	Diesel oil
Denmark	12.3.05	Baltic Tara/Ramona, IMO: 9052707 / C/S: OU4878	General cargo/Fishing	26506 / ?		Collision	Operational error committed by others/faulty bridge discipline	Diesel Oil
Denmark	12.08.05	Susan, OWDT	Fishing	3,5		Grounding	Technical error at main steering engine	Diesel Oil
Denmark	20.08.05	????				Loss	n/a	Diesel Oil
Denmark	10.09.05	Bamse	Pleasure			Loss	n/a	Diesel Oil
Denmark	30.11.05	Unique	Pleasure	?		Loss	n/a	Diesel Oil
Finland	30.11.05	OISV, FI	Barge	698	dry cargo (wood)	Collision with fairway-mark	External factor (wind) + human factor	701 m3 of wood fell into the sea
Lithuania	11.05.05	8121044, DE	Dredger	2172	Nil	Fuel oil spillage during bunkering	Human factor	Fuel oil; 71 l collected from the water
Lithuania	11.12.05	7600768, MT	Dry cargo vessel		Phosphate 33000	Oil spill	Human factor	Fuel oil 5m ³
Latvia	17.01.05	Silene, LV	Oil tanker	744	Bunker	Contact with bollard	Human factor	MDO 0.5m ³
Latvia	04.03.05	Vikland, MT	Oil tanker	6763	Oil	Pollution	Technical factor	Gasoline 0.1m ³
Sweden	14.10.05	SHCB, SE	Other vessel	814	Empty	Collision with other object	The task not well planned	Oil (diesel)
Sweden	18.02.05	SICD, SE	Passenger which is used in intern. Traffic	33163	Cars + passengers	Spillage	Other conditions concerning the construction and maintenance of the ship	Bunker oil

Table 3

Annex 1

Country	Date	Time (UTC)	Position	Latitude	Longitude	Ship(s), ID, flag	Ship(s) type	Size (GT)	Size (DWT)	Draft (m)	cargo	Type of accidents	Cause	Aggravating circumstance or additional cause	pilot on board (yes/no)	Offence against rule or recommendation	damage	need of assistance	Pollution	Type of pollution (oil, chemical etc.)	Pollution amount	Pollution consequences	
Germany	23.04.2005	h:50:00		54,4708	10,3111	DJTY / German	general cargo	1593		3,7	n/a	Collision	human factor		no	n/a	fishing vessel: reeling 2 m impressed	n/a					
Germany	11.10.2005	h:38:00		54,4158	12,4506	ZINB6 / UK	general cargo	1989		3,5	vehicles	Grounding	human factor		no	STCW	none	n/a					
Germany	13.11.2005	h:25:00		54,5000	12,2167	SBHY / Sweden	ro-ro-passenger ship	20783		6,6	n/a	Collision	human factor		no	COLREG	crack above the waterline at the shell plate	n/a					
Germany	13.11.2005	h:25:00		54,5000	12,2167	9HZU6 / Malta	bulkcarrrier	23409		6,34		Collision	human factor		no	COLREG	steel plates on port side at the aft part of cargo hold and the fore part of cargo hold						
Germany	15.11.2005	h:45:00		54,6000	11,1667	A8FH3 / Liberia	chemicaltanker	16282		11,41	pygas	Collision	human factor		no	n/a	abrasion of colour bow	n/a					
Germany	05.12.2005	h:48:00		54,4389	10,2694	PBLV / Netherland	general cargo	2545		5,4	peat	Grounding	human factor		no	n/a	unknown	tug assistance					
Denmark	19.01.2005	h:23:00		55,7000	10,7500	Alga, IMO: 7510884	general cargo	1864		0		Grounding	human factor	extreme weather conditions	no		n/a		no				
Denmark	06.02.2005	h:48:00		54,7500	10,7500	Transmar, IMO: 9167332	general cargo	2820		0		Grounding	human factor	n/a	no/n/a		n/a		no				
Denmark	12.02.2005	h:56:00		56,6000	10,3500	Hermod, IMO: 8002743	general cargo	2854		6		Grounding	human factor	navigatorial error	no		n/a		no				
Denmark	15.02.2005	h:05:00		56,8833	10,5500	KCL Banshee, IMO: 8221363	cement carrier	3615		0		Grounding	external factor	n/a	yes		n/a		yes	diesel oil			
Denmark	17.02.2005	h:14:00		56,4000	10,9333	Tone, IMO: 7034139	general cargo	1331		4,12		Grounding	human factor	faulty bridge dicipline	no		tom in the bottom of the ship		no				
Denmark	17.02.2005	h:52:00		56,6000	10,2833	Samira, IMO: 9240744	general cargo	1435		4		Grounding	human factor	n/a	no		n/a		no				
Denmark	31.1.2005	h:04:00		55,3167	12,6833	Pomerania/Rio Grande, IMO: 7516761/6900305	ro-ro/tanker	12087 / 4248		3		Collision	other	n/a	no		n/a		no				
Denmark	12.3.2005	h:20:00		55,4167	14,8833	Baltic Tara/Ramona, IMO: 9052707 / C/S: OJ4878	general cargo/fishing	26506 / ?		0		Collision	human factor	extreme weather conditions/faulty lookout	no/n/a		n/a/founded		yes	diesel oil			
Denmark	03.03.2005	h:15:00		55,3000	10,8667	Karen Danielsen, IMO: 8500070	general cargo	3113 / 7		4,6		Collision	human factor	faulty lookout	no		damages on deck and accommodation		no				
Denmark	22.03.2005	h:20:00		55,9000	10,9333	Alexia M, IMO: 7729746	bulk carrier	15944		10,62		Grounding	human factor	faulty bridge dicipline	no		n/a		no				
Denmark	25.03.2005	h:04:00		56,0833	11,9333	Euro Sea, IMO: 6518360	general cargo	682		4		Grounding	human factor	n/a	no		n/a		no				
Denmark	12.05.2005	h:02:00		55,9500	12,7333	Munsu, IMO: 7626126	reffer	675		3		Grounding	human factor	faulty lookout	no		n/a		no				
Denmark	14.05.2005	h:43:00		54,8833	11,7333	Trinket, IMO: 8919233	general cargo	1574		0		Grounding	human factor	n/a	n/a		n/a		no				
Denmark	22.05.2005	h:35:00		55,3667	11,0333	MSC Eyra/Aleksandr Nevskiy, IMO: 8201648/721213	container / bulk carrier	21370 / 14141		n/a		Collision	no info	n/a	n/a				no				
Denmark	21.05.2005	h:14:00		56,6167	10,8667	Lerrix, IMO: 7530901	general cargo	1989		6		Grounding	other	n/a	no		serve damage to the hull		no				
Denmark	05.06.2005	h:16:00		55,2167	11,0833	Eleftheria, IMO: 8204418	bulk carrier	36828		12,8		Grounding	human factor	n/a	no		n/a		no				
Denmark	12.06.2005	h:10:00		55,5167	9,7167	KCL Baron, IMO: 7902934	cement carrier	2955		0		Grounding	techical factor	n/a	no		n/a		no				
Denmark	20.07.2005	h:13:00		55,5167	9,7500	Strilen, IMO: 6603103	cement carrier	1133		0		Grounding	human factor	alcohol or other drugs	no		n/a		no				
Denmark	01.08.2005	h:20:00		55,8500	11,2500	Rigmor	pleasure	?		n/a		Grounding	no info	n/a	n/a		n/a		no				
Denmark	04.08.2005	h:01:00		54,7167	10,7833	Atlantic/Arngast, IMO: 9135676/5387740	bulk/general cargo	39017 / 833		4/13,7		Collision	human factor	n/a/n/a	yes/no		damage to the railing/above water damages to the bow		no				
Denmark	08.08.2005	h:39:00		54,8500	10,5333	Sriken, IMO: 6603103	cement carrier	1133		2,5		Grounding	human factor	n/a	no		no serve damage		no				
Denmark	12.08.2005	h:35:00		56,0500	12,0500	Susan, OWDT	fishing	3,5		0		Grounding	technical factor	n/a	no		n/a		yes	diesel oil			
Denmark	20.08.2005	h:30:00		54,9000	12,0667	????				n/a		Other	no info	n/a	n/a		n/a		yes	diesel oil			
Denmark	10.09.2005	h:45:00		55,5833	12,4167	Bamse	pleasure			n/a		Other	no info	n/a	n/a		n/a		yes	diesel oil			
Denmark	03.10.2005	h:02:00		56,4167	10,9333	Herdis J				0		Grounding	human factor	n/a	n/a		delayed arrival		no				

