

Illegal Discharges of Oil in the Baltic Sea

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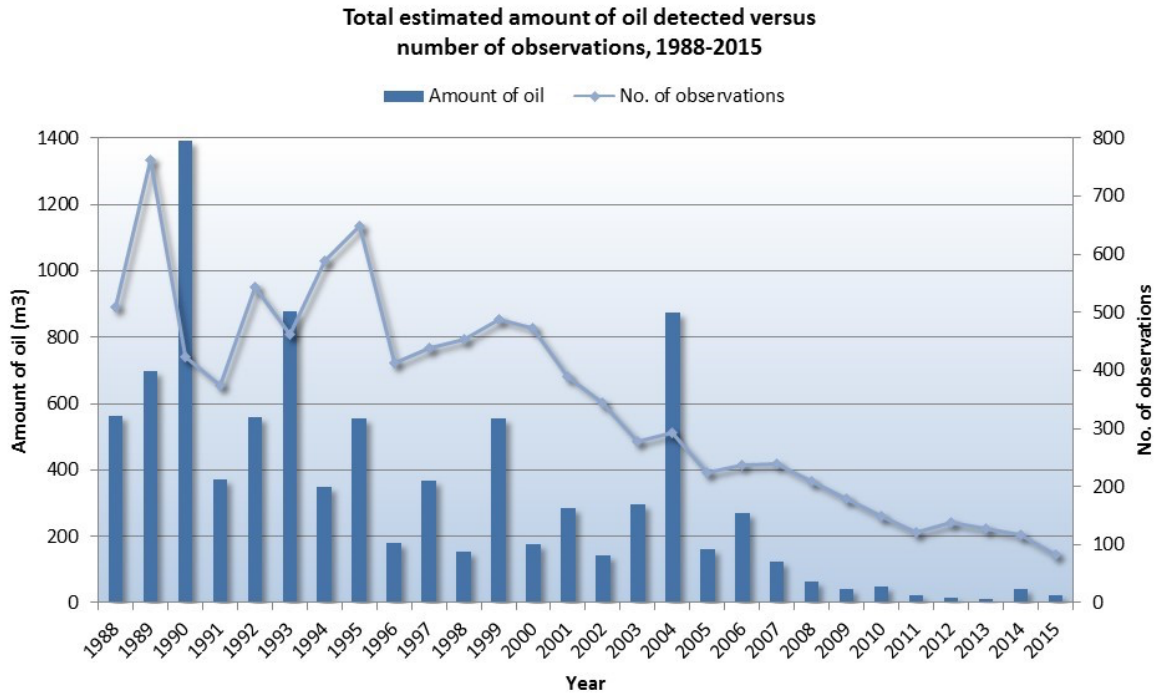
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Key Message

The number of detected oil discharges in the Baltic Sea has constantly decreased even though the density of shipping has grown and the aerial surveillance activity in the coastal countries has substantially improved, e.g. a high number of flight hours has been maintained and remote sensing equipment on board aircrafts has been more widely used. Moreover the, size of the oil discharges has decreased significantly. This illustrates the positive results of the complex set of measures known as the Baltic Strategy, implemented by the Contracting Parties to the Helsinki Convention.

Altogether 82 oil discharges were observed in 2015, which is 35 less than in 2014, and the lowest ever recorded number of oil spills in the Baltic Sea. Of these discharges 98% (80) were smaller than 1m³, and even as many as 64 spills were smaller than 0.1m³ (100 liters). In total 4062 flight hours with fixed-wing aircraft were carried out in 2015 within the aerial surveillance activities of the Baltic Sea countries. The Pollution per Flight Hour (PF) Index, which compares the total number of observed oil spills to the total number of flight hours, was the lowest ever recorded in 2015.



Total estimated amount of oil detected versus number of observations, 1988-2015

Figure 1. Total estimated amount of oil detected versus number of observations, 1988-2015.

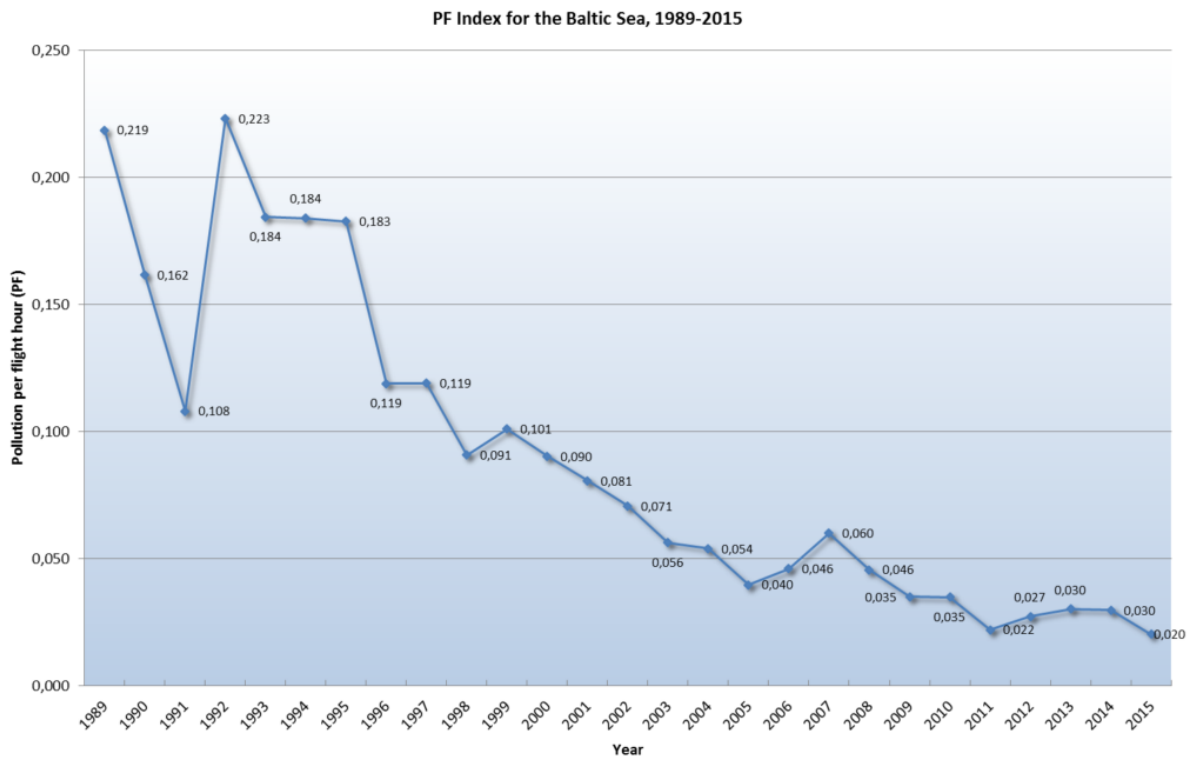


Figure 2. Pollution per flight hour index for the Baltic Sea, 1989-2015.

Results and Assessments

Environmental Context

Oil is a major threat to Baltic Sea ecosystems. In the last decade maritime transportation has been growing steadily, reflecting the intensified co-operation and trade in the Baltic Sea region and a prospering economy.

An increase in the number of ships also means that one could expect a larger number of illegal oil discharges. Both oil tankers and other kinds of ships are among the suspected offenders of anti-pollution regulations.

Policy Context

Any discharge into the Baltic Sea of oil, or diluted mixtures containing oil in any form including crude oil, fuel oil, oil sludge, or refined products, is prohibited. This applies to oily water from the machinery spaces of any ship, as well as from ballast or cargo tanks from oil tankers.

The prohibition stems from the international designation of the Baltic Sea area as a “special area” under the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).

To uphold the prohibition, the 1992 Helsinki Convention requires all ships, with some exceptions, to deliver the oil to a reception facility before leaving the port. To further encourage the delivery the countries bordering on the Baltic Sea have agreed that a ship should not be charged for using the reception facilities (also known as the no-special-fee system). The costs have to be covered e.g. by general harbour fees or general environmental fees.

The Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (the 1992 Helsinki Convention) spells out a duty for the States bordering on the Baltic Sea to conduct aerial surveillance for detecting suspected offenders of anti-pollution regulations at sea. All coastal states should endeavour to fly – as a minimum – twice per week over regular traffic zones including approaches to major seaports as well as in regions with regular offshore activities. Other regions with sporadic traffic and fishing activities should be covered once per week. Experienced observers/pilots shall hereby conduct reliable detections, classifications and quantification of observed pollution, their frequencies and geographical distributions.

The Coordinated Extended Pollution Control Flights (CEPCO) constitute continuous surveillance of specific areas in the Baltic Sea and are adjoined by surveillance aircraft of several countries. Super CEPCO flights are held biannually in the Baltic Sea in coordination with Bonn Agreement with duration of several days. CEPCO South and CEPCO North

are operations of 24h or more, and Mini CEPCO flights may be arranged by neighbouring countries, during which a common area is continuously overflowed for 12h or more.

Directive 2000/59/EC of 27 November 2000 has as its aim to reduce the discharges of ship-generated wastes and cargo residues into the sea, especially illegal discharges, by improving the availability and use of port reception facilities. The Directive recognizes and does not contradict with the procedures and mechanisms agreed by the Contracting Parties to the Helsinki Convention.

Assessment

Deliberate illegal oil discharges from ships are regularly observed within the Baltic Sea since 1988. As from 1999 the number of observed illegal oil discharges has gradually decreased (from 488 in 1999 to 82 in 2015). A significant decrease in the number of deliberate oil spills has been observed during the last years, which is a positive sign, especially considering the increased shipping traffic as well as enhanced use of satellite imageries provided by the [CleanSeaNet satellite service](#) of the European Maritime Safety Agency. Also, the size of spills has declined – today, the majority of spills are smaller than one cubic metre, or even less than 100 litres.

Decrease in the number of observed illegal discharges despite rapidly growing density of shipping, increased frequency of the surveillance flights and improved usage of remote sensing equipment is illustrating the positive results of the complex set of measures known as a Baltic Strategy implemented by the Contracting Parties to the Helsinki Convention.

Also increased amount of waste delivered to the Baltic Sea ports illustrate that more and more ships rather deliver oil waste to ports than illegally discharge into the Baltic Sea.

Although the number of observations of illegal oil discharges shows a decreasing trend over the years it should be kept in mind that for some areas aerial surveillance is not evenly and regularly carried out and therefore there are no reliable figures for these areas. Furthermore, a large number of discharges of other substances than oil and unknown observations have been detected in recent years (98 in 2014 and 118 in 2015).

To see maps illustrating illegal oil discharges, click on the years below:

[1998](#), [1999](#), [2000](#), [2001](#), [2002](#), [2003](#), [2004](#), [2005](#), [2006](#), [2007](#), [2008](#), [2009](#), [2010](#), [2011](#), [2012](#), [2013](#), [2014](#), [2015](#)

References

HELCOM Annual report on discharges observed during aerial surveillance in the Baltic Sea 2015

The data has been collected by the HELCOM Response group – [HELCOM RESPONSE](#) and quality checked by [HELCOM IWGAS](#).

Data

Table 1. Number of aerial surveillance flight hours performed by the HELCOM countries, 1989-2015

	Denmark	Estonia	Finland	Germany	Lithuania	Latvia	Poland	Russia	Sweden	Total
1989				142			131	1618	1600	3491
1990	292			168		400	164		1600	2624
1991	199			129	348	408	140	629	1600	3453
1992	172			267	78	127	62	32	1700	2438
1993	153	40		201	133	24	49		1900	2500
1994	253	420		290		18	179		2038	3198
1995	225	420	355	291		8	301		1953	3553
1996	275	305	400	313	65	8	345		1763	3474
1997	209	284	355	288		64	291		2189	3680
1998	325	236	649	206		577	465		2544	5002
1999	416	268	603	286		320	375		2565	4833
2000	497	212	660	439	250	436	362		2374	5230
2001	463	161	567	466	300	412	187		2281	4837
2002	412	153	605	469		387	320		2518	4864
2003	510	201	615	446		414	228		2532	4946
2004	265	198	644	491	100	365	239		3231	5534
2005	251	178	625	549	54	384	141		3455	5638
2006	290	471	517	504	64	311	131		2842	5128
2007	271	410	529	598	41	343	380		1397	3969
2008	246	503	438	650		298	406		2063	4603
2009	240	371	351	638	66	61	561		2758	5046
2010	156	266	605	558	48	0	421	10	2215	4279
2011	188	315	645	648	18	3	499	0	3225	5541
2012	225	173	568	544	4	0	316	0	2556	4386
2013	207	327	625	470	19	0	387		2283	4317
2014	239	362	505	596	12	4	393		1823	3935
2015	253	356	490	700	8	0	259		1995	4062

Table 2. Country-wise data on the number of illegal oil discharges observed in national waters, 1988-2015

	Denmark	Estonia	Finland	Germany	Lithuania	Latvia	Poland	Russia	Sweden	Total
1988	129			90			40	82	168	509
1989	159			139			69	184	212	763
1990	34			45		73	88		184	424
1991	46			85	8	20	14	3	197	373
1992	18	18		76	34	15	92	13	278	544
1993	17	7		43	28	6	110		250	461
1994	30	4		75			104		375	588
1995	48	3	26	55			72		445	649
1996	36		42	44			50		241	413
1997	38	3	104	34			25		234	438
1998	53	10	53	23		33	33		249	454
1999	87	33	63	72		18	18		197	488
2000	68	38	89	51		17	51		158	472
2001	93	11	107	51	0	6	24		98	390
2002	54	8	75	44		21	25		117	344
2003	37	4	40	60		14	39		84	278
2004	30	19	36	42	0	13	10		143	293
2005	28	24	32	34	0	5	5	2	94	224
2006	41	31	29	22	0	0	3		110	236
2007	43	58	29	30		2	15		61	238
2008	41	46	28	24		5	22		44	210
2009	34	20	16	15		1	27		65	178
2010	33	25	15	22	0	1	14	0	39	149
2011	18	14	16	13	0	0	5	0	56	122
2012	19	8	24	25	0	0	5	0	58	139
2013	14	8	9	7	0	1	27		64	130
2014	25	9	11	16	0	0	10		46	117
2015	3	12	17	12	0	0	9		29	82

Metadata

The data is gathered annually on the basis of national reports from the nine countries bordering on the Baltic Sea area being Contracting States to the 1992 Helsinki Convention.

For reference purposes, please cite this Baltic Sea environment fact sheet as follows:

[Author's name(s)], [Year]. [Baltic Sea environment fact sheet title]. HELCOM Baltic Sea Environment Fact Sheets. Online. [Date Viewed], <http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/>.