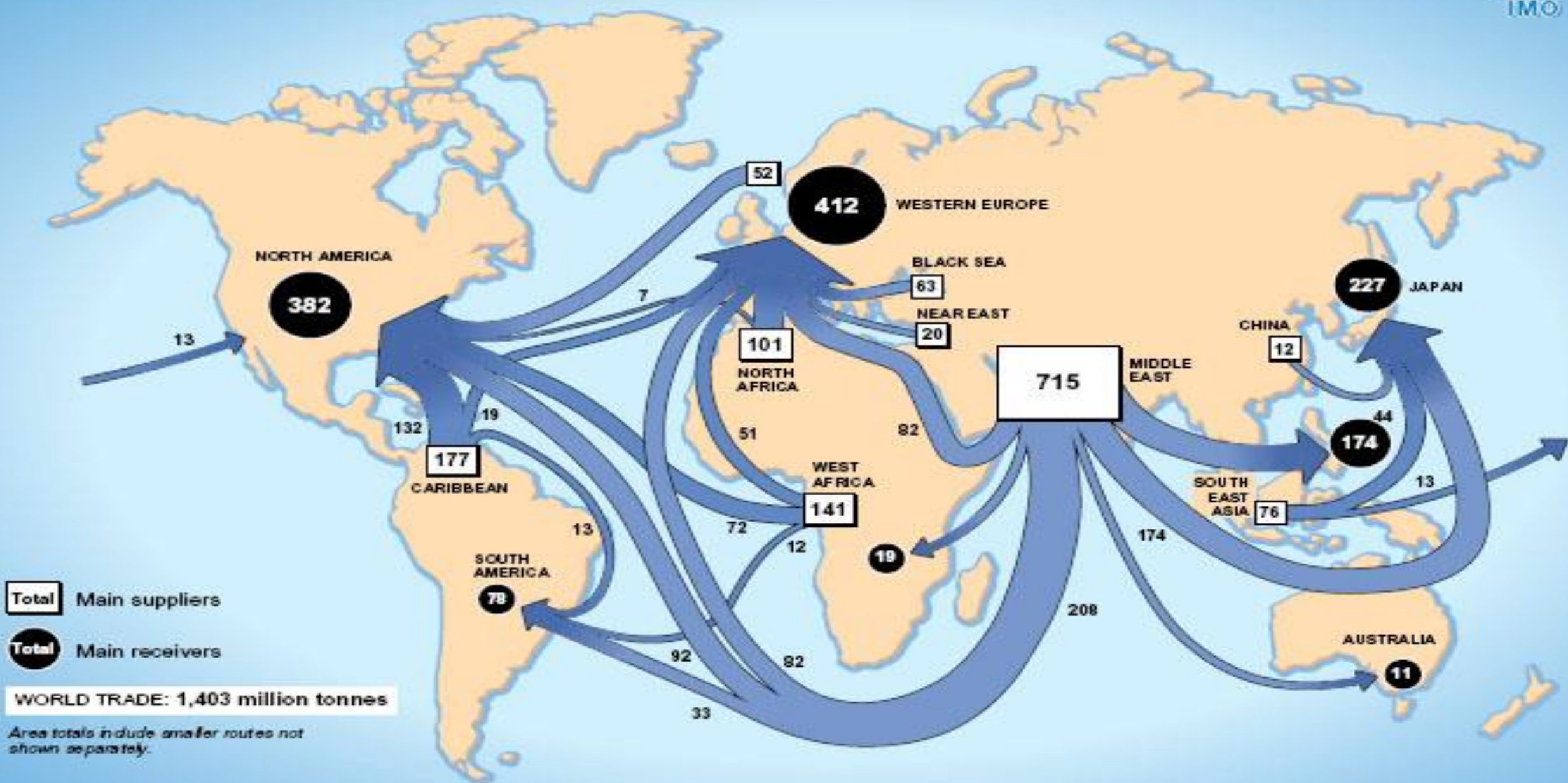


مقدمه عامة عن حوادث التلوث البحري بالزيت

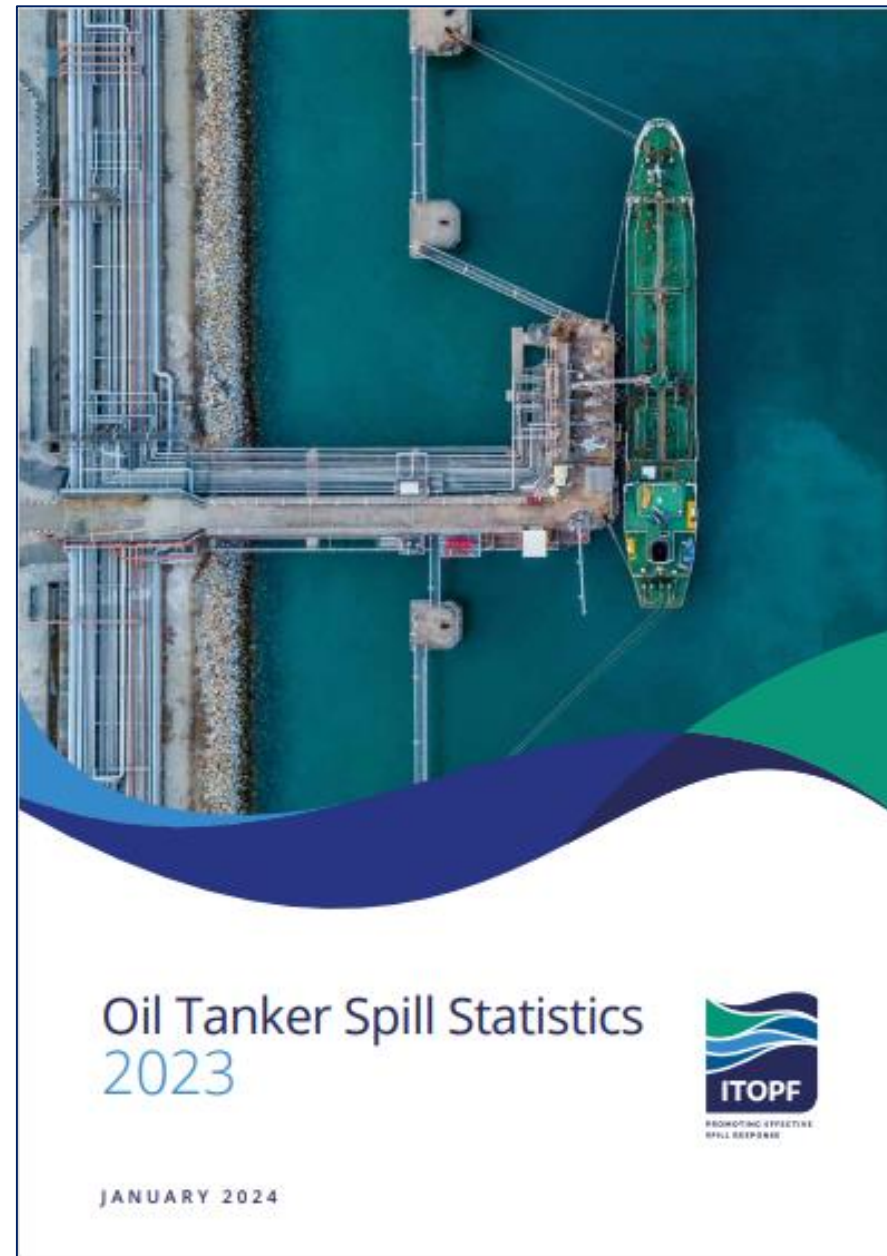
Crude oil seaborne trade

Main inter-area movements in million metric tonnes, 1994.

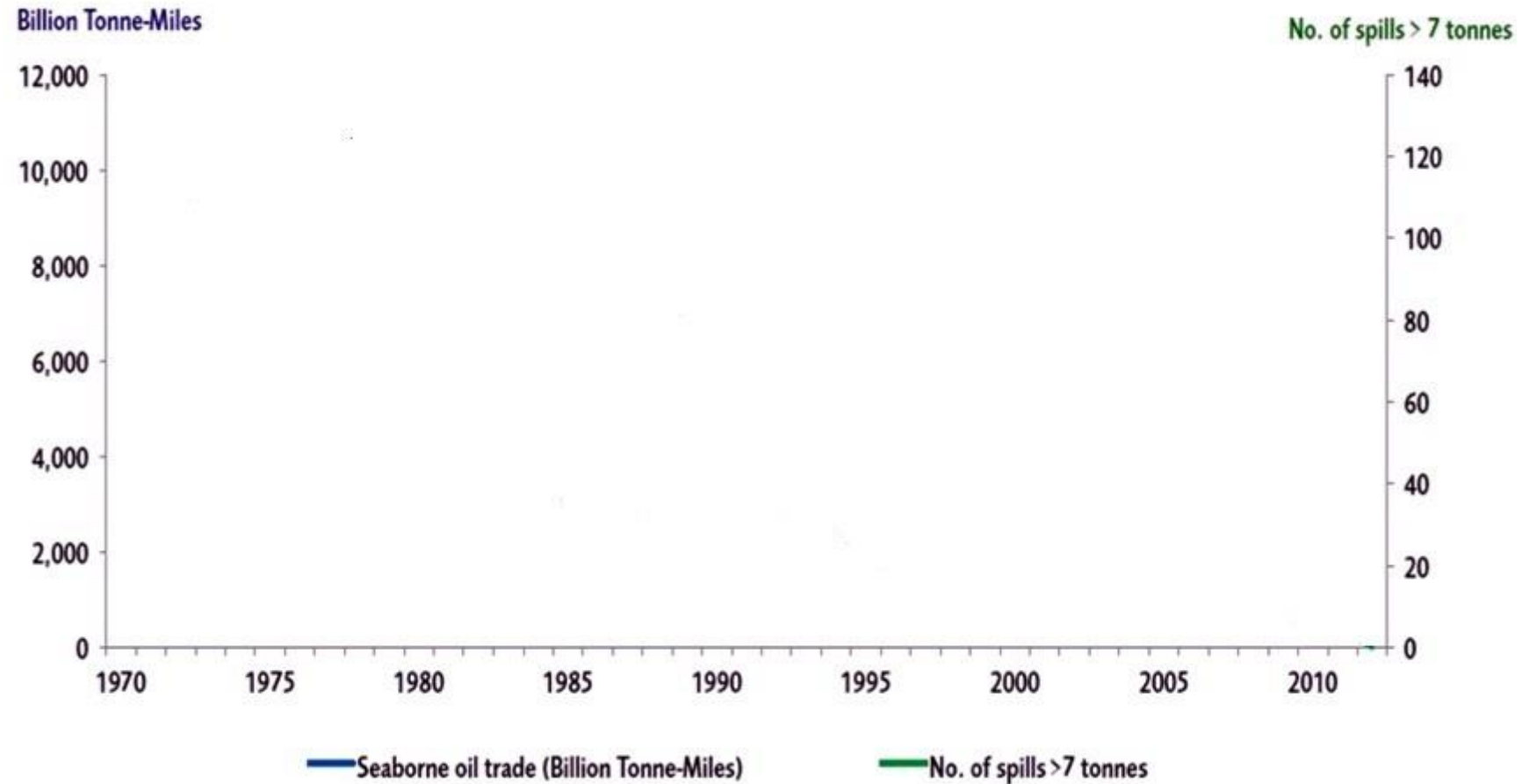


**The
International
Tanker
Owners
Pollution
Federation
Limited
(ITOPF)**

www.itopf.org

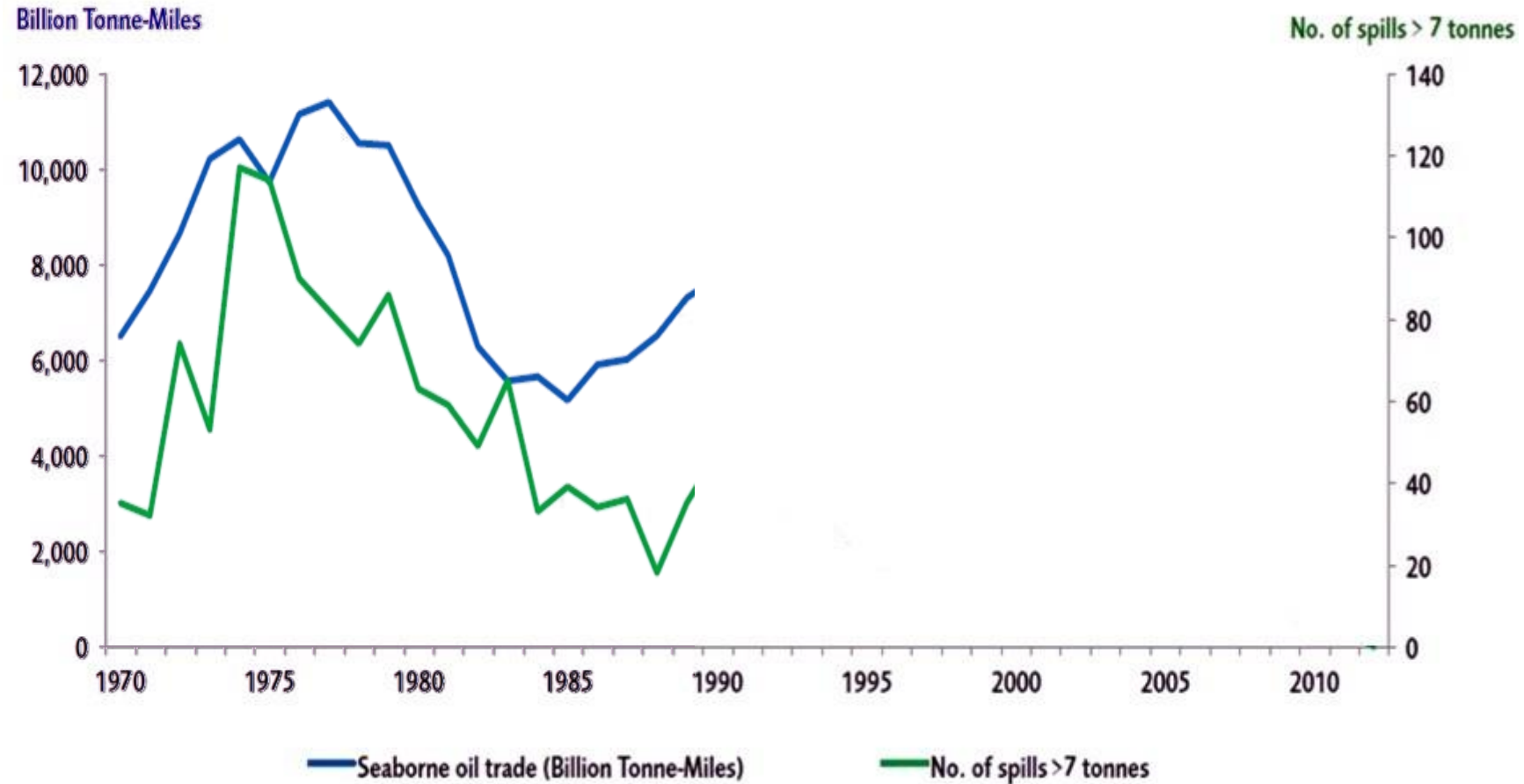


Seaborne Oil Trade and Number of Tanker Spills over 7 tonnes



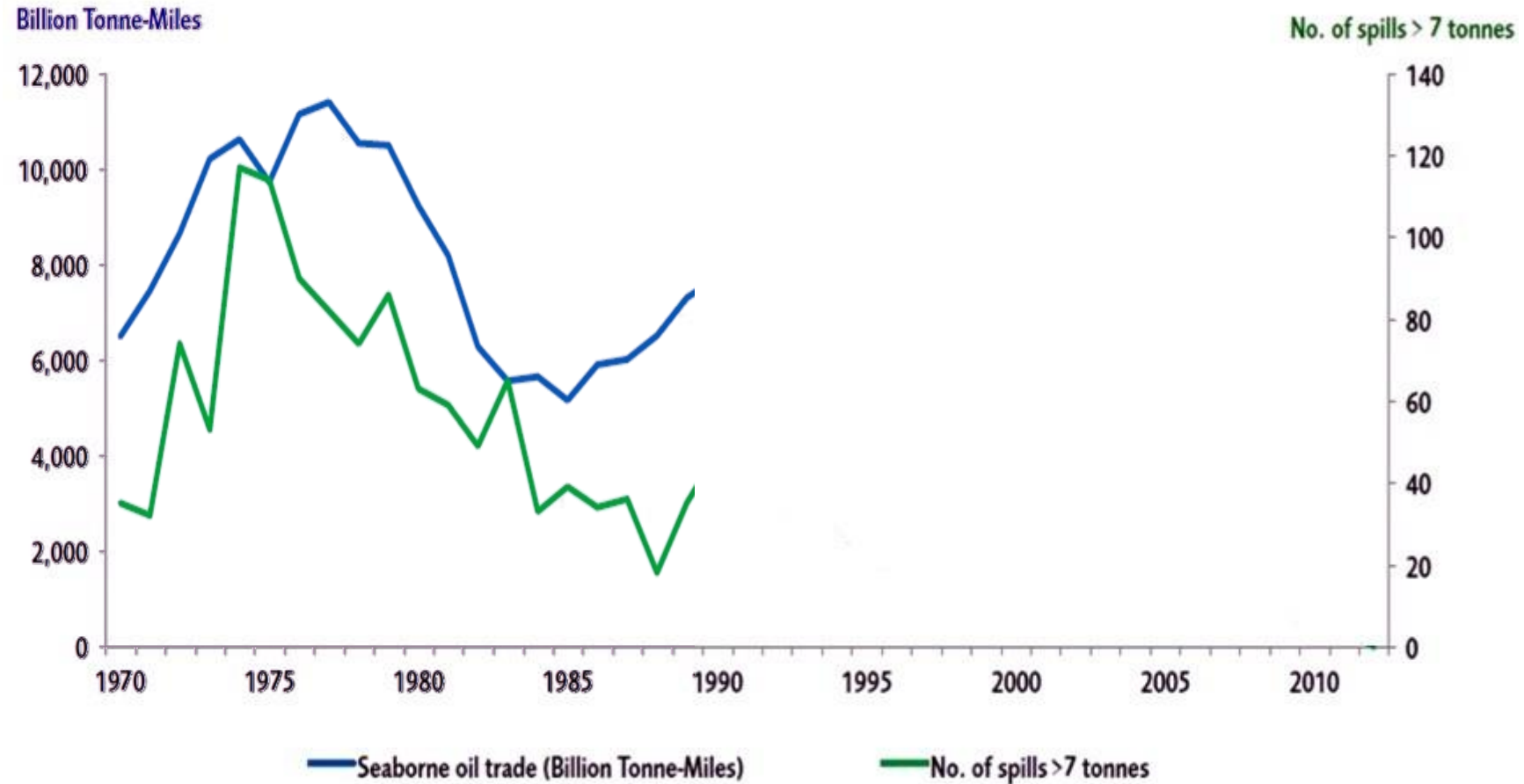
[Source: Fearnresearch 1970-1989, Lloyds List Intelligence 1990-2012]

Seaborne Oil Trade and Number of Tanker Spills over 7 tonnes



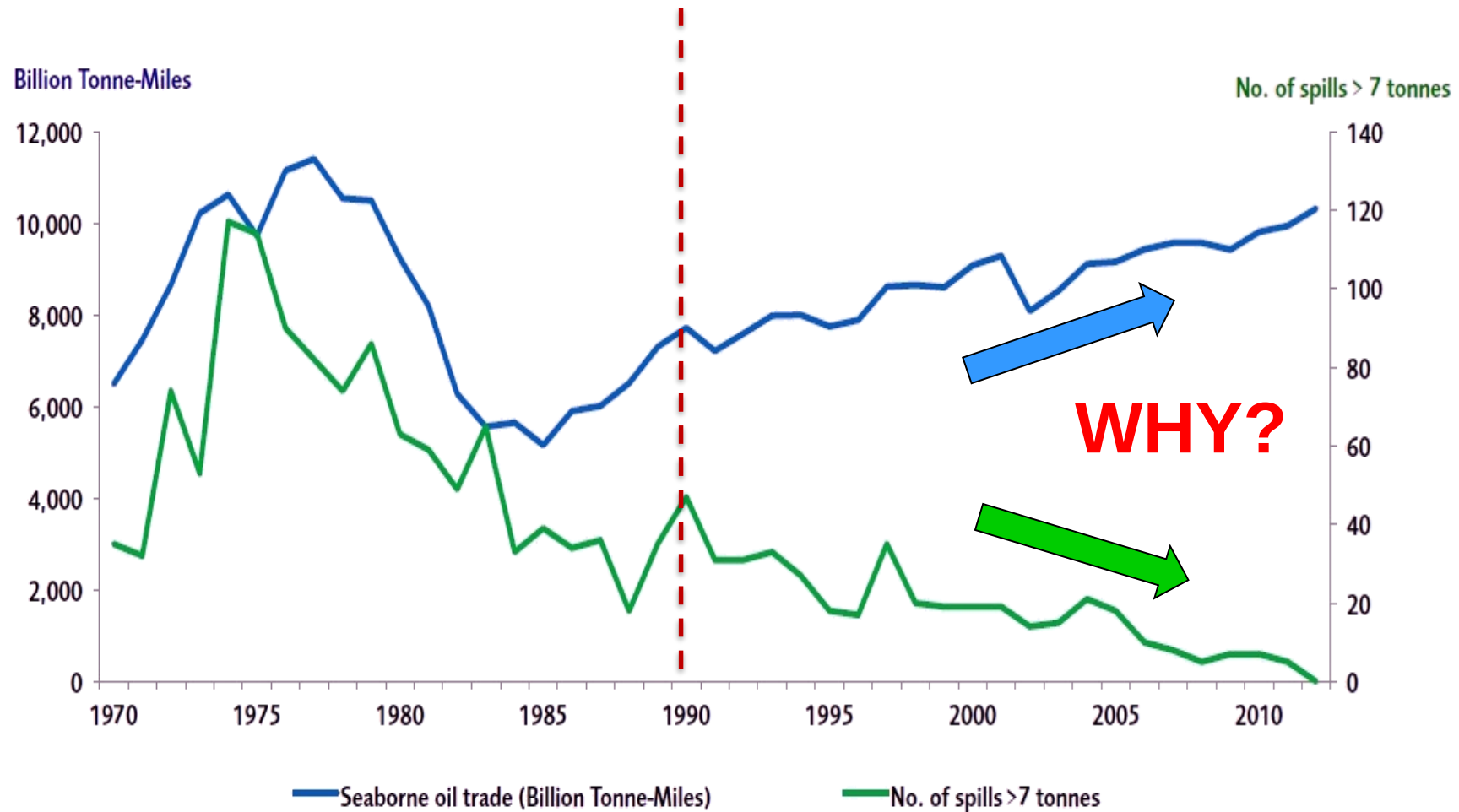
[Source: Fearnresearch 1970-1989, Lloyds List Intelligence 1990-2012]

Seaborne Oil Trade and Number of Tanker Spills over 7 tonnes

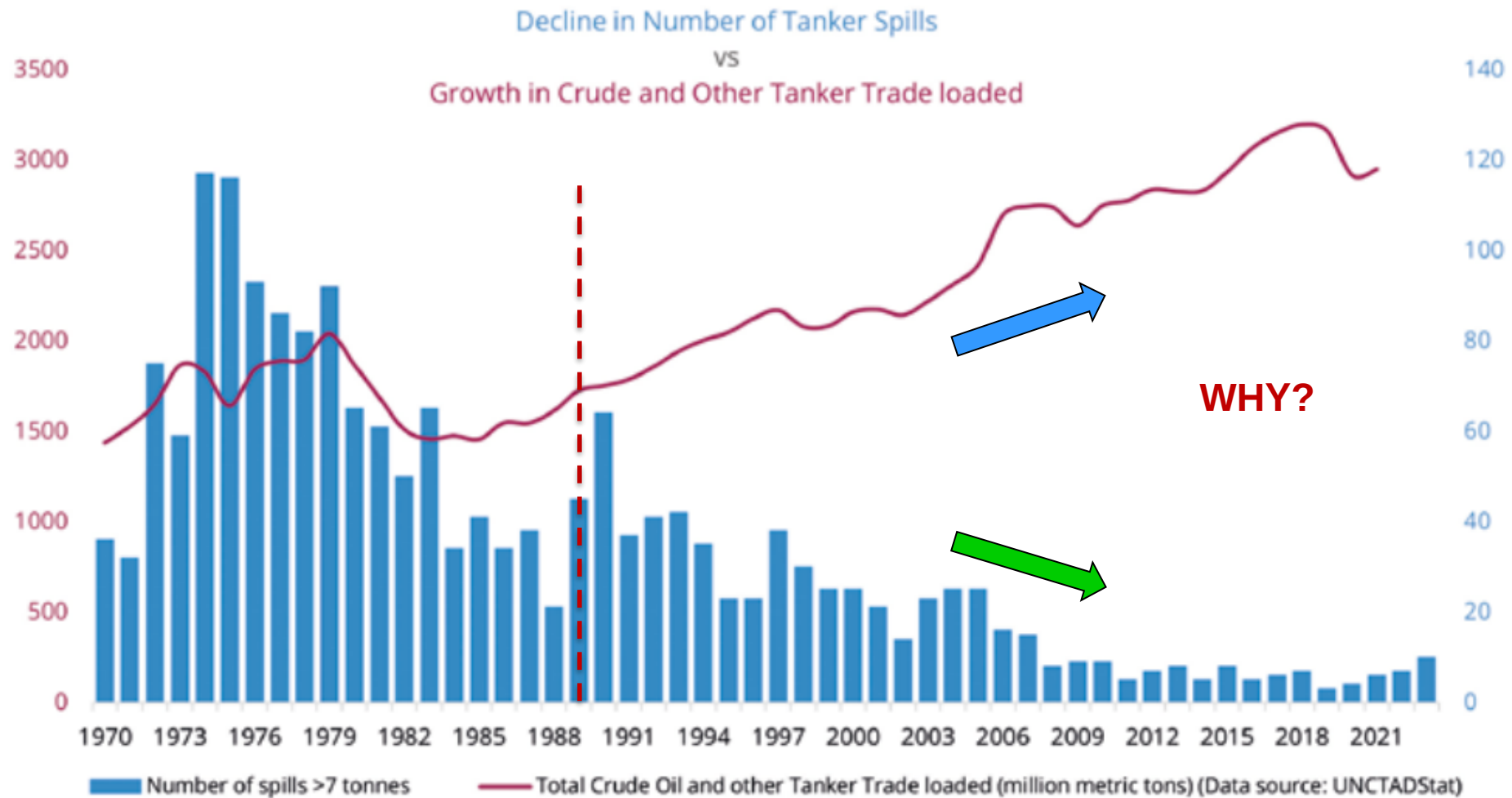


[Source: Fearnresearch 1970-1989, Lloyds List Intelligence 1990-2012]

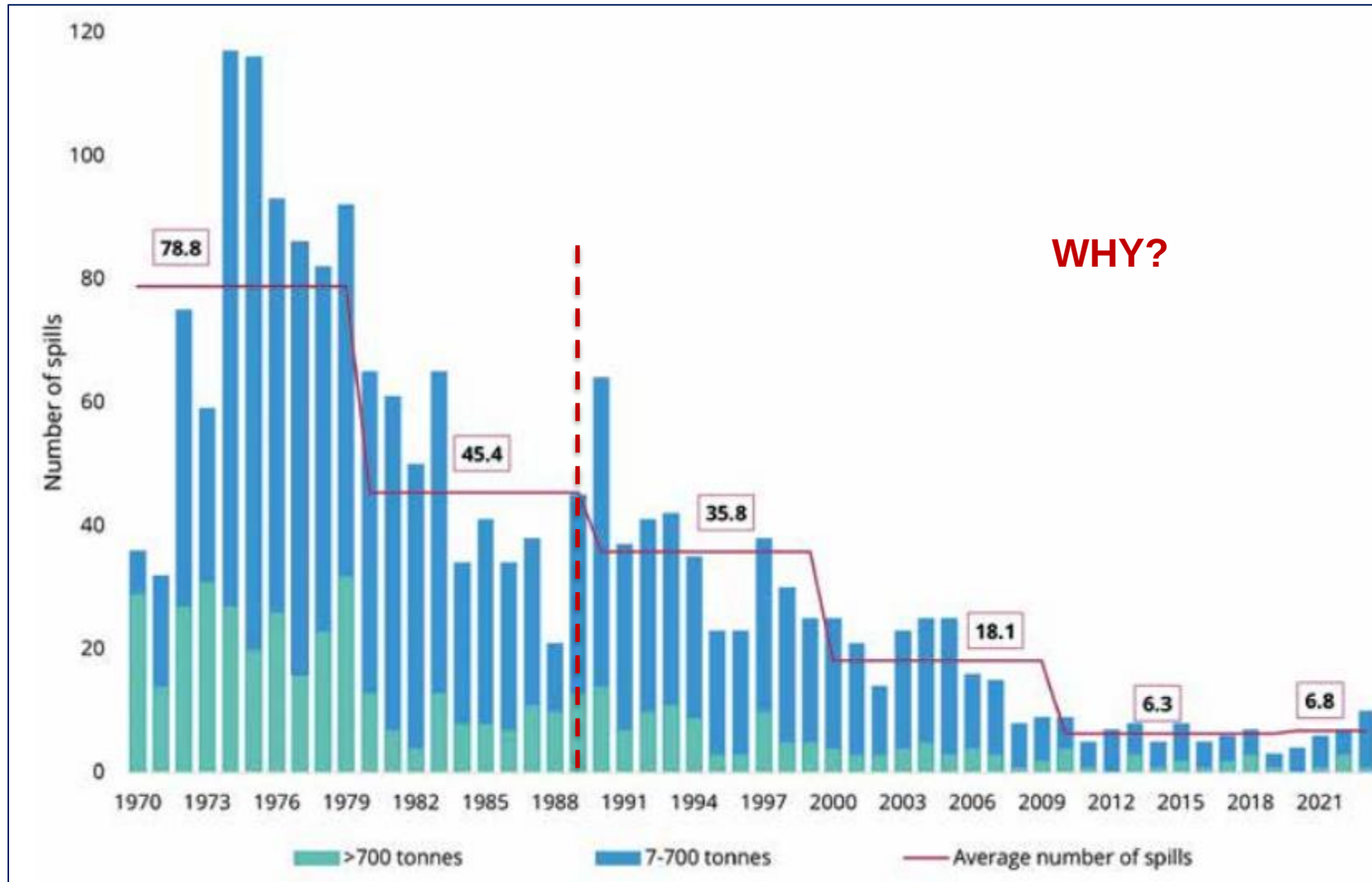
Seaborne Oil Trade and Number of Tanker Spills over 7 tonnes



[Source: Fearnresearch 1970-1989, Lloyds List Intelligence 1990-2012]



Number of Oil Spills



Annual Number of Oil Spills (>7 tones) from Tankers



1970s	YEAR	7-700 TONNES	>700 TONNES
	1970	7	29
	1971	18	14
	1972	48	27
	1973	28	31
	1974	90	27
	1975	96	20
	1976	67	26
	1977	70	16
	1978	59	23
	1979	60	32
	TOTAL	543	245
	AVERAGE	54.3	24.5
1980s	YEAR	7-700 TONNES	>700 TONNES
	1980	52	13
	1981	54	7
	1982	46	4
	1983	52	13
	1984	26	8
	1985	33	8
	1986	27	7
	1987	27	11
	1988	11	10
	1989	32	13
	TOTAL	360	94
	AVERAGE	36	9.4
1990s	YEAR	7-700 TONNES	>700 TONNES
	1990	50	14
	1991	30	7
	1992	31	10
	1993	31	11
	1994	26	9
	1995	20	3
	1996	20	3
	1997	28	10
	1998	25	5
	1999	20	5
	TOTAL	281	77
	AVERAGE	28.1	7.7

Annual Number of Oil Spills (>7 tones) from Tankers



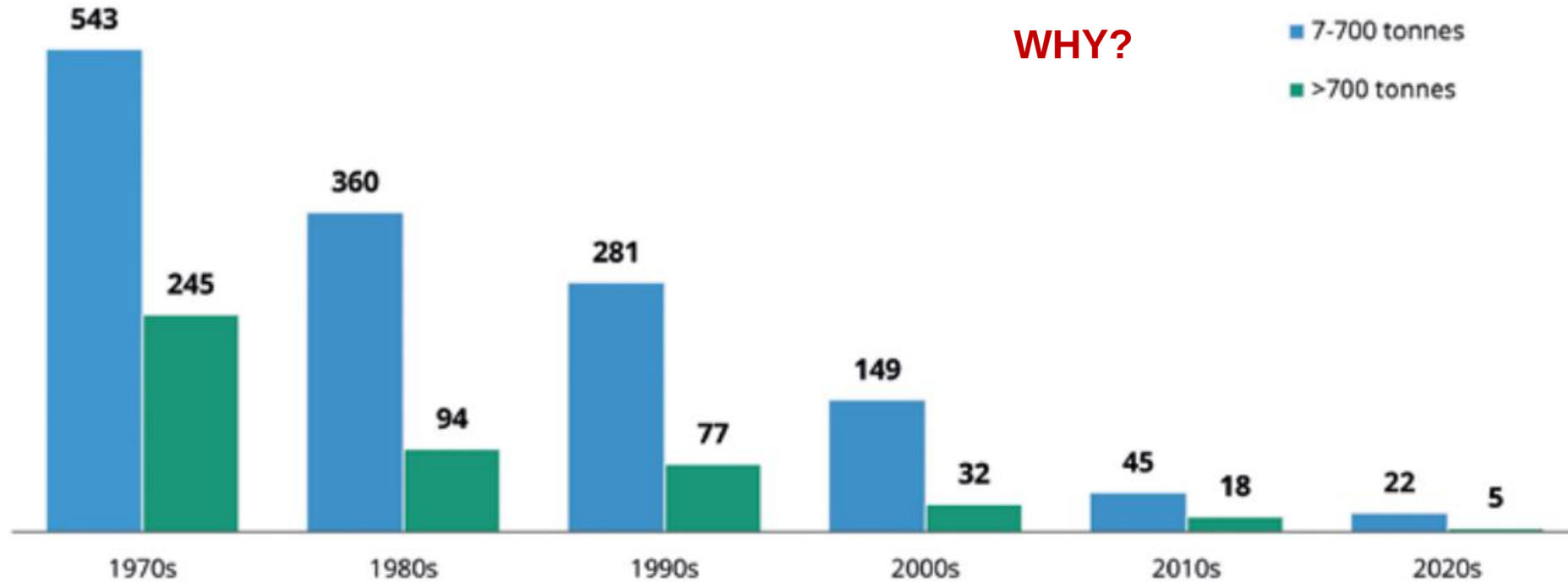
2000s	YEAR	7-700 TONNES	>700 TONNES
	2000	21	4
	2001	18	3
	2002	11	3
	2003	19	4
	2004	20	5
	2005	22	3
	2006	12	4
	2007	12	3
	2008	7	1
	2009	7	2
	TOTAL	149	32
	AVERAGE	14.9	3.2

2010s	YEAR	7-700 TONNES	>700 TONNES
	2010	5	4
	2011	4	1
	2012	7	0
	2013	5	3
	2014	4	1
	2015	6	2
	2016	4	1
	2017	4	2
	2018	4	3
	2019	2	1
	TOTAL	45	18
	AVERAGE	4.5	1.8

2020s	YEAR	7-700 TONNES	>700 TONNES
	2020	4	0
	2021	5	1
	2022	4	3
	2023	9	1
	TOTAL	22	5
	AVERAGE	5.5	1.3

WHY?

Number of Medium (7-700 tonnes) and Large (>7000 tonnes) Tankers Spills (1970-2023)



Quantities of Oil Spilt (7 Tones and over) (1970-2023)

1970s	YEAR	QUANTITY (TONNES)
	1970	383,000
	1971	144,000
	1972	313,000
	1973	159,000
	1974	174,000
	1975	352,000
	1976	365,000
	1977	276,000
	1978	393,000
	1979	636,000
	TOTAL	3,195,000

1980s	YEAR	QUANTITY (TONNES)
	1980	206,000
	1981	48,000
	1982	12,000
	1983	384,000
	1984	29,000
	1985	85,000
	1986	19,000
	1987	38,000
	1988	190,000
	1989	164,000
	TOTAL	1,175,000

1990s	YEAR	QUANTITY (TONNES)
	1990	61,000
	1991	431,000
	1992	167,000
	1993	140,000
	1994	130,000
	1995	12,000
	1996	80,000
	1997	72,000
	1998	13,000
	1999	28,000
	TOTAL	1,134,000

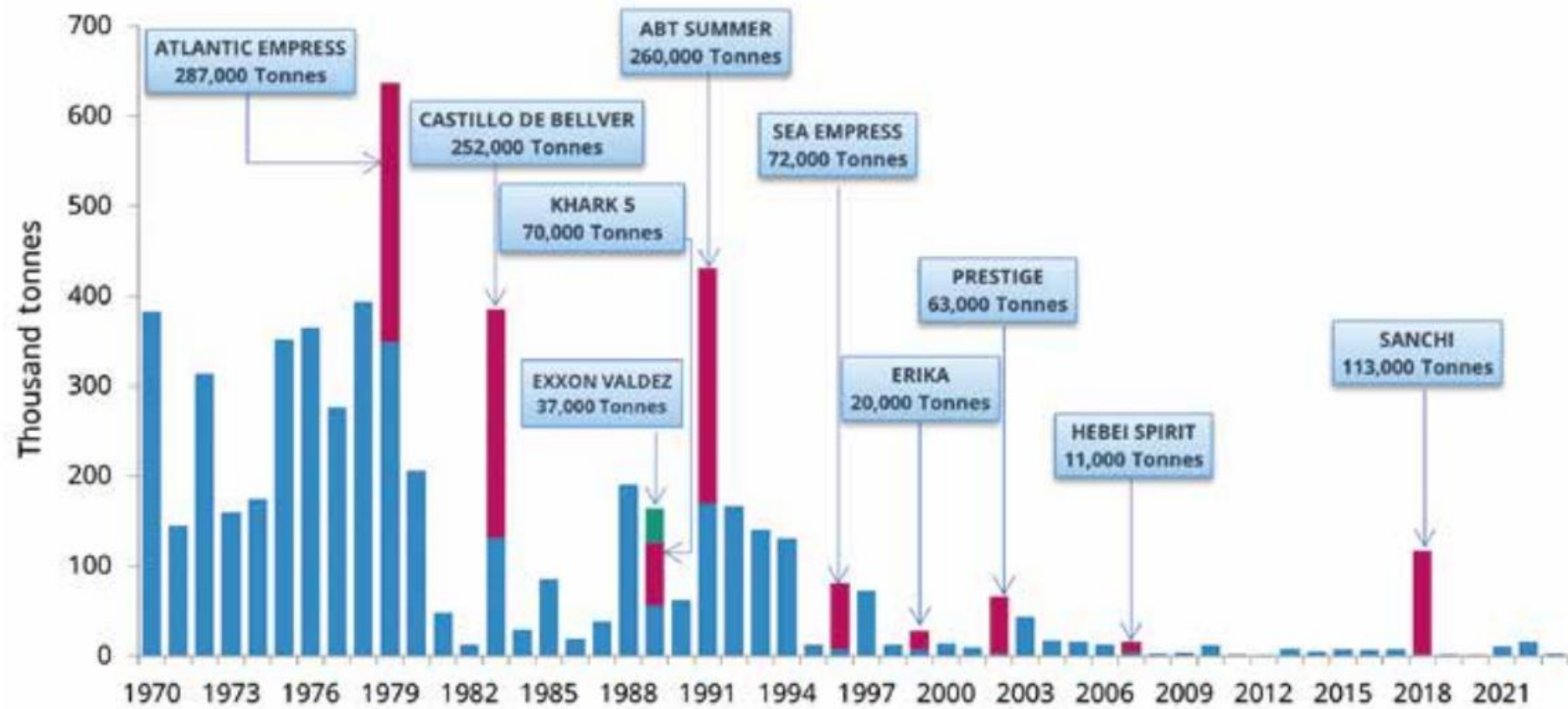
2000s	YEAR	QUANTITY (TONNES)
	2000	14,000
	2001	9,000
	2002	66,000
	2003	43,000
	2004	17,000
	2005	15,000
	2006	12,000
	2007	15,000
	2008	2,000
	2009	3,000
	TOTAL	196,000

2010s	YEAR	QUANTITY (TONNES)
	2010	12,000
	2011	2,000
	2012	1,000
	2013	7,000
	2014	5,000
	2015	7,000
	2016	6,000
	2017	7,000
	2018	116,000
	2019	1,000
	TOTAL	164,000

2020s	YEAR	QUANTITY (TONNES)
	2020	1,000
	2021	10,000
	2022	15,000
	2023	2,000
	TOTAL	28,000

WHY?

Quantities of Oil Spilt (7 Tones and over) (1970-2023)

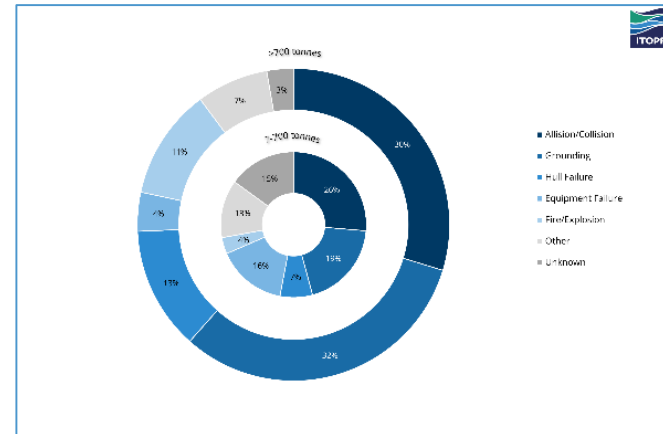
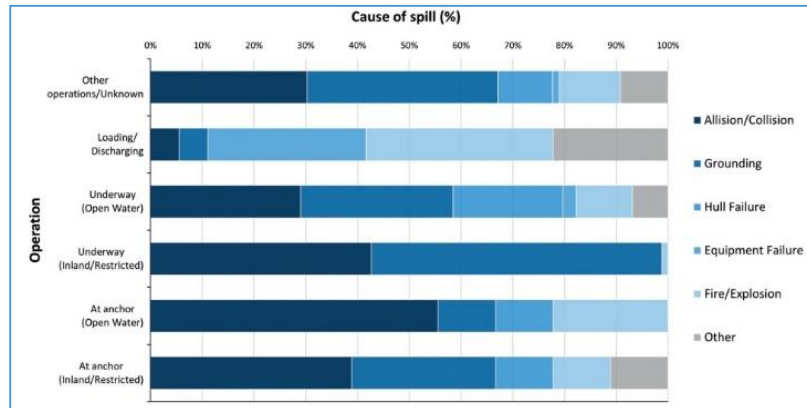


Causes of Oil Spills

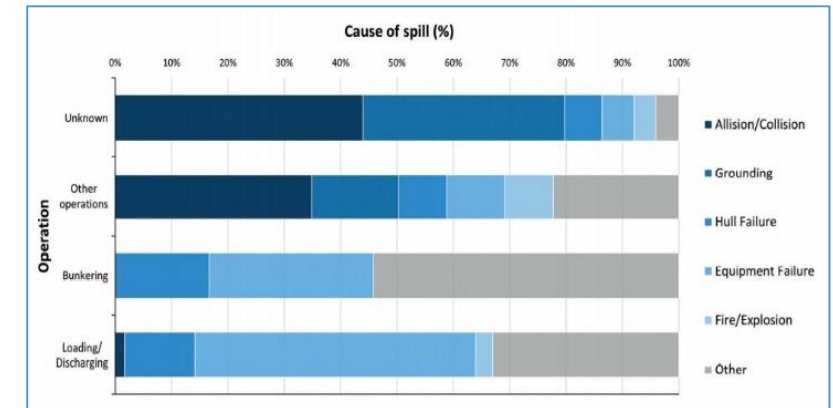
		Operations							Total
		At anchor (Inland/Restricted)	At anchor (Open Water)	Underway (Inland/Restricted)	Underway (Open Water)	Loading/Discharging	Bunkering	Other Operations/Unknown	
Causes	Allision/Collision	7	5	35	67	2	0	23	139
	Grounding	5	1	46	68	2	0	28	150
	Hull Failure	2	1	0	49	0	0	8	60
	Equipment Failure	0	0	0	6	11	0	1	18
	Fire/Explosion	2	2	1	25	13	1	9	53
	Other	2	0	0	16	8	0	7	33
	Unknown	0	0	0	1	6	0	6	13
	Total	18	9	82	232	42	1	82	466
Percentage (%)		4	2	17.5	50	9	0	17.5	

		Operations				Total
		Loading/Discharging	Bunkering	Other Operations	Unknown	
Causes	Allision/Collision	5	0	61	300	366
	Grounding	0	0	27	244	271
	Hull Failure	37	4	15	45	101
	Equipment Failure	148	7	18	39	212
	Fire/Explosion	9	0	15	26	50
	Other	98	13	39	28	178
	Unknown	99	9	14	81	203
	Total	396	33	189	763	1,381
Percentage (%)		29	2	14	55	

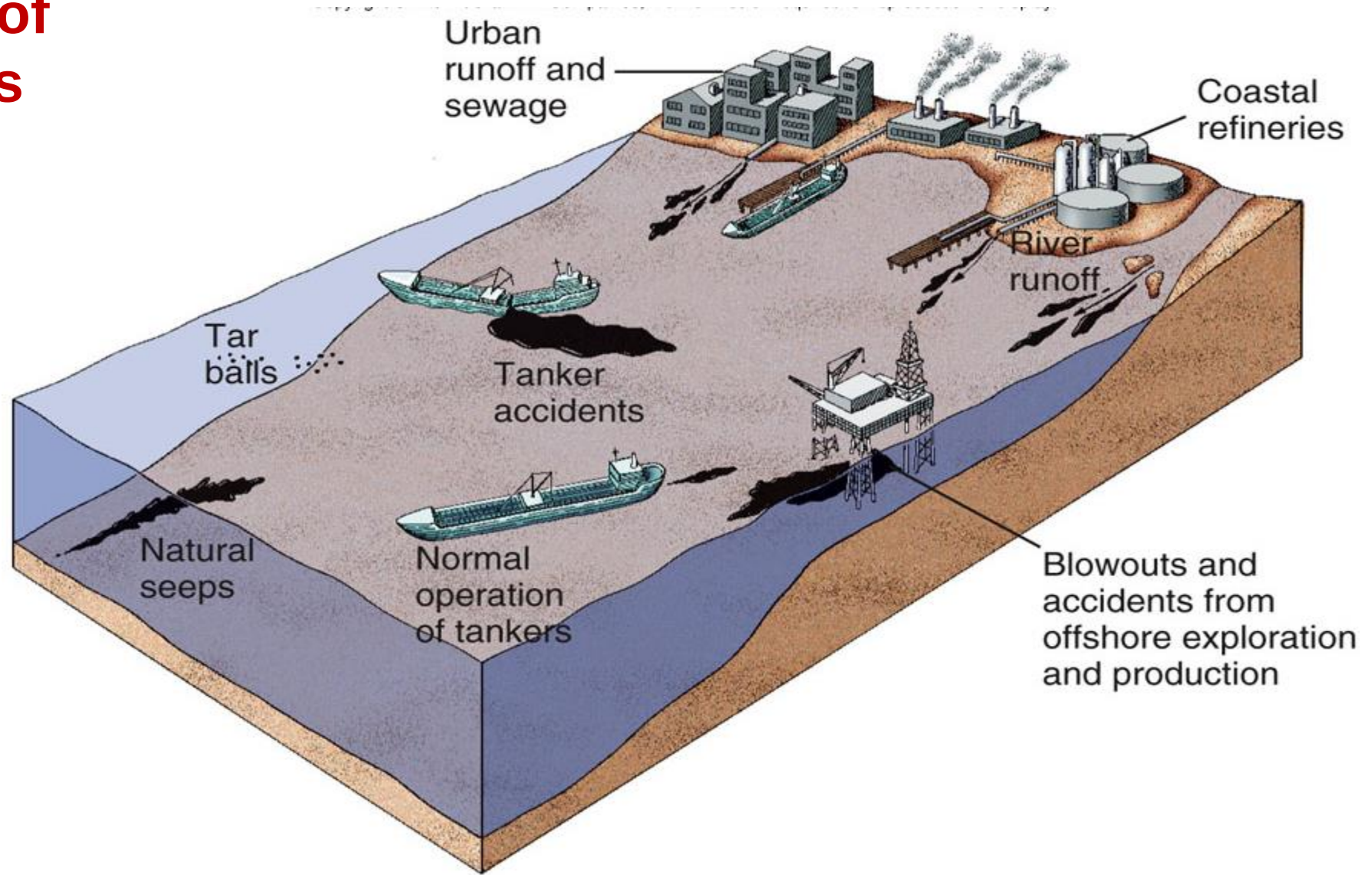
Number of spills >700 tonnes by operation
at time of incident and primary cause of spill,
1970-2020



Number of spills 7-700 tonnes by operation
at time of incident and primary cause of spill,
1970-2020



Sources of Oil Spills



Causes of Oil Spills



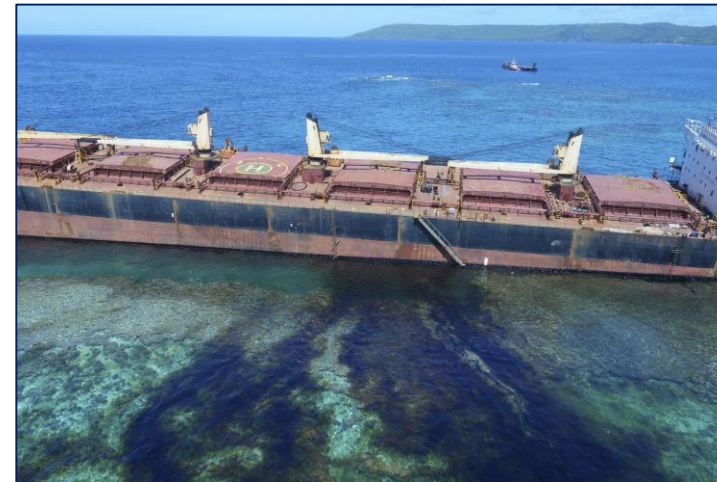
Loading / Discharging Oil



Bunkering Operations



Collision



Grounding

Major Oil Spills since 1967



POSITION	NAME OF SHIP	YEAR	LOCATION	SPILL SIZE (TONNES)
1	ATLANTIC EMPRESS	1979	OFF TOBAGO, WEST INDIES	287,000
2	ABT SUMMER	1991	700 NAUTICAL MILES OFF ANGOLA	260,000
3	CASTILLO DE BELLVER	1983	OFF SALDANHA BAY, SOUTH AFRICA	252,000
4	AMOCO CADIZ	1978	OFF BRITTANY, FRANCE	223,000
5	HAVEN	1991	GENOA, ITALY	144,000
6	ODYSSEY	1988	700 NAUTICAL MILES OFF NOVA SCOTIA, CANADA	132,000
7	TORREY CANYON	1967	SCILLY ISLES, UK	119,000
8	SEA STAR	1972	GULF OF OMAN	115,000
9	SANCHI*	2018	OFF SHANGHAI, CHINA	113,000
10	IRENES SERENADE	1980	NAVARINO BAY, GREECE	100,000
11	URQUIOLA	1976	LA CORUNA, SPAIN	100,000
12	HAWAIIAN PATRIOT	1977	300 NAUTICAL MILES OFF HONOLULU	95,000
13	INDEPENDENTA	1979	BOSPHORUS, TURKEY	95,000
14	JAKOB MAERSK	1975	Oporto, PORTUGAL	88,000
15	BRAER	1993	SHETLAND ISLANDS, UK	85,000
16	AEGEAN SEA	1992	LA CORUNA, SPAIN	74,000
17	SEA EMPRESS	1996	MILFORD HAVEN, UK	72,000
18	KHARK 5	1989	120 NAUTICAL MILES OFF ATLANTIC COAST OF MOROCCO	70,000
19	NOVA	1985	OFF KHARG ISLAND, GULF OF IRAN	70,000
20	KATINA P	1992	OFF MAPUTO, MOZAMBIQUE	67,000
21	PRESTIGE ⁺	2002	OFF GALICIA, SPAIN	63,000
36	EXXON VALDEZ ⁺	1989	PRINCE WILLIAM SOUND, ALASKA, USA	37,000
132	HEBEI SPIRIT ⁺	2007	OFF TAEAN, SOUTH KOREA	11,000

العوامل التي ساهمت في انخفاض عدد حوادث الأنسكابات النفطية على مستوى العالم:

- Ship Construction (Design): Double Hull

• تطور صناعة بناء السفن

- Legal Framework (MARPOL, OPRC,)

• الأطر القانونية (الاتفاقيات – المعاهدات – التشريعات)

- Technology: Tools and Equipment

• التقنيات الحديثة (تكنولوجيا المعدات)

- Vessels Traffic Services (VTS)

• خدمات مرور السفن

- Effective Training: Hands on, Simulation.

• التدريب الفعّال (التدريبات العملية والمحاكاة)

OPRC CONVENTION

Key Objectives

- ✓ To develop national response systems
- ✓ To facilitate international co-operation and mutual assistance

Obligations of Parties

National system for responding promptly and effectively to pollution incidents [oil + HNS]:

- A national contingency plan
- Designated national authorities:
 - Responsible for preparedness & response
 - Operational contact point(s)
 - Requesting & rendering assistance

Establish individually or through bilateral or multilateral co-operation:

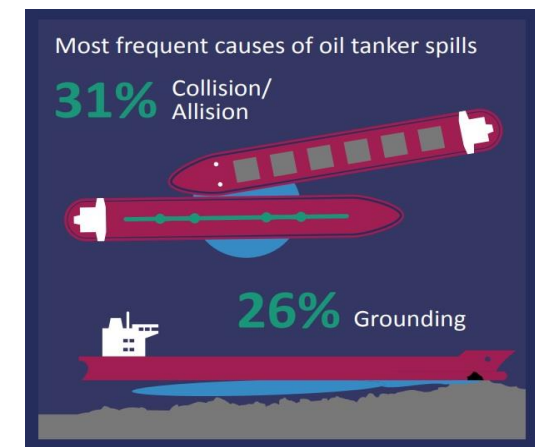
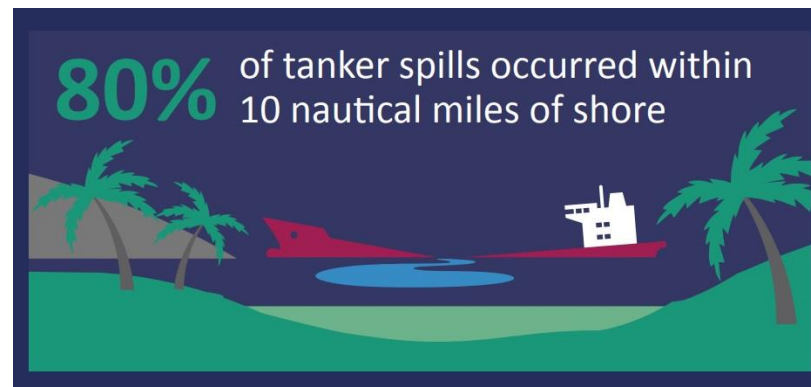
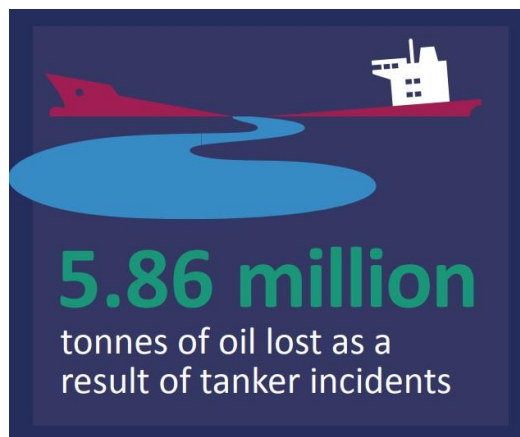
- minimum level of pre-positioned equipment commensurate with risk
- programme of exercises & training
- plans & communications capabilities
- mechanism for coordinating response

“Local” [oil] pollution emergency plans to be coordinated with national system for:

- operators of offshore units
- appropriate sea ports
- appropriate oil handling facilities
- flag ships of the Contracting Party (also MARPOL requirement)

Oil Tanker Spill Statistics

50 Years of Data



Oil Tanker Spill Statistics

50 Years of Data

Tanker spills have decreased by **92%** since the 1970s



1970s
79 spills
per year

2010s
6 spills
per year



Amount of oil spilled from tanker incidents has reduced by **95%** since the 1970s

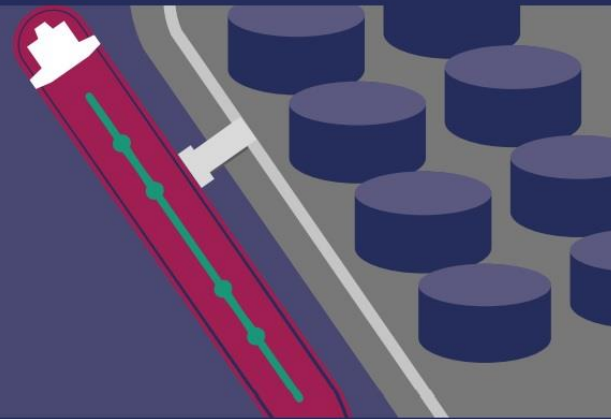


1970s
319,500
tonnes per year

2010s
16,000
tonnes per year



Accidents still happen, but **>99.99%** of oil transported by sea arrives safely at its destination



THANK YOU FOR YOUR ATTENTION