

OBSERVATIONS AS
EVIDENCE OF VIOLATION
OF MARPOL 73/78

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OUTLINE

- Oil discharges into the marine environment
- The BUCHAREST CONVENTION
- The BLACK SEA ACTION PLAN
- MARPOL 73/78
- Observations as evidence of violation
- Gathering and presentation of evidence
- International co-operation

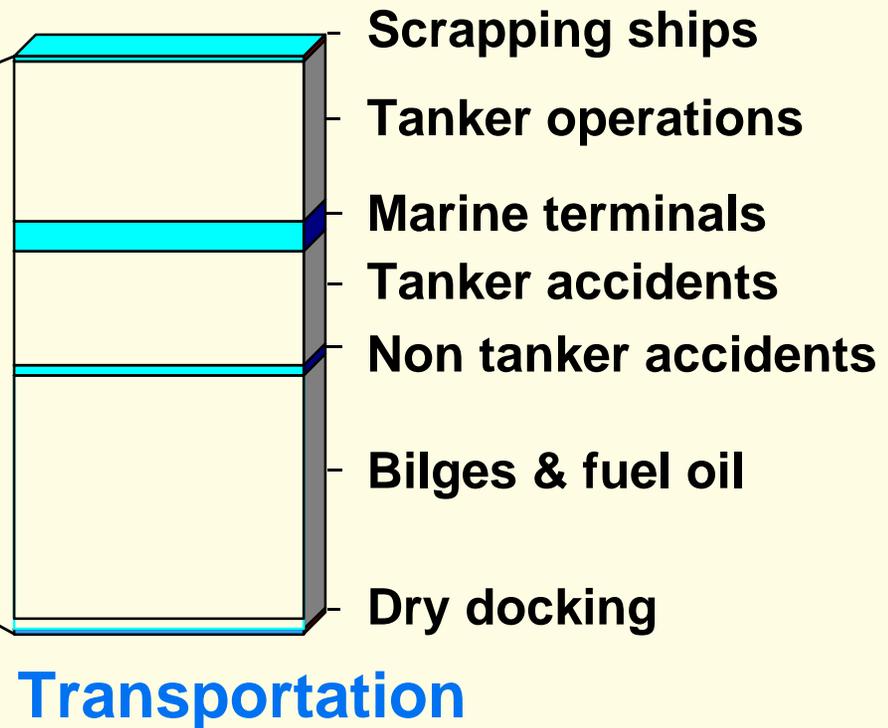
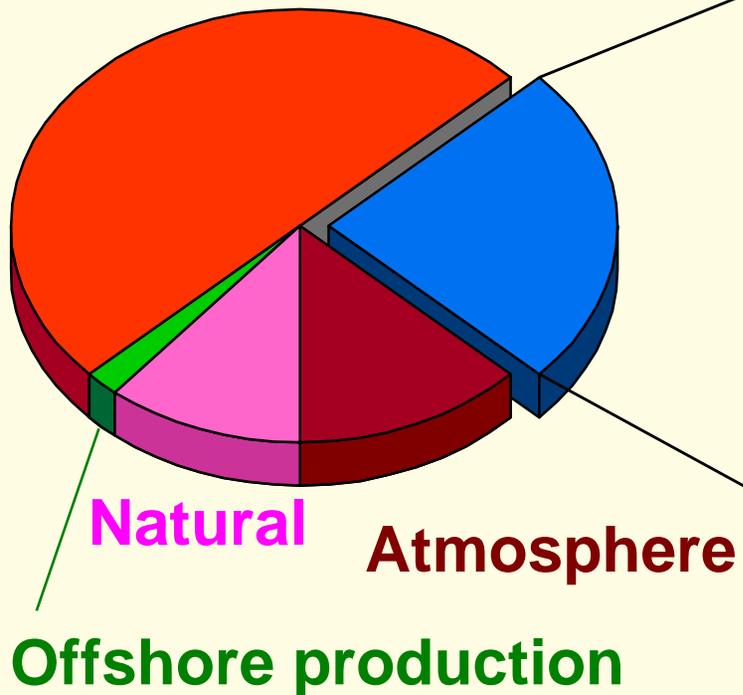
TYPE OF OIL SPILLS

- Spills caused by accidents at sea or in ports or terminals
- Operational spills in accordance with MARPOL requirements
- Operational spills in violation of MARPOL requirements

Oil Inputs to the Marine Environment

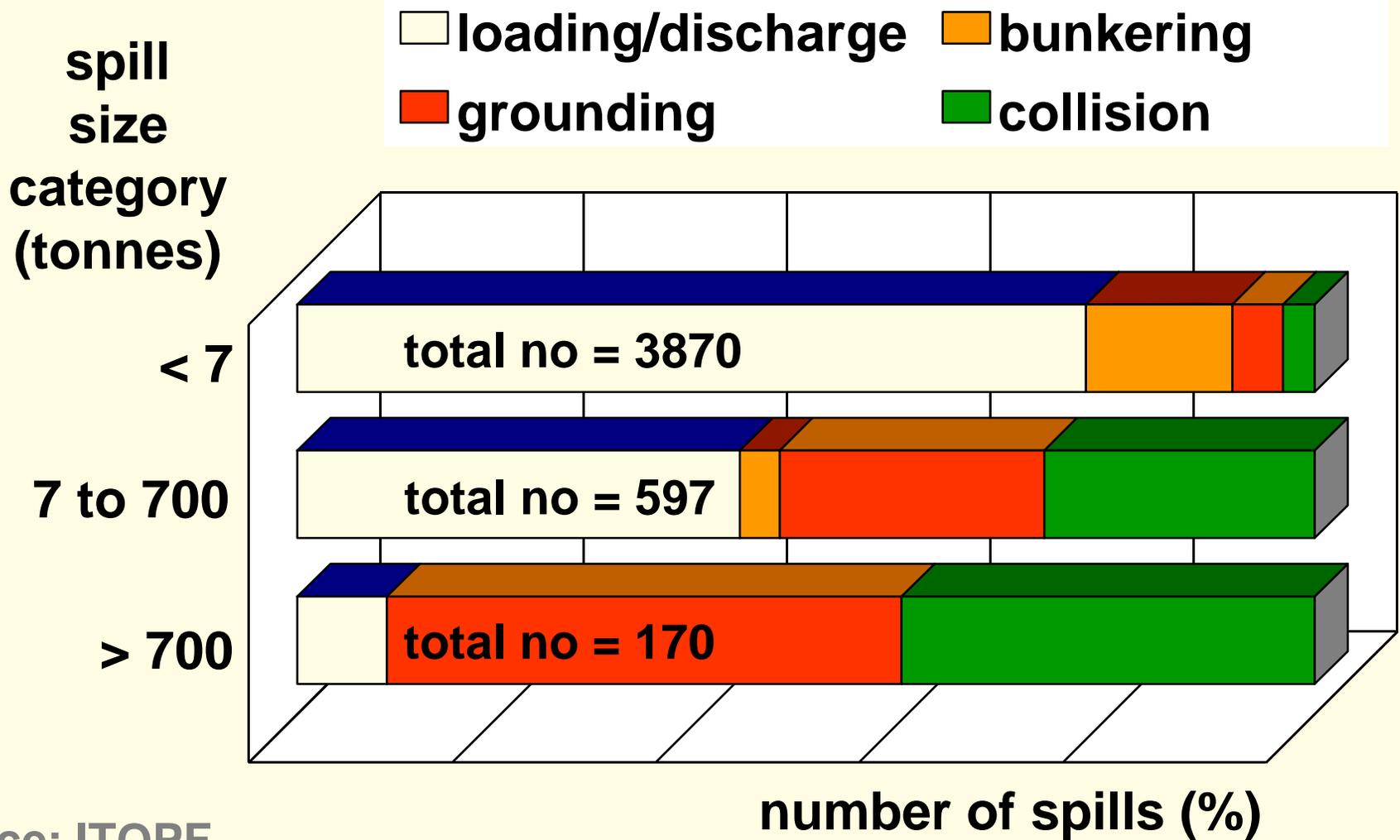
Total= 2.35 Mt

Land based



Source: IMO estimates

Causes of Spills by Size



Source: ITOPF

BUCHAREST CONVENTION

- Article VIII – Pollution from vessels
- “The Contracting Parties shall take individual or, when necessary, jointly, all appropriate measures to prevent, reduce and control pollution of the marine environment of the Black Sea from vessels in accordance with generally accepted international rules and standards.”

BLACK SEA ACTION PLAN

- Paragraph 39 (Vessel source pollution)
- “Black Sea States shall take the necessary steps to enable them to fully exercise their prescriptive and enforcement powers, in accordance with international law, in order to pursue the reduction of illegal discharges by vessels into the Black Sea.”

MARPOL 73/78

- COVERS TWO MAIN SUBJECTS:
- (i) the special construction and equipment rules for the prevention of accidental pollution;
- (ii) the circumstances in which discharges in the sea are authorised. (Parties to the convention represents some 96% of the total world shipping tonnage)

ANNEX I of MARPOL 73/78

- REGULATION 10 (Methods for the prevention of oil pollution from ships while operating in a special area)
- Sub-regulation (1)(c) states:
- “The *Black Sea area* means the black sea proper with the boundary between the Mediterranean and the Black Sea constituted by the parallel 41°N.”

ANNEX I of MARPOL 73/78

- REGULATION 15 (Oil pollution equipment on board oil tankers)
- Oil discharge monitoring and control systems
- Cargo tanks cleaning means and slop tanks with sufficient capacity for all generated washings, oil residues and dirty ballast

ANNEX I of MARPOL 73/78

- REGULATION 16 (Oil pollution equipment on board ships which do not carry oil as cargo)
- Oil discharge monitoring and control systems for oily bilge water

ANNEX I of MARPOL 73/78

- Applicable discharge regulations for oil tankers of all sizes within a SPECIAL AREA:
- ALL DISCHARGES PROHIBITED except Clean or Segregated Ballast

ANNEX I of MARPOL 73/78

- Applicable discharge regulations for oil tankers of all sizes and OTHER SHIPS of 400 GRT and above within a SPECIAL AREA:
- Under speed; max. 15 PPM; Filter and 15 PPM stopping device and only bilges (no cargo oil or mixture of cargo oil)

ANNEX I of MARPOL 73/78

- Applicable discharge regulations for SHIPS of less than 400 GRT **OTHER THAN** oil tankers within a SPECIAL AREA (from machinery spaces):
- **OIL DISCHARGES PROHIBITED** except when oil in effluent without dilution does not exceed 15 PPM.

OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

- Visual observations can be made:
 - From aircraft and helicopters;
 - From ships in the vicinity
 - By land-based observers
- Remote sensing can be made:
 - From aircraft and satellites

OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

- Visual observations – conclusions (discharge from machinery spaces):
- No discharge with an oil content of 15 PPM or below has ever been detected;
- Discharges between 50 and 100 PPM have been visible under special conditions (high discharge rate, low ship speed, low wind speed and almost calm sea)

OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

- VISUAL OBSERVATIONS – conclusions (discharge from cargo tanks on oil tankers):
- As discharges from cargo spaces on board oil tankers are prohibited within a SPECIAL AREA an oil slick in the wake of an oil tanker will always be evidence of a violation

OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

- VISUAL OBSERVATIONS – conclusions (Oil in the wake of any vessel including oil tankers):
- As any vessel including oil tankers operating within a SPECIAL AREA are PROHIBITED to discharge oily mixtures from the engine room (bilges) with an oil content of more than 15 PPM, an oil slick in the wake of any vessel will always be evidence of a violation.

OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

- REMOTE SENSING: (Operational systems)
- Side Looking Airborne Radar (SLAR)
- Infra-Red line scanner (IR-scanner)
- Ultra Violet line scanner (UV-scanner)
- Micro Wave Radiometer (MWR)
- Photographic cameras and video camera
- Image intensifiers, Low Light Level Tele Vision (LLTV)

OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

- Remote sensing: (Operational systems)
Cont' ...
- Synthetic Aperture Radar (SAR)
- Laser Fluoro Sensor (LFS)
- Ultra Low Level Imaging System
(ULLIS)

OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

Remote sensing:	Capabilities and use
Spill detection	SLAR or visual
Spill/Source investigation	IR/UV, MWR, visual LLLTT, ULLIS, video
Spill identification	LFS or visual
Documentation	All means

GATERING AND PRESENTING EVIDENCE OF VIOLATION

- Evidence of violation should be presented in an official report in compliance with national legislation.
- If possible additional or supporting evidence should be collected.
- Supporting evidence could be reports from inspection on board the violating ship, samples of the spill or statement by witness

INTERNATIONAL CO-OPERATION IN THE FIELD OF PROSECUTING ILLEGAL MARITIME POLLUTERS

- Article 6 of MARPOL 73/78 contains the obligation of Parties acting as Flag State, Port State or Coastal State, to co-operate in the detection of violations and the enforcement of the provisions of the Convention, using all appropriate and practical measures of detection and environmental monitoring, adequate procedures for reporting and accumulation of evidence

INTERNATIONAL CO-OPERATION IN THE FIELD OF PROSECUTING ILLEGAL MARITIME POLLUTERS

- Article 4 of MARPOL 73/78 states that any violation of discharge regulations (or other MARPOL requirements) shall be an offence under the law of the Flag State wherever the violation occurs.
- Articles 5 and 6 provides that a ship is subject to Port State control for verification of a discharge violation.

INTERNATIONAL CO-OPERATION IN THE FIELD OF PROSECUTING ILLEGAL MARITIME POLLUTERS

- Similar requirements is set out in UNCLOS and in The Memorandum of Understanding on Port State Control for the Black Sea.
- It is an obligation of each Party to MARPOL 73/78, UNCLOS and MoU that the national legislation is in conformity with these obligations

MODELLING THE BEHAVIOUR OF AN OBSERVED OIL SPILL

- The results of an illegal oil spill observed by any observer can of course be used as the input to a mathematical model to calculate if the spill constitute a threat to a coastal State.
- It is also possible to use these techniques to follow a spillage back to the geographical area whence it originated (back tracking)