

Contents of presentation

- ↓ North Sea Foundation
- ↓ Overview of pollution by shipping
- ↓ Conventional reactions to pollution
- ↓ Clean Ship concept

North Sea Foundation

- ⬇ North Sea Foundation (Stichting De Noordzee) was established in
- ⬇ Current form since 1998
- ⬇ Main focus is on protection of the North Sea from environmental impacts

Eelco Leemans

www.noordzee.nl

North Sea Foundation II

- ↴ Network:
- ↴ Seas At Risk
- ↴ Friends of the Earth International
- ↴ Safety At Sea (s@s)
- ↴ and others, like T&E, EEB



North Sea Foundation III

- ⬇ Focus points:
 - ⬇ Fisheries
 - ⬇ Hazardous substances
 - ⬇ Offshore construction
 - ⬇ Shipping

North Sea Foundation IV

- ↳ The way we work:
 - ↳ Investigate problems
 - ↳ Identify stakeholders
 - ↳ Discuss possible solutions
- ↳ Lobby
- ↳ Communication
- ↳ Education

Impact of shipping

- ↳ Calamities
- ↳ Operational effects
 - ↳ Intentional
 - ↳ Unintentional

Accidents

↓ Prestige: 20.000 tons of oil / 20.000 birds (first weeks)

↓ Tricolor: 200 tons of oil / 20.000 birds (first weeks)

Operational effects

- ↳ Garbage
- ↳ Waste engine room oil
- ↳ Cargo residues
 - ↳ liquid – oil, chemicals etc
 - ↳ solid

Operational effects

- 📌 Garbage: Not only plastics, but also:
 - 📌 Refrigerators
 - 📌 Batteries
 - 📌 Engine parts
 - 📌 Barrels
 - 📌 Washing machines
 - 📌 Steel wire

70% of all waste sinks to the bottom:

Out of sight but ...

Operational effects

- ⬇ Oil: much more oil from operational discharges than from accidents
- ⬇ In dutch part of the North Sea each year around 500 oil spills *detected*

Conventional reactions

- ⬇ Ban certain types of ships

..but are double hulls really *the* solution?

Conventional reactions

↓ Blame someone

Independent.co.uk:

*To politicians, the 'Prestige' captain is a villain.
To seafarers, he is a hero*

Shipowner / cargo owner are hard to trace

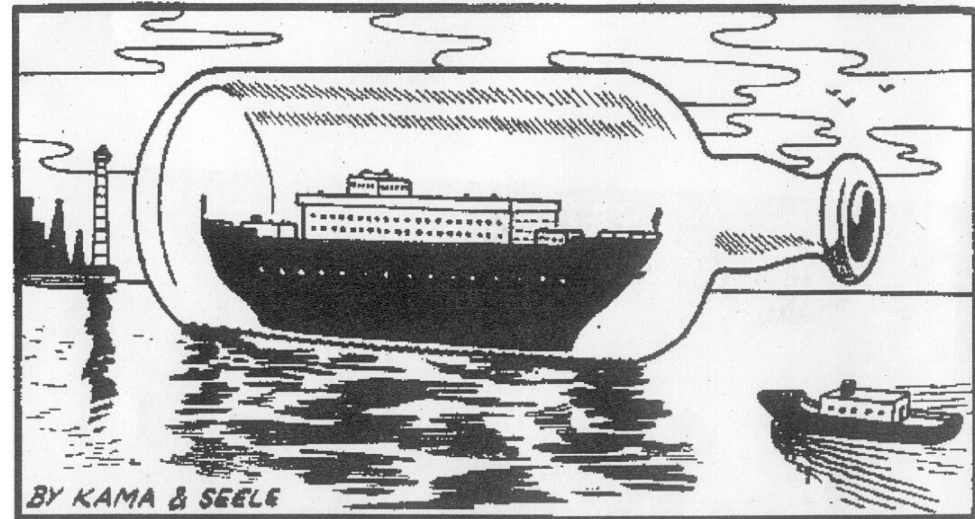
Conventional reactions

↓ NIMBY

Not In My Backyard

Solutions?

↓ No discharge!



Solutions?

↓ Are trucks cleaner?

Modern Windships

- ⬇ WindShip project initiated by Naval Architects and Marine Engineers Knud E. Hansen A/S Denmark
- ⬇ Funded by Danish Ministry of Environment and Energy

Modern Windships

“We see the potential of modern WindShips concept. If speed is reduced, but same productivity is maintained due to the larger volumes carried, money will be saved. Careful routing, including effects of seasonal weather variations could then prove the WindShip both environmentally beneficial and economically favourable”.

Skysails

Promising technology

Development depends on practicality and oil price

Realistic future?

Wallenius Wilhelmsen:

design for 2025

fuel cells / sails / solar panels / no ballast water

Clean Ship Concept

- ↓ Integrated approach

Clean Ship Concept

- 📌 2002 - Conference with 70 maritime specialists:

clean ship is possible in 2015



Clean Ship Concept

- ↓ 5th North Sea Ministerial conference Bergen, No 2002:

The North Sea Ministers agree to explore and develop the concept of vessels designed, constructed and operated in an integrated manner to eliminate harmful discharges and emissions throughout their working life (the Clean Ship approach)

Clean Ship Concept

↓ Political follow up:

- ↓ EU Clean Marine Award
- ↓ OSPAR/Helcom: Bremen conference
- ↓ EU: Clean Ship in European Marine Strategy
- ↓ 2006 North Sea conference (Sweden)

Clean Ship Concept

- ↓ So what is this Clean Ship all about?
 1. Ship with no harmful emissions
 2. Operated in a clean way
 3. From cradle to grave

Clean Ship Concept

- ⬇ Ship with no harmful emissions
- ⬇ Emissions to air
 - ⬇ Exhaust, cargo vapours, cooling agents
- ⬇ Discharges to water
 - ⬇ Oil, garbage, cargo residues, antifouling
- ⬇ Impact on land

Clean Ship Concept

- ↓ Operated in a clean way
- 1. Training of crew
- 2. Well managed
- 3. Co-operation of ports, inspections, class societies etc.

Clean Ship concept

- ⬇ Human element is vital factor
- ⬇ Since 1998 ProSea organises training courses for Marine professionals
- ⬇ 3-4 day courses
- ⬇ Mix of presentations, workshops and outdoor education
- ⬇ Courses in NL, SE and DK
- ⬇ www.prosea.info



Clean Ship Concept

- ↓ From cradle to grave
- 1. Starts with design
- 2. Includes building process
- 3. Clean operation
- 4. Recycling

Clean Ship Concept

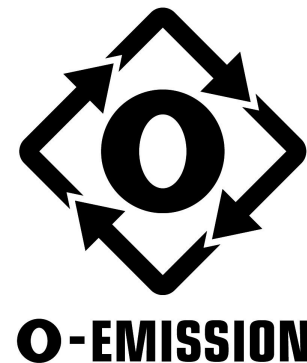
↓ Next steps

↓ April 2006: 6th North Sea Ministerial conference

↓ Website www.cleanship.info

↓ Promotion of Clean Ship

1. IMO
2. EU
3. Shipping companies
4. Cargo owners
5. General public



Questions?

Suggestions?