Challenges in International Seaborne Transport

Presented by:

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• THERE ARE MANY SERIOUS CHALLENGES IN INTERNATIONAL SHIPPING

• CHALLENGE NUMBER ONE:
  • Being a keynote speaker in IAME 2007
TYPES OF CHALLENGES

- FOCUS ON 2 CONTEXTS
  - Logistics-intermodality (mainly in Europe)
  - Safety- environment (more globally)
LOGISTICS-INTERMODALITY

- **MAIN CHALLENGES:**
  - Develop a global maritime-intermodal transport system that is efficient and competitive
  - Integrate Short Sea Shipping (SSS) within intermodal logistics chains
  - Formulate efficient and effective port policies
In Europe: White Paper on Common Transport Policy to 2010: Time to Decide

- **SSS**: Central pillar of EU transport policy: GOAL: “SHIFT CARGO FROM LAND TO SEA”

- **Objective**: reduce transport ‘external costs’ = Congestion + noise + pollution + accidents

- **2001**: 0,5% of EU GDP
- **2010**: rise by 142% to 1% of EU GDP (80 billion euros a year) if no action is taken
Parenthesis: In the US

- **STONE-AGE SITUATION**

- **Jones Act:**
- Intra-US trade: only by ships that
  - Fly the US flag
  - Are manned by US crew
  - Are built in the US!

- + Enormous lobbying power of trucking industry, … →

- Situation as regards SSS: hopeless
In Europe: a series of measures to promote SSS and intermodality

- Marco Polo programme launched in 2003
- Successor to “PACT”

- Goal: shift 12 billion ton-kilometers a year from road to non-road modes
- ~1% of the traffic

- Marco Polo II: shift 140 billion ton-kilometers
- ~10% of traffic!
Motorways of the Sea (TEN-T project No. 21)

- Motorway of the Baltic Sea
- Motorway of the Sea of Western Europe
- Motorway of the Sea of South-West Europe
- Motorway of the Sea of South-East Europe
The not-so-good news...

- SSS grew considerably between 1990 and 2002 (36%),
- But road transport grew even faster (41%)
- Inland navigation growth almost stagnant (<17% in 12 years)
EU-15 modal split

Performance by Mode for Freight Transport:
EU-15
billion tonne-kilometres
1970 - 2002

- Road
- Rail
- Inland waterway
- Pipeline
- Shipping: domestic + intra-EU15
Focus after 1985
In fact..

- In 1985 road surpassed SSS as the top transporter in intra-EU trades in ton-km,
- a position that it will continue to hold if no serious action is taken.
EU-25 (already 27) better?
Other problems: (1) Customs procedures at ports

- **One stop shop??**
(2) SSS fleet ageing
(source: Wijnoist & Waals, 2005)

- Ships between 500 and 10,000 GRT
- ~10,000 ships in Europe
- 38% of fleet over 25 years
- 21% of fleet over 30 years
- 10% of fleet over 35 years!

- Q: How will fleet be replaced?
- Q: What will happen to SSS?
(3) the impact of environmental protection

LIST OF EU ENVIRONMENTAL DIRECTIVES THAT AFFECT PORTS

- The Health and Safety in the Workplace Directive,
- The Waste Reception Facilities Directive,
- The Wild Birds Directive,
- The Habitats Directive,
- The Bathing Water Directive,
- The Dangerous Substances Directive,
- The Urban Waste Water Treatment Directive,
- The Shellfish Directive,
- The Water Framework Directive,
- The Environmental Impact Assessment Directive,
- The Strategic Environmental Assessment Directive, and
- The Environmental Liability Directive.
(4) yet more: the burden of security

- EU Regulation on ship and port security, (transposes the ISPS code into EU law)
- EU Directive on port security
- plan for an EU Directive on supply chain security
- EU-US agreements (bilateral and global)
- Container Security Initiative
- CTPAT
- Etc, etc
(5) and on top of all this..

- Failure of port package (Jan. 2006)
- Back to square one after 8 years of talks
- EU port industry still trying to regroup
Logistics-intermodality challenge

- Impressive regulatory framework on many fronts
- But policies may not converge
- If an over-regulated system is handed a maze of additional requirements, logistics and intermodality will suffer
- That will help road transport increase its share even further
- Central goal of shifting cargo from land to sea: down the drain.
To be avoided..
GLOBAL CHALLENGES:

How to build and maintain ships that are:
- safe and environment-friendly
- economically viable and competitive

How to attract and train seafarers who are able to cope with the ever increasing demands of the profession

How to formulate efficient and effective regulation to achieve the above goals
Regulation coverage

- Training requirements for seafarers
- Certification of seafarers
- Fitness for work, use of alcohol and drugs, fatigue
- Working and living conditions onboard
- Common working language between crew members
- Ship equipment and human-machine interface
- Ship-to-ship and ship-to-shore communication
- Vessel traffic services and vessel traffic management information services
- Ballast water management
- Global maritime distress and safety systems
- Ship reporting systems
- Port and harbor safety regulations
- Navigation and pilotage
- Loading, stowage and discharging
- Fire-fighting
- Search and rescue
- Environmental protection
- Design of ships
- Construction of ships
- Maintenance of ships
- Recycling of ships
- Survival capability of ships
- Emergency and evacuation procedures
- Maritime security
Players in the regulation game

- **MAIN PLAYER:**
  - IMO
    - SOLAS
    - STCW
    - ISM Code
    - HSC Code
    - ISPS Code
    - FSA
    - GBS
    - Etc etc

- **OTHER PLAYERS:**
  - European Union
  - Flag states
  - Port states
  - Shipping companies
  - Ports
  - IACS and classification societies
  - ILO and labor organizations
  - Shippers
  - Shipyards
  - P&I clubs
  - Environment groups
  - Etc, etc, etc!
Observations

- Too many policies
- Too many players
Potential problems

- Over-regulation
- Patchwork regulation
- Overlaps in regulation
- Gaps in regulation
- Inconsistencies in regulation
Criticism by shipping industry

- Reduction of competitiveness
- Non-level playing field
- Lack of comprehensive safety regime

Dilemma: Develop new rules or enforce old ones?
An example

- **New Common Structural Rules (CSR) for Tankers and Bulk Carriers**
  - IACS: Safety will increase
  - UGS: Safety will go down!
    - and more CO2 will be produced
- Issue wide open (but new rules apply!)
- Environmental impact of new rules unknown
More examples

- **HOW SAFE IS SAFE ENOUGH?**
- **WHAT PRICE SAFETY?**

(incredible as it may seem)

- neither the IMO, nor any other rule-making body has yet answered these questions
From IMO’s FSA guidelines

Maximum annual tolerable risk of death

- For crew members: 1/1,000
- For passengers: 1/10,000
- For third parties or public ashore: 1/10,000

Negligible risk: 1/1,000,000

THESE ARE INDICATIVE FIGURES ONLY
Comparison to air transport

- Chance of being involved in a fatal air crash: 1 in 8 million per flight on 1st world airlines (Barnett, 2006)
- Take a flight every day: expected time until death: 22,000 years
- Take 8 flights a year: annual risk of death is 1/1,000,000
- Why is a ship passenger allowed an annual risk 100 times higher? (1/10,000)
- Are maritime transport travelers second class citizens?
Goal Based Standards

- Move from ‘prescriptive’ to ‘goal based’ regulation
- Discussion currently under way at IMO

- Big challenge: how GBS should proceed so that new ‘goal based’ rules are better than old ones
Putting a price on things

- **ON HUMAN LIFE:**
  - $3 million (IMO)

- **ON OIL POLLUTION DAMAGE:**
  - Issue wide open (under discussion at IMO and elsewhere)
  - IACS circles suggest $60,000/tonne
What $60,000/tonne means

- Prestige 4.9 billion dollars (1,633)*
- Braer 6 billion dollars (2,000)*
- Torrey Canyon 8.5 billion dollars (2,833)*
- Haven 9.9 billion dollars (3,300)*
- Amoco Cadiz 16 billion dollars (5,333)*
- Castillo de Bellver 17.8 billion dollars (5,933)*
- Atlantic Empress 19.7 billion dollars (6,567)*

*equivalent deaths (assuming $3 million/fatality)
In conclusion

- Should some maritime policy makers reformat their disk?
My personal opinion

• **Not a bad idea!**

• **And that’s the biggest challenge of them all**
Thank you very much!

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