Parallel Workshop 4 - Operational measures to reduce the CO$_2$ emissions from inland navigation

Ivo ten Broeke
Commissioner of the Netherlands to the CCNR

Strasbourg, April 12th, 2011
The Energy Efficiency Indices of the IMO (design/operation) – useful tools also for inland navigation?

Torsten Mundt, Germanischer Lloyd

Main messages of presentation

- EEDI and EEOI can be used in inland navigation
- EEDI and EEOI will set a reference
- Benchmarks are needed, but difficult to agree
- Authorities or the industry need to take the initiative to set the benchmark
Main messages of presentation

- Last 20 years, relative rise in Nox, decrease of CO$_2$ for total transport volume
- Behaviour adaptation can result in – 8%
- CO$_2$ competition leads in individual cases to - 40%
- LNG can result in - 25%
Reduction of fuel consumption by using automatic navigation systems

Alexander Lutz, University Stuttgart

Main messages of presentation
- Saving potential up to 6% CO₂
- Optimal lane (lateral position) is important
- Sailing strategy for entire route depends on current and available water depth
Presentation 4: Operational measures

Operational measures to reduce fuel consumption in inland navigation

*Desire Savelkoul, Autena Marine*

**Main messages of presentation**

- Fuel saving based on real time information of waterway
- Gathering information from navigation
- Advice on optimal position, route and speed
Presentation 5: Ship handling simulators as training tool

CO₂ reduction due to "topography orientated" voyage-planning and navigation – Prerequisites of ship handling simulators as training tool

Olaf Kammertöns, DST

Main messages of presentation
- Shallow water effects are crucial
- Topography is important to take into account
- Awareness is insufficient
- Simulation can be a great help
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Main conclusions

- Operational measures have big CO$_2$ reduction potential
- Taking into account shallow water effects are crucial
- Awareness of potential is low, but increasing
- CO$_2$ reduction is part of education; the use of simulators will increase awareness
- 3 presentations have added value to eachother
- No discussion if results are reached: saving fuel is reduction of CO$_2$ emission