Cadet View of e-Navigation

Cadet Madeleine Wolczko
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IMO defines e-Navigation:

- “… the harmonised collection, integration, exchange, presentation and analysis of maritime information onboard and ashore by electronic means to enhance berth to berth navigation and related services, for safety and security at sea and protection of the marine environment,” (IMO, 2009).
Mr. Fred Pot says:

“e-Navigation... is not only about navigation. It really is about a new Maritime Information Environment which will include navigation.”
• ‘User Led’ initiative
Where we are today globally...
Global Transportation

• Aviation -> air traffic management
• Railroads -> automatic train control

• Shipping world still doesn’t have an equivalent sea traffic management system
Issues To Face

• Renewable energy – Wind turbines
• EU by 2050
  – Reduce emissions -70%
  – Freight transport growth 80%
Renewable Energy – Wind Turbines
Solutions

• ACCSEAS (Accessibility for Shipping, Efficiency Advantages and Sustainability)
ACCSEAS Test Bed Sites

- Dover Straits TSS
- TSS in the German Bight
Mona Lisa Sea Traffic Management Testbed
Point to point exchange

vs

Network with system wide access

• Need to know -> Need to share
• Coordination center helps with potential new routes
  – Master accepts or declines
• New officer on watch checks in with Mona Lisa ID smartcard
The distant future...
Remote Monitoring of Ships

- Do we want control of the ship on board, or on shore?
• Main purpose of project:
  – Reduce fuel costs/emissions without having to pay more in other areas
Rationale

- Economic sustainability
- Social sustainability
- Environmental sustainability
Bridge team

Engineers
Slower or Faster?
Short-term Reality

- MUNIN technology can be used to monitor ship equipment
Now let’s compare Europe to the grand scheme...
North Sea Region
E-Nav Plan for America?

- Trade ideas with international neighbors
- Alter to fit *our* needs
Commercial Cruise – Cadet Internship

Learning from the Gulf
Thank you for your time!

Questions?