



WORLD MARITIME UNIVERSITY

Maritime Risk Symposium 2011

**Contemporary Issues of Maritime
Operational Risk**

LCDR Mark Sawyer, USCG

RUTGERS
Center for Advanced Infrastructure
and Transportation

Rutgers University 8 Nov 2011



World Maritime University

- Chartered by IMO in 1983
- Located in Malmö, Sweden
- Graduated 3,200 students w/M.S.c degrees, representing 162 countries
- **Four specializations:**
 - Maritime Education and Training
 - Shipping/Port Management
 - Marine Safety and Environmental Administration
 - Maritime Law & Policy
- Professional Development Courses
- PhD and Research Program



Principal Financial Supporters:

- Government of Sweden
- Nippon Foundation
- City of Malmö



World Maritime University

WMU Faculty

Education

- Pinnacle of excellence in post-graduate maritime education
- M.Sc. and Ph.D. degrees
- Diplomas and certificates
- Maritime leadership training
- Education relevant to governments, NGOs, and maritime businesses

Research

- Relevant maritime and ocean research
- Maritime solutions
- Grants and contracts
- Collaboration
- Interpretation of laws and IMO conventions
- Peer-reviewed books/journals
- *WMU Journal of Maritime Affairs*

Capacity Building

- Global maritime competence through education & research
- Promotes seafarers' interests and supports STCW goals
- Promotes maritime leadership
- Unites governments, businesses, and seafarers as social partners for safe ships and clean oceans
- Development

WMU

A Global University

Established by IMO
1983

Engagement

- Network of > 3,000 alumni from 162 countries
- Global network of senior maritime public and private leaders
- Global maritime impact
- Aligned with IMO and UN actions and goals
- Responsive to maritime business needs

Government and the Public

Non-Government Organizations

WMU Alumni

Shipping and Business

Seafarers and Unions



WMU International Conferences

- WMU Conference on Piracy at Sea (October 2011)
- WMU-IMO International Conference on Oil Spill Risk Management (6-9 March 2011)
- WMU-IMO Global R&D Forum on Emerging Ballast Water Management Systems (January 2010)
- 8th International Symposium on Maritime Security (November 2009)





Maritime Risk: Maritime Piracy

- **Annual Cost: \$9-12 billion (Oceans Beyond Piracy, 2010)**

- **2011 Statistics: (Source: IMB-ICC):**

–Incidents Reported for Somalia:

Total Incidents: 194

Total Hijackings: 24

Total Hostages: 400

Total Killed: 15

–Current vessels held by Somali pirates:

Vessels: 15

Hostages: 277

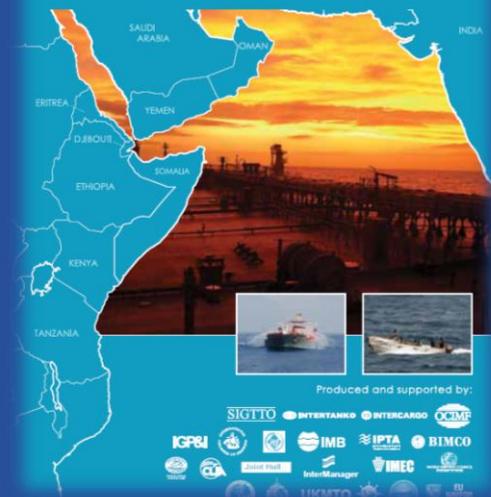


- **Solutions/Future:**

- Contact Group of Piracy Off the Coast of Somalia (CGPS)
- Local capacity building, comprehensive approach, root cause need to be addressed, pirates are adapting, humanitarian support for seafarers...ICOPAS: <http://icopas2011.wmu.se/>



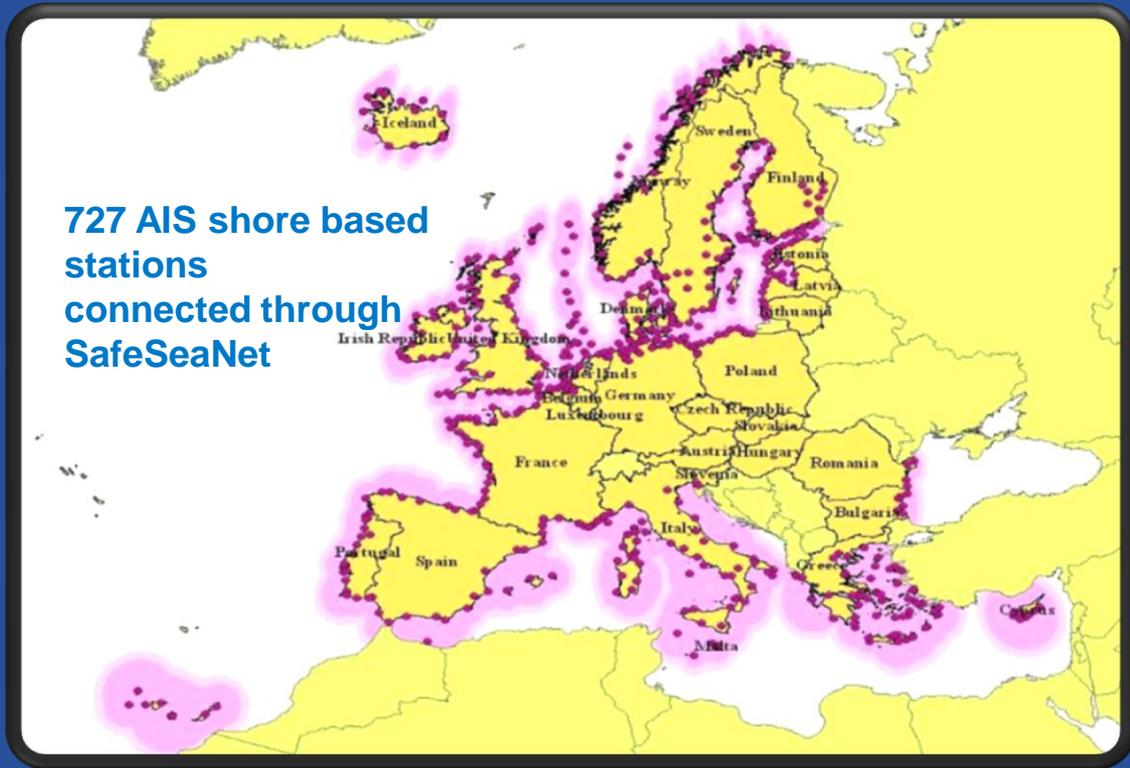
BMP4 Best Management Practices for Protection against Somalia Based Piracy





EU Risk Management Initiatives

- SafeMed II Project
- SafeSeaNet
- Frontex
- CleanSeaNet
- Port State Control
- EU Heads of Coast Guard Forum



Baltic Master II: 47 organisations



Baltic Master II:
Baltic Sea Strategy
Flagship project

Total Budget:
4 002 312,00 €

Project Period:
25 January 2009
to 24 January
2012

Lead Partner:

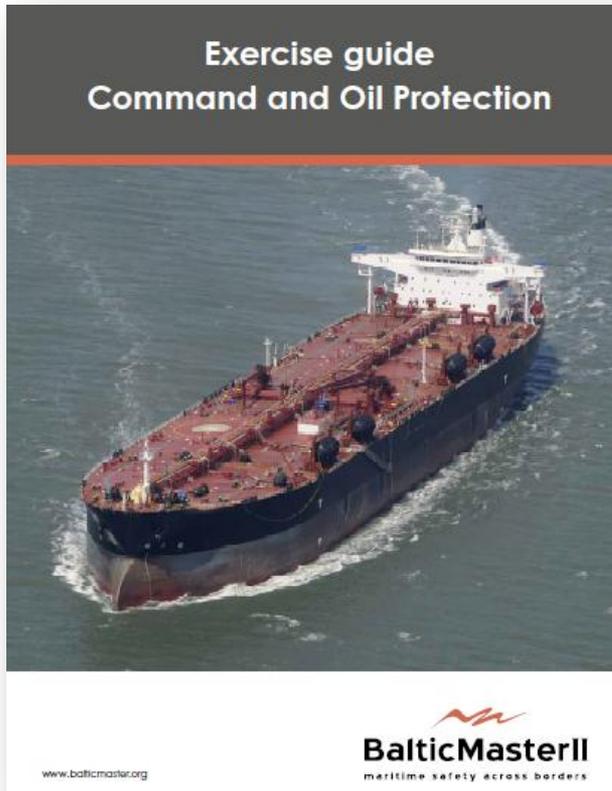


Part-financed by the European Union
(European Regional Development Fund)



BalticMasterII
maritime safety across borders

Oil Spill Contingency Planning



Lead Partner:



Part-financed by the European Union
(European Regional Development Fund)





Maritime Risk and System Safety (MaRiSa) Research Group

•Past Activities

- MarNIS,
- IMO SAR project
- HF in Engine Rooms

•Current Activities

- ADOPTMAN, IMPACT
- On-going PhD work

•Future Activities

- EU FP 7 project developments
- Participation in dedicated technical (e.g. MARTEC) and regional projects



MarNIS

- **MarNIS** (Maritime Navigation Information Services)

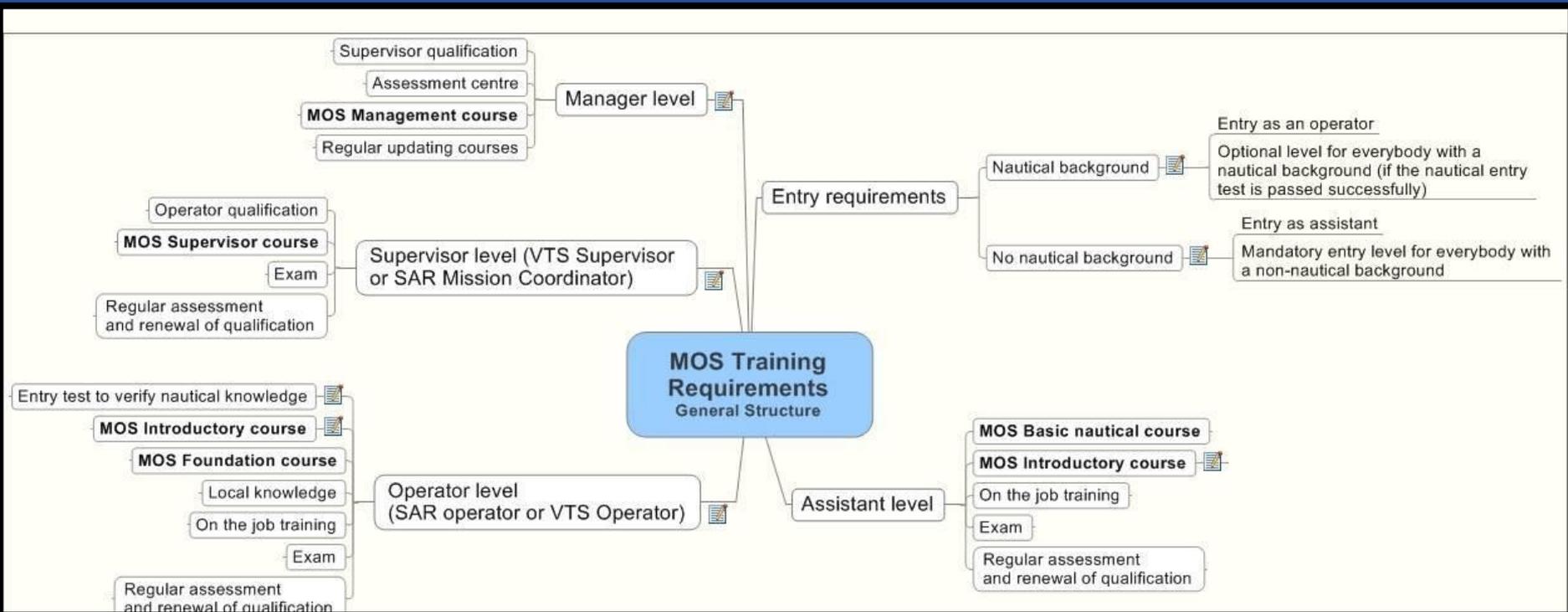
- Task / work of WMU

- To develop job profiles and training syllabi for personnel acting as MOS operators
- MOS (Maritime Operational Support Service) is a new concept combining traditional tasks of SAR, VTS and OPRC related tasks





MarNIS training concept





Activities from Present to Future

•ADOPTMAN- (ADvanced Planning for OPTimised Conduction of Coordinated MANoeuvres in Emergency Situations)

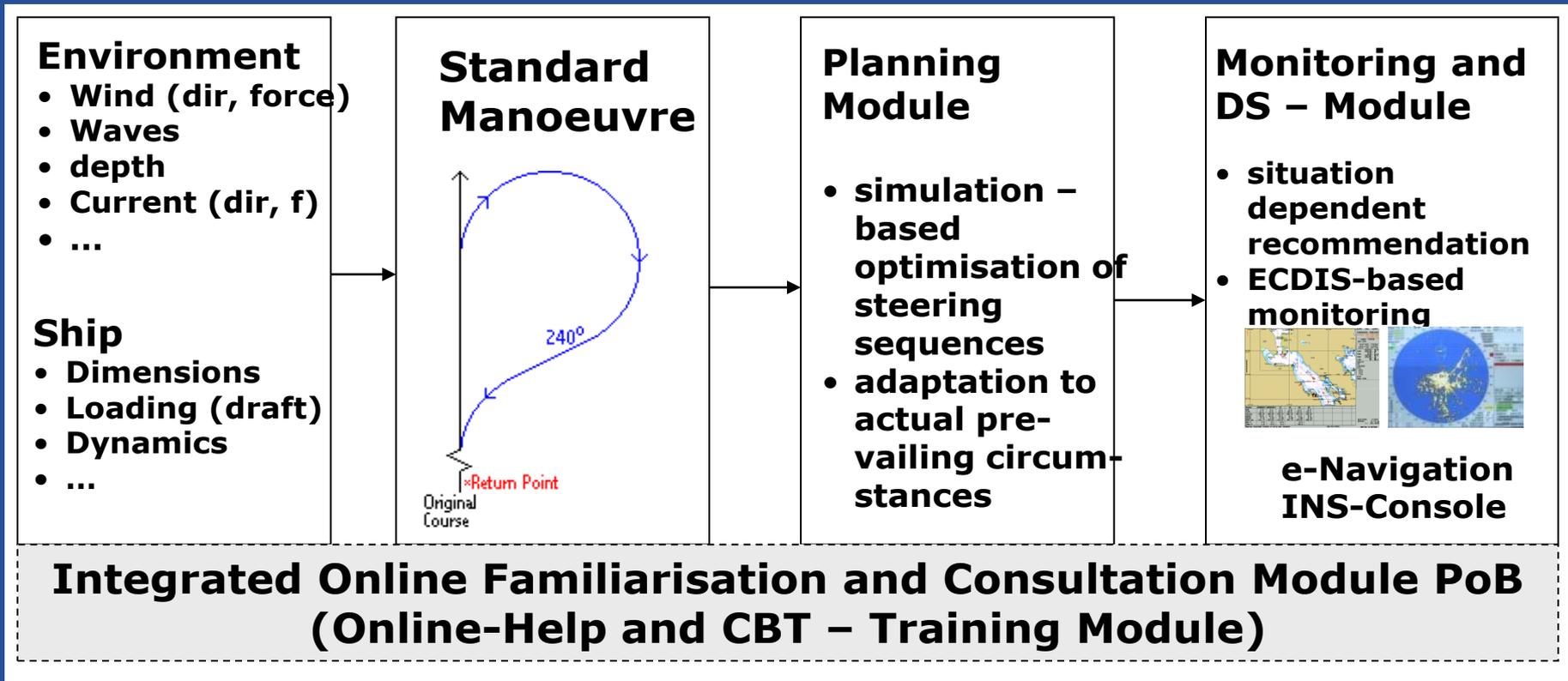
- MARTEC project (2010 – 2013)
- WMU coordinator, leader
- Increase the probability to successfully rescue a person overboard:
 - Concept for on-board application
 - Human centred presentation needs
 - Process analysis
 - Adaptation of manoeuvring assistance to prevailing conditions (ship and environment)
 - Impact on standardisation,
 - Training requirements, legislation of IMO-NAV
 - On-line HELP and CBT components





ADOPTMAN

ADvanced Planning for OPTimised Conduction of Coordinated MANoeuvres in Emergency Situations





Activities from Present to Future

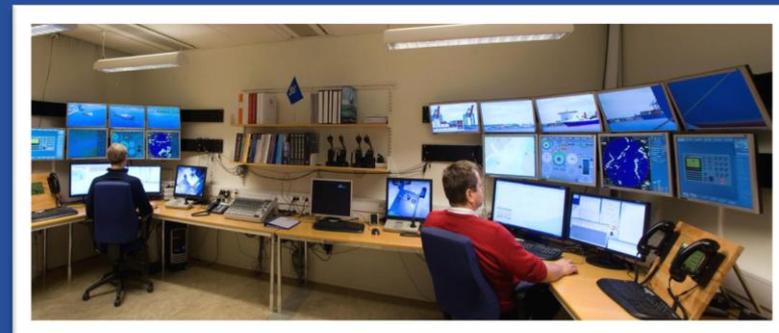
•MARTEC – Project IMPACT



•Integrated Maritime Progressive Assessment and Calibration Tool



- Project period 2010 – 2012
- WMU partner
- Collaboration with:
 - Chalmers University (project leader and coordinator)
 - VSL Systems AB
 - ARMINES (France)
- Use of Simulators





TeamSafety: A simulation related project

Consortium Partners

The Nautical Institute



www.nautinst.org

World Maritime University

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www.wmu.se

Bulgarian Maritime Training Centre

Bulgarian Maritime Training Centre

www.bmtc-bg.com

Danish Innovation Institute



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ASK Safety



www.ask-safety.net

Sea & Shore Safety Services Ltd



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Unity-studios

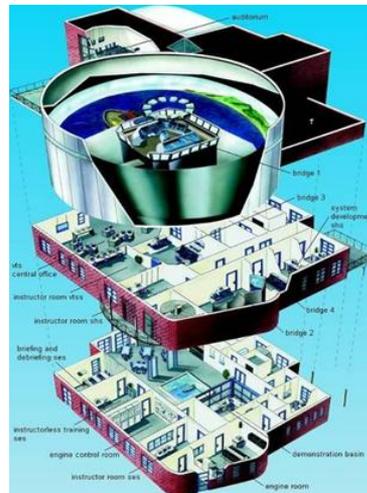
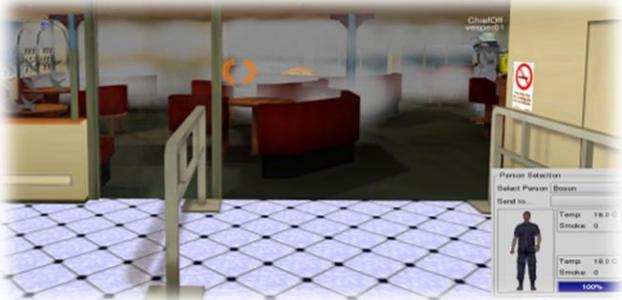


www.unity-studios.com

- Develop a 3-D interactive immersive computer based training system for the maritime sector
- Based upon a state of the art gaming engine with innovative extensions specifically tailored to the needs of maritime safety training.
- enabling the recreation of realistic maritime emergency response scenarios and the capture of human-human and human-machine interaction and
- allowing true cooperative interaction between multiple training participants.



TeamSafety – Use of Simulators





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THANK YOU!!

For More Information:

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