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

WMU Faculty

Research

Capacity Building

Engagement

Education

Non-Government Organizations

Shipping and Business

Seafarers and Unions

Government and the Public

Non-Government Organizations

World Maritime University

WMU Faculty

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World Maritime University
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/](http://icopas2011.wmu.se/)
1. SafeMed II Project
2. SafeSeaNet
3. Frontex
4. CleanSeaNet
5. Port State Control
6. EU Heads of Coast Guard Forum

727 AIS shore based stations connected through SafeSeaNet
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)

Baltic Sea Region Programme 2007–2013
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** (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
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
ADvanced Planning for OPTimised Conduction of Coordinated MANoeuvres in Emergency Situations

Environment
- Wind (dir, force)
- Waves
- depth
- Current (dir, f)
- ... 

Ship
- Dimensions
- Loading (draft)
- Dynamics
- ... 

Standard Manoeuvre

Planning Module
- simulation – based optimisation of steering sequences
- adaptation to actual prevailing circumstances

Monitoring and DS – Module
- situation dependent recommendation
- ECDIS-based monitoring

Integrated Online Familiarisation and Consultation Module PoB (Online-Help and CBT – Training Module)

- ...
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

- 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.

http://www.team-safety.eu/
TeamSafety – Use of Simulators
THANK YOU!!

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