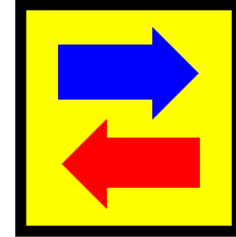




NATIONAL TECHNICAL UNIVERSITY
OF ATHENS
SCHOOL OF NAVAL ARCHITECTURE
AND MARINE ENGINEERING
DIVISION OF SHIP DESIGN AND MARITIME
TRANSPORT
LABORATORY FOR MARITIME TRANSPORT



**INTERNATIONAL WORKSHOP
ON MARINE OIL POLLUTION CONTROL
FRIDAY JUNE 9, 2006
EUGENIDES FOUNDATION
ATHENS, GREECE**

FUNDED BY:



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Programme



UNDER THE AUSPICES OF:



**ΝΑΥΤΙΚΟ ΕΠΙΜΕΛΗΤΗΡΙΟ ΤΗΣ ΕΛΛΑΔΟΣ
HELLENIC CHAMBER OF SHIPPING**



The Greek Section of
The Society of Naval
Architects and Marine
Engineers (SNAME)

CO-SPONSORS:



- FINAL PROGRAMME**
- 0900 **Registration-coffee**
- 0930 **Session 1: Opening statements**
 Prof. H. Psaraftis, NTUA, Chairman of Workshop
 Vice-Admiral E. Sionides, Commandant, Hellenic Coast Guard
 G. Gratsos, President, Hellenic Chamber of Shipping
 L. Demetriades-Eugenides, Chairman, Eugenides Foundation
 Ass. Prof. G. Grigoropoulos, Chairman, SNAME Greek Section
 J. de Bock, Project Officer, European Commission, DG-RTD
- 1030 **Session 2: The International Scene**
 International Cooperation: the Importance of the Personal Involvement,
 D. Mitsatsos, General Director, HELMEPA
 EMSA's Activities on Oil Pollution Preparedness and Response,
 A. Lagouros, Pollution Response, EMSA
 Overview of International Structures (OPRC issues, recent developments with the HNS Protocol, etc),
 P. Charlebois, Marine Environment Division, IMO
- 1130 **Coffee break**
- 1200 **Session 3: The EU-MOP project (Elimination Units for Marine Oil Pollution)**
 EU-MOP concept, Prof. H. Psaraftis, NTUA
 Oil spill risk in European waters, Dr. N.P. Ventikos, NTUA
 Integrated EU-MOP design system, Dr. Y.P. Ventikos, University of Oxford
 Simulation & AI (Robotics), Dennis Fritsch, IPA Fraunhofer
- 1300 **Buffet lunch**
- 1400 **Session 4: The OSH project (Oil Sea Harvester)**
 Review of the most recent oil recovery vessels, E. de Nanteuil, CEDRE
 Oil Sea Harvester System, C. Gaudin, ALSTOM
 Oil recovery tools of OSH, R. Monto, LAMOR
 OSH design: hydrodynamics and optimisation, L. Boudet, Bassin d'Essais des Carènes
- 1500 **Session 5: The POP&C project (Pollution Prevention and Control)**
 Overall Probabilistic POP&C Methodology, Dr. S. Aksu, University of Glasgow & Strathclyde
 Analysis of Aframax Tanker Accidents, Prof. A. Papanikolaou, NTUA
 Risk/Pollution Reduction and Expert Group Judgment, Dr. N.P. Ventikos, P. Anaxagorou, NTUA
- 1600 **Coffee break**
- 1630 **Session 6: Panel discussion**
 E. Sampatakakis, Director, Marine Environment Protection Directorate, Hellenic Coast Guard
 E. Vordonis, Chairman, Greek Section, INTERTANKO
 V. Kirykos, Avin International
 J. Polychronopoulos, CEO, Environmental Protection Engineering
 G. Gavriel, Hellenic Chamber of Shipping
 E. de Nanteuil, CEDRE
 R. Monto, LAMOR
- 1730 **End of workshop**

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EU-MOP Project www.eumop.org



In the post-Prestige era, it is time a completely new and multidisciplinary concept for handling oil spillage in European waters was developed. This will yield environmental benefits, an impulse to the respective European industry and it will ultimately result in an exportable product for marine oil spill confrontation. The EU-MOP project addresses the design and proof of concept of autonomous Elimination Units for Marine Oil Pollution (EU-MOPs), capable of mitigating and eliminating the threat arising from oil spill incidents. The end-result of this project will be the conceptual development and validation of low cost, reusable, autonomous units/drones that will be released in the oil spill area, will automatically (through proper sensors) track the oil concentration specifics of the spill and will apply either mechanical countermeasures locally. Combining a large number of such units (swarm formulation)

will confront the entire spill. A range of such units will be designed to allow their use in various oil spill scenarios (large, high-seas spills are very different from small, coastal spills; a 'one size fits all' concept is inappropriate). The complete integrated system, including communication, logistical support, and response management will be analyzed and assessed. The research objectives are to establish:

1. Innovative concepts in oil spill management;
2. Novel devices for oil spill confrontation;
3. An integrated framework for oil spill management;
4. An advanced structure for the dissemination of oil pollution response policies.

OSH Project www.osh-project.org



The consequences of tanker accidents are often catastrophic, raising the issue of oil spills to the highest priority for the EU community. Analysing accidents like the recent ones of the Erika or Prestige, there is a clear need for vessels specifically designed to recover oil pollution at sea (with efficient recovery tools and decantation and storage capacities), which have onboard tools to help them detect and track the pollutants. The "Oil Sea Harvester" (OSH) project is addressing these needs. The intention is to have a fast ship on transit in

order to be quickly on the scene of the accident to operate oil recovery when the spill is still quite well concentrated. It is also intended to have a ship as stable as possible with oil recovery tools as protected as possible from the sea in order to be able to operate in rather high sea states. Specific objectives include:

- To develop an innovative trimaran OSH vessel fitted with PODs for good manoeuvrability on site;
- To develop OSH oil recovery systems, a unique tool carriage holding the different tools;
- To develop OSH oil recovery scenarios and needed associated systems;
- To address other complementary missions.

POP&C Project www.pop-c.org



The POP&C project aims to address this issue head on by focusing on prevention and mitigation in ship design and operation for existing and new vessels. Specific objectives include:

- To develop a risk-based methodology to measure the oil spill potential of tankers;
- To develop a risk-based passive pollution prevention methodology (design and operational lines of defence);
- To develop a risk-based active post-accident pollution mitigation and control framework.

The objectives will be achieved by identifying and ranking critical hazards such as collision and grounding, fire and explosion and structural failure, leading to estimates of probability of capsizing/sinking from loss of stability or structural failure, which combined with estimates of consequences within a risk-based framework will provide pollution risk. Risk reduction through preventative measures and post-accident mitigation and control measures such as decision support tools, human-machine interface, safe refuge will also be developed.